Universal Registration Document 2020

including the Annual Financial Report

Contents

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This is a translation into English of the Universal Registration Document 2020 including the Annual Financial Report of the Company issued in French and it is available on the website of the Issuer.

"I certify, that the information contained in this *Document d'enregistrement universel* (Universal Registration Document) is in accordance with the facts and makes no omission likely to affect its import.

I certify, to the best of my knowledge, that the Statutory and Consolidated Financial Statements of TOTAL SE (the Company) have been prepared in accordance with applicable accounting standards and give a fair view of the assets, liabilities, financial position and results of the Company and of all the entities included in the consolidation, and that the *rapport de gestion* (management report) of the Board of Directors as referenced in the cross reference list included on page 530 of this *Document d'enregistrement universel* (Universal Registration Document) presents a fair view of the development and performance of the business and financial position of the Company and of all the entities included in the consolidation and describes the main risks and uncertainties they are exposed to."

On March 31, 2021

Patrick Pouyanné
Chairman and Chief Executive Officer

This Universal Registration Document was filed on March 31, 2021 with the French Financial Markets Authority (Autorité des marchés financiers), as the competent authority under Regulation (EU) 2017/1129, without prior approval in accordance with Article 9 of said Regulation.

This *Document d'enregistrement universel* (Universal Registration Document) may be used for the purposes of a public offer of financial securities or the admission of financial securities to trading on a regulated market only if supplemented by a transaction note and, if applicable, a summary and all amendments to the *Document d'enregistrement universel* (Universal Registration Document). The group of documents then formed is approved by the French Financial Markets Authority in accordance with Regulation (EU) 2017/1129.

1

Presentation of the Group – Integrated report

1.1 Group profile

1.1.1 TOTAL, a broad energy company

With a presence in more than 130 countries, TOTAL is a broad energy company that produces and markets fuels, natural gas and electricity. Our 100,000 employees are committed to better energy that is more affordable, more reliable, cleaner and accessible to as many people as possible. TOTAL that proposes to its shareholders in 2021 to become TotalEnergies, has the ambition to be the company of responsible energies.

Our values

Safety, Respect for Each Other, Pioneer Spirit, Stand Together and Performance-Minded represent, just as its history, the part of TOTAL's identity shared by all employees. These values guide daily the actions and relations of the Group with its stakeholders.

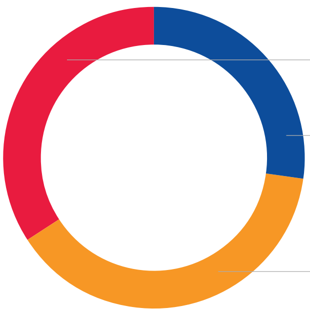
These five strong values also require all of TOTAL's employees to act in an exemplary manner in priority in the following areas: safety, security, health, environment, integrity in all of its forms (particularly, the fight against corruption, fraud and anti-competitive practices) and human rights.

It is through strict adherence of its employees to these values and to this course of action that the Group intends to build strong and sustainable growth for itself and for all of its stakeholders, and thereby deliver on its commitment to better energy.

Group profile

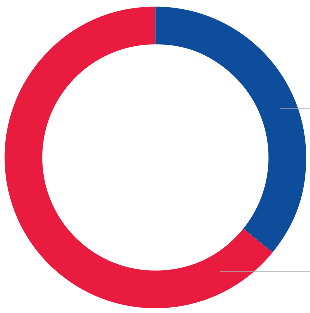
Our employees

Employees breakdown by geographical area



Workforce as of December 31, 2020: 105,476

Employees breakdown by gender

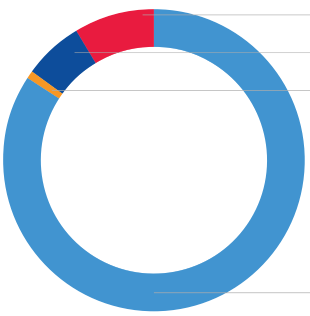


Workforce as of December 31, 2020: 105,476

Our shareholding

Shareholding structure by shareholder type

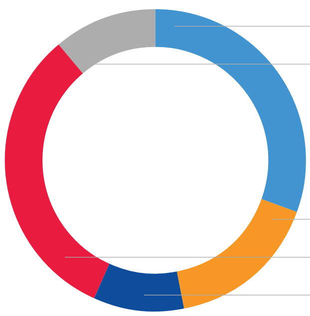
Estimates below are as of December 31, 2020, based on the survey of identifiable holders of bearer shares conducted on that date.



Approximately 550,000
Number of individual and institutional shareholders

Shareholding structure by area

Estimates below are as of December 31, 2020, based on the survey of identifiable holders of bearer shares conducted on that date.



(a) On the basis of employee shareholding as defined in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Articles of Association of the Company.

Group's key figures

Financial indicators[a]

$4.1 B
Adjusted net income Group share

3.7%
Return on equity (ROE)

4.0%
Return on average capital employed (ROACE)

21.7%
Gearing ratio[b]

$17.6 B
Operating cash flow before working capital changes w/o financial charges (DACF)

$13.0 B
Net investments

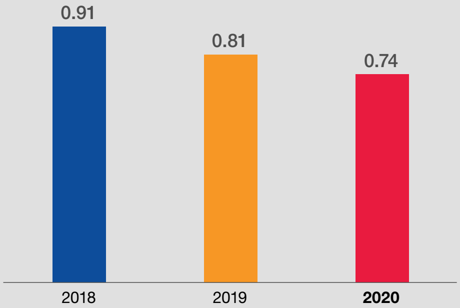
$26/boe
Pre-dividend organic cash breakeven

€2.64
Dividend per share for the fiscal year 2020[c]

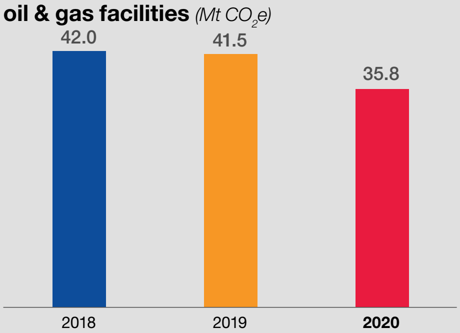
(a) For a definition of the alternative performance indicators, refer to point 1.8.1 of this chapter and to Note 3 to the Consolidated Financial Statements (point 8.7 of chapter 8).
(b) Excluding leases; 25.9% including leases.
(c) Subject to approval by the Shareholders' Meeting on May 28, 2021.

Non-financial indicators

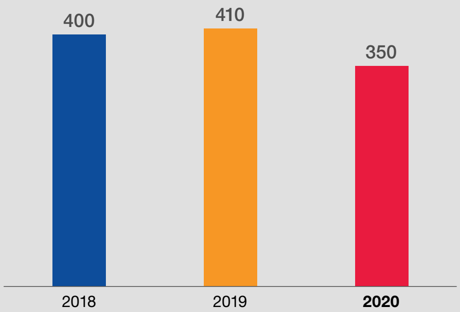
Total recordable injury rate



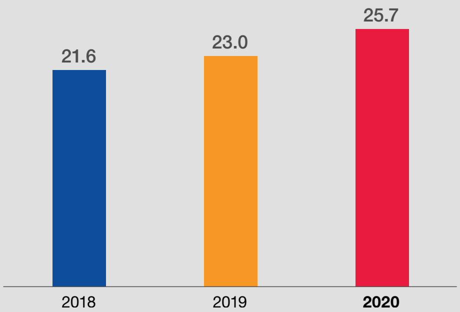
GHG emissions (Scopes 1 & 2) on operated oil & gas facilities *(Mt CO_2e)*



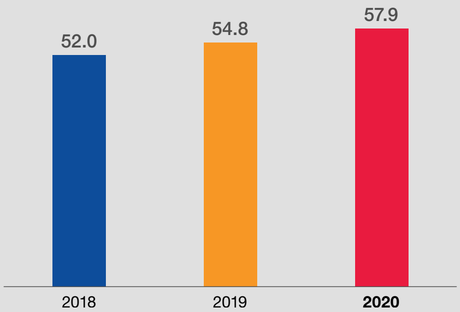
Indirect GHG emission related to the use by customers of the energy products sold for end use (Scope 3)[1] *(Mt CO_2e)*



Proportion of senior executive women *(%)*



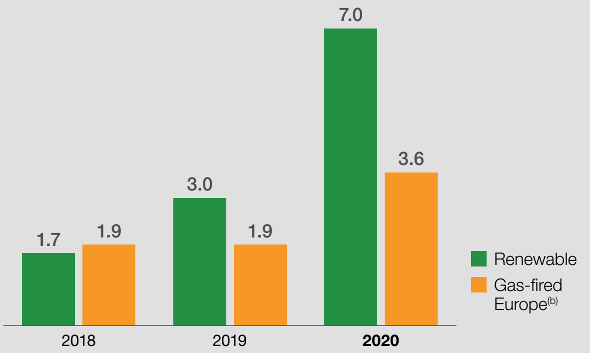
Percentage of local managers in Management Committees in subsidiaries *(%)*



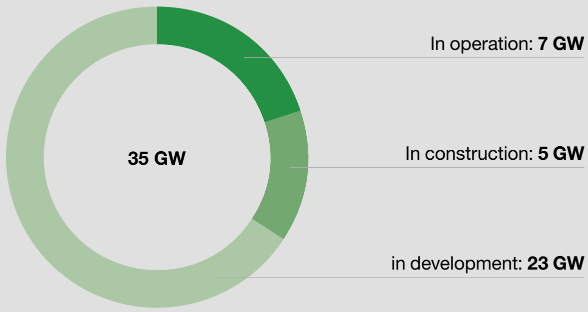
(1) GHG Protocol – Category 11.

Operational performance

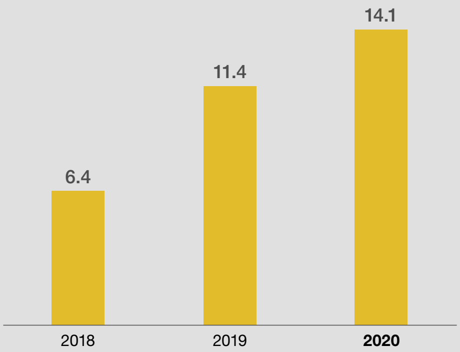
Gross power generation installed capacity[(a)] *(GW)*



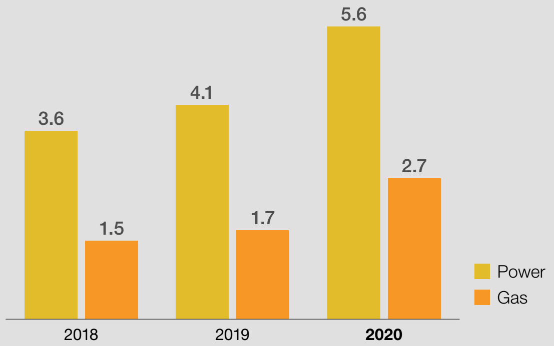
Portfolio of renewable power generation capacity for 2025 *(GW)*



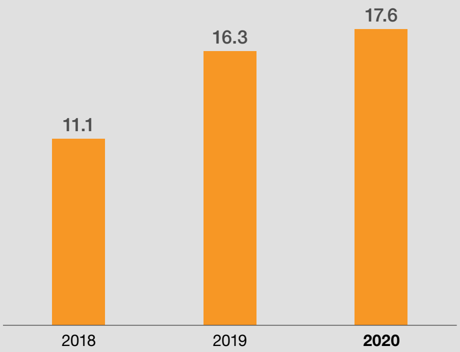
Net power production *(TWh)*



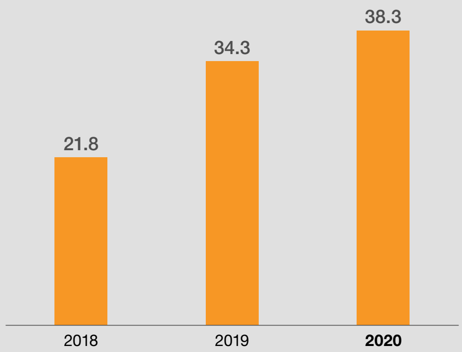
Sales of power and gas in Europe – Number of BtB and BtC sites *(million)*



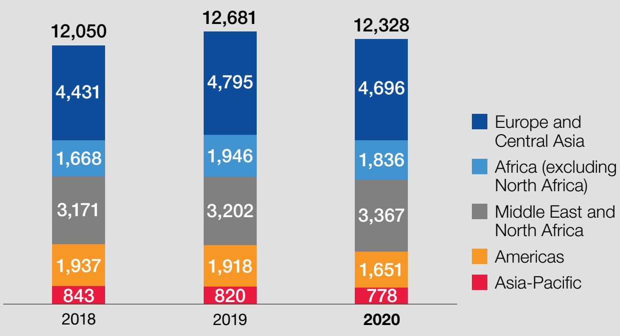
LNG equity production *(Mt)*



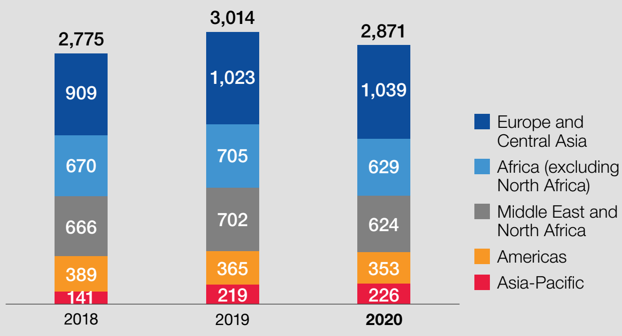
LNG overall sales volumes *(Mt)*



Hydrocarbon proved reserves[(c)] by geographic areas *(Mboe)*



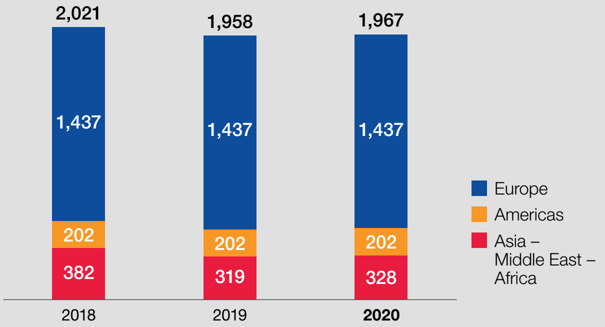
Hydrocarbon production by geographic area *(kboe/d)*



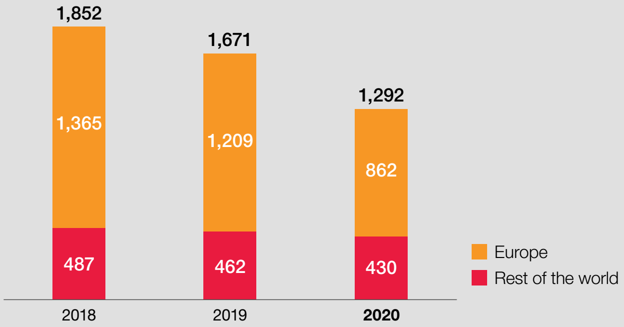
(a) Excluding Cycle combined gas plants in Taweelah, United Arab Emirates.
(b) Including Normandy Refinery cogeneration unit, part of Refining & Chemical segment.
(c) Proved reserves of hydrocarbons based on SEC rules (Brent at $41.32/b in 2020, $62.74/b in 2019 and $71.43/b in 2018).

Operational performance

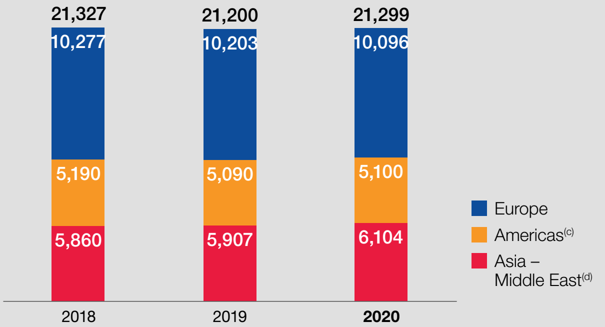
Crude oil refining capacity[a] *(kb/d)*



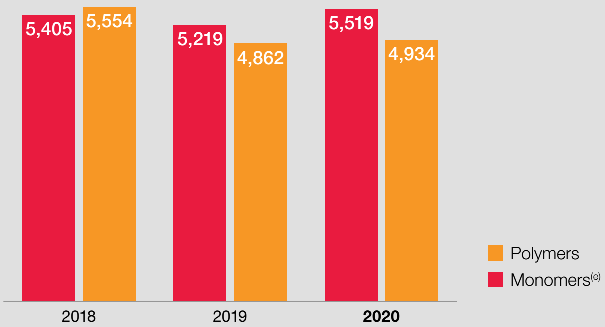
Refinery throughput[b] *(kb/d)*



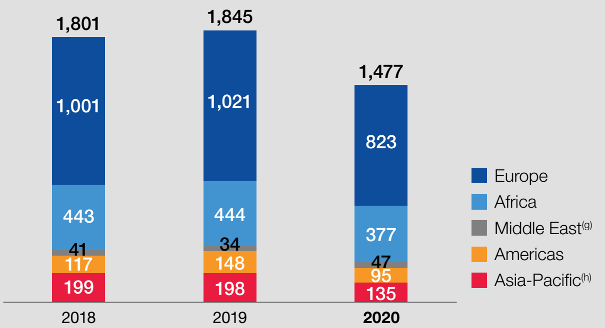
Petrochemicals production capacity by geographic area *(kt)*



Petrochemical products production volume *(kt)*



Marketing & Services petroleum product sales[f] by geographic area *(kb/d)*



(a) Capacity data based on crude distillation unit stream-day capacities under normal operating conditions, less the average impact of shutdowns for regular repair and maintenance activities.
(b) Includes refineries in Africa that are reported in the Marketing & Services segment.
(c) Including 50% of the joint-venture between TOTAL and Borealis.
(d) Including interests in Qatar, 50% of Hanwha Total Petrochemicals Co. Limited and 37.5% of SATORP in Saudi Arabia.
(e) Olefins.
(f) Excluding trading and bulk refining sales.
(g) Including Turkey.
(h) Including Indian Ocean islands.

1.1.2 Our history: pioneer spirit

TOTAL was founded on March 28, 1924. Historic player in the energy sector, the Group discovered major fields worldwide and developed an ever-growing number of advanced products and services, created in its refineries and marketed through its retail network. Over the years, the Group diversified its operations and established a global presence, staking out positions in an array of industries: natural gas, refining and petrochemicals, petroleum product retailing, solar power, sustainable biofuels and electricity, primarily from renewable sources.

1920
Creation in Brussels of the Compagnie Financière belge des Pétroles, known as PetroFina.

1924
Creation of the Compagnie française des Pétroles (CFP)
On September 20, 1923, the French President of the Council Raymond Poincaré entrusts an important mission to Ernest Mercier: create a "tool capable of carrying out a national oil policy". Six months later, the Compagnie française des Pétroles is born on March 28, 1924.

1925
The IPC is awarded a 75-year concession on March 14.

1927
Initial discovery at the Kirkuk field in Iraq
CFP makes its first discovery, under an agreement with the government of Iraq. Oil rises to the surface in Kirkuk, a field with considerable reserves. This marks the beginning of TOTAL's adventure in the Middle East.

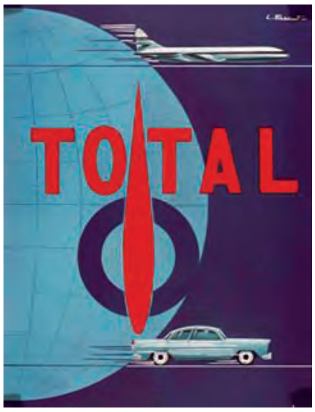
1929
CFP shares are **first traded on the Paris Stock Exchange.**

1933
Start of production of the Gonfreville refinery in Normandy (France), with an annual capacity of 900,000 tons of crude oil.

1939
Discovery of the Saint-Marcet gas field, the first hydrocarbon reserves found in France
Creation of Régie Autonome des Pétroles (RAP), which later becomes the Elf Group, to explore a vast area around Saint Gaudens.

1941
Creation of Société nationale des pétroles d'Aquitaine (SNPA).

1951
SNPA discovers the Lacq gas field in France
The gas rises from a depth of 3,450 meters at extremely high pressure. The specialist crews take five days and four nights to harness the eruption. Lacq is later found to be a gigantic natural gas field containing some 262 billion cubic meters.



1954
Launch of the TOTAL brand by CFP
At the beginning of the 1950s, the leaders of CFP and CFR (Compagnie Française de Raffinage) decide to create their own distribution network, and a brand for it. The new TOTAL brand and logo are adopted in 1954.

1956
Discovery of the Edjeleh, Hassi R'Mel (gas) and Hassi Messaoud (oil) fields in the Algerian Sahara
The exploration campaigns that SN Repal and CFP-A had initiated in 1946 result in the discovery, in 1956, of huge oil fields in Edjeleh and Hassi Messaoud and gas reserves in Hassi R'Mel.

1958
Premier forage offshore sur Umm Shaif (Abu Dhabi).

1961
Discovery of the first offshore fields in Gabon
The Anguille field is the first one found.

1967

Launch of the Elf brand
A countrywide campaign, “Red circles are coming” introduces France to the Elf brand starting on the night of April 27, 1967.

1970

Elf takes control of Antar.

TOTAL takes a permit in Indonesia, and goes on to find the Bekapai field in 1972 and the gigantic Handil field in 1974.

1971

The Ekofisk field in the North Sea starts production.

1974

The Group acquires Hutchinson-Mapa, a specialist in rubber processing.

1976

Creation of Société nationale Elf Aquitaine (SNEA), the merger of ERAP and SNPA.

1983

Birth of the company Atochem, an SNEA subsidiary, the merger of ATO Chimie, Chloé Chimie and part of Péchiney Ugine Kuhlmann.

1991

CFP, which had become Total-CFP in 1985, becomes TOTAL.

2000

Following the merger of Fina in 1999, TOTAL acquires Elf Aquitaine
The new Group is called TotalFinaElf and is the world’s fourth largest oil major.

2001

The Girassol field on Block 17 in Angola starts production.

2003

TotalFinaElf changes its name to TOTAL.

2011

Investment in the solar energy sector with the acquisition of 60% of US company SunPower
On June 15, 2011, TOTAL and SunPower Corp. announce the success of TOTAL’s friendly tender on SunPower to create a new global leader in the solar industry.

2016

Acquisition of Saft Groupe
On July 18, 2016, TOTAL acquires Saft Groupe, a world leading designer and manufacturer of advanced technology batteries for industry, complementing its portfolio with electricity storage solutions, a key component of the future growth of renewable energies.

Acquisition of Lampiris in Belgium.

2017

Launch of Total Spring in France.

2018

Acquisition of Direct Energie
On July 6, 2018, TOTAL announces the completion of the acquisition of Direct Energie and the launch of a tender offer on the company. This operation enables the Group to accelerate its integration downstream along the full gas and power value chain and to reach critical mass in the French and Belgium markets, where it is growing fast.

TOTAL acquires Engie’s LNG business and becomes the world’s number-two liquefied natural gas player.

TOTAL acquires exploration and production company Mærsk Oil & Gas A/S in a share and debt transaction. This acquisition makes TOTAL the second largest operator in the offshore North Sea.

2019

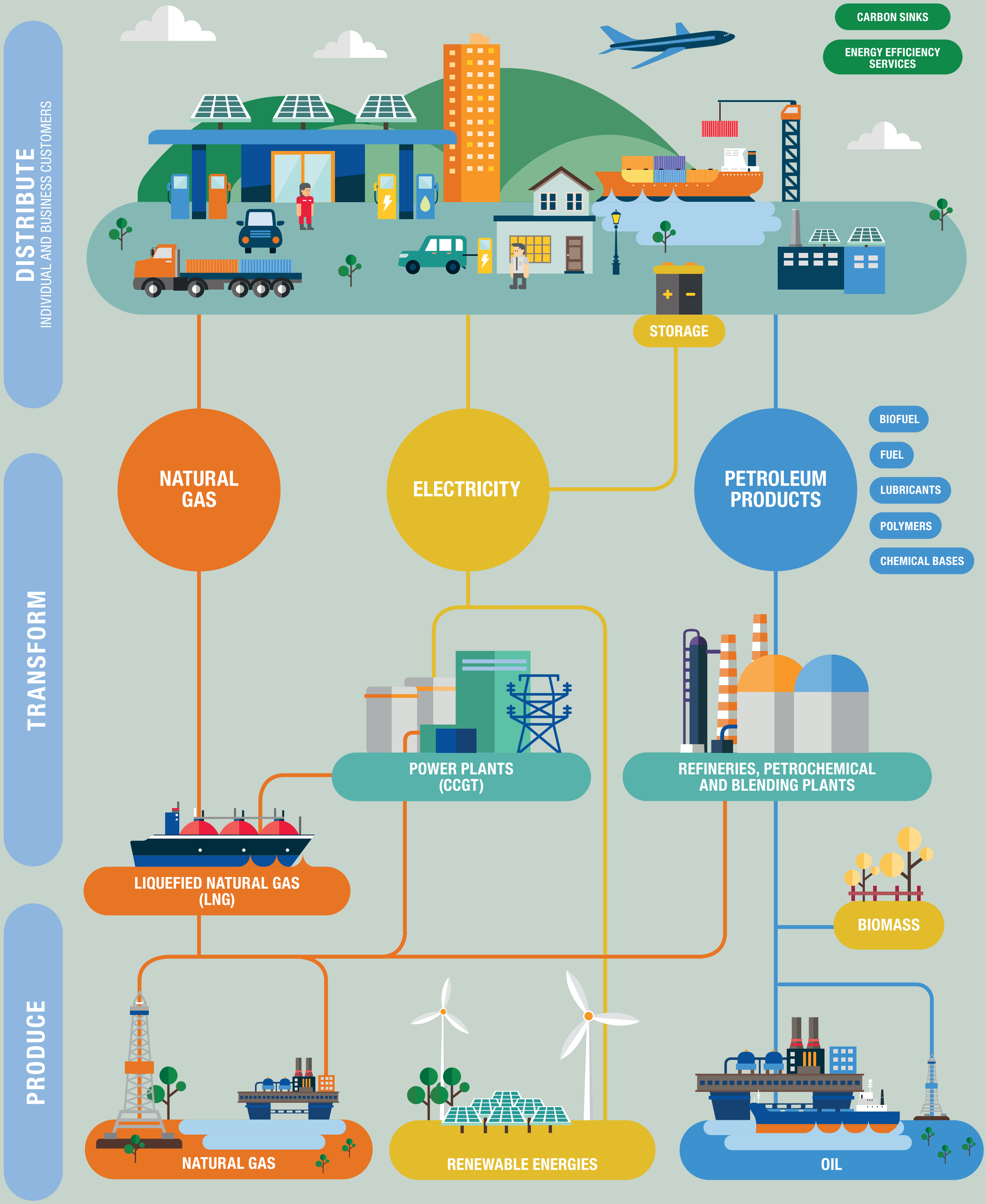
Acquisition of 26.5% in the Mozambique LNG project
This acquisition stems from an agreement with Occidental to acquire Anadarko’s assets in Africa, and expands TOTAL’s position in liquefied natural gas.

2020

TOTAL states its new climate ambition: carbon neutrality by 2050
On May 5, 2020, TOTAL announces its ambition of reaching net zero emissions by 2050, together with society, from the production to the use of the energy products sold to its customers.

1.1.3 Our business model

Integrated value chain



1

Our resources and ecosystem

Proven expertise

- **105,476** employees
- Nearly **160** nationalities
- More than **730** business-related competencies
- **240,000** days of training
- **400** talent developers to help employees along their professional development path

A responsible innovation

- R&D budget: **$895 million**
- **12** R&D centers and **6** technology development centers
- **> 200** patent applications in 2020

Top-tier industrial and commercial assets

- **7 GW** of gross renewable installed capacity
- **21,000** EV charge points in Europe
- LNG production: **18 Mt/year**
- Hydrocarbon production: **2,871 kboe/d**, proved reserves: **12.3 Bboe**
- **17** refineries incl. **1** biorefinery
- **27** petrochemical sites incl. **6** integrated platforms (refining and petrochemicals)
- **89** specialty chemicals production sites
- **35** operated lubricants production plants
- **> 15,500** service stations in **73** countries

Solid financials

- Operating cash flow before working capital changes without financial charges: **$17.6 billion**
- Net investments: **$13.0 billion**
- Gearing ratio (excl. leases): **21.7%**
- Pre-dividend organic cash breakeven: **$26/boe**

Geographic reach

- Present in **more than 130** countries
- Hydrocarbon production in **29** countries

Environment

- Fresh water withdrawal: **105 million cubic meters**
- Net primary energy consumption: **147 TWh**

Shared value creation

Employees

- **$8.9 billion** payroll (incl. social security charges)
- **€104 million** for training
- **91.9%** of employees on permanent contracts; women account for **41.2%** of employees hired on permanent contracts
- **86.9%** of employees hired by the Group and **57.7%** of managers hired were non-French nationals

Customers

- Sales: **$140.7 billion**
- 2nd largest private LNG player worldwide with a **38 Mt/year** portfolio
- **96 TWh** of gas delivered to **2.7 million** BtB and BtC customer sites
- **47 TWh** of electricity delivered to **5.6 million** BtB and BtC customer sites
- **86** products and solutions bearing the Total Ecosolutions label
- Approx. **15,000** patents in force

Suppliers

- **$23 billion** worth of purchases of goods and services, from a network of **over 100,000** suppliers, supporting hundreds of thousands of direct and indirect jobs worldwide

Shareholders

- **$6.7 billion** distributed as dividends (excluding dividends paid to non-controlling minority interests)
- **60%** of employees are shareholders

Communities

- Fostering social and economic development in host countries with contributions amounting to **$2,450 million** in income tax, **$3,768 million** in production taxes paid by EP activities, **$2,178 million** in employer social charges and **$20,981 million** in excise taxes
- **3.8 million** solar kits and lamps sold since **2011**, benefiting **17 million** people through our access-to-energy program
- The Group's global, integrated local development approach ("in-country value")

Climate

- GHG emissions (Scopes 1 & 2) on operated oil & gas facilities lowered from 46 Mt CO_2e in 2015 to **35.8 Mt CO_2e** in 2020
- Reduction of the carbon intensity of the Group's products in 2020 by **10%** (8% (excluding COVID-19 effect) compared to 2015

Data as of December 31, 2020.

1.2 Our climate ambition

Energy is at the heart of one of the major challenges of the 21st century: to preserve the planet threatened by climate change while enabling the majority of humanity to escape from poverty. In this sense, energy is inseparable from the major global challenges of sustainable development.

TOTAL's *raison d'être* is to supply to as many people as possible a more affordable, more available and cleaner energy. As a supporting component of society's evolutions, energy is a fundamental resource for economic, social and human development, which currently faces a twofold challenge: satisfying the energy needs of an ever-growing world population while reducing global warming. The Group's *raison d'être* is rooted in that challenge. TOTAL's intention in becoming a broad energy company is to help meet that challenge in a responsible way.

On May 5, 2020, TOTAL announced its climate ambition by 2050: to achieve carbon neutrality (net zero emissions), from the production to the use of the energy products sold to its customers (Scopes 1, 2, 3), together with society. TOTAL supports the goals in the Paris Agreement. The ambition is backed by an integrated strategy across the gas, electricity and liquid fuels value chains and the development of carbon sinks. The transition to a low-carbon energy system requires a collective effort: cooperation between companies and investors, coordinated government incentives and changing practices by civic-minded consumers.

1.2.1 More energy, less greenhouse gas emissions

Meeting the energy needs of a larger population

Our planet is now home to more than 7 billion people of whom more than 1 billion do not have access to electricity or other modern forms of energy. Estimates show that in 2050, some 10 billion people worldwide will need access to energy, an increase of around 40% from today[1].

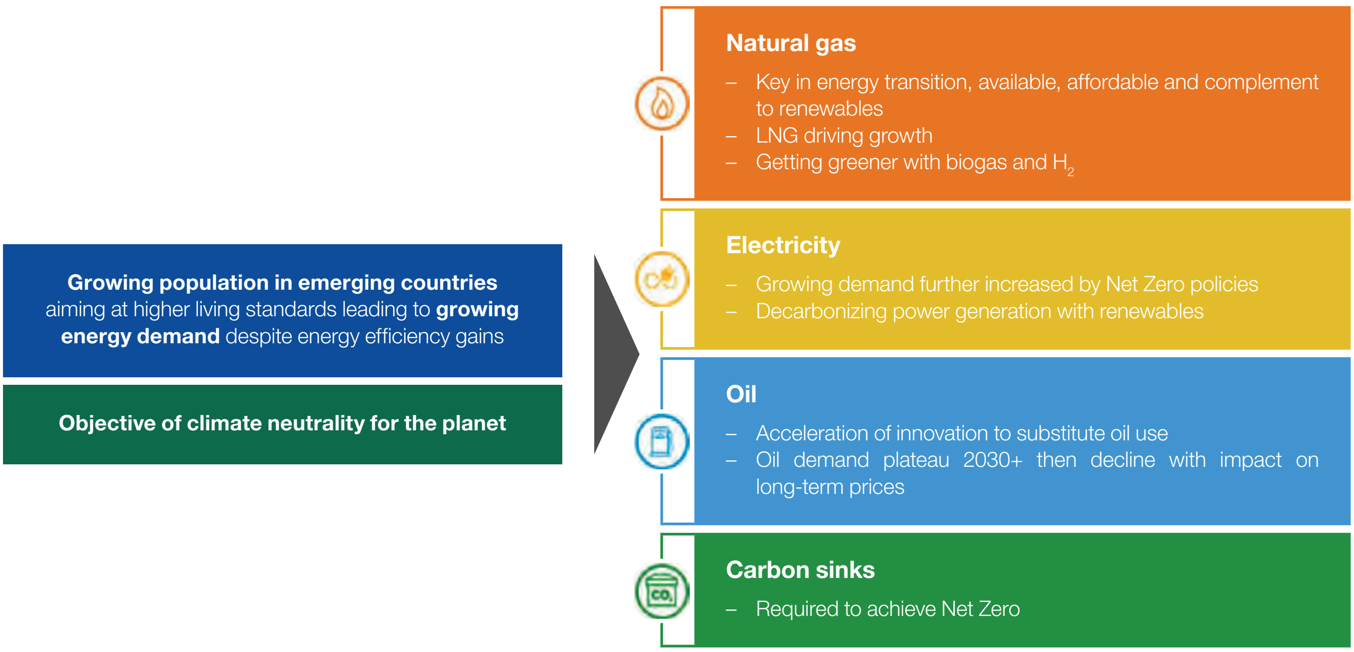
The issue of energy access, which is essential to economic and social development and to the well-being of the populations of the planet, is all the more important considering that nearly 800 million people today still don't have access to electricity[2] because of a lack of financial resources or their geographic isolation. Energy poverty is especially prevalent in the developing world. Providing access to energy is one of the sustainable development goals of the United Nations (SDG[3] 7 – Ensure access to affordable, reliable, sustainable and modern energy for all).

Helping to curb global warming

According to the IPCC scenarios, if humanity is to limit the rise in temperatures by 2100 from pre-industrial times to well below 2°C, it must achieve carbon neutrality between 2050 and 2070 and in 2050 in order not to exceed 1.5°C. To define an energy mix that would meet the world's energy needs while reducing greenhouse gas emissions, TOTAL analyzed the scenarios prepared by the International Energy Agency developed up through 2040 and developed its own long-term scenarios to 2050 in its Total Energy Outlook. Those projections, "Momentum" and "Rupture", assume major technological, economic and political breakthroughs. They highlight some critical challenges and identify possible options for modifying the world energy mix.

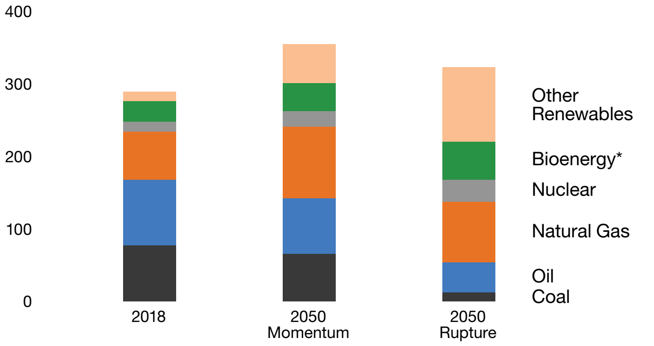
To achieve carbon neutrality, the global energy mix will have to change. The International Energy Agency's Sustainable Development Scenario (SDS) and TOTAL's Rupture scenario, which hold the temperature rise to "well below 2°C", both show that demand for oil will stabilize and then decline. The markets for low-carbon electricity and gases (natural gas, biogas and hydrogen), on the other hand, will see robust growth. Accordingly, TOTAL seeks to position itself in these growth markets.

Global trends underpinning evolution of energy markets



(1) Source: World Population Prospects 2019, United Nations.
(2) Source: SDG7: Data and projections 2020, AIE.
(3) Sustainable Development Goal.

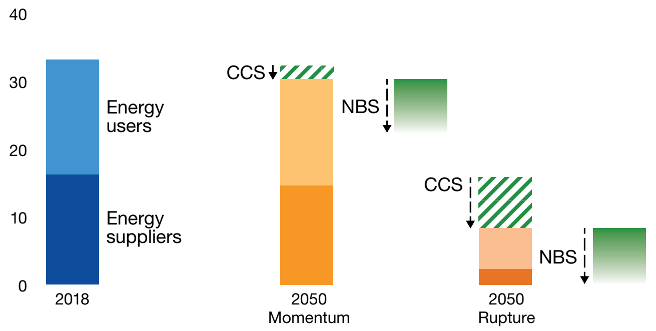
World primary energy demand *(Mboe/d)*



* Includes traditional biomass, biofuels, biogas.

CO_2 emissions *(Gt)*

Rupture needed, including CCS and NBS, to abate emissions.



CCS: Carbon Capture and Storage
NBS: Nature-based solutions

To achieve carbon neutrality, it is necessary to have the energy mix changed, the energy efficiency improved and then to store residual emissions that will need to be absorbed through sequestration, in the form of carbon capture and storage (CCS) technology and natural carbon sinks.

1.2.2 Priority axes and action plans towards carbon neutrality

TOTAL supports the objectives of the Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and eradicating poverty, and its goal of limiting the average rise in planetary temperatures to well below 2°C from pre-industrial levels. TOTAL also supports the objective set out in the Paris Agreement of achieving global carbon neutrality – i.e., net zero emissions, which is the balance between greenhouse gas emissions and anthropogenic removals in the form of greenhouse gas sinks and reservoirs, such as forests and carbon capture and storage facilities.

In order to reach the goals in the Paris Agreement, global energy systems will need to be transformed. The dual challenge of providing "more energy for all and fewer carbon emissions" is a challenge for society as a whole, with governments, investors, businesses and consumers all having an important role to play.

The Group has set an ambition of reaching carbon neutrality (net zero emissions) by 2050, from the production to the use of the energy products sold to its customers (Scopes 1, 2, 3), together with society.

To achieve carbon neutrality, it is essential for governments to adopt policies favoring this carbon neutrality, in accordance with the U.N.'s SDG 13. TOTAL actively supports policies favoring carbon neutrality, including carbon pricing, and mobilizes its resources not only to achieve its own ambitions but also to support countries and its customers in achieving carbon neutrality as well. TOTAL is committed to working alongside its customers to provide for the decarbonization of energy consumption offering an energy mix with an increasingly lower carbon intensity.

To accompany this development and achieve its carbon neutrality ambition (net zero emissions) in 2050 or sooner, for all its worldwide activities, the Group acts based on three main axes and commits to targets for 2030 for each of these axes.

The first axis is to achieve, in 2050 or sooner, carbon neutrality (net zero emissions) for TOTAL's worldwide operated activities, with regards to direct greenhouse gas emissions from its own operated facilities (Scopes 1 & 2). The Group's companies are responsible for them. TOTAL plans to lower its direct emissions by improving energy efficiency, eliminating routine flaring, electrifying its processes and reducing methane emissions. To address its residual emissions, TOTAL plans to develop carbon sinks, as nature-based solutions, by investing in forests as well as carbon capture and storage.

On the road toward carbon neutrality, TOTAL has set interim targets of reducing GHG emissions (Scopes 1 & 2) of the operated oil & gas facilities of the Group from 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e by 2025 i.e., a 15% decrease, and by 2030 to reduce net emissions[(1)] (Scopes 1 & 2) for its operated oil & gas activities operated by at least 40% compared to 2015, whereas over the same period, Group production will have risen substantially.

(1) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.

The second axis aims to achieve carbon neutrality (net zero emission) worldwide for indirect GHG emissions related to the use by customers of energy products sold for end use in 2050 or sooner (Scope 3). This axis requires TOTAL working actively with its customers, since this means they will reduce their direct emissions (Scopes 1 & 2), which correspond to TOTAL's indirect emissions (Scope 3), and that they are also aiming at carbon neutrality. TOTAL does not have control over those indirect emissions. In energy, as with any commodity, demand typically drives supply, not the reverse. TOTAL manufactures neither airplanes, neither cars nor cement and cannot dictate whether a vehicle or aircraft will use gasoline, electricity or hydrogen. However, TOTAL wants to contribute actively to its customers' choices and provide them with energy products with less and less carbon according to the pace they follow, and help them use less energy and choose energy sources with lower carbon intensity.

TOTAL has set itself targets for 2030 that the average carbon intensity of energy products used worldwide by its customers is reduced by more than 20% compared to 2015 and that the level of the Scope 3[(1)] worldwide emissions related to the use by its customers of energy products sold for end use in 2030 are lower in absolute terms compared to the level of 2015, despite the growth in its energy production in the coming decade. TOTAL is the only major actor to date to have undertaken such a commitment.

Finally, a last axis specific to Europe: given that, for the Company, Europe currently accounts for about 60% of TOTAL's indirect GHG emissions related to the use by its customers of energy products sold for end use (Scope 3) and that Europe has set ambitious targets for 2030 towards carbon neutrality, TOTAL wants to actively contribute to this ambition for Europe and has set itself the goal of achieving carbon neutrality in Europe[(2)] from the production to the use by its customers of the energy products sold for end use (Scopes 1, 2, 3) in 2050 or sooner.

On the road to carbon neutrality in Europe in 2050 or sooner, TOTAL has set a target for 2030 of at least 30% reduction in indirect emissions related to the use by its customers of the energy products sold for end use (Scope 3) in Europe compared to 2015, in absolute terms. This 30% reduction target is extended to all the Scopes 1, 2, 3 emissions in Europe.

(1) Indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3).
(2) Europe refers to the European Union, Norway and the United Kingdom as well as Switzerland.

1

1.2.3 The four strategic levers in our Net Zero ambition

To fulfill its ambition, the Group is relying on four strategic levers: reducing its greenhouse gas emissions, diversifying its products, guiding its customers through the low-carbon transition and developing carbon sinks.

Acting on our emissions

The Group is pursuing its campaign to make its industrial facilities more energy efficient on a lasting basis. This has translated into an improvement of more than 10% since 2010. For the 2018-2025 period, TOTAL is investing $450 million to maximize energy efficiency in the Refining & Chemicals segment, which accounts for 66% of the Group's energy consumption. In addition, routine flaring at Upstream facilities has been cut by more than 90% since 2010.

In addition, the Group is reducing its methane emissions, which have a global warming potential at least 25 times greater than that of carbon dioxide[(1)]. The Group has made a commitment to keep methane emissions at operated gas facilities close to zero, with a target of less than 0.1% of commercial gas produced. In addition, TOTAL has embarked on a second phase of the Oil & Gas Methane Partnership (OGMP), with a more ambitious methane reporting program that will gradually expand to include non-operated assets.

To sustain this strong momentum in emissions reduction, TOTAL established a CO_2 Task Force in 2019 that draws on its full spectrum of expertise. The Group also systematically posts emissions data at the entrance to each industrial site, to raise awareness and motivate the workforce.

Targets:
For 2025, reduce GHG emissions (Scopes 1 & 2) on oil & gas facilities operated by the Group from 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e.
For 2030, reduce by at least 40% compared to 2015 the net emissions[(2)] for its operated oil & gas activities.

Acting on our products

TOTAL intends to gradually reduce the average carbon content of its mix of energy products. To that end, it is taking decisive steps to ensure that gas and renewables figure more prominently.

TOTAL is expanding its presence along the entire gas value chain, notably in LNG, a market in which it ranks as the second largest private player worldwide[(3)]. The Group is strengthening its production capacity with two major projects – Arctic LNG 2 in Russia and Mozambique LNG in Mozambique – while developing new markets thanks to liquefaction plants such as Energia Costa Azul in Mexico and regasification plants such as Dhamra in India, to facilitate access to gas and promote the switch from coal to gas for power generation. This growth in the natural gas chain will require the incorporation of an increasing proportion of biogas or hydrogen. To spur its growth in low-carbon hydrogen, in 2020 TOTAL established a new business unit devoted specifically to that form of energy.

TOTAL is also pursuing its integrated expansion along the renewables value chain. The Group's gross renewable power generation capacity more than doubled in one year to 7 GW at year-end 2020, from 3 GW in 2019. TOTAL confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030.

In addition, TOTAL is reducing the average carbon content of its lineup thanks to biofuels. TOTAL aims to become a major force in the biofuels market, with projected sales growth of more than 10% a year by 2030. To make that ambition a reality, the Group is developing synergies with existing assets, such as its La Mède refinery in France, which was converted into a biorefinery in 2019, and its Grandpuits refinery, also in France: in September 2020 the Group announced that the latter would be converted into a zero-crude platform that will include a biofuels plant.

To address the issue of end-of-life plastics, TOTAL is investing in recycling and biopolymers with the ambition of producing 30% recycled plastics by 2030; moreover, it aims to become the world's top producer of polylactic acid (PLA) – considered to be an innovative material because it is biobased, biodegradable and recyclable – through its Total Corbion PLA joint venture.

Acting on demand

To support its customers through the energy transition, the Group intends to actively pursue a marketing strategy focused on the lowest-carbon products and scale back its offering for certain uses where competitive low-carbon alternatives are available.

For example, TOTAL commits to no longer sell fuel oil for power generation by 2025. Its residential heating customers in France are being encouraged to switch from home heating oil to electricity, natural gas or wood through a special program.

In electric mobility, the Group has announced in 2020 the creation of a joint venture with Groupe PSA to develop electric vehicle battery manufacturing, leveraging the expertise of its Saft Groupe subsidiary. The Group plans to operate more than 150,000 EV charge points in Europe by 2025, thanks to concessions in large cities, fast charging stations in urban areas, charging facilities for business customers and ultra-fast charge points along major road corridors. The Group has also won concessions to install and operate up to 20,000 new charge points in the Amsterdam region and 2,300 in Paris. In addition, TOTAL operates more than 1,600 charge points in London.

In late 2019, TOTAL signed an agreement with CMA CGM, a global leader in shipping and logistics, to provide LNG bunker fuel in place of fuel oil for the company's newest container vessels. A similar agreement with MSC Cruises was officialised in March 2021 to supply LNG bunker fuel to MSC Cruises' upcoming LNG-powered cruise ships that will call at the Port of Marseille.

Developing carbon sinks

In addition to the actions being taken on these three levers, TOTAL is investing in two carbon sink solutions: natural carbon sinks and carbon capture and storage (CCS), and R&D programs to develop negative emissions technologies (refer to point 1.3.4 in this chapter).

(1) Source: Climate Change 2007: IPCC Fourth Assessment Report, which the UNFCCC recommends for use in national GHG inventories until 2024.
(2) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.
(3) Source: Wood Mackenzie, TOTAL LNG Corporate Report 2020, published in November 2020.

1.3 Our strategy: from TOTAL to TotalEnergies

Growing energy demand and getting to Net Zero are the two global trends underpinning the Total Energy Outlook and the changes in the energy markets that TOTAL is integrating into its strategy.

TOTAL's strategy consists in transforming the Group into a broad energy company by profitably growing its energy production, particularly from liquefied natural gas and electricity, the two fastest growing energy markets, to create long-term value for its shareholders.

In the next decade, the Group's sales of oil products are expected to diminish by almost 30%, and TOTAL's sales mix will become 30% oil products, 5% biofuels, 50% natural gas and 15% electrons, primarily of renewable origin.

TOTAL also intends to reduce the carbon footprint of its business activities through negative emissions. The Group is investing in two major carbon sink solutions: natural carbon sinks, such as forests, regenerative agriculture and wetlands, and carbon capture and storage (CCS).

1.3.1 Natural gas, renewable gas and hydrogen: allies in the energy transition

By expanding its presence across the value chain for natural gas, renewable gas and hydrogen, TOTAL is intent on decarbonizing its energy mix and ensuring access to reliable, flexible forms of energy that complement intermittent renewable energy sources.

TOTAL's LNG sales are expected to reach 50 Mt/year by 2025 and double over 2020-30, creating value from scale, arbitrage and integration along the value chain.

In pursuit of its Climate ambition, TOTAL is investing in the use of renewable gas, biomethane and hydrogen to decarbonize natural gas. Specifically, the Group aims to produce 4 to 6 TWh/year of biomethane by 2030.

No. 2
TOTAL is the global no. 2 in the LNG[(1)] market

50 Mt/year
TOTAL's LNG sales target by 2025

x 2
TOTAL's LNG sales growth target between 2020 and 2030

In January 2021 TOTAL finalized its acquisition of Fonroche Biogaz to become a major player in renewable gas in France and Europe. The Group has significantly strengthened its presence in the sector, increasing its production from 70 GWh/year to nearly 600 GWh/year. TOTAL was already active in renewable gas through three subsidiaries: Méthanergy (combined heat and power production from biogas) in France as well as PitPoint and Clean Energy Fuels Corp. (biomethane production and distribution via a network of Bio-CNG/Bio-LNG stations) in Benelux and the United States respectively. Moreover, TOTAL plans to accelerate its development of renewable gas production projects in the United States as part of an equally owned joint venture created in March 2021 with Clean Energy Fuels Corp.

1.3.2 Electricity: building a global leader

TOTAL intends to pursue further growth in the renewables market, expanding its power generation and distribution capacity alike.

Developing an integrated business model that includes power generation and sales to residential and commercial customers as well as storage and trading, TOTAL is targeting 50 TWh of net power production and 80 TWh of sales to 9 million customers by 2025. TOTAL confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030.

Renewables and electricity[(2)] are expected to deliver cash flow of more than $1.5 billion per year by 2025.

TOTAL is also committing more than $1 billion over the next 10 years to the e-mobility revolution by investing in battery manufacturing and electric vehicle charging and in installing 150,000 charge points by 2025.

TOTAL is taking a variety of steps to capture rapid growth in electricity, including numerous acquisitions and equity investments in large-scale projects around the world. From 2015 to 2020, the Group invested more than $8 billion, reaching $1.5 -2 billion/year over the last years.

In January 2021, TOTAL announced the acquisition from the Adani group of a 20% minority stake in Adani Green Energy Limited (AGEL), one of the world's leading solar developers, contributing to the gross power generation capacity from renewables of 35 GW by 2025. This transaction was part of the agreement between TOTAL and Adani for TOTAL to acquire a 50% stake in a 2.35 GWac solar portfolio in operation held by AGEL and this 20% stake, for a total amount of $2.5 billion.

The Group also announced in January 2021 the creation of a joint venture in the United States with 174 Power Global, a subsidiary of the Hanwha Group, to develop 12 industrial-scale solar and energy storage projects with a combined capacity of 1.6 GW.

(1) Source: Wood Mackenzie, TOTAL LNG Corporate Report 2020, published in November 2020.
(2) Renewables and electricity include power generation from natural gas or renewable sources, trading and power distribution.

More than $8 B invested in electricity between 2015 and 2020	**8.3 M** of gas and power customers at year 2020	**35 GW** Target of gross renewables power generation installed capacity by 2025	**80 TWh** Target of power sale in 2025	**50 TWh** Target of net production by 2025	**150,000** EV charge points by 2025

1.3.3 Saving and decarbonizing oil

Oil should be used sparingly, for applications where it cannot easily be substituted. At the same time, biofuels and tomorrow's e-fuels will need to take on a larger role.

TOTAL focuses on the most resilient oil projects, meaning those with the lowest breakeven point, and profitability over 15% at $50/barrel, prioritizing value over volume while ensuring that its capex allocation is consistent with its climate ambition. The Group factors in a long-term carbon price of $40/ton(1) in its cost evaluations, as well as a sensitivity analysis of $100/ton as from 2030.

TOTAL plans to continue adapting refining capacity and sales to changing demand, particularly in Europe, and also plans to increase its biofuels production and sales. Demand for those renewables will be boosted by policies targeting carbon neutrality. TOTAL's renewable diesel production is expected to reach more than 2 Mt/year by 2025.

3.0 Mt Biofuel distributed by TOTAL worldwide in 2020	**35%** Target share of oil products in TOTAL's energy sales mix in 2030, versus 66% in 2015	**2 Mt/year** Target of production of renewable diesel by 2025	**+ 10%/year** TOTAL's biofuels sales growth target by 2030

1.3.4 Developing carbon sinks

The Group plans to continue investing in two major carbon sink solutions: natural carbon sinks and carbon capture and storage (CCS), as well as R&D programs to develop negative emissions technologies.

To develop natural carbon sinks, the Group created a new Total Nature Based Solutions (NBS) business unit in June 2019. Backed by an annual budget of $100 million, it is tasked with funding, developing and managing projects to sequester carbon and reduce GHG emissions. The Group is targeting sustainable capacity of sequestration of at least 5 Mt CO_2 per year by 2030.

$100 M/year As of 2020, investment budget for the new Nature Based Solutions business unit	**At least 5 Mt CO_2/year** Sustainable sequestration capacity target by 2030	**$400 M** Planned amount of the accumulated investments of Total Carbon Neutrality Ventures fund for 5 years

Several agroforestry projects in Australia, South America and Africa are about to get underway or are currently being negotiated with TOTAL's partners. These projects, located in both tropical and temperate regions, systematically include the value chains for local farm and forest production, in cooperation with local communities, to reduce the causes of deforestation and changing land use at source.

In CCS, TOTAL, with Equinor and Shell, initiate the Northern Lights project in Norway, the first major project for the Group aimed at decarbonizing industries that have few alternatives to fossil energy, such as steel and cement manufacturing. The first phase of the project, with an initial capex allocation in excess of €600 million, includes capacity to store up to 1.5 Mt CO_2 per year. Other projects are also being examined, notably in the Netherlands to make the most of depleted offshore fields that the Group operates.

(1) $40/ton as from 2021 for all countries, or the current price in a given country if it is higher than $40/ton.

1.4 Our investment policy

TOTAL's investment policy is designed to support its efforts to fulfill the strategy to transform TOTAL into a multi-energy company and its ambition of achieving carbon neutrality (net zero emissions) by 2050. This policy is guided by two axes: discipline and selectivity in the Group's oil and gas investments, on the one hand, and strong investment growth in renewables and electricity, on the other hand.

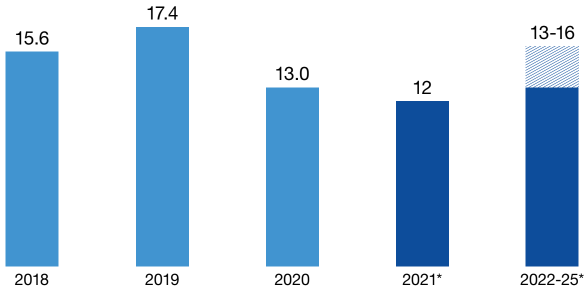
In the short term, in an uncertain economic environment, TOTAL stays disciplined on its expenditure and anticipates net investment amounting to approximately $12 billion in 2021, assuming a Brent price at $40/b, with in particular more than 20% of its investments dedicated to renewables & electricity, and while preserving the flexibility to mobilize additional short-cycle investments should the oil and gas environment strengthen.

For the period 2022-2025, TOTAL projects annual net investment totalling between $13 billion and $16 billion, with a Brent price ranging from $50/b to $60/b, allocated according to the following guidelines:

– investments in renewables and electricity are expected to continue to grow over this period and to represent more than 20% of the Group's net investments, thereby supporting TOTAL's strong growth in renewables through the development of its electricity production and distribution capacities and by taking positions in electric mobility in Europe,
– investments in LNG should represent between 15% and 20% of the Group's net investments in order to strengthen its production capacity and address new markets through liquefaction or regasification plant projects, while investing in the decarbonation of natural gas through biogas, biomethane and hydrogen,
– investments in oil & gas are expected to focus on the most resilient Upstream projects, meaning those with the lowest breakeven. In Downstream, the Group expects to continue to adapt its refining capacity and sales to adapt to changes in demand, particularly in Europe, with the objective of increasing its biofuel production and sales. TOTAL will also invest in plastics recycling and biopolymers and aims to grow in the distribution of petroleum products in the large, fast-growing markets and in new energies for mobility,
– in addition to these three axes, TOTAL intends to continue to invest $100 million per year in natural carbon sink projects and $100 million per year in carbon capture and storage (CCS), including R&D programs aimed at developing negative emissions technologies.

Capital investment: discipline and flexibility

Net investment *(B$)*



* Planned investment

1.4.1 Major investments over the period 2018–2020

In the Integrated Gas, Renewables & Power segment, LNG organic investments concerned mainly the development of LNG production projects that have started (Ichthys LNG in Australia and Yamal LNG – train 1 to 4 – in Russia) or are under construction and are expected to start up in the coming years (Arctic LNG 2 in Russia and Mozambique LNG in Mozambique). Organic investments in renewables and electricity were primarily for the construction projects for solar and wind farms led by Total Solar and Total Quadran, the gas-fired power plant project in Landivisiau, France, as well as the industrial activities of Saft Groupe.

In the Exploration & Production segment, most of the organic investments were allocated to the development of new hydrocarbon production facilities, the maintenance of existing facilities and exploration activities. Development investments included in particular the Iara-2 project that began in Brazil in June 2020 and the major projects under construction that are expected to start up in the coming years (Anchor in the United States; Mero 1, 2 and 3 in Brazil; Johan Sverdrup 2 in Norway; the redevelopment of Tyra in Denmark; Absheron in Azerbaijan; Zinia 2 in Angola; Ikike in Nigeria).

In the Refining & Chemicals segment, organic investments focused on facility safety and maintenance, on the one hand, and on projects aimed at improving plant competitiveness, especially in Europe, on the other hand. In addition, organic investments were made to ensure continued growth in petrochemical activities in Texas (United States) as part of a joint venture with Borealis and Nova, and for construction of a polypropylene production unit at the Daesan integrated complex in South Korea.

In the Marketing & Services segment, organic investments concerned mainly for retail networks in growth regions in Africa, Asia, and the Americas, logistics and production and storage facilities for specialty products.

In 2020, the Group finalized acquisitions amounting to approximately $4.2 billion, compared to $6.0 billion in 2019 and $8.3 billion in 2018. TOTAL's accelerated its growth in renewables through the acquisition of 51% of the Seagreen offshore wind power project and the finalized acquisition of 50% of Adani Green Energy Limited's portfolio of solar power assets in operation in India. This partnership was subsequently expanded and now includes assets offering a total capacity of 3 GW. In addition, the Group acquired solar project portfolios in Spain for future development with total capacity of more than 5 GW. In electricity, TOTAL finalized its agreement with EPH to acquire two gas-fired power plants and its acquisition of a portfolio of 2 million residential customers and two gas-fired power plants from Spain's Energías de Portugal.

Reflecting its strategy of focusing its investment on low-cost oil projects, TOTAL finalized its acquisition of 100% of Tullow's interests in both the Lake Albert development project in Uganda and the East African Crude Oil Pipeline (EACOP) pipeline project during 2020, and also acquired interests in Blocks 20 and 21 in Angola. In addition, the Group maintained its growth in natural gas, completing its acquisition of 37.4% of Adani Gas Limited[1] in India and paying a second installment in connection with its acquisition of a 10% interest in the Arctic LNG 2 project in Russia.

TOTAL completed assets sales amounting to $1.5 billion in 2020 (compared to $1.9 billion in 2019 and $5.1 billion in 2018). Specifically, those assets sales included the sale of non-strategic North Sea assets in the UK, the sale of Block CA1 in Brunei, the sale of the Group's stake in the Fos Cavaou regasification terminal, the sale of a 50% interest in a portfolio of solar and wind power assets held by Total Quadran in France, the sale of Enphase shares by SunPower and the real estate sale of the Group's headquarters in Brussels.

Net investment stood at $13.0 billion in 2020, compared to $17.4 billion in 2019 and $15.6 billion in 2018.

Gross investments[2] *(M$)*	**2020**	**2019**	**2018[(a)]**
Integrated Gas, Renewables & Power	6,230	7,053	5,032
Exploration & Production	6,782	8,992	13,789
Refining & Chemicals	1,325	1,698	1,781
Marketing & Services	1,052	1,374	1,458
Corporate	145	120	125
TOTAL	**15,534**	**19,237**	**22,185**

Net investments[3] *(M$)*	**2020**	**2019**	**2018[(a)]**
Integrated Gas, Renewables & Power	4,903	6,180	3,445
Exploration & Production	6,063	8,649	10,115
Refining & Chemicals	1,155	1,382	862
Marketing & Services	900	1,131	1,030
Corporate	(32)	107	116
TOTAL	**12,989**	**17,449**	**15,568**

Net acquisitions[4] *(M$)*	**2020**	**2019**	**2018[(a)]**
Acquisitions	4,189	5,980	7,692
Assets sales	(1,539)	(1,939)	(5,172)
Other operations with non-controlling interests	–	11	622
TOTAL	**2,650**	**4,052**	**3,141**

Organic investments[5] *(M$)*	**2020**	**2019**	**2018[(a)]**
Integrated Gas, Renewables & Power	2,720	2,259	1,745
Exploration & Production	5,519	8,635	7,953
Refining & Chemicals	1,209	1,426	1,604
Marketing & Services	814	969	1,010
Corporate	77	108	115
TOTAL	**10,339**	**13,397**	**12,427**

(a) The data for the 2018 financial year were restated to take into account the change in the organization of the Group that has been fully effective since January 1, 2019.

1.4.2 Major planned investments

In line with its strategy, TOTAL is expected to sustain its growth in renewables through projects led by Total Solar and Total Quadran to build solar and wind (and particularly offshore wind) power plants, in electricity with the start-up of its gas-fired power plant in Landivisiau, France, along with industrial activities at Saft Groupe.

During the first quarter 2021, the Group announced the acquisition from the Adani Group of a 20% minority stake in Adani Green Energy Limited (AGEL), the creation of a joint venture in the United States with 174 Power Global, a subsidiary of the Hanwha Group, to develop 12 industrial-scale solar and energy storage projects with a combined capacity of 1.6 GW, the acquisition of a 2.2 GW portfolio of solar and storage projects in Texas in the United States and the acquisition of Fonroche Biogaz in France.

In LNG, TOTAL plans to focus its investments on major LNG production projects (Arctic LNG 2 in Russia and Mozambique LNG in Mozambique) and trains for LNG plants under construction for which the final investment decision has already been taken (Nigeria LNG train 7 in Nigeria and ECA in Mexico). The Group also announced the launch of a project to produce green hydrogen at its La Mède biorefinery in France.

(1) An Indian company listed on the New York and Bombay stock exchanges in which the Group held an interest of 37.4% as of December 31, 2020.
(2) Including acquisitions and increases in non-current loans. The main acquisitions for the 2018-2020 period are detailed in Note 2 to the Consolidated Financial Statements (Section 8.7 of Chapter 8).
(3) Net investments = organic investments + net acquisitions.
(4) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(5) Organic investments = net investments excluding acquisitions, assets sales and other operations with non-controlling interests.

In oil and gas, TOTAL plans to focus its investments primarily on the Lake Albert development project in Uganda (Tilenga & Kingfisher projects) and the associated East African Crude Oil Pipeline (EACOP) cross-border oil pipeline project in Uganda/Tanzania as well as major ongoing development projects for which the final investment decision has already been taken (Anchor in the United States; Mero 1, 2 and 3 in Brazil; Johan Sverdrup 2 in Norway; the redevelopment of Tyra in Denmark; Absheron in Azerbaijan; Zinia 2 in Angola; and Ikike in Nigeria). Part of the oil and gas investments should also be allocated to assets already in production, particularly for maintenance costs and infill wells.

In Downstream, a significant share of its investment budget should be devoted to safety and maintenance at the Group's facilities, on the one hand, and to its plans to convert the Grandpuits refinery into a zero-crude platform, on the other hand. In addition, the Group should continue to invest to develop its petrochemicals activities in Texas in the United States, as part of a joint venture with Borealis and Nova Chemicals, and to finalize its capacity increase for petrochemicals at the Daesan integrated complex in South Korea.

In the distribution of petroleum products, investments are planned for the service stations network, logistics, production and storage facilities for specialty products (in particular lubricants) and new forms of energy for mobility. Plans are to allocate the bulk of the segment's investment budget to the Group's operations in Europe, especially new mobility solutions, and in growth regions such as Africa, the Middle East and Asia.

Lastly, the Group is expected to continue to invest in carbon sink initiatives that draw either on nature-based solutions or carbon capture, utilization and storage, particularly in the North Sea.

1.4.3 Financing mechanisms

TOTAL self-finances most of its investments with cash flow from operations and may occasionally access the bond market when financial market conditions are favorable. Certain subsidiaries or specific projects may be financed through external financing, notably in the case of joint ventures. These include Ichthys LNG in Australia, Satorp in Saudi Arabia, Yamal LNG and Arctic LNG 2 in Russia, Mozambique LNG in Mozambique, Cameron LNG in the United States and Hanwha Total Petrochemical in South Korea.

As part of certain project financing arrangements, TOTAL SE has provided guarantees. These guarantees ("Guarantees given on borrowings") as well as other information on the Group's off-balance sheet commitments and contractual obligations appear in Note 13 to the Consolidated Financial Statements (refer to point 8.7 of Chapter 8). The Group believes that neither these guarantees nor the other off-balance sheet commitments of TOTAL SE or any other Group company have, or could reasonably have in the future, a material effect on the Group's financial position, income and expenses, liquidity, investments or financial resources.

1.5 Innovation to further the Group's transformation

1.5.1 R&D at the heart of our strategy

Based on the various scenarios studied by TOTAL, the goal of achieving carbon neutrality (net zero emissions) by 2050 entails more than large-scale deployment of proven technologies such as photovoltaic solar power, wind power and biofuels. It also requires technological game-changers and the development of completely new industrial value chains, such as hydrogen, synthetic fuels, and carbon capture and storage.

The Group's transformation from an oil and gas company into a broad energy group calls for agile R&D that is firmly committed to innovation. At the heart of the Group's strategy, R&D is focusing on its teams and partners who specialize in the electricity and renewables value chain, and technology for shrinking our environmental footprint. The Group's research projects are defined by the principles that underpin its strategy and its goal of carbon neutrality: acting on emissions, acting on products and acting on demand.

These R&D programs are organized around on five priorities:

- Safety and the environment, including satellite-based emissions monitoring and research into plastics and product recycling.
- A low-carbon energy mix, including optimization of the natural gas (and particularly LNG) value chain; renewables and power storage solutions (hydrogen, etc.); hybrid systems; gains in energy efficiency; carbon capture, utilization and storage; and bioproducts.
- Operational efficiency, including programs aimed at combining productivity gains, lower operating costs and carbon emissions reductions through the use of digital technology and electrification.
- New products, including ecodesign, biosourcing and the development of products with special properties, such as high-performance fluids for electric motors.
- Digital technology, which is embedded in every program, including advanced research into high-performance computing technology and the use of artificial intelligence for industrial applications.

These research programs may be led by a business segment on behalf of its business lines or those of other segments; or, when they involve topics with broad relevance, they may be coordinated at Group level in order to establish synergies, capitalize on expertise and pool knowledge and infrastructure.

In addition to the Group's five R&D priorities, some subsidiaries may conduct R&D centered on their own businesses. At Hutchinson, for example, research activities focus on three main issues connected with mobility of the future: weight reduction and energy efficiency, electrification, and smart objects.

R&D is also investigating forward-looking topics with the aim of evaluating the potential of new technology for the Group's businesses, such as nanotechnologies, robotics, hydrogen and new mobility solutions.

With an R&D workforce of more than 4,000 employees, the Group invested \$895 million in R&D in 2020 (versus \$968 million in 2019 and \$986 million in 2018). The Group's investment for the future – including developments in the field of digital technology and carbon capture and storage industrial projects, as well as investments led by Total Carbon Neutrality Ventures (TOTAL's venture capital fund, which focuses solely on carbon neutrality businesses and expects to invest a total of \$400 million dollars by 2023) – has risen to more than \$1.1 billion.

The Group carries out its R&D projects with an open innovation approach, drawing on its talent pool, research infrastructure, pilot sites and R&D centers worldwide, as well as start-ups and top-ranked academic partners. The Group operates 12 R&D centers and six techcenters across the globe, and has signed roughly 1,000 agreements with its partners.

In addition, the Group implements an active intellectual property policy to protect its innovations, maximize their use and differentiate its technology. In 2020 the Group filed more than 200 patent applications.

One Tech

In September 2020, the Group announced the creation of a new entity, One Tech, which will bring together industrial and technological expertise from every business segment[1], including the R&D activities thus reinforcing a continuum between research, development and industrialization for the businesses and ensure that new activities can ramp up quickly.

R&D's transformation began in 2016 with the creation of "One R&D" to promote cross-business synergies among research units and implement transverse programs, and continues today in order to build the Group R&D of the future. The Group is expanding its transverse programs by consolidating the teams within a single R&D division within OneTech, leveraging their expertise in areas of priority interest to the Group and establishing R&D in the electricity and renewables businesses.

By grouping all of its industrial and R&D teams within a single entity, the Group believes it can:

- Expand the Group's new businesses by capitalizing on existing expertise and attracting new talents, particularly in emerging businesses such as the electricity value chain, renewables and hydrogen. One Tech could thus serve as a gateway into the Group, especially for young engineers and technicians seeking to help the Group fulfill its goal of becoming a major player in new energies.
- Accelerate innovation in solutions for reducing carbon emissions, including the direct capture of CO_2 from the air. By marrying know-how from each of its business segments, the Group will be better equipped to meet the challenge of climate change.
- Amplify innovation in preparing for the future: One Tech will make it easier to allocate skills as well as technological and R&D resources to priority areas, to keep pace with changes in the Group, in the markets and in technology. Multidisciplinary technical teams will focus on strategic topics of general interest, in a bid to promote innovation not just at the technological level but also when integrating that technology into energy systems that are more efficient across the entire life cycle.

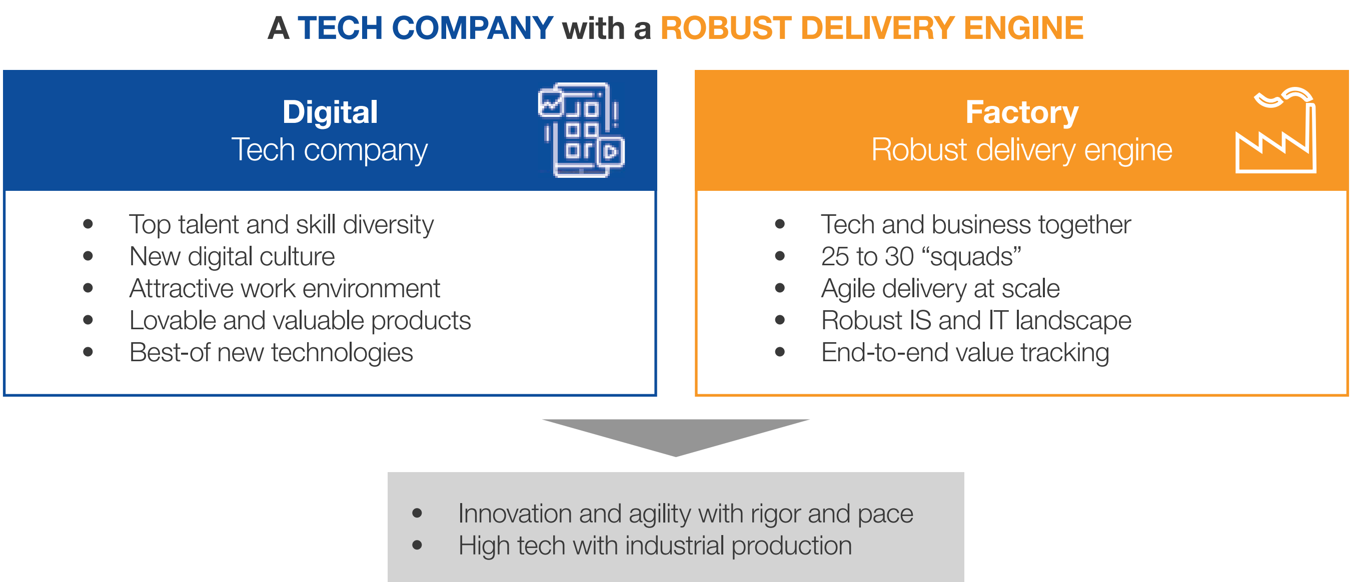
1.5.2 Digital acceleration as a performance lever

Spotlight on the Digital Factory

In early 2020, TOTAL opened a Digital Factory in Paris which will gather close to 300 developers (around 200 by year-end 2020), data scientists and other experts to accelerate the Group's digital transformation. TOTAL's goal is to leverage the capabilities of digital tools to create value in all of its businesses.

The Digital Factory is tasked with developing the digital solutions the Group needs to improve its operations in terms of both availability and cost; offer new services to customers, particularly in management and control of energy use; extend its reach to new distributed energies; and reduce its environmental impact. Its ambition is to generate as much as $1.5 billion in value per year for the company by 2025 through additional revenue and reductions in operating or investment expenses.

What is a Digital Factory?



(1) With the exception of certain subsidiaries such as Saft Groupe and Hutchinson.

1.6 Our strengths

1.6.1 Our employees

Our employees' commitment and growth are key to our success

It is thanks to the commitment of its workforce that the Group can rise to the challenges it faces. Therefore, TOTAL strives to uphold the strictest standards of safety, ethics and integrity, management and social performance wherever its subsidiaries operate. The goal of that policy is to create an environment in which every employee can reach his or her potential and TOTAL can continue to pursue its growth and transformation.

TOTAL maintains a dialogue with the Group's employees and their representatives, who have a privileged position and role, particularly in discussions with management teams. Workplace dialogue is one of the pillars of the corporate plan. In order to associate the employees to the major challenges of the Group, the expectations of employees are regularly listened to and discussed. Examples include the Total Survey, which compiles the views and suggestions for improvement of tens of thousands of employees every two years. Initiatives that have allowed employees to participate in building the "One Total" Company project have been initiated since 2016 and to gain insight into major HR projects across the Group.

In 2019, a new step was taken when the Group launched "One Total, Better Together", the human part of its Company project that meets the employees' expectations and in order to raise the Group's human ambitions to the same height as its business ambition. This project has three ambitions: to develop the talent of every employee, to promote the coaching dimension of managers and to build a company, where it is a good place to work. In order to support the development of the managerial culture, the training courses for managers have been adapted to encourage engagement and the manager's role in team development.

TOTAL promotes functional, geographic mobility and lifelong training in order to develop everyone's skills and employability and meet business challenges. Since 2019, more than 400 talent developers have been trained and are actively assisting employees in their professional development by offering personalized support. Just a year after it was implemented, 70%[1] of employees say the new mobility process has given them a clearer perspective on their advancement potential within the Group and helped them take charge of their careers.

Employees are encouraged to broaden their technical skills through a host of training opportunities as a means of enhancing their expertise. With that in mind, a training needs review is conducted with each employee who is taking up a new position. The technical and business know-how of employees and their ability to manage large projects underpin the Group's operational excellence and are essential assets for the Group's development.

A culture of diversity

The Group is an image of its employees: diverse. The diversity of talents within TOTAL is crucial to its competitiveness, innovative capacity and attractiveness. Diversity in all its forms is promoted at the highest level, and in particular by the Group Diversity Council, which is chaired by a member of the Executive Committee.

By drawing on this culture of diversity, TOTAL can seek out the best talent, regardless of career background, wherever it may be. As a result, with nearly 160 nationalities represented in its workforce, a presence in over 130 countries and more than 730 professional skills, the Group boasts genuine human potential.

Such diversity is an essential asset for the Group. The variety of opinions and career paths yield both innovative solutions and new opportunities. Thanks to its motivated, enterprising workforce, the Group can carry out ambitious projects and provide every employee with the opportunity to give meaning to their work and find professional fulfillment. To maintain the momentum generated by successive diversity roadmaps, the Group has set new objectives for 2025 that bear on two priority concerns: gender balance and international diversity. TOTAL is targeting the same level of female representation for its highest executive bodies and other governing bodies and leadership positions, with women comprising:

- 30% of the members of the Group's Executive Committee (25% in 2020);
- 30% of the G70[2] (24.7% in 2020);
- 30% of the members of the Management Committee in each business segment and the large functional divisions (27% in 2020);
- 30% of senior executives (25.7%in 2020);
- 30% of the members of the Management Committee (headquarters and subsidiaries) (23.5% in 2020);
- 30% of senior managers (18.2% in 2020).

Under the targets set for international diversity by 2025, non-French nationals are expected to comprise:

- 45% of senior executives (36.3% in 2020);
- 55% to 75% of Management Committee members in subsidiaries (57.9% in 2020);
- 40% of senior managers (32% in 2020).

The Group has a long-standing commitment to promoting equal opportunity and diversity, which constitute, for everyone, a source of development where only expertise and talent count. In 2018, the Group decided to adhere to the Global Business and Disability Network Charter of the International Labor Organization (ILO) and is gradually implementing these principles in its subsidiaries. Nearly 2,900 employees took part in community support projects as part of the Action! program.

1.6.2 Our integrated model

TOTAL's model of value creation is based on integration across the energy value chain, from exploration and production of oil, gas and electricity to energy distribution to the end customer, and including refining, liquefaction, petrochemicals, trading, and energy transportation and storage. This integrated business model enables the Group to capitalize on synergies among the various businesses while responding to volatility infeedstock prices. Thanks to this business model, the Group's Upstream activities, which are more dependent on the price of oil, can complement its Downstream activities, which – at the bottom of the cycle – enable the Group to generate value-added untapped by the Upstream part of the business. With this integration of its operations across the entire value chain, the Group can manage the bottom of the cycle more effectively and capture margins when the market improves.

(1) Results of a survey conducted in 2020 among a representative sampling of 20,000 employees regarding the new mobility process.
(2) Senior executives having the most important responsibilities. Together with the Executive Committee, they form part of the Group's management bodies within the meaning of point 7.1 of the AFEP-MEDEF Code.

TOTAL is applying this integrated model to the new electricity and renewables businesses in which it has staked out a position in recent years. The Group can leverage those businesses with the know-how and resources inherent in its business model, including a global brand and presence, technical expertise (e.g., in offshore operations and trading) and partnerships with governments and local communities.

Accelerating growth in electricity and renewables will strengthen TOTAL's model of value creation by providing more predictable cash flows while offering the prospect of long-term gains and diversifying the Group's geographical risk profile. That transition will cement the durability and resilience of TOTAL's value creation model and bolster its ambition of getting to Net Zero (net zero emission).

1.6.3 Our operational excellence

Energy is an industrial sector that demands state-of-the-art know-how and complex facilities that are both flexible and reliable.

Acknowledged technical expertise

Thanks to the technical expertise wielded by the Group's men and women and their ability to manage large-scale projects, TOTAL has been able to forge trust-based partnerships with the world's primary producing countries and global consumers. The Group's expertise allows it to provide convincing support to its customers and partners in even the most demanding fields, such as deep offshore, liquefied natural gas (LNG), electricity and renewables, refining and petrochemicals, where the Group has developed platforms that are among the industry's top performers.

High-performance industrial assets

TOTAL boasts streamlined, high-performance industrial assets that ensure its resilience in its traditional businesses. Moreover, the flexibility of those assets allows the Group to adapt to changing markets. TOTAL is one of the world's top ten integrated producers[1]. Its refining and petrochemicals operations are structured around six major integrated complexes (Port Arthur in the United States, Normandy and Antwerp in Europe, Jubail and Qatar in the Middle East and Daesan in South Korea), which provide opportunities for synergies and enhance value creation between those two businesses. The Antwerp facility is the Group's largest refining and petrochemicals complex in Europe.

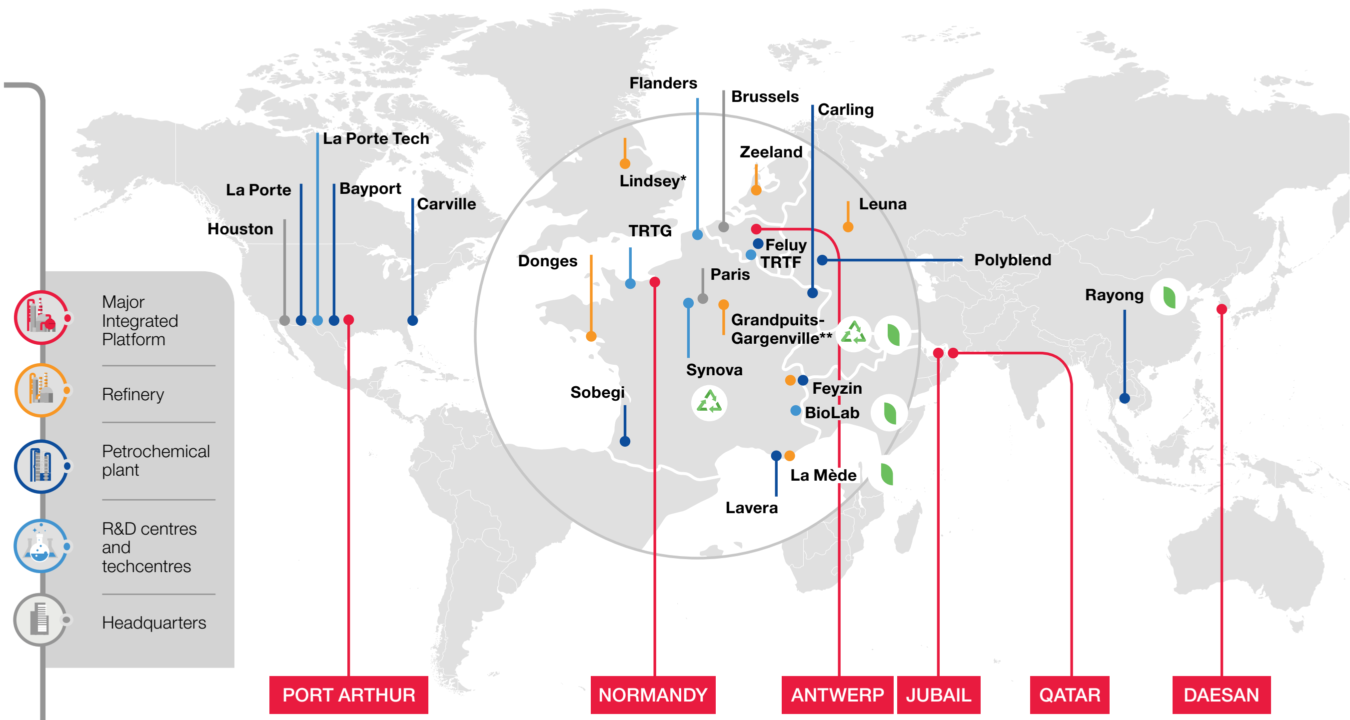
To meet a growing global demand and respond to market trends, the Group has upgraded and adapted its sites to focus production on higher-value-added products that meet the most stringent environmental standards. TOTAL has also invested in making its petrochemicals sites more flexible so they can use the most advantageous feedstocks. Most of those sites can now process both naphtha and ethane, to ensure a reliable, cost-competitive supply.

The La Mède biorefinery, the first world-class facility of its type in France and one of the largest in Europe[2], aims to meet the growing demand for biofuels. Operational as of July 2019, it has a capacity of 500,000 tons of HVO-type[3] biodiesel per year. The HVO technology the Group has selected is French, developed by IFP Énergies nouvelles and marketed by its Axens subsidiary. It produces a sustainable, premium biofuel similar to fossil fuels that can be blended into regular fuels in any proportion and has no adverse effect on engines.

TOTAL is ramping up its renewable power generation capacity – solar, wind and hydro – to satisfy the surge in electric power needs responsibly.

TOTAL confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030. At year-end 2020, gross renewable power generation capacity stood at 7 GW.

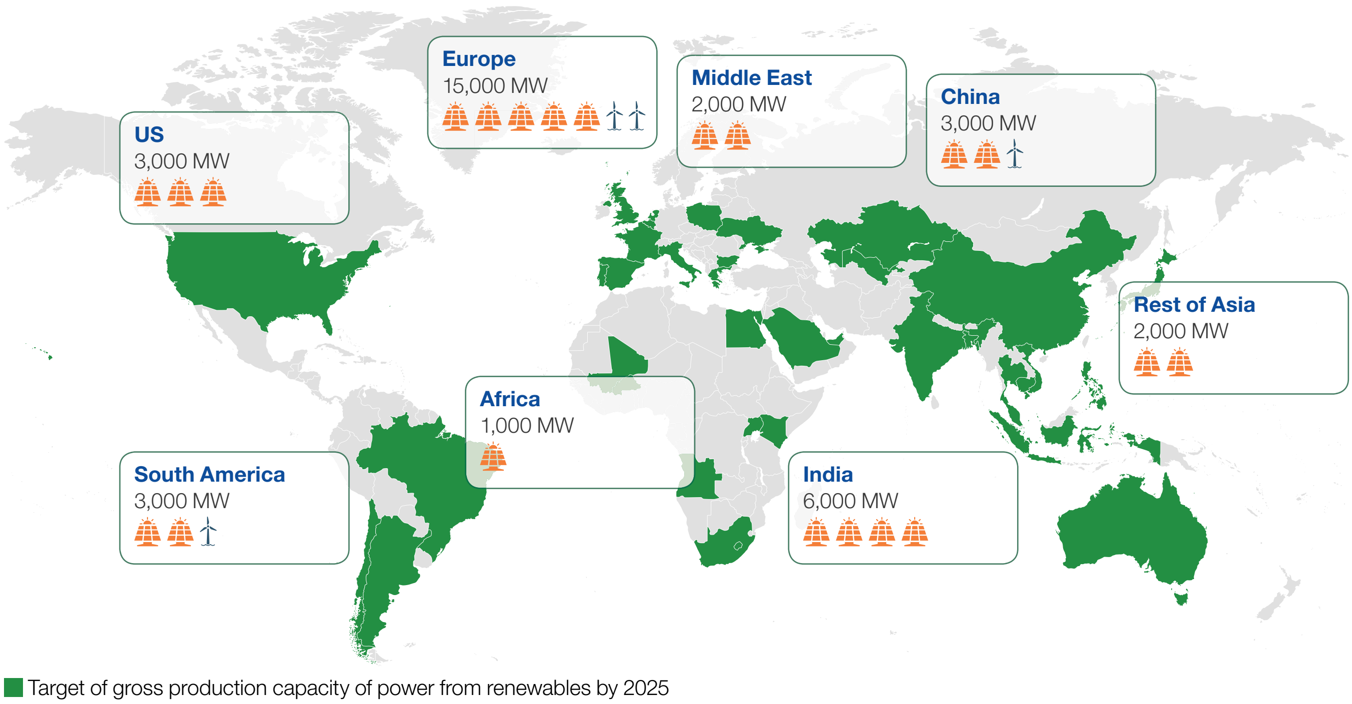
Main sites of refining and chemicals at year-end 2020



* sold at the end of February 2021
** planned conversion to zero-oil platform

(1) Based on publicly available information, production capacity at year-end 2019 (refer to point 2.4 of Chapter 2).
(2) Company data based on production capacity.
(3) Hydrotreated vegetable oil.

Global footprint for building a unique renewables portfolio



New regions rebalancing Group geopolitical profile

As part of its strategy to support its Climate ambition to get to Net Zero by 2050, TOTAL plans to convert its refinery in Grandpuits, France, into a zero-crude platform. By 2024, following an investment totaling more than €500 million, the complex will focus on four new industrial activities: production of renewable diesel primarily for the aviation industry, production of bioplastics, plastics recycling and operation of two photovoltaic solar power plants.

Moreover, the Group is moving ahead with projects to convert its deep offshore oil production complexes into offshore wind power platforms, a strategy that is wholly aligned with its goal of profitable growth in renewables and electricity.

TOTAL can also take specific steps to support the conversion of its industrial sites through additional projects that can be conducted at the same time:

- a Securing the Future project, led by the relevant segment based on an analysis of market trends, with the goal of modifying a given site's industrial infrastructure in order to restore a long-term competitiveness;
- a Voluntary Agreement for Economic and Social Development (CVDES), implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change.

1.6.4 A global footprint, with local roots

A global presence

TOTAL has an industrial and retail presence in more than 130 countries spanning five continents. Three regions in particular are the long-standing cornerstones of TOTAL's strategy: Europe, the Group's decision-making center; the Middle East, where TOTAL is recognized as a preferred partner among producing countries and national companies; and Africa, with its substantial oil and gas production and Group-branded service stations.

That global footprint yields the benefits that accrue from economies of scale for the Group's industrial, marketing and retail operations, and also ensures a detailed knowledge of end markets, giving TOTAL a competitive advantage in addressing the manifold needs of its customers worldwide.

Customer proximity across the world

To cement its strong bond with its customers – both businesses and consumers – the Group strives to focus on close, effective and direct customer relationships. Beyond its sales of products and services, TOTAL aims to draw on its retail networks to make its Group-branded service stations "true community hubs," with a comprehensive array of services for users that encompass every form of energy and respect the environment.

In its renewables and electricity businesses, TOTAL intends to become integrated across the entire value chain and develop direct, personalized relationships with business and residential customers alike through the use of digital technology.

TOTAL is recognized for its know-how in customer service. In 2020, its Consumer Services division captured the Best Customer Service of the Year award for the eleventh year in a row. Total Direct Energie has won the top prize at the Customer Relations Podium awards in 2018, 2019 and 2020 in the Service Provider category.

Sustainable value creation alongside regions and communities

TOTAL's success at building and expanding partnerships worldwide can also be attributed to its strategy of generating value at the local level as part of its growth model. That commitment – carried out systematically and professionally – is a major competitive asset. Whether they target continued growth in LNG or renewable power generation, the Group's partnerships with governments and local communities serve a critical function.

The Group maintains a comprehensive, integrated policy, rooted in dialogue with communities and public and private stakeholders, for supporting local growth and in-country value. It forges synergies among the various sources of value generation for host countries (employment, subcontracting, infrastructure, support for local industry, socioeconomic development projects, education, energy access, etc.) by capitalizing on the Group's industrial expertise. The Group intends to maintain this approach over the long term to ensure that its presence in these regions and the major projects it develops create shared prosperity.

The ability to cope with geopolitical uncertainty

In the face of political and geopolitical uncertainty, including tensions sparked by war and conflict, TOTAL intends to conduct its operations by leveraging its skills and expertise to benefit each host country, in compliance with applicable legislation and all international economic sanctions that may be in effect. The Group also ensures that the amount of capital invested in the most sensitive countries remains at a level that limits its exposure in each country. That is why the Group has, for example, chosen to continue investing in Russia while complying with the economic sanctions imposed by the United States and the European Union, but has halted operations in countries where conditions have become too risky, such as Yemen and Syria. Loyalty to its partners, particularly in circumstances such as these, is a trademark of the Group's activities.

1.6.5 An ongoing dialogue with our stakeholders

In TOTAL's view, dialogue with its internal and external stakeholders is essential for the Group to conduct its business responsibly and integrate the long-term challenges of sustainable development in its strategy and policies. That dialogue informs the Group's decision-making, by helping it identify the risks and impacts of its operations and, more generally, by providing greater insight into changing societal patterns and expectations. It is also a prerequisite to ensuring that the Group is firmly integrated in its host regions, as well as an effective tool for identifying ways to generate value at the local level.

The Group believes that transparency is an essential factor in building a trust-based relationship with its stakeholders and ensuring that the Group is on a path of continuous improvement. Pending the adoption of an international, standardized non-financial reporting framework, TOTAL is making every effort to report its performance on the basis of the various commonly used ESG reporting frameworks. As such, TOTAL refers to the Global Reporting Initiative (GRI) standards and those of the Sustainability Accounting Standards Board (SASB), for which detailed tables of correspondence are available at sustainable-performance.total.com. TOTAL's reporting also includes the World Economic Forum's core indicators[1] (refer to Chapter 11). Furthermore, it follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for its climate reporting. In order to make performance indicators available to all its stakeholders, TOTAL provides additional information at sustainable-performance.total.com, the website devoted to its sustainability commitments and policies.

For more than 15 years, TOTAL has structured its dialogue processes with its stakeholders at different levels of the company, through relays within the organization, requirements included in internal reference frameworks, the deployment of a methodology (SRM+) for conducting local dialogue and a dedicated attention to the professionalization of the teams responsible for fostering that dialogue.

Those measures are designed to develop a long-term, trust-based relationship founded on principles of respect, attentiveness, constructive dialogue, proactive engagement and transparency, consistent with the legitimate need for confidentiality as appropriate. They also ensure that stakeholder warnings or grievances can be gathered and addressed quickly and that potential controversial situations are defused.

Each group of stakeholders (employees, employee representatives, customers, investors, shareholders and the financial sector, government officials, suppliers, academics, NGOs and civil society, and the media) has a single point of contact at the corporate level, responsible for responding to their requests, keeping them informed and maintaining an ongoing dialogue in formats appropriate to each concern.

Moreover, the director of each of these points of contact sits on the Group's CSR coordination committee, which meets four times a year. At each session, the committee devotes a portion of its agenda to either discuss concerns expressed by stakeholders or to meet with one or more external stakeholders.

Those stakeholder liaisons also provide advice and support to Group subsidiaries as needed. The One MAESTRO framework provides that subsidiaries should conduct a stakeholder mapping and engage in a structured, ongoing process of dialogue with stakeholders to keep them informed, hear and address their concerns and expectations, report on mitigation actions or compensation, measure their satisfaction and identify ways the subsidiaries can improve their community outreach. This commitment to local dialogue puts special emphasis on residents and communities located near Group facilities.

The Group intends to pursue these initiatives and launch further projects in 2021 to create an even more strategic and proactive process of stakeholder relations, designed to help guide TOTAL's transformation into a multi-energy company and, more largely, offer concrete evidence that the Group is fully engaged in the challenges facing society.

(1) Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation, white paper, September 2020.

1.7 Our governance

1.7.1 A fully committed Board of Directors

A mobilised Board of Directors serving the Group's ambition

Composition as of March 17, 2021

13	1	80%	5.5 years	50%	4
directors	Lead Independent Director	independent directors(a)	average years of service on the Board	gender equality(b)	nationalities represented

(a) Excluding the director representing employee shareholders and the directors representing employees, pursuant to the recommendations of the AFEP-MEDEF Code (point 9.3). For more information, refer to point 4.1.1.4 in chapter 4.

(b) Excluding the directors representing employees pursuant to Article L. 22-10-7 (formerly L. 225-27-1) of the French Commercial Code, and the director representing employee shareholders pursuant to Article L. 22-10-5 (formerly L. 225-23) of the French Commercial Code.

Comprising 13 directors as of March 17, 2021, including eight independent members, the Board of Directors reflects the diversity and complementary experience, expertise, nationalities and cultures that are critical to addressing the interests of all of the Group's shareholders and stakeholders.

The Board of Directors defines TOTAL's strategic vision and supervises its implementation in accordance with its corporate interest, taking into consideration the social and environmental challenges of its business activities. It approves investments or divestments for amounts greater than 3% of shareholders' equity and it is informed of those greater than 1%. The Board may address any issue related to the company's operations. It monitors the management of both financial and non-financial matters and ensures the quality of the information provided to shareholders and financial markets.

The Board of Directors is assisted by the four committees it has created: Audit, Governance & Ethics, Compensation, and Strategy & CSR.

A unified management structure, tailored to the Group's requirements

Mr. Patrick Pouyanné has been Chairman and Chief Executive Officer of TOTAL SE since December 18, 2015. At the Board of Directors meeting of March 17, 2021, the Lead Independent Director indicated that the discussions held with the Governance and Ethics Committee in the best interests of the Company had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Company is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations.

More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Company in its strategic negotiations with States and partners of the Group.

The Lead Independent Director also recalled that the unity of the power to manage and represent the Company is also particularly well regulated by the Company's governance. The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of Procedures, which define the means and prerogatives of the Lead Independent Director, notably:

– in her relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
– in her contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the Directors and Committee Chairpersons;
– in her relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the Directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's internal rules provide that any investment or divestment transactions contemplated by the Group involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the company's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Company's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Company require.

The Lead Independent Director, reflecting a balanced distribution of power

Listening of investors and stakeholders, the Board of Directors pays special attention to the balance of power within the Group. It was for that reason that in 2015 the Board of Directors amended the provisions of its Rules of Procedure to provide for the appointment of a Lead Independent Director in the event that the positions of Chairman of the Board of Directors and Chief Executive Officer are combined.

The Lead Independent Director's duties, resources and prerogatives are set out in the Rules of Procedure of the Board. The Chairman and Chief Executive Officer and the Lead Independent Director are the shareholders' dedicated contacts on issues that fall within the remit of the Board of Directors. Since 2016, the Lead Independent Director has organized executive sessions with the independent directors so that they may discuss the Group's strategic challenges and working practices. The directors are also in regular contact with the members of the Group's management team, including members of the Executive Committee during Board meetings and operational managers during Group site visits. Through those interactions between directors and managers, the directors gain a practical understanding of the Group's activities.

The duties of the Lead Independent Director

Ensuring balanced governance

A compensation policy aligned with the Group's strategic objectives

The compensation awarded to the Chairman and Chief Executive Officer is indexed to key performance indicators used to measure the success of the Group's strategy.

In order to determine a compensation aligned with the Group's performance, the variable portion of the Chairman and Chief Executive Officer's compensation reflects both quantifiable targets (financial and HSE parameters) and qualitative criteria (personal contribution).

At its meeting on March 17, 2021, the Board of Directors decided to adapt the parameters for granting the variable portion of the Chairman and Chief Executive Officer in order to take into account the Company's transformation strategy towards carbon neutrality as well as its societal responsibilty in general and in particular diversity.

In view of the importance of climate change challenges, the Board of Directors had decided starting in 2019 to change the criteria for determining the variable portion of the Chairman and Chief Executive Officer's compensation for the year 2019, in part by applying a quantifiable criterion related to the change in GHG emissions (Scopes 1 & 2) on operated oil & gas facilities. This criterion supplemented those introduced since 2016 to reflect more closely the fulfillment of Corporate Social Responsibility (CSR) objectives and the Group's HSE targets.

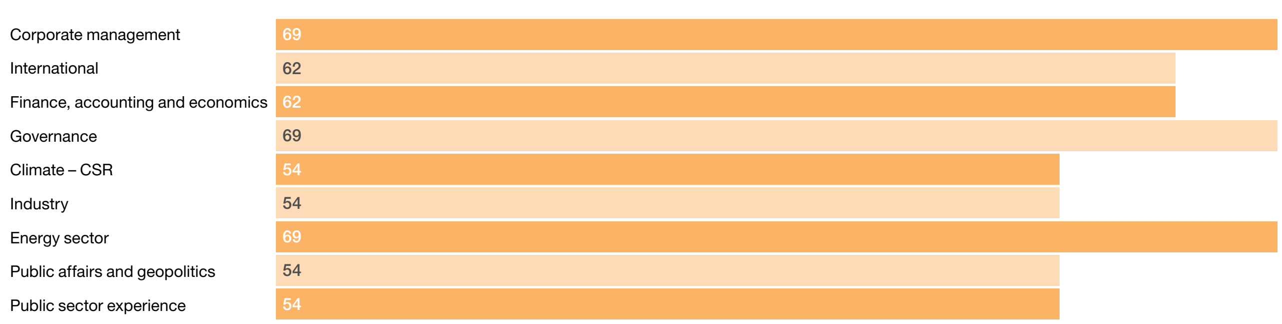
The granting of performance shares also include since 2020 a quantifiable criterion relating to the evolution of GHG emissions (Scopes 1 & 2) on oil & gas facilities operated by the Group. At its meeting on March 17, 2021, the Board of Directors also decided to introduce a new criterion to grant performance shares to the evolution of the indirect GHG emissions (Scope 3) related to the use by customers of energy products sold for end use (Scope 3) in Europe.

Collective expertise for tackling the strategic challenges facing the Group

The Governance & Ethics Committee operates in accordance with a formal procedure to ensure that the directors' areas of expertise are complementary and that their profiles are diverse, to maintain an overall proportion of independent members that is appropriate to the Company's governance structure and shareholder base, to obtain a balanced representation of women and men on the Board and to promote an appropriate representation of directors of different nationalities. Those principles govern the selection process for Board members.

As part of an effort that began several years ago, the composition of the Board of Directors has changed significantly since 2010 to achieve a better gender balance and to reflect openness to more international profiles.

Expertise of members of the Board of Directors *(%)*



Specialized committees for addressing the Group's strategic priorities

The responsibilities of the Board of Directors and its Committees are described in point 4.1.2 of chapter 4.

8 meetings of the Board of Directors 96.7% attendance rate	**1** executive session chaired by the Lead Independent Member	**7** meetings of the Audit Committee 100% attendance rate	**3** meetings of the Governance & Ethics Committee 100% attendance rate	**3** meetings of the Compensation Committee 83.3% attendance rate	**5** meetings of the Strategy & CSR Committee 100% attendance rate

Main activities of the Board of Directors in 2020

Major investments

- Information on investments in India with the Adani Group
- Acquisition in BtC marketing of gas and electricity in Spain
- Approval of the planned Mero 3 investment in Brazil
- Approval of the development project in Uganda

Audit/Risks

- Complete revision of the Group risk mapping
- Preparation of the process for appointing/renewing the statutory auditors for the 2022 Annual Shareholders' Meeting

Strategy – CSR

- Group action plan for the health crisis and oil crisis
- New Group Climate Ambition, with a review of exceptional asset impairment (review of short-term price profile and climate ambition / review of stranded assets
- Strategic vision and five-year plan – Strategic seminar on climate challenges and what they mean for the Group's strategy
- One Total, Better Together, the human dimension of the Group's ambition

Governance

- Transformation of TOTAL into a European company (*Societas Europaea* or SE) and modification of the internal rules and regulations
- Appointment of the new Lead Independent Member and Renewal of the membership of the Board of Directors, with two directors serving as employee representatives
- Preparation for the Annual Shareholders' Meeting, held behind closed door as a result of the COVID-19 pandemic
- Succession plan
- Diversity and gender balance policy
- Internal procedure for evaluating regulated agreements and ordinary agreements entered into under normal conditions

Compensation

- Determination of the compensation for the Chairman and Chief Executive Officer and Board members for the 2019 fiscal year
- Policy governing compensation for the Chairman and Chief Executive Officer and Board members for the 2020 fiscal year
- Decision by the management structures to reduce their variable compensation in the light of the health and oil crises
- 2020 performance action plan
- Preservation of the 2020 capital increase reserved for employees

1.7.2 An Executive Committee entrusted with implementing the Group's strategy

The Executive Committee, led by the Chairman & Chief Executive Officer, is TOTAL's primary decision-making body.

It implements the strategic vision defined by the Board of Directors and authorizes the corresponding capital expenditures, subject to the Board of Directors' approval for investments exceeding 3% of shareholders' equity and any significant transaction outside the scope of the company's stated strategy, and subject to the Board's review for investments involving amounts exceeding 1% of shareholders' equity.

In 2020 the Executive Committee met on at least two occasions each month except in the months of August and November, when it met only once.

1.7.3 An operational structure built around the Group's major business segments

As of December 31, 2020, the Group's organization was based on four business segments:

- an Integrated Gas, Renewables & Power segment comprising the integrated gas value chain (including upstream and midstream LNG activities), renewables and electricity;
- an Exploration & Production segment that encompasses oil and gas exploration and production operations in more than 50 countries;
- a Refining & Chemicals segment that represents a major production hub encompassing refining, petrochemicals and specialty chemicals. This segment also handles oil supply and trading activities and shipping;
- a Marketing & Services segment that includes marketing activities for petroleum products as well as the related supply and logistics operations.

The various corporate entities are primarily grouped into two hubs:

- Strategy & Innovation, which includes the Strategy & Climate division (responsible for incorporating climate into the Group's strategy), Public Affairs, Audit & Internal Control, Research & Development (which coordinates all of the Group's R&D activities, including cross-functional programs), Technology Experts and Corporate Digital.
- People & Social Responsibility, which comprises the Human Resources division; Health, Safety & Environment, which includes the central HSE departments for each segment, tasked with establishing a strong, consistent safety and environmental model; and the Security and Civil Society Engagement divisions.

TOTAL SE is the Group's parent company. It acts as a holding company and drives the Group's strategy.

The Group's operations are conducted through subsidiaries that are directly or indirectly owned by TOTAL SE and through interests in joint ventures that are not necessarily controlled by TOTAL. TOTAL SE has three secondary establishments in France, located in Lacq, Pau and Paris. It also has branch offices in the United Arab Emirates and Oman.

Corporate name: TOTAL SE

Headquarters: 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France

Registered in Nanterre: RCS 542 051 180

LEI (Legal Entity Identifier): 529900S21EQ1BO4ESM68

EC Registration Number: FR 59 542 051 180

Date of incorporation: March 28, 1924

Term of the Company: extended for 99 years from March 22, 2000

Fiscal year: from January 1 to December 31 of each year

APE Code (NAF): 7010Z

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The scope of consolidation of TOTAL SE as of December 31, 2020, consisted of 1,118 companies, including 146 equity companies. The principles of consolidation are described in Note 1.1 to the Consolidated Financial Statements and the list of companies included in the scope of consolidation can be found in Note 18 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

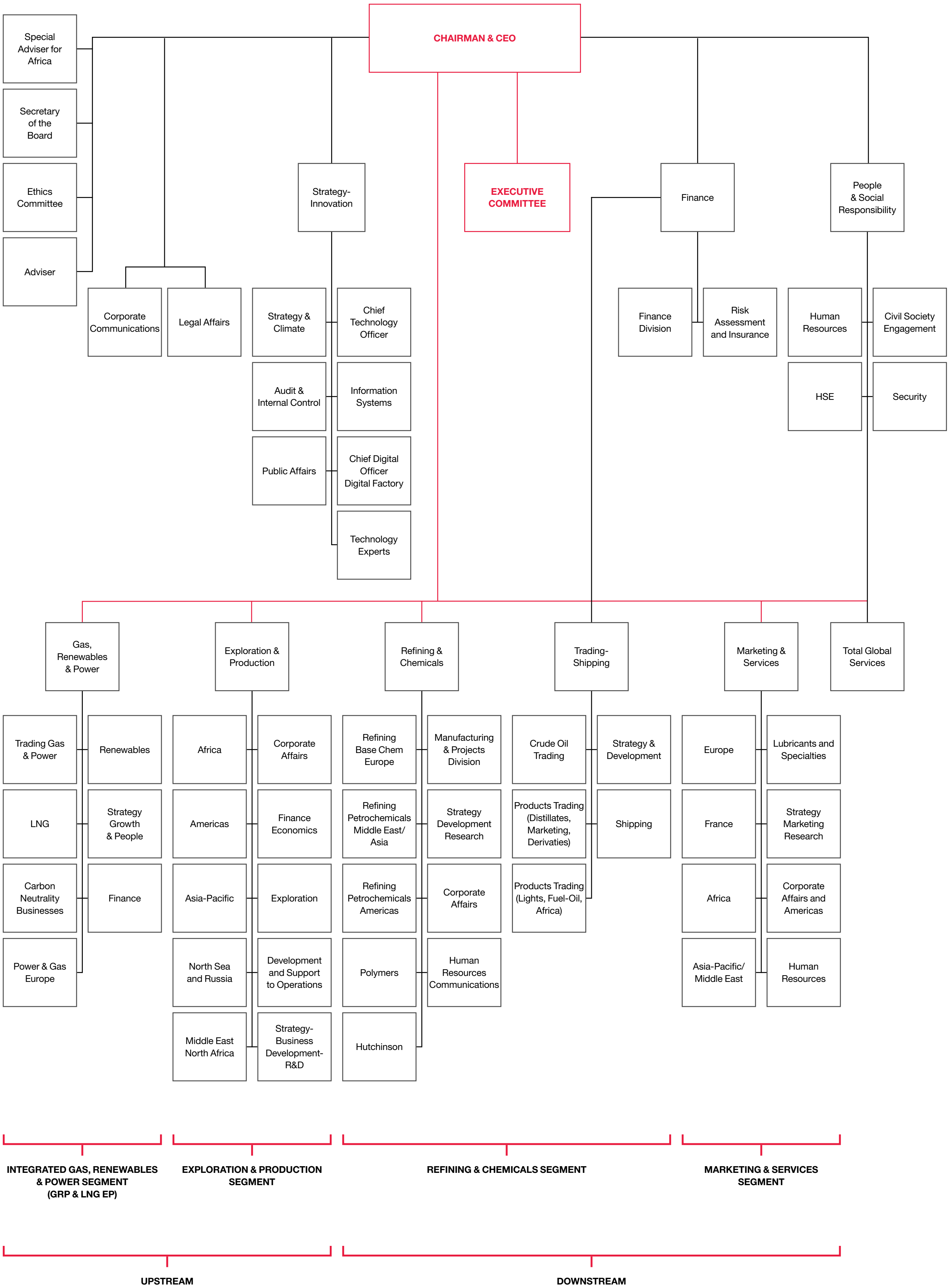
The situation of the direct subsidiaries and shareholdings of TOTAL SE, and in particular those with a gross value exceeding 1% of the Company's share capital, is shown in the table of subsidiaries and interests in point 10.4.1 of chapter 10.

TOTAL holds interests in a limited number of companies that issue financial instruments in France or abroad or whose financial instruments are listed in France or abroad. These companies are mainly the Group's financing vehicles (Total Capital, Total Capital International, Total Capital Canada Ltd) or the operational subsidiaries in its business segments, in particular in Africa, such as Total Gabon(1). TOTAL also holds an interest in SunPower (51.61% on December 31, 2020), an American company listed on NASDAQ, and minority interests in other companies, including PAO Novatek (19.4% as of December 31, 2020), a Russian company listed on the Moscow Interbank Currency Exchange and the London Stock Exchange.

The changes in the composition of the Group during fiscal year 2020 are explained in Note 2 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). During fiscal year 2020, TOTAL SE, the Group's parent company, has not acquired any interest in companies with their registered office in France representing more than one twentieth, one tenth, one fifth, one third or one half of the capital of these companies or obtained control of such companies.

(1) Total Gabon is a company under Gabonese law, listed on Euronext Paris. TOTAL holds 58.28%, the Republic of Gabon holds 25% and the public holds 16.72%.

Organization chart as of December 31, 2020



1.7.4 Risk management system

TOTAL implements a comprehensive risk management system that is an essential factor in the deployment of its strategy based on responsible risk-taking. This system relies on an organization at Group level and in the business segments, on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of TOTAL's goals as well as the management systems.

The Executive Committee is responsible for identifying and analyzing internal and external risks that could affect the Group's fulfillment of its objectives, aided by the Group Risk Management Committee (GRMC), which ensures that the Group has mapped its risk exposure and that its risk management processes, procedures and systems are efficient. The current mapping of the Group's risk was established in November 2019.

The GRMC relies on the work carried out by the business segments and functional divisions, which concurrently establish their own risk mapping. The business segments are responsible for defining and implementing a risk management policy suited to their specific activities. However, the handling of certain cross-functional risks is more closely coordinated by the respective functional divisions.

Regarding commitments, General Management exercises operational control over TOTAL's activities through the Executive Committee's approval of investments and expenses that exceed defined thresholds. The Risk Committee (CORISK) is tasked with reviewing these projects in advance, and in particular with verifying the analysis of the various associated risks.

The Board of Directors' Audit Committee is responsible for monitoring the effectiveness of the risk management systems as well as of the internal audit. The audit plan, based on an analysis of risks and the risk management systems, is submitted annually to the Executive Committee and the Audit Committee.

For a detailed description of how the internal control and risk management procedures are structured, refer to point 3.3 of chapter 3.

1.8 Our performance

1.8.1 Financial performance

1.8.1.1 Overview of the 2020 fiscal year

TOTAL faced two major crises in 2020: the COVID-19 pandemic that severely affected global energy demand, and the oil crisis that drove the Brent price below $20 per barrel in the second quarter. In this particularly difficult context, the Group implemented an immediate action plan and proved its resilience thanks to the quality of its portfolio (production cost of $5.1 per boe, the lowest among its peers) and its integrated model with cash flow (DACF)(1) generation of nearly $18 billion. It posted adjusted net income of $4.1 billion and, thanks to strong discipline on investments ($13 billion, down 26%) and costs ($1.1 billion in savings), the organic cash breakeven was $26 per barrel. Consistent with its climate ambition, the Group recorded exceptional asset impairments, notably on Canadian oil sands assets, most of which were recorded in its accounts at the end of June 2020, leading to an IFRS loss result in for the year of $7.2 billion.

2020 represents a pivotal year for the Group's strategy with the announcement of its ambition to get to Net Zero, together with society. The Group affirms its plan to transform itself into a broad energy company to meet the dual challenge of the energy transition: more energy, less emissions. Thus, the Group's profile will be transformed over the 2020-30 decade: the growth of energy production will be based on two pillars, LNG and Renewables & Electricity, while oil products are expected to fall from 55% to 30% of sales. To anchor this transformation, the Group will propose to its shareholders at the General Meeting on May 28, 2021, changing its name to TotalEnergies, giving thus the opportunity to endorse this strategy and the underlying ambition to transition to carbon neutrality.

In 2020, TOTAL secured its investments in Renewables & Electricity ($2 billion) and accelerated the implementation of its strategy to grow renewables, adding 10 GW to its portfolio. With the acquisition at the start of 2021 of a 20% stake in Adani Green Energy Limited (AGEL), one of the largest solar developers in the world, and of portfolios of projects in the United States, the Group now has a portfolio of gross installed capacity, under construction and in development of 35 GW by 2025 with more than 20 GW already benefiting from long-term power purchase agreements.

TOTAL preserves its financial strength with a gearing of 21.7%(2) at the end of 2020. Confident in the Group's fundamentals, the Board of Directors confirms its policy of supporting the dividend through economic cycles. Therefore, it will propose at the General Meeting of Shareholders on May 28, 2021, the distribution of a final dividend of €0.66 per share, equal to the previous three quarters, and set the dividend for 2020 at €2.64 per share.

"TOTAL resists crisis and accelerates its transformation."
Jean-Pierre Sbraire, Chief Financial Officer

(1) DACF = Debt adjusted cash flow, is defined as operating cash flow before working capital changes and without financial charges.
(2) Excluding lease commitments.

2020 Group results

Consolidated data in millions of dollars, except for earnings per share, dividends, number of shares and percentages.

(in $M)	2020	2019	2018
Adjusted net operating income from business segments[(a)]	6,404	14,554	15,997
Net income (Group share)	(7,242)	11,267	11,446
Adjusted net income (Group share)[(a)]	4,059	11,828	13,559
Fully diluted weighted-average shares *(millions)*[(b)]	2,602	2,618	2,624
Adjusted fully diluted earnings per share *(dollars)*[(a)(c)]	1.43	4.38	5.05
Dividend per share *(euros)*[(d)]	2.64	2.68	2.56
Gearing ratio[(e)] (as of December 31) excluding the impact of leases	21.7%	16.7%	14.3%
Return on average capital employed (ROACE)[(f)]	4.0%	9.8%	11.8%
Return on equity (ROE)	3.7%	10.4%	12.2%
Net investments[(g)]	12,989	17,449	15,568
Organic investments[(h)]	10,339	13,397	12,427
Net acquisitions[(i)]	2,650	4,052	3,141
Operating cash flow before working capital changes[(j)]	15,697	26,111	24,293
Operating cash flow before working capital changes w/o financial charges (DACF)[(k)]	17,635	28,180	25,831
Cash flow from operating activities	14,803	24,685	24,703

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes in fair value. (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).
(b) In 2020, the effect generated by the grant of TOTAL performance shares and by the capital increase reserved for employees (19,007,836 shares) is anti-dilutive. In accordance with IAS 33, the weighted-average number of diluted shares is therefore equal to the weighted-average number of shares.
(c) Based on fully diluted weighted-average number of common shares outstanding during the fiscal year. In accordance with IFRS standards, adjusted fully diluted earnings per share is calculated from the adjusted net income less the perpetual subordinated bond.
(d) 2020 dividend subject to approval at the Annual Shareholders' Meeting on May 28, 2021.
(e) Net Debt excluding lease commitments/(Net debt excluding lease commitments + shareholders' equity, Group share + Non-controlling interests).
(f) Based on adjusted net operating income and average capital employed at replacement cost (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).
(g) Net investments = organic investments + net acquisitions.
(h) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(i) Net acquisitions = acquisitions - assets sales - other transactions with non-controlling interest.
(j) Operating cash flow before working capital changes is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020). The inventory valuation effect is explained in Note 3 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). 2018 and 2019 data restated.
(k) DACF = debt adjusted cash flow, defined as operating cash flow before working capital changes and without financial charges.

Market environment parameters	2020	2019	2018
Exchange rate €-$	1.14	1.12	1.18
Brent *($/b)*	41.8	64.2	71.3
Henry Hub *($/Mbtu)*	2.1	2.5	3.1
NBP *($/Mbtu)**	3.3	4.9	7.9
JKM *($/Mbtu)***	4.4	5.5	9.7
Average price of liquids *($/b)****	37.0	59.8	64.3
Average price of gas *($/Mbtu)****	2.96	3.88	4.87
Average price of LNG *($/Mbtu)*****	4.83	6.31	–
Variable cost margin – Refining Europe, MCV *($/t)*	11.5	34.9	38.2

* NBP (National Balancing Point) is a virtual natural gas trading point in the United Kingdom for transferring rights in respect of physical gas and which is widely used as a price benchmark for the natural gas markets in Europe. NBP is operated by National Grid Gas plc, the operator of the UK transmission network.
** JKM (Japan-Korea Marker) measures the prices of spot LNG trades in Asia. It is based on prices reported in spot market trades and/or bids and offers collected after the close of the Asian trading day at 16:30 Singapore time.
*** Consolidated subsidiaries.
**** Consolidated subsidiaries and equity affiliates.

Hydrocarbon production	2020	2019	2018
Combined production *(kboe/d)*	2,871	3,014	2,775
Oil (including bitumen) *(kb/d)*	1,298	1,431	1,378
Gas (including Condensates and associated NGL) *(kboe/d)*	1,573	1,583	1,397

Hydrocarbon production	2020	2019	2018
Combined production (kboe/d)	2,871	3,014	2,775
Liquids *(kb/d)**	1,543	1,672	1,566
Gas *(Mcf/d)***	7,246	7,309	6,599

* Including condensate and NGLs, associated to the gas production.
** 2019 data restated.

Hydrocarbon production was 2,871 kboe/d for the year 2020, a decrease of 5% compared to 2019, due to:
– -5% due to compliance with OPEC+ quotas, notably in Nigeria, the United Arab Emirates and Kazakhstan, as well as voluntary reductions in Canada and disruptions in Libya.
– +5% due to the ramp-up of recently started projects, notably Culzean in the United Kingdom, Johan Sverdrup in Norway, Iara in Brazil, Tempa Rossa in Italy and North Russkoye in Russia.
– -3% due to the natural decline of fields.
– -2% due to maintenance, and unplanned outages, notably in Norway.

Adjustments items to net income[(a)] (Group share) *($M)*	2020	2019	2018
Special items affecting net income (Group share)	(10,044)	(892)	(1,731)
Gain (loss) on asset sales	104	–	(16)
Restructuring charges	(364)	(58)	(138)
Impairments	(8,465)	(465)	(1,595)
Other	(1,319)	(369)	18
Effect of changes in fair value	23	(15)	38
After-tax inventory effect (FIFO vs. replacement cost)	(1,280)	346	(420)
TOTAL ADJUSTMENTS AFFECTING NET INCOME (GROUP SHARE)	**(11,301)**	**(561)**	**(2,113)**

(a) For details on adjustments to operating income, refer to Note 3C to the Consolidated Financial Statements (point 8.7 of chapter 8).

The total net income adjustments were -$11,301 million in 2020, including $8.5 billion of impairments, notably on oil sands assets in Canada.

Adjusted net operating income from the business segments

The adjusted net operating income from the business segments was $6,404 million in 2020, down 56% compared to 2019 due to the decreases in Brent, natural gas prices and refining margins.

Adjusted net income (Group share)

The adjusted net income was $4,059 million in 2020, down 66% compared to 2019 due to the decrease in adjusted net operating income of the segments. Adjusted net income excludes the after-tax inventory effect, special items and the impact of effects of changes in fair value.

Acquisitions – asset sales

Acquisitions completed were $4,189 million in 2020, linked notably to the acquisition in India of 50% of a portfolio of installed solar activities from Adani Green Energy Limited, the finalization of the acquisition of 37.4% stake in Adani Gas Ltd, the acquisition of interests in Blocks 20 and 21 in Angola, the payment for a second bonus tranche linked to taking the 10% stake in the Arctic LNG 2 project in Russia, the acquisition of Tullow's entire interest in the Lake Albert project in Uganda, and the acquisition of CCGT assets and of a portfolio of customers from Energías de Portugal in Spain.

Assets sales completed were $1,539 million in 2020, linked notably to the sale of non-strategic assets in the UK North Sea, closing the sale of Block CA1 in Brunei, the sale of the Group's interest in the Fos Cavaou regasification terminal in France, the sale of 50% of a portfolio of solar and wind assets from Total Quadran in France, the sale of Enphase shares by SunPower and the sale of the Group's corporate offices in Brussels.

Profitability

The return on equity was 3.7% for the twelve months ended December 31, 2020.

(in millions of dollars)	January 1, 2020 to December 31, 2020	January 1, 2019 to December 31, 2019
Adjusted net income	4,067	12,090
Average adjusted shareholders' equity	110,643	116,766
Return on equity (RoE)	**3.7%**	**10.4%**

The return on average capital employed was 4.0% for the twelve months ended December 31, 2020.

(in millions of dollars)	January 1, 2020 to December 31, 2020	January 1, 2019 to December 31, 2019
Adjusted net operating income	5,806	14,073
Average capital employed	145,723	143,674
Return on average capital employed[(a)] (ROACE)	**4.0%**	**9.8%**

(a) Based on adjusted net operating income and average capital employed at replacement cost (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).

Integrated Gas, Renewables & Power segment results

Hydrocarbon production and LNG sales

Hydrocarbon production	**2020**	**2019**	**2018**
IGRP *(kboe/d)*	530	560	381
Liquids (including bitumen) *(kb/d)**	69	71	39
Gas *(Mcf/d)***	2,519	2,656	1,875

* Including condensate and NGLs, associated to the gas production.
** 2019 data restated.

	2020	**2019**	**2018**
Overall LNG sales *(Mt)*	38.3	34.3	21.8
Including sales from equity production*	17.6	16.3	11.1
Including sales by TOTAL from equity production and third party purchases	31.1	27.9	17.1

* The Group's equity production may be sold by TOTAL or by the joint-ventures.

Hydrocarbon production for LNG in 2020 decreased by 5% compared to a year ago, notably due to the shutdown of Snøhvit LNG following a fire at the end of September 2020.

Total LNG sales increased by 12% in 2020 compared to 2019 thanks to the start-up of three trains at Cameron LNG in the United States, the ramp-up of Yamal LNG in Russia and Ichthys LNG in Australia and the increase in trading activities.

Renewables and electricity

	2020	**2019**	**2018**
Gross renewables installed capacity *(GW)*[(a)]	**7.0**	**3.0**	**1.7**
Gross renewables installed or in development capacity with PPA *(GW)*[(a)]	**17.5**		
Net power production *(TWh)*[(b)]	14.1	11.4	6.4
including power production from renewables (TWh)	4.0	2.0	1.0
Clients power – BtB and BtC *(millions)*[(a)]	5.6	4.1	3.6
Clients gas – BtB and BtC *(millions)*[(a)]	2.7	1.7	1.5
Sales power – BtB and BtC *(TWh)*	47.3	46.0	31.0
Sales gas – BtB and BtC *(TWh)*	95.8	95.0	88.4

(a) Capacity at end of period.
(b) Solar, wind, biogas, hydroelectric and combined-cycle gas turbine (CCGT) plants.

Gross installed renewable power generation capacity more than doubled during the year to reach 7 GW at the end of the fourth quarter, notably thanks to the acquisition in India of 50% of a 3 GWp portfolio from the Adani Group.

The Group continues to implement its strategy to integrate along the electricity and gas chain in Europe and has increased the number of its electricity and gas customers by 1.5 million and 1 million, respectively, notably thanks to the finalization of the acquisition in the fourth quarter of a portfolio of customers from Energías de Portugal in Spain.

Results *(in millions of dollars)*	**2020**	**2019**	**2018**
Adjusted net operating income[(a)]	1,778	2,389	2,419
Organic investments[(b)]	2,720	2,259	1,745
Net acquisitions	2,183	3,921	1,701
Net investments	4,903	6,180	3,445
Operating cash flow before working capital changes w/o financial charges (DACF)[(c)]	3,418	3,409	1,819
Cash flow from operating activities[(d)]	2,129	3,461	596

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes in fair value (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).
(b) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(c) DACF = debt adjusted cash flow. The operating cash flow before working capital changes without financial charges of the segment is defined as a cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020), and without financial charges except those related to leases. 2018 and 2019 restated.
(d) Excluding financial charges, except those related to leases.

Operating cash flow before working capital changes for the iGRP segment was stable in 2020 compared to the previous year at $3,418 million.

Adjusted net operating income was $1,778 million for 2020, a decrease of 26% for the year, mainly due to the decrease in the LNG price.

Exploration & Production segment results

Hydrocarbon production	2020	2019	2018
EP *(kboe/d)*	2,341	2,454	2,394
Liquids *(kb/d)**	1,474	1,601	1,527
Gas *(Mcf/d)*	4,727	4,653	4,724

* Including condensate and NGLs, associated to the gas production.

Results *(in millions of dollars)*	2020	2019	2018
Adjusted net operating income[(a)]	2,363	7,509	8,547
Organic investments[(b)]	5,519	8,635	7,953
Net acquisitions	544	14	2,162
Net investments	6,063	8,649	10,115
Operating cash flow before working capital changes w/o financial charges (DACF)[(c)]	9,684	18,030	17,832
Cash flow from operating activities[(d)]	9,922	16,917	18,537

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes in fair value (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).
(b) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(c) DACF = debt adjusted cash flow. The operating cash flow before working capital changes without financial charges of the segment is defined as a cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases.
(d) Excluding financial charges, except those related to leases.

The operating cash flow before working capital changes was $9,684 million in 2020, a decrease of 46% year-on-year.

Exploration & Production adjusted net operating income was $2,363 million in 2020, a decrease linked mainly to the strong decrease of Brent prices and to the decrease of the production.

Refining & Chemicals segment results

Operational data[(a)]	2020	2019	2018
Total refinery throughput *(kb/d)*	1,292	1,671	1,852

(a) Includes refineries in Africa that are reported in the Marketing & Services segment.

Refinery throughput decreased by 23% in 2020 year-on-year mainly due to high inventories of refined products and the drop in demand which notably led to the economic shutdown of the Donges refinery, as well as the prolonged shutdown of the distillation unit at the Normandy platform following the incident that occurred at the end of 2019.

Results *(in millions of dollars)*	2020	2019	2018
Adjusted net operating income[(a)]	1,039	3,003	3,379
Organic investments[(b)]	1,209	1,426	1,604
Net acquisitions	(54)	(44)	(742)
Net investments	1,155	1,382	862
Operating cash flow before working capital changes w/o financial charges (DACF)[(c)]	2,472	4,072	4,388
Cash flow from operating activities[(d)]	2,438	3,837	4,308

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes in fair value (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).
(b) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(c) DACF = debt adjusted cash flow. The operating cash flow before working capital changes without financial charges of the segment is defined as a cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases.
(d) Excluding financial charges, except those related to leases.

Adjusted net operating income for the Refining & Chemicals segment was down 65% year-on-year to $1,039 million in 2020, due to refining margin deterioration, partially offset by resilient petrochemical margins and outperformance of the trading activities.

Operating cash flow before working capital changes fell to $2,472 million in 2020, down by 39%.

Marketing & Services segment results

Operational data[a]	2020	2019	2018
Petroleum product sales *(kb/d)*	1,477	1,845	1,801

(a) Excludes trading and bulk Refining sales.

Petroleum product sales volumes decreased by 20% in 2020 compared to 2019, in response to the significant slowdown in global activity related to the COVID-19 pandemic. Aviation and marine activities remain severely affected in this context; however, the decline in retail sales was mitigated by network growth in Angola, Saudi Arabia, Brazil and Mexico.

Results *(in millions of dollars)*	2020	2019	2018
Adjusted net operating income[a]	1,224	1,653	1,652
Organic investments[b]	814	969	1,010
Net acquisitions	86	162	20
Net investments	900	1,131	1,030
Operating cash flow before working capital changes w/o financial charges (DACF)[c]	2,180	2,546	2,156
Cash flow from operating activities[d]	2,101	2,604	2,759

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes in fair value (refer to Note 3 to the Consolidated Financial Statements, point 8.7 of chapter 8).
(b) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(c) DACF = debt adjusted cash flow. The operating cash flow before working capital changes without financial charges of the segment is defined as a cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases.
(d) Excluding financial charges, except those related to leases.

The adjusted net operating income was $1,224 million in 2020, down 26% essentially due to lower volumes.

Operating cash flow before working capital changes was $2,180 million in 2020, a decrease of 14%, compared to 2019.

TOTAL SE 2020 results

Net income for TOTAL SE, the parent company, was 7,238 million euros in 2020 compared to 7,039 million euros in 2019.

Proposed dividend

The Board of Directors met on February 8, 2021, and decided to propose to the Shareholders' Meeting, which will be held on May 28, 2021, the distribution of a final dividend of €0.66 per share for fiscal year 2020, stable compared to the three interim dividends paid for fiscal year 2020.

Given the three interim dividends of €0.66 per share previously decided by the Board of Directors, the annual dividend for the fiscal year 2020 will amount to 2.64 €/share.

Shareholder return policy

At its meeting of September 23, 2019, the Board of Directors reviewed the outlook for the Group through 2025 and noted the Group's ability to maintain a sustainable pre-dividend breakeven below $30/b and a solid financial position with a gearing objective below 20% (excluding lease commitments). The Board of Directors noted that the Group delivering on its strategy for sustainable and profitable growth in oil and gas activities, as well as investing in growing energy markets, notably LNG and low-carbon electricity, provided stronger visibility on the future of the Group, reflected by a projected increase in cash flow of more than $5 billion by 2025 with a price of $60/b, equal to an average increase of around $1 billion per year. Consequently, the Board of Directors decided to accelerate dividend growth, with guidance of increasing the dividend by 5 to 6% per year so as to reflect the anticipated growth of cash flows in an environment at $60/b.

At its meeting on May 4, 2020, in light of the economic crisis created by the COVID-19 pandemic, but also in view of the Group's solid fundamentals, the Board of Directors decided to maintain the final dividend for 2019 as announced on February 5, 2020, while proposing to the Annual Shareholders' Meeting of May 29, 2020 to put in place the option to receive the final 2019 dividend in shares. The Board also decided to suspend the dividend growth policy for 2020 and thus set the 2020 first interim dividend at €0.66 per share, at the same level as the 2019 first interim dividend. At its meeting on July 29, 2020, the Board of Directors maintained the second interim dividend for 2020 at €0.66 per share and reaffirmed its sustainability in a 40 $/b Brent environment. On October 29, 2020, it confirmed the third interim dividend payment maintained at €0.66 per share and reaffirmed its sustainability in a context of $40/b, particularly in view of the results of the third quarter. Finally, at its meeting on February 8, 2021, the Board confirmed its policy of supporting the dividend through economic cycles and proposed the distribution of a final dividend for 2020 of €0.66 per share, the same amount as for the previous three quarters, setting the dividend for 2020 at €2.64 per share.

Furthermore, on February 7, 2018, the Board of Directors decided within the framework of the shareholder return policy that the Group would buy back the following shares in order the cancel all shares issued within the framework of the scrip dividend payment, with no discount as well as the Company's shares in an amount of up to $5 billion over the period from 2018 to 2020 in an environment at $60/b. At year-end 2019, the Group bought back shares for a total amount of $3.2 billion within the framework of the share buybacks announced in February 2018 which may amount up to $5 billion over the 2018-2020 period.

In respect of fiscal year 2020, the Group announced share buybacks in an amount of $2 billion in an environment at $60/b. Having bought back shares in an amount of $0.55 billion in the first quarter of 2020, it announced the suspension of share buybacks by the Company on March 23, 2020, against the backdrop of the COVID-19 pandemic and an oil price of around $30/b.

1.8.1.2 Liquidity and capital resources

Long-term and short-term capital

Long-term capital as of December 31, *(M$)*	2020	2019	2018
Shareholders' equity	106,085	119,305	118,114
Non-current financial debt	60,203	47,773	40,129
Non-current financial assets	(4,781)	(912)	(680)
TOTAL NET NON-CURRENT CAPITAL	**161,507**	**166,166**	**157,563**

Short-term capital as of December 31, *(M$)*	2020	2019	2018
Current financial debt	17,099	14,819	13,306
Net current financial assets	(4,427)	(3,505)	(3,176)
NET CURRENT FINANCIAL DEBT	**12,672**	**11,314**	**10,130**
Cash and cash equivalents	(31,268)	(27,352)	(27,907)

Cash flow

(M$)	2020	2019	2018
Cash flow from operations	14,803	24,685	24,703
Gross investments	(15,534)	(19,237)	(22,185)
Total divestments	2,455	2,060	7,239
Other operations with non-controlling interests	(204)	10	(622)
NET CASH FLOW AFTER WORKING CAPITAL CHANGES	**1,520**	**7,518**	**9,135**
Dividends paid[a]	(6,872)	(6,756)	(5,010)
Share buybacks	(611)	(2,810)	(4,328)
Net-debt-to-capital ratio at December 31[b]	21.7%	16.7%	14.3%

(a) Including dividends paid to non-controlling minority interests.
(b) Net debt excluding lease commitments/(Net debt excluding lease commitments + shareholders' equity Group share + Non-controlling interests).

The Group's net cash flow after working capital changes was $1,520 million compared to $7,518 million in 2019. This variation is mainly due to the decrease by $10.4 billion of the operating cash flow before working capital changes, partially offset by a decrease in net investments of $4.5 billion. The Group's gearing ratio excluding leases amounted to 21.7% as of December 31, 2020.

Borrowing requirements and funding structure

The Group's policy consists in incurring long-term debt at a floating or fixed rate, depending on the Group's general corporate needs and the interest rate environment at the time of issue, mainly in dollars or euros. Long-term interest rate and currency swaps may be entered into for the purpose of hedging bonds at the time of issuance, synthetically resulting in the incurrence of variable or fixed rate debt. In order to partially alter the interest rate exposure of its long-term indebtedness, TOTAL may also enter into long-term interest rate swaps on an *ad hoc* basis.

Long-term financial indebtedness is generally raised by central corporate treasury entities either directly in dollars or euros, or in other currencies exchanged for dollars or euros through currency swaps at issuance, in accordance with the Group's general corporate needs.

As of December 31, 2020, the Group's long-term financial debt, after taking into account the effect of currency and interest rate swaps, was 88% in US dollars and 37% at floating rates; as of December 31, 2019, these ratios were 92% and 42%, respectively.

In addition to its ongoing bond issuance activity, TOTAL SE issued perpetual subordinated notes in several tranches in 2015, 2016, 2019 and 2020: on February 19, 2015, €5 billion in two tranches; on May 11, 2016, €1.75 billion in one tranche; on September 29, 2016, €2.5 billion in two tranches. In April 2019, TOTAL SE conducted an early partial refinancing of some of its perpetual subordinated notes, following which the global outstanding amount of such notes remained unchanged. The transaction consisted in the issuance of €1.5 billion of new perpetual subordinated notes coupled with the partial repurchase of some of the perpetual subordinated notes issued in 2015, for a similar amount. In September 2020, TOTAL SE conducted an early partial refinancing of some of its perpetual subordinated notes. The transaction consisted in the issuance of €1 billion of new perpetual subordinated notes coupled with the partial repurchase of circa €703 million of the perpetual subordinated notes issued in 2015. At the end of the transaction, the new nominal value of the repurchased tranche amounted to €297 million and the total outstanding amount of undated subordinated notes increased temporarily by €297 million. This residual amount was repaid in full in February 2021 on its first call option date. Furthermore, in January 2021, TOTAL SE issued €3 billion of perpetual subordinated notes in two tranches.

In accordance with IAS 32 provisions "Financial instruments – Presentation" and given their characteristics (notably the absence of mandatory repayment and no obligation to pay a coupon except under certain circumstances specified into the documentation of the notes) the perpetual subordinated notes issued by TOTAL SE were accounted for as equity.

In addition, on November 25, 2015, TOTAL SE issued a $1.2 billion instrument combining cash-settled convertible bonds indexed on TOTAL's share performance with the purchase of stock options hedging the economic risk related to such indexation. The combined instrument is effectively a non-dilutive synthetic issuance equivalent to a standard bond. At maturity, all flows will be settled in cash and limited to the nominal amount.

The Group has established standards for market transactions under which any banking counterparty must be approved in advance, based on an assessment of the counterparty's financial solidity (multi-criteria analysis including notably a review of its Credit Default Swap (CDS) level, credit ratings from Standard & Poor's and Moody's, which must be of high standing, and general financial situation).

An overall credit limit is set for each authorised financial counterparty and is allocated amongst the affiliates and the Group's central treasury entities, according to the Group's financial needs.

In addition, to reduce market valuation risk on its commitments, the Treasury Division has entered into margin call agreements with its counterparties in compliance with applicable regulations. Moreover, since December 21, 2018, pursuant to Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate swap (excluding cross currency swaps) entered into by a Group's entity is centrally cleared.

External financing available

As of December 31, 2020, the aggregate amount of the main committed credit facilities granted by international banks to the Group's companies (including TOTAL SE) was $16,282 million (compared to $12,961 million as of December 31, 2019), of which $11,808 million was unutilised (compared to $12,406 million unutilised as of December 31, 2019).

TOTAL SE has committed credit facilities granted by international banks allowing it to benefit from significant liquidity reserves. As of December 31, 2020, these credit facilities amounted to $14,902 million (compared to $11,585 million as of December 31, 2019), of which $11,256 million was unutilised (compared to $11,585 million unutilised as of December 31, 2019).

The agreements underpinning credit facilities granted to TOTAL SE do not contain conditions related to the Company's financial ratios, to its credit ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position.

Credit facilities granted to the Group's companies other than TOTAL SE are not intended to fund the Group's general corporate purposes; they are intended to fund either general corporate purposes of the borrowing affiliate, or a specific project.

As of December 31, 2020, no restrictions applied to the use of the Group companies' funding sources (including TOTAL SE) that could significantly impact the Group's activities, directly or indirectly. For information on the international economic sanctions, refer to point 3.2 of chapter 3.

Anticipated sources of financing

Investments, working capital, dividend payments and buybacks of its own shares by the Company are financed by cash flow from operations, asset disposals and, if necessary, by net borrowings.

For the coming years and based on the current financing conditions, the Company intends to maintain this policy with respect to the financing of the Group's investments and activities.

1.8.1.3 Trends and outlook

Outlook

Supported by OPEC+ quota compliance, oil prices have remained above $50/b since the beginning of 2021. However, the oil environment remains uncertain and dependent on the recovery of global demand, still affected by the COVID-19 pandemic.

In a context of disciplined OPEC+ quota implementation, the Group anticipates 2021 production will be stable compared to 2020, benefiting from the resumption of production in Libya.

The Group continues its profitable growth in LNG with sales expected to increase by 10% in 2021 compared to 2020, notably due to the ramp-up of Cameron LNG.

European refining margins remain fragile, with low demand for jet fuel weighing on the recovery of distillates. However, thanks to the resilience of Marketing & Services, the Group expects Downstream to contribute more than $5 billion of cash flow in 2021, assuming refining margins of $25/t.

Faced with uncertainties in the environment, net investments are projected at $12 billion in 2021, while preserving the flexibility to mobilize additional investments should the oil and gas environment strengthen. After reducing operating costs by $1.1 billion in 2020 compared to 2019, the Group maintains strong discipline on spending and targets additional savings of $0.5 billion in 2021.

The Group's teams are fully committed to the four priorities of HSE, operational excellence, cost reduction and cash flow generation.

The Group maintains its priorities for cash flow allocation: investing in profitable projects to implement the Group's transformation strategy, support the dividend and maintain a strong balance sheet.

Already in 2021, in renewables, the Group has announced more than 10 GW of additional projects through the acquisition of a 20% stake in Adani Green Energy Limited (AGEL), one of the world's leading solar developers, a partnership with Hanwha in the United States with a 1.6 GW portfolio, and the acquisition of a 2.2 GW portfolio of projects in Texas. TOTAL is expected to allocate in 2021 more than 20% of its net investments to Renewables and Electricity.

Risks and uncertainties

Due to the nature of its business, the Group's activities remain subject to the market risks (sensitivity to the environmental parameters of the oil and financial markets), industrial and environmental risks related to its operations, and to political or geopolitical risks stemming from the global presence of most of its activities.

Detailed information is given in the Risk Factors section (point 3.1 of chapter 3) of this Universal Registration Document. For more information on internal control and risk management procedures, also refer to point 3.3 of chapter 3.

1.8.1.4 Significant changes

Significant changes in the Group's financial and commercial situation since December 31, 2020, the closing date of the last financial year for which audited financial statements have been published by the Company, are those mentioned above in point 1.8.1.3, in the Business overview (chapter 2), and in the description of legal and arbitration procedures (point 3.5 of chapter 3).

1.8.2 Our sustainability ambitions and targets

A process of continuous improvement

In 2015, the United Nations and its member States adopted the 17 Sustainable Development Goals (SDGs), which define a framework for the years to 2030 for addressing the global issues of poverty, protection of the planet, peace and prosperity. On the strength of their financial resources and capacity for innovation, businesses are called to contribute in furthering that agenda as a means of collectively addressing the challenges of sustainable development. TOTAL pledged in 2016 its support to contribute to the achievement of the SDGs, and has designed its sustainability framework so as to make a genuinely significant contribution to that joint effort.

TOTAL therefore considers the SDGs as an opportunity to better measure and assess its contribution to society as a whole. With the intend to focus its efforts on the segments where it is most legitimate as an integrated multi-energy group, TOTAL has identified the SDGs on which it can have the greatest impact, in accordance with its *raison d'être* and its ambition to reach carbon neutrality (net zero emissions) by 2050. In addition, TOTAL intends to conduct its activities with respect for the environment and human rights, while creating value for the regions and communities with which it interacts. The Group has therefore built its sustainability approach on four areas of action:

– **the integration of climate into its strategy**, because energy production and consumption are intrinsically linked to the challenge of climate change. As an actor of the energy transition, TOTAL is transforming itself into a multi-energy company, aiding society's efforts to build a carbon-neutral future by acting on its emissions, on its products and on demand and all while promoting the development of carbon sinks;
– **preservation of the environment**, because the Group's management of its operations depends on its ability to access selected natural resources, but also because TOTAL's activities can both have an impact on the environment and ecosystems and help preserve the most sensitive areas. This is the reason why TOTAL has adopted in 2020 a new biodiversity ambition so as to contribute to the protection of the nature on which humanity depends;
– **respect and mobilization of employees and suppliers**, because with over 100,000 employees and a network of more than 100,000 suppliers, TOTAL can play an influential role across its value chain with the aim to promote respect for dignity and human rights for all;
– **contribution to economic development in its host regions**, because the Group's businesses generate wealth. It must be shared over time with the Group's stakeholders and help fight inequality.

Business ethics commitments

TOTAL operates in many different countries with disparate and complex economic, social and cultural environments, where governments and civil society have especially high expectations of the Group as an exemplar. Within this context, the Group strives to act as an agent for positive change in society by helping to promote ethical principles in every region where it operates.

Accordingly, TOTAL is committed to respecting internationally recognized human rights wherever the Group operates, especially the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labor Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

The Group also refrains from resorting to artificial or aggressive tax planning and in particular is committed not to create subsidiaries in countries generally acknowledged as tax havens and to repatriate or liquidate existing subsidiaries, where feasible.

Lastly, the Group is fully committed to fighting corruption and has adopted a policy of zero tolerance in that area.

In addition to that commitment, it lends active support to initiatives promoting greater transparency. TOTAL publishes in its Registration Document an annual report covering the payments made by the Group's extractive companies (fully consolidated entities) to governments and the full list of its consolidated entities, together with their countries of incorporation and operations. TOTAL is also disclosing a first report based on the new EITI (Extractive Industries Transparency Initiative) guidelines of November 2020 designed to promote transparency in the trade of raw materials. In accordance with the EITI framework, of which it has been a member since 2002, TOTAL advocates for the public disclose by countries of their Petroleum contracts and licenses.

Volunteering program

In 2018, the Group introduced a worldwide employee community volunteering program called Action!, designed to give its employees the time and opportunity to do more to foster development in its host regions. Action! lets volunteer employees devote up to three workdays a year to community projects that fall within the scope of the Total Foundation program.

As of December 31, 2020, the program had been introduced in 63 countries, and more than 9,300 projects had been carried out since the program's launch.

Targets and progress indicators

Whether with regard to safety, health, climate, the environment or shared growth, TOTAL manages its operations with the aim of working in a sustainable, active and positive manner in all of its host countries. The Group was one of the first in the industry to publish measurable improvement targets in these areas.

Safety/Health

For TOTAL, being the company of responsible energies, first and foremost, ensuring the safety of its employees, stakeholders and facilities. It also means protecting the health of all those related directly or indirectly to its activities.

Safety

Target	Facts
To be recognized as a benchmark for safety in its industry and achieve zero fatalities	A **TRIR**[1] of **0.74** in 2020, comparable with industry peers 1 fatality in 2020

Health

Target	Facts
Protect the health of employees, customers and communities in close proximity to the Group's activities	**97%** of employees with specific occupational risks received regular medical monitoring in 2020[2]

(1) TRIR (Total Recordable Injury Rate): number of recorded injuries per million hours worked.
(2) Data provided by the WHRS.

Environment

The Group places the environment at the heart of its ambition of being a responsible company with a goal to improve the environmental performance of its facilities and products.

Air

Target	Facts
Decrease SO_2[3] emissions into the air by **50%** between 2010 and 2020	SO_2 emissions into the air reduced by more than **50%** since 2017

Water

Target	Facts
Maintain the hydrocarbon content of water discharges below **30 mg/l** for offshore sites and below **15 mg/l** for onshore and coastal sites	**100%** of the Group's oil sites have met the target for the quality of onshore discharges since 2016 **100%** of the Group's oil sites met the target for the quality of offshore discharges in 2020

Waste

Target	Facts
Recycle more than **50%** of the waste from Group-operated sites	More than **50%** of the waste produced by Group-operated sites was recycled in 2020

(3) SO_2: sulfur dioxide.

Biodiversity

Commitments	Facts
Not conducting oil and gas exploration or production operations in the area of natural sites listed on the UNESCO World Heritage List	No oil and gas exploration or production activity in the area of natural sites listed on the UNESCO World Heritage List
Not conducting exploration in oil fields under sea ice in the Arctic	No exploration activity in oil fields under sea ice in the Arctic
Systematically develop biodiversity action plans for projects located in protected areas[4]	**6** biodiversity action plans deployed or in preparation in 2020
Deploy systematically biodiversity action plans on existing sites which are major for the environment	**14** biodiversity diagnostics exercises expected in 2022 with pilot diagnostics done in 2021
Promote biodiversity and share biodiversity data of the Group	Total Foundation supports the IUCN's public interest initiative Blue Natural Capital Financing Facility BNCFF Share of biodiversity data on 2 projects on the international platform Global Biodiversity Information Facility (GBIF). Data downloaded by researchers more than 400 times in 2020, with a total of 84,000 single data views, and in mid-2020 this data was already cited in three scientific publications

(4) Sites located in an IUCN I to IV or Ramsar convention protected area.

Climate

Targets	Facts
2030 targets for oil & gas operations worldwide (Scopes 1 & 2)	
Reduce GHG emissions (Scopes 1 & 2) on the Group's operated oil & gas facilities of 46 Mt CO_2e in 2015 to less than **40 Mt CO_2e** by 2025 (a 15% decrease). By 2030, the target is a reduction of at least 40% of the net emissions[(1)] compared to 2015 for its operated oil & gas activities	A GHG emission reduction (Scopes 1 & 2) of the operated oil & gas facilities from 46 Mt CO_2e to **35.8 Mt CO_2e** (39 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020
Reduce routine flaring[(2)] by **80%** on operated facilities between 2010 and 2020 in order to eliminate it by 2030	More than **90%** reduction in routine flaring between 2010 and 2020
Improve by an average of **1%** per year the energy efficiency of the Group's operated facilities since 2010	**10%** improvement in energy efficiency between 2010 and 2020
Maintain the intensity of methane emissions for Upstream hydrocarbons activities below **0.2%** of commercial gas produced at all operated oil and gas facilities, and below **0.1%** of commercial gas produced on operated gas facilities	Methane intensity for Upstream hydrocarbons activities of **0.15%** of commercial gas produced for operated oil and gas facilities in 2020, and of less than **0.1%** for operated gas facilities
Maintain the intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities under **20 kg CO_2e/boe**	An intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities of **18 kg CO_2e/boe** in 2020
2030 worldwide targets (Scope 3)	
Reduce the average carbon intensity of the energy products used by its customers worldwide by more than **20%** between 2015, the date of the Paris Agreement, and 2030 (Scopes 1, 2, 3)	A decrease of the carbon intensity of **10%** (8% excluding COVID-19 effect) between 2015 and 2020
Achieve in 2030, a level of worldwide emissions (Scope 3)[(3)] lower in absolute terms than in 2015	
2030 Europe target (Scopes 1, 2, 3)	
Reduce by at least **30%** by 2030 the indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3)[(4)] in Europe[(5)] in absolute terms compared to 2015. This 30% reduction target is extended to all the Scopes 1, 2, 3 emissions in Europe	A reduction of indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3) in Europe from 256 Mt CO_2e to **190 Mt CO_2e** (215 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020 A decrease in GHG emissions (Scopes 1, 2, 3) in Europe of **24%** (12% excluding COVID-19 effect) between 2015 and 2020

Diversity/Gender Balance

Targets	Facts
Women to account for **30%** of Executive Committee members and of G70[(6)] by 2025	**25%** of Executive Committee members and **24.7%** of G70 are women
Women to account for more than **20%** of Management Committee members in the business segments and large functional divisions by 2020 and **30%** by 2025	**27%** of Management Committee members in the business segments and large functional divisions are women
Women to account for **25%** of senior executives by 2020 and **30%** by 2025	**25.7%** of senior executives are women
Women to account for more than **20%** of Management Committee members (headquarters and subsidiaries) by 2020 and **30%** by 2025	**23.5%** of Management Committee members (headquarters and subsidiaries) are women
Women to account for **30%** of senior managers by 2025	**18.2%** of senior managers are women
Non-French nationals to account for **40%** of senior executives by 2020 and for **45%** by 2025	**36.3%** of senior executives are non-French nationals
Local managers to account for between **55%** to **75%** of Management Committee members in subsidiaries by 2025	**57.9%** of local managers are Management Committee members in subsidiaries
Non-French nationals to account for **40%** of senior managers by 2025	**32%** of senior managers are non-French nationals

(1) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.
(2) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(3) Indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3).
(4) The volumes taken into account include liquid products sold by Marketing & Services and Refining bulk sales (oil products, biofuels), sales of LNG from shares of production of TOTAL, as well as commercial sales of natural gas by iGRP.
(5) Europe refers to the European Union, Norway, the United Kingdom and Switzerland.
(6) Senior executives with the most important responsibilities.

TOTAL's sustainability policy and the Sustainable Development Goals

17 PARTNERSHIPS FOR THE GOALS

INTEGRATING CLIMATE INTO THE STRATEGY

- Growing in gas (natural gas, biogas and hydrogen)
- Developing a profitable low-carbon electricity business
- Reducing emissions at TOTAL's facilities, promoting both sparing oil use and sustainable biofuels
- Investing in businesses that will help achieve carbon neutrality

PRESERVING THE ENVIRONMENT

- Limiting environmental footprint
- Developing the circular economy
- Manage impacts to biodiversity (avoid-reduce-restore-compensate policy)

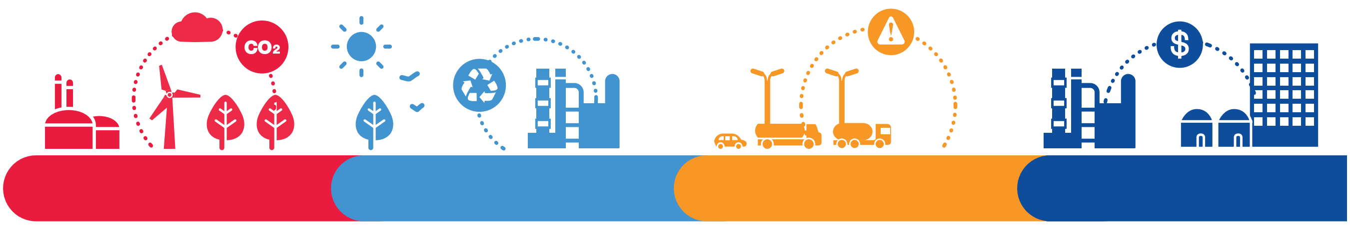
RESPECTING AND MOBILISING EMPLOYEES SUPPLIERS

- Preventing risks related to people's safety
- Respecting human rights and promoting them in the supply chain
- Developing each individual's talents and promoting diversity

CONTRIBUTING TO THE ECONOMIC DEVELOPMENT OF HOST REGIONS

- Fighting corruption and tax evasion
- Promoting local socioeconomic development
- Getting involved in host regions notably through *Total Foundation*

	Integrating climate into the strategy	Preserving the environment	Respecting and mobilising employees suppliers	Contributing to the economic development of host regions
TOTAL's core contributions through its mission	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE		8 DECENT WORK AND ECONOMIC GROWTH	
Direct contributions through a responsible business approach		12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 14 LIFE BELOW WATER; 15 LIFE ON LAND	3 GOOD HEALTH AND WELL-BEING; 4 QUALITY EDUCATION; 5 GENDER EQUALITY	10 REDUCED INEQUALITIES; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
Indirect contributions	11 SUSTAINABLE CITIES AND COMMUNITIES	6 CLEAN WATER AND SANITATION		1 NO POVERTY; 2 ZERO HUNGER



2

Business overview for fiscal year 2020

2.1 Integrated Gas, Renewables & Power segment

Total's strategy aims to transform itself into a broad energy company by profitably growing energy production from LNG and electricity, the two fastest growing energy markets. The Integrated Gas, Renewables & Power (iGRP) segment is driving the Group's ambition in the activities of the integrated gas and electricity chains, as well as the activities that contribute to carbon neutrality. The execution of a profitable growth strategy in these promising businesses is helping to achieve the Group's ambition to get to Net Zero by 2050 together with society.

$3.4 B
DACF[1] in 2020

38.3 Mt
LNG volumes sold in 2020

7 GW
gross installed capacity of renewable power generation

8.3 M
number of sites for gas and electricity sales of which 85% for BtC

$4.9 B
of net investments in 2020

$2.0 B
of net investments in renewables and electricity in 2020

Hydrocarbon production and LNG sales

Hydrocarbon production	2020	2019	2018
IGRP *(kboe/d)*	530	560	381
Liquids *(kb/d)*[a]	69	71	39
Gas *(Mcf/d)*[b]	2,519	2,656	1,875

LNG *(Mt)*	2020	2019	2018
Overall LNG sales	38.3	34.3	21.8
Including sales from equity production[c]	17.6	16.3	11.1
Including sales by TOTAL from equity production and third party purchases	31.1	27.9	17.1

(a) Including condensate and NGLs, associated to the gas production.
(b) 2019 data restated.
(c) The Group's equity production may be sold by TOTAL or by joint-ventures.

Total LNG sales increased by 12% in 2020 compared to 2019 thanks to the start-up of three trains at Cameron LNG in the United States, the ramp-up of Yamal LNG in Russia and Ichthys LNG in Australia and the increase in trading activities.

Renewables and electricity

	2020	2019	2018
Solar *(GW)*	5.6	1.6	1.0
Wind *(GW)*	1.3	1.3	0.7
Biogas and hydroelectricity *(GW)*	0.1	0.1	0.0
Gross renewables installed capacity *(GW)*[a]	**7.0**	**3.0**	**1.7**
Gross renewables installed or in development capacity with PPA *(GW)*[a]	**17.5**		
Combined-cycle gas power plants – Europe *(GW)*[b]	3.6	1.9	1.9
Combined-cycle gas power plants – Rest of the world (Taweelah, UAE) *(GW)*	1.6	1.6	1.6
Net power production *(TWh)*[c]	14.1	11.4	6.4
Including power production from renewables (TWh)	4.0	2.0	1.0
Clients power – BtB and BtC *(millions)*[a]	5.6	4.1	3.6
Clients gas – BtB and BtC *(millions)*[a]	2.7	1.7	1.5
Sales power – BtB and BtC *(TWh)*	47.3	46.0	31.0
Sales gas – BtB and BtC *(TWh)*	95.8	95.0	88.4

(a) Capacity at end of period.
(b) Including Normandy refinery cogeneration unit, part of Refining & Chemicals.
(c) Solar, wind, biogas, hydroelectric and combined-cycle gas turbine (CCGT) plants.

(1) DACF = debt adjusted cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020), without financial charges except those related to leases.

Gross installed renewable power generation capacity more than doubled during the year to reach 7 GW at the end of the fourth quarter of 2020, notably thanks to the acquisition in India of 50% of a 3 GWp portfolio from the Adani group.

The Group continues to implement its strategy to integrate along the electricity and gas chain in Europe and has increased the number of its electricity and gas customers by 1.5 million and 1 million, respectively, notably thanks to the finalization of the acquisition in the fourth quarter of 2020 of a portfolio of customers from Energías de Portugal in Spain.

Integrated Gas, Renewables & Power segment financial data[1]

(in $M)	2020	2019	2018
Adjusted net operating income[a]	1,778	2,389	2,419
Operating cash flow before working capital changes w/o financial charges (DACF)[b]	3,418	3,408	1,819
Cash flow from operations[c]	2,129	3,461	596

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes for fair value.
(b) DACF = debt adjusted cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020), without financial charges except those related to leases. 2018 and 2019 data restated.
(c) Excluding financial charges, except those related to leases.

Adjusted net operating income was $1,778 million in 2020, a decrease of 26% for the year, mainly due to the decrease in the LNG price.

For the year, operating cash flow before working capital changes was stable in 2020 compared to the previous year at $3,418 million.

2.1.1 Presentation of the segment

TOTAL integrates the challenges of climate change in its strategy and seeks to anticipate the changes those challenges imply for the energy markets. Accordingly, it is taking steps to adapt its business portfolio over time with the aim of becoming a broad energy company, by ensuring profitable growth in its energy production (including electricity) from liquefied natural gas and electricity, the two fastest growing markets. Over the next decade, TOTAL's energy production is expected to grow by one third, from about 17 to 23 PJ/d[2] (*i.e.,* about the equivalent of 3 to 4 Mboe/d of which about 500 kboe/d of electricity). Half of that growth will come from electricity, primarily from renewable sources, and the other half from LNG.

In this way, the Group plans to pursue a strategy of profitable growth in businesses of the future, from natural gas, power and renewable energies to energy storage and carbon neutrality, and these will serve as the Group's growth drivers.

In **LNG** activities, TOTAL aims to capitalize fully on its second-place position worldwide[3] obtained following the acquisition of Engie's LNG assets in 2018. That acquisition strengthened TOTAL's positions in the production of LNG, increased the number of long-term purchase and sales agreements and the Group's regasification capacity, particularly in Europe, and added a fleet of LNG ships, thereby offering more flexibility to its portfolio. The Group intends to pursue further growth in its integrated positions across the entire value chain and to boost its sales of LNG to 50 Mt/y by 2025, notably by drawing on supplies from assets in which the Group is a shareholder, especially in the United States and over the longer term in Russia (Arctic 2 LNG) and Mozambique.

To support its ambition, after having increased its LNG activity in the United States in 2019 through the acquisition of a 2 Mt/y LNG portfolio from Toshiba, in February 2020, TOTAL finalized its acquisition of 37.4% of Adani Gas Limited, one of India's leading local distributors of natural gas.

In **renewables and electricity**, TOTAL is implementing a differentiated geographic strategy and expanding along the entire value chain. In Europe, its strategy relies on building an integrated position in electricity through its active presence in the value chain from power generation to marketing activities.

As part of that strategy, in 2020, TOTAL finalized its acquisition from EPH of two combined-cycle natural gas power plants in France. The Group has also cemented its position in generating and supplying electricity and natural gas in Spain through its acquisition of a portfolio of 2 million residential customers from Energías de Portugal, along with two combined-cycle natural gas power plants with a total capacity of nearly 850 megawatts. This transaction reinforced the Group's integration in Spain after the acquisition of a portfolio of renewable energy projects offering nearly 2 GW of capacity to be developed.

Early 2021, TOTAL acquired a 20% minority interest in Adani Green Energy Limited (AGEL), a company incorporated in India. The investment in AGEL is another step in the strategic alliance between Adani Group and TOTAL, which covers investments in LNG terminals, gas utility business, and renewable assets across India.

The Group relies on its subsidiaries Total Quadran (for France), Total Solar International and Total Solar Distributed Generation and on its stake in Total Eren to increase its renewable power generation capacity (solar and onshore wind).

TOTAL aims to become a global leader in renewable energy. In 2020, the Group accelerated its growth by announcing solar and offshore wind projects totaling 10 GW. In 2020, the Group accelerated its growth announcing solar and offshore wind projects totaling 10 GW. The Group confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 (of which more than 20 GW already benefit from long-term power purchase agreements). TOTAL will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030.

TOTAL is also committed, via its Saft affiliate, to expand its capacities in stationary electricity storage in order to support the growth in renewable energies, which are intermittent by nature.

In addition, TOTAL is active in the marketing of electricity and natural gas in Europe, the trading of electricity and natural gas as well as trading of liquefied petroleum gas (LPG), petcoke and sulfur.

Lastly, TOTAL is developing technological solutions and commercial offerings that contribute to carbon neutrality. Besides all actions carried out concerning the reduction of GHG emissions, TOTAL plans to diversify its operations and offset their footprint through carbon sinks. The Group is investing in two major categories of carbon sinks: natural sinks, such as forests, regenerative agriculture and wetlands, and carbon capture, utilization and storage (CCUS).

(1) The data for the 2018 financial year have been restated to take into account the change in the organization of the Group that has been fully effective since January 1, 2019.
(2) PJ: petajoules.
(3) Second largest private firm. Source: WoodMackenzie: TOTAL LNG Corporate Report 2020 published in November 2020.

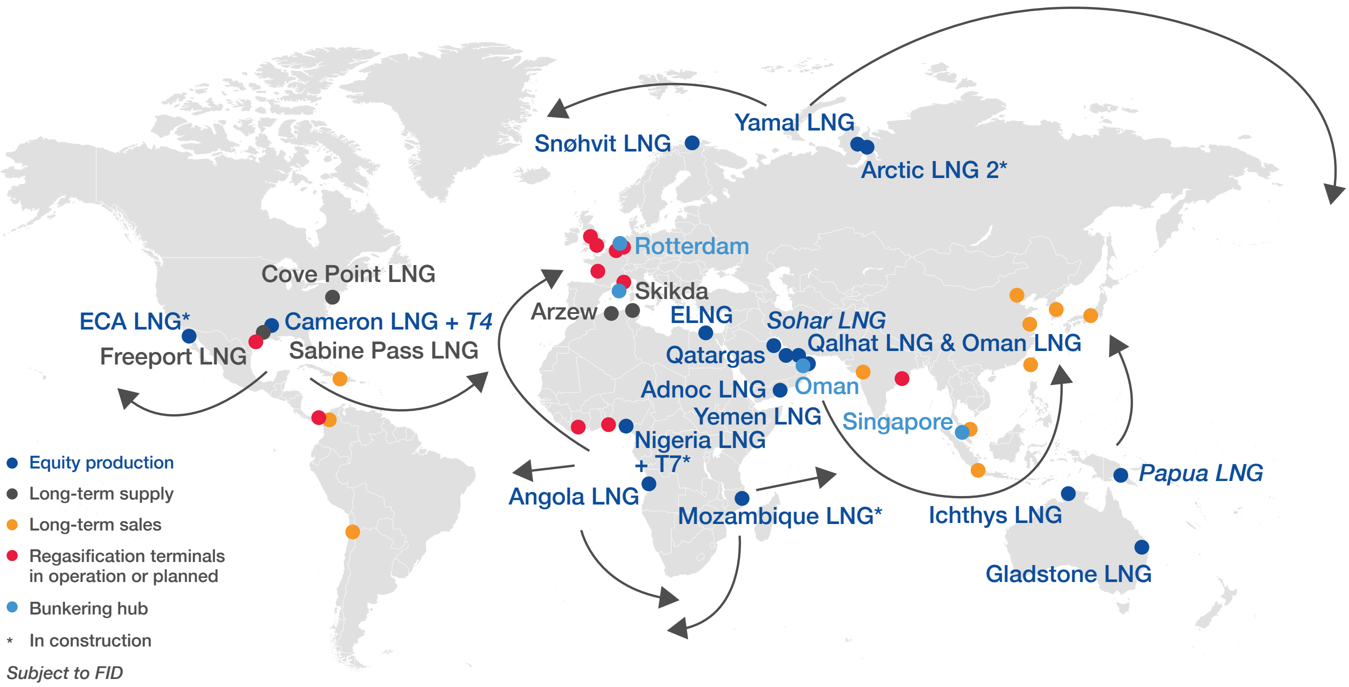
2.1.2 LNG

As a pioneer in the LNG industry thanks to its solid, diversified positions, TOTAL has become the world's second largest private supplier of LNG, with a global portfolio of nearly 40 Mt/y and global market share of about 10% in 2020. The Group plans to continue its development of an integrated value chain in LNG, which is a key component of its strategy. The LNG market has grown by more than 10% per year between 2015 and 2019 and by around 3% in 2020 supported by the switch from coal to gas. By 2025, the Group LNG production is expected to grow by more than 10 Mt/y compared to 2020, notably thanks to projects already sanctioned, such as Arctic LNG 2, Mozambique LNG, Nigeria LNG Train 7 and ECA LNG in Mexico. LNG sales are expected to reach 50 Mt/y.

TOTAL has strengthened its presence across that entire chain, from upstream activities, thanks mainly to its interests in liquefaction plants located in the major production areas, to midstream activities, such as transport, regasification and trading culminating in distribution to end customers. The Group continues to enter new LNG markets by developing Floating Storage and Regasification Unit (FSRU) projects in emerging countries, such as Benin, where an agreement was signed in July 2019.

LNG sold by the Group across worldwide markets comes in part from shares of LNG production held either in natural deposits of gas and condensates or in liquefaction plants of which the Group is a shareholder (refer to point 2.1.2.1 of this chapter). It also comes to a lesser extent from agreements concluded with third parties in which the Group does not hold an interest (refer to point 2.1.2.2 of this chapter).

LNG global portfolio



2.1.2.1 Production and liquefaction of LNG by the Group

In 2020, the start-up of three trains at Cameron LNG in the United States coupled with the ramp-up of Yamal LNG in Russia and Ichthys LNG in Australia enabled steady growth in the Group's production of LNG. The Group's share of LNG production stood at 17.6 Mt in 2020, compared to 16.3 Mt in 2019 and 11.1 Mt in 2018.

The growth in LNG production is expected to continue over the coming years, thanks to the Group's liquefaction projects under construction (Mexico, Mozambique, Nigeria, and Russia) or under review (Oman, Papua New Guinea, Russia and the United States).

The information below describes the main exploration, production and liquefaction activities of the iGRP segment, presented by geographical area. The capacities referred to herein are expressed on a 100% basis, regardless of the Group's interest in the asset.

Europe and Central Asia

In **Russia**, the Group's LNG production comes from the Yamal LNG project. This onshore project to develop the South Tambey gas and condensates field located on the Yamal peninsula was launched in 2013 by OAO Yamal LNG[1]. TOTAL holds an aggregate interest of 29.73% (20.02% directly via the Group's subsidiary, Total E&P Yamal, and 9.71% indirectly through the company, PAO Novatek[2]). The project includes a three-train gas liquefaction plant with an LNG nameplate capacity of 16.5 Mt/y, commissioned in late 2017 with a first shipment aboard the "Christophe de Margerie" LNG tanker. In 2020, production reached 17.9 Mt exceeding the nameplate capacity by 9%. A fourth liquefaction train with a capacity of 0.9 Mt/y, using a PAO Novatek technology, is under start-up.

TOTAL also holds an aggregate 21.64% interest in the Arctic LNG 2 project (10% directly since March 2019 via the Group's subsidiary, Total E&P Salmanov and 11.64% indirectly via PAO Novatek). TOTAL and its partners approved the final investment decision for the Arctic LNG 2

(1) A company jointly owned by Total E&P Yamal (20.02%), PAO Novatek (50.07%), YAYM Limited and China National Oil and Gas Exploration Development Corporation – CNODC, a subsidiary of CNPC.
(2) PAO Novatek is a company incorporated under Russian law and listed in Moscow and London in which TOTAL holds a 19.40% interest.

project in September 2019. With a production capacity of 19.8 Mt/y, the Arctic LNG 2 project will develop the resources of the Utrenneye onshore field (gas and condensates) located on the Gydan Peninsula opposite the Yamal Peninsula. The project involves the installation of three gravity-based structures in Ob Bay that will host the three liquefaction trains of 6.6 Mt/y capacity each. The first shipment of LNG is expected in 2023. The project is also expected to benefit from synergies with the Yamal LNG project.

An agreement signed in May 2018 between TOTAL and PAO Novatek also enables TOTAL to acquire a direct interest of between 10% and 15% in all future PAO Novatek LNG projects on the Yamal and Gydan peninsulas.

In **Norway**, TOTAL holds an 18.40% interest in the Snøhvit gas liquefaction plant (nameplate capacity of 4.2 Mt/y). The plant, located in the Barents Sea, is supplied with production from the Snøhvit and Albatross gas fields. Production from the Snøhvit plant has been halted since September 2020 following a fire. According to the operator's plan, the production may not resume before October 2021.

Africa (excluding North Africa)

In **Nigeria**, TOTAL holds a 15% interest in the company Nigeria LNG (NLNG), whose main asset is a liquefaction plant with a total capacity of 22 Mt/y. In late 2019, NLNG's shareholders approved the launch of a plant extension project for an additional capacity of 7.6 Mt/y. NLNG signed an engineering, procurement and construction (EPC) contract for the extension in May 2020. TOTAL is also present on the OML 58 onshore fields (40%, operator) as part of its joint venture with the company Nigerian National Petroleum Corporation (NNPC), which has been supplying gas to NLNG for two decades. Since 2016, OML 58 onshore fields is also supplying the Nigerian domestic market.

In **Angola**, TOTAL holds a 13.6% interest in the Angola LNG project, which includes a gas liquefaction plant near Soyo with a total capacity of 5.2 Mt/y and is supplied by gas associated with production from Blocks 0, 14, 15, 17, 18 and 32.

In **Mozambique**, in September 2019, TOTAL acquired from Occidental Petroleum Corporation the company that held a 26.5% interest in the Mozambique LNG project, for which the final investment decision was taken in June 2019, and the external financing agreement was signed in July 2020. The project includes the construction of two onshore liquefaction trains with a total capacity of 13.1 Mt/y to liquefy the gas produced by the Golfinho and Atum fields in Offshore Area 1. Due to the occurrence of security incidents in the Cabo Delgado area in December 2020, onshore construction work of the project has been suspended.

The sale of nearly 90% of the production of the Mozambique LNG project has been secured by long-term contracts for delivery to customers in Asia and Europe. Part of the remaining gas is expected to be kept for the domestic market in order to contribute to the country's economic development. The first LNG shipments are expected in 2024.

Middle East and North Africa

In **Qatar**, the Group participates in the production, processing and exporting of gas from the North Field through its interest in the Qatargas 1 and Qatargas 2 LNG plants:
- Qatargas 1: TOTAL holds a 20% interest in the North Field-Qatargas 1 Upstream field, the license of which will expire late 2021, and a 10% interest in the LNG plant (three trains with a total capacity of 10 Mt/y).
- Qatargas 2: the Group holds a 16.7% interest in train 5, which has an LNG production capacity of 8 Mt/y.

TOTAL offtakes part of the LNG produced in accordance with contracts signed in 2006 that provide for the purchase of 5.2 Mt/y of LNG by the Group.

In **Oman**, in 2018, TOTAL signed an MOU with the Oman government for the development of natural gas resources on onshore Blocks 10 and 11, located in the Greater Barik area (25%), on the one hand, and an LNG plant in the port of Sohar, with an initial production capacity of 1 Mt/y (80%, operator), on the other hand. This plant will supply LNG ship bunkers.

The Group also produces LNG through its investments in the Oman LNG (5.54%)/Qalhat LNG (2.04% via Oman LNG) liquefaction complex, with an overall capacity of 10.5 Mt/y.

In the **United Arab Emirates**, TOTAL holds a 5% interest in ADNOC LNG (capacity of 5.8 Mt/y), a company which processes the associated gas produced by ADNOC Offshore in order to produce LNG, NGL and condensates, as well as a 5% interest in National Gas Shipping Company (NGSCO), a company which owns 8 LNG tankers and exports the LNG produced by ADNOC LNG.

In **Egypt**, TOTAL holds a 5% interest in the first train (capacity of 3.6 Mt/y) of Egyptian LNG's Idku liquefaction plant.

In **Yemen**, the deterioration of security conditions in the vicinity of the Balhaf site caused Yemen LNG, in which the Group holds an interest of 39.62%, to stop its commercial production and export of LNG and to declare *force majeure* to its various stakeholders in 2015. The plant has been put in preservation mode (refer to point 3.1.4 of chapter 3).

Americas

In the **United States**, the LNG production of train 1 (4.5 Mt/y) of the Cameron LNG plant in Louisiana, in which the Group holds a 16.60% interest, started up in May 2019. The first phase of the Cameron LNG plant, which has a capacity of 13.5 Mt/y, comprises three liquefaction trains, each with a capacity of 4.5 Mt/y. Production from trains 2 and 3 began in February and May 2020 respectively. TOTAL is evaluating the expansion of the plant beyond its initial capacity of 13.5 Mt/y.

In July 2019, TOTAL signed several agreements for the development of the Driftwood LNG project in Louisiana, which is subject to the final investment decision of the project. In the event of a final investment decision, TOTAL is expected to invest $500 million in the Driftwood LNG project (capacity of 16.6 Mt/y) and purchase 1 Mt/y of LNG from Driftwood LNG and 1.5 Mt/y of LNG from Tellurian Inc. TOTAL is expected to subscribe $200 million of additional shares of Tellurian Inc. and thereby increase its interest in the capital of this company, which stood at 13.9% as of December 31, 2020.

In shale gas, despite an unfavorable gas price environment, TOTAL achieved satisfactory results from its operated assets on Barnett (91% on average) thanks to cost control. More than 1,500 wells were in operation during the year 2020.

In **Mexico**, the decision to launch the Energia Costa Azul (ECA) Phase 1 gas liquefaction project (3.25 Mt/y nameplate capacity) was made in November 2020. TOTAL holds a 16.6% interest in the project and will offtake approximately 70% of the initial offtake capacity (2.5 Mt/y).

Asia-Pacific

In **Australia**, LNG production comes from the Gladstone LNG (GLNG) (27.5%) project and Ichthys LNG (26%) project.

The Ichthys LNG project involves the development of a gas and condensate field located in the Browse Basin. This development includes subsea wells connected to a platform for the production, processing and export of gas, an FPSO for processing and exporting the condensate, an 889 km gas pipeline and an onshore liquefaction plant in Darwin. The two trains of the gas liquefaction plant have a nameplate capacity of 8.9 Mt/y of LNG. Approximately 100,000 boe/d of offshore and onshore condensates and LPG are also produced. Ichthys LNG started offshore production in July 2018 and exported its 200th LNG shipment in

September 2020. Ichthys LNG has reached its production plateau and various adjustments have allowed it to reach 110% of nameplate capacity. The LNG is sold under long-term contracts in the Asian market.

GLNG is an integrated project with production from the Fairview, Roma, Scotia and Arcadia fields transported to a liquefaction plant on Curtis Island, Queensland with a capacity of 8.8 Mt/y. The plant's two trains have been in production respectively since 2015 and 2016. The LNG is sold in the Asian market under long-term contracts.

In **Papua New Guinea**, the Group owns an interest in Block PRL-15 (40.1%, operator since 2015). The State of Papua New Guinea retains the right to take an interest in the license (when the final investment decision is made) at a level of 22.5%. In this case, TOTAL's shareholding would be reduced to 31.1%. Block PRL-15 includes the Elk and Antelope discoveries. The appraisal program of these two discoveries, completed in 2017, confirmed the resource levels of the fields. In 2020, development studies at conceptual stage and preparatory activities continued in the Elk and Antelope fields located on Block PRL-15 before being suspended following the COVID-19 pandemic. It is expected that the gas produced by these fields will be transported by a 320 km onshore/offshore pipeline to Caution Bay site in order to be liquefied in 2 trains to be built with a total capacity of 5.6 Mt/y which will be integrated to the existing production facilities operated by a partner in the project.

TOTAL and its partners have signed an agreement with the independent State of Papua New Guinea defining the fiscal framework for the development of the Papua LNG project in April 2019. This agreement has been complemented with a fiscal stability agreement (The Fiscal Stability Act) signed in February 2021 with the State of Papua New Guinea.

2.1.2.2 Intermediate activities: purchase, sale, trading and transport of LNG

Purchase, sale and trading of LNG

The Group's LNG trading activities are growing, as it manages and optimizes a portfolio of long-term contracts and spot activity.

TOTAL acquires long-term volumes of LNG, in many cases from liquefaction projects in which the Group holds an interest (refer to point 2.1.2.1 of this chapter). New sources of LNG from recently approved projects (e.g., Arctic LNG 2, Nigeria LNG Train 7, Mozambique LNG) will likely ensure the growth of the Group's LNG portfolio in the coming years.

TOTAL also acquires long-term LNG volumes from American projects in which the Group has no equity (Sabine Pass, Corpus Christi, Cove Point and Freeport). Those volumes add to and diversify its worldwide portfolio of LNG resources. TOTAL strengthened its LNG activity in the United States through its acquisition of Toshiba's LNG portfolio in 2019.

Moreover, in June 2020, TOTAL and Sonatrach finalized an agreement to extend their partnership in liquefied natural gas. Under the agreement, Algerian LNG will be supplied to the French market for an additional three years. Those deliveries, amounting to 2 Mt/y, will primarily be made to the Fos Cavaou LNG carrier terminal.

In 2020, TOTAL purchased 350 shipments under forward contracts from Algeria, Australia, Egypt, the United States, Nigeria, Norway, Qatar and Russia and 185 spot or medium-term shipments, compared with 297 and 186 shipments in 2019 and 173 and 97 in 2018 respectively. Deliveries from Yemen LNG have been halted since 2015. In 2020, 37 shipments in the supply portfolio were canceled. In 22 cases, TOTAL exercised its right to cancel, for financial reasons, shipments that were primarily for the liquefaction plants in North America, while nine shipments were canceled for force majeure in the wake of multiple hurricanes during the summer of 2020. Six shipments were canceled when the Snøhvit plant was shut down completely in September 2020 after a fire. Sales commitments to customers that could have been affected by these cancellations were honored by delivering replacement shipments.

Moreover, TOTAL holds several LNG long-term contracts with countries including Chile, China, the Dominican Republic, Indonesia, Japan, Panama, Singapore, South Korea and Taiwan. Additionally, the Group is developing LNG retail sales (by barge and tanker trucks) for industrial use or mobility (by ship, waterway or road) in Europe, in the Caribbean in partnership with AES, and in Oman through the Sohar project (refer to point 2.1.2.1 of this chapter). In March 2021, TOTAL and Shenergy Group have signed binding agreements for the supply of up to 1.4 million tons per year of Liquefied Natural Gas from TOTAL, as well as the creation of a joint venture to expand LNG marketing in China.

The Group's LNG trading activities are growing strongly in the spot market. In 2020, these LNG trading activities represented a volume of 35.1 Mt, compared with 28.7 Mt in 2019 and 17.1 Mt in 2018. The portfolio focuses, in particular, on Asian markets (including China, India, Indonesia, Japan, South Korea and Taiwan) and is made up of spot and forward contracts that enable TOTAL to supply gas to its key customers worldwide, while retaining sufficient flexibility to seize market opportunities. Since 2019, the trading teams have been located in Geneva, Houston and Singapore.

LNG shipping

As part of its LNG shipping activities, TOTAL uses a fleet of 16 LNG carriers, including 2 owned ships. In order to support the strong growth of the Group's LNG portfolio, 4 additional new LNG carriers are added to the fleet chartered in 2021. In addition to the long-term fleet, each year TOTAL charters spot and short-term ships to serve trading needs and to adapt transport capacity to seasonal demand.

TOTAL is also present in LNG shipping through its Total E&P Norge subsidiary, which charters two LNG vessels, and through the Group's holdings in LNG production and export projects that manage their own fleets of LNG vessels, such as Nigeria LNG, Angola LNG, Qatargas, Yamal LNG and Mozambique LNG.

2.1.2.3 LNG regasification

TOTAL holds interest in regasification assets and has signed agreements that provide long-term access to LNG regasification capacity worldwide, through existing assets in Europe (France, the United Kingdom, Belgium and the Netherlands) and in the Americas (United States and Panama). Since 2019, TOTAL has had an LNG regasification capacity of 28 Bcm/y. Some projects under development in Asia (India) and Africa (Benin, Côte d'Ivoire) could increase this regasification capacity. For its operations, TOTAL charters two FSRUs.

In **France**, TOTAL sold its 27.5% interest in Fosmax LNG in February 2020. This transaction has not affected TOTAL's booked capacity of 7.7 Bcm/y with Fosmax LNG. In 2018, TOTAL sold its 9.99% stake in the Dunkirk LNG terminal but retained access to a regasification capacity of 2 Bcm/year in 2019 at the terminal. The capacity booked at the Montoir de Bretagne terminal was 4.2 Bcm/y in 2020 and is expected to increase to 6.5 Bcm/y beginning in October 2021. TOTAL held a capacity of 3 Bcm/y at the Fos Tonkin terminal until December 31, 2020.

In the **United Kingdom**, as part of its stake in the Qatargas 2 project, TOTAL holds an 8.35% interest in the South Hook LNG regasification terminal which has a total capacity of 21 Bcm/y. The Group has also booked regasification capacity of 3.2 Bcm/y at the Isle of Grain terminal.

In **Belgium**, TOTAL holds a regasification capacity of 2.2 Bcm/y at the Zeebrugge terminal.

In the **Netherlands**, holds a regasification capacity of 1.1 Bcm/y at the Gate terminal that is reserved until 2024.

In the **United States**, TOTAL has reserved regasification capacity of approximately 10 Bcm/year at the Sabine Pass terminal in Louisiana until 2029. In 2012, TOTAL and Sabine Pass Liquefaction (SPL) signed agreements to transfer TOTAL's reserved regasification capacity to SPL over time in return for payment.

In **India**, the partnership between TOTAL and Adani group includes several assets across the gas value chain notably two regasification terminals: Dhamra LNG in Eastern India, currently under construction, and potentially the Mundra terminal in Western India. With these agreements, TOTAL can break into the Indian natural gas market, which has significant potential for growth, with a recognized local partner. TOTAL sold its 26% interest in the Hazira terminal in January 2019.

In **Benin**, TOTAL, the Republic of Benin and the Société Béninoise d'Énergie Électrique (SBEE) have signed agreements to develop a floating LNG import terminal and supply more than 0.5 Mt/year of regasified LNG to Benin for a 15-year period, starting in 2023. This FSRU will be located off the coast of Benin and connected to the existing and projected Maria Gléta electric power plants by an offshore gas pipeline.

In **Cote d'Ivoire**, a consortium led by TOTAL (34%, operator) has been awarded responsibility for developing an FSRU-type LNG regasification terminal in Abidjan but given the downward revision of consumption forecasts, the project is being redefined.

2

2.1.3 Biogas

The Biogas business was created in September 2020 within Total, with the mission to develop and operate biomethane production units based on industrial and agricultural organic by-products.

As biomethane and natural gas have similar composition, they have similar use as well. Biomethane is generally injected into the transportation and distribution network and can be used as a fuel or as a fuel for road and marine mobility. The way it is produced makes it a renewable and carbon-neutral energy. In January 2021, TOTAL announced the acquisition of Fonroche Biogaz, a company that designs, builds and operates methanisation units in France, thus becoming the French leader in Biogas. With close to 500 gigawatt-hours (GWh) of installed capacity, which doubled between 2019 and 2020, Fonroche Biogaz is today the French market leader in the production of renewable gas with more than 10% market share thanks to a portfolio of seven units in operation and a pipeline of four imminent projects. In France, in 2020, 2.3 TWh of biomethane were injected in the pipes.

TOTAL's objective is to produce nearly 1.5 TWh of biomethane by 2025 and nearly 5 to 6 TWh by 2030.

Until now, TOTAL was present in the renewable gas sector through its subsidiaries Methanergy, PitPoint and Clean Energy. In the United States, TOTAL entered into a partnership with the latter in December 2020 to develop renewable gas production projects for the carbon-free mobility market.

2.1.4 Power production and storage

In the context of the development of an integrated value chain from power production to sales of electricity to residential and commercial customers, TOTAL is aiming for net power generation of 50 TWh from natural gas (about 40% of the total) and renewable sources (60%) by 2025, compared to 14 TWh in 2020.

TOTAL's ambition is to become a global leader in the field of renewables. The Group has a portfolio of gross installed renewable electricity generation capacity of 7 GW in 2020. TOTAL confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030.

2.1.4.1 Power generation from natural gas

TOTAL is building a portfolio of combined-cycle gas turbines (CCGT) in Europe as part of its strategy to create an integrated gas and electricity value chain in Europe, from production to marketing, as an ideal complement to renewable power generation from inherently intermittent sources. Furthermore, thanks to the flexible production from those power plants, the Group can optimize its customers' power procurement costs. As of December 31, 2020, in Europe, TOTAL operated one cogeneration unit and eight CCGT with combined gross power generation capacity of 3.56 GW, compared to 1.84 as of December 31, 2019. Those plants produced 8.1 TWh of electricity in 2020, compared to 7.5 TWh in 2019.

In **France** and **Belgium**, TOTAL wholly owns one cogeneration unit (at the Normandy refinery) and 6 CCGT as of December 31, 2020, of which two were obtained through the Group's acquisition of Direct Energie in 2018, two were acquired from KKR-Energas in 2018 and two were acquired from EPH in 2020. The gas-based power production capacity stood at 2.72 GW as of December 31, 2020 compared to 1.84 GW at year-end 2019 and 2018. A 0.4-GW CCGT is currently under construction in Landivisiau, France.

In **Spain**, TOTAL acquired two CCGTs from Energías de Portugal in December 2020 with a total capacity of 850 MW.

In **Abu Dhabi**, the Taweelah A1 gas power plant, which is owned by the Gulf Total Tractebel Power Company (TOTAL, 20%), combines electricity generation and seawater desalination. The plant has a gross power generation capacity of 1.6 GW and a water desalination capacity of 385,000 cubic meters per day. The plant's production is sold to Emerati Water and Electricity Company (EWEC) under a long-term agreement.

2.1.4.2 Power generation from renewables

Since 2016, TOTAL has been pursuing a policy of dynamic external growth to expand its renewable power generation capacity, including its acquisition of Quadran (through Direct Energie) now renamed Total Quadran and a stake in EREN Renewable Energy, now renamed Total Eren.

TOTAL had gross installed power generation capacity from renewable sources of 7 GW at year-end 2020, compared to 3 GW at year-end 2019 and 1.7 GW at year-end 2018. Net power generation production from renewable sources totaled 4.0 TWh in 2020, compared to 2.0 TWh in 2019 and 1.0TWh in 2018.

In 2020, TOTAL accelerated its growth with the announcement of projects to be developed (notably solar in Spain and in Qatar and offshore wind in the United Kingdom) or already in production (in India) with combined gross generation capacity in excess of 10 GW, which will help TOTAL reach 35 GW of gross installed capacity by 2025. Half of that total is expected to be developed in Europe. In 2021, TOTAL targets reaching a gross installed capacity from renewable sources of 10 GW.

The Group focuses on developing generation capacity covered by power purchase agreements, or PPAs, which yield a stable, long-term cash flow. As of December 31, 2020, the Group has a gross power generation capacity from renewable sources, either installed or in development, under a PPA of approximately 17.5 GW.

As part of a longer-term outlook, the Group signed two agreements in 2020, its power generation capacity through the use of technology in the field of floating offshore wind power of more than 2 GW in South Korea and up to 0.4 GW in the United Kingdom drawing on its recognized expertise in offshore oil and gas operations.

TOTAL is thus directly present in large-scale renewable facilities in solar, onshore and offshore wind and also in distributed generation.

Portfolio of renewable power generation capacity*

	In operation	In construction	In development to 2025	In development post-2025
Gross capacity	7 GW	5 GW	23 GW	4 GW
covered by PPA	> 99%	90%	40%	–
Net capacity	3.1 GW	3 GW	21 GW	2 GW
Average remaining PPA duration	18 years	21 years	20 years	
Average PPA price	> 110 $/MWh	~55 $/MWh	~45 $/MWh	Offshore wind PPAs under negotiation
Offtaker	> 95% state	99% state	~60% state, ~40% corporate	

* At 5 February 2021.

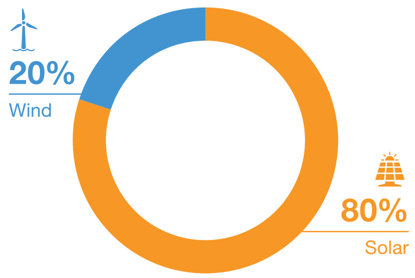
Installed power generation capacity from renewables

By developer *GW*

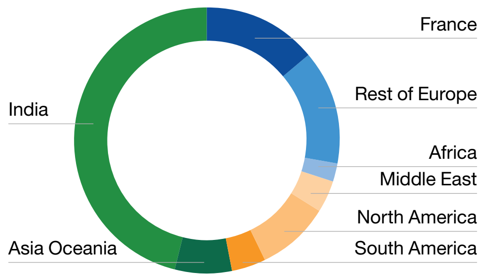
	Gross	Net*
Total Solar Int.	3.3	1.6
Total Quadran	1.0	0.7
Total EREN	1.9	0.5
Total Solar DG**	0.8	0.3
Total	**7.0**	**3.1**

* Group share.
**Including SunPower.

By technology *GW gross*



By geography *GW gross*



Total Quadran

In 2018, TOTAL acquired Direct Energie, which owned Quadran, now renamed Total Quadran. This acquisition enables the Group to accelerate its growth in solar and wind power in France.

As of December 31, 2020, Total Quadran operated a portfolio of more than 250 onshore wind, solar, hydroelectric and biogas assets in France, and continues to develop a portfolio of renewable electricity projects at various stages of maturity. Its gross installed generation capacity rose to 1 GW at year-end 2020 compared to 0.8 GW at year-end 2019 and 0.7 GW at year-end 2018.

In 2020, Banque des Territoires acquired an interest of 50% in a portfolio of solar and wind energy assets held by Total Quadran in France, with total capacity of 143 MW. Total Quadran has farmed down to Banque des Territoires end-2020 and Crédit Agricole Assurances early 2021 half of its equity in two portfolios of renewable projects (solar et wind), respectively 53 MW and 285 MW. These farm downs are the implementation of the business model defined by Total for the development of renewable energies aiming to achieve over 10% return on equity. In March 2020, Total Quadran acquired Global Wind Power France, which is developing a portfolio of more than 1 GW of onshore wind power projects in France, including 250 MW that is expected to be commissioned by 2025.

Total Eren

In 2017, TOTAL acquired a 23% stake in Eren Renewable Energy, since renamed Total Eren. This interest was increased to 29.6% at the end of 2019. TOTAL has an option to acquire 100% of Total Eren in 2023. At year-end 2020, Total Eren had a diversified set of assets in renewable energies (wind, solar and hydropower), representing gross capacity of approximately 3.3 GW in operation or under construction worldwide, compared with 1.7 GW at year-end 2019 and 1.3 GW at year-end 2018. Through its partnerships with local developers, Total Eren is developing projects in Europe, Central and South Asia, the Asia-Pacific region, Africa and Latin America. In April 2019, Total Eren acquired Novenergia and expanded its presence, particularly in southern Europe.

Total Solar International

Total Solar International, a wholly owned subsidiary, contributes to growth in solar activities by concentrating on major solar power generation plants, coupled in some cases with batteries or other means of generation and electricity storage sites in targeted areas: the Middle East, Japan, South Africa, Chile, India and Spain.

In February 2020, as part of its growth strategy, Total Solar International acquired a stake in solar power plants owned by Indian group Adani. TOTAL expanded its partnership with Adani in April 2020 by creating a 50/50 joint venture with Adani Green Energy Limited (AGEL) that maintains total capacity of solar generation of more than 3 GW. The partnership was further reinforced in October 2020 with an additional 205 MW transaction. In January 2021, TOTAL acquired a 20% minority interest in Adani Green Energy Limited (AGEL) from Adani Group. AGEL has over 14.6 GWac of contracted renewable capacity, with an operating capacity of 3 GW and another 3 GW under construction and 8.6 GW under development. The company aims to achieve 25 GWac of renewable power generation by 2025.

In addition, Total Solar International owns an interest in a number of solar power plants, including Shams 1 in Abu Dhabi (110 MW, 20%); Al Kharsaah (currently under construction) in Qatar (800 MW, 19.6%); Prieska in South Africa (86 MW, 27%); Nanao (26.5 MW, 50%), Miyako (25.1 MW, 50%) and Osato (under construction) (51.6 MW, 45%) in Japan; and Colbun Santa Isabel (in construction, 190 MW, 50%) and PMGD (22.7 MW, 100%) in Chile.

In January 2020, TOTAL and its partners launched development of building plans for the Al Kharsaah Solar Park, the first large-scale solar plant (800 MW), in Qatar. The project was awarded to a consortium comprising Total Solar International (49%) and Marubeni (51%) following the first international solar tender in the country. Funding was established in July 2020.

In Japan, construction work continues on a solar power plant in Osato that will offer approximately 52 MW of capacity. Total Solar International's stake has been reduced from 90% to 45% as part of a farmdown finalized in May 2020.

In Chile, construction is underway on a solar plant in Santa Isabel that will provide about 190 MW of capacity. The system is expected to become fully operational in 2021.

In February 2020, TOTAL signed two agreements with Powertis and Solarbay Renewable Energy to develop nearly 2 GW of solar projects in the Spanish solar market. Transactions to develop 0.4 GW of capacity under the Powertis agreement were finalized in 2020. In September 2020, TOTAL signed a third agreement in Spain with the Spanish developer Ignis to develop solar power projects totaling 3.3 GW of capacity at sites near Madrid and in Andalusia. With this solar power portfolio, TOTAL will be able to provide for all power consumption at its industrial sites in Europe by 2025. With that objective in mind, the Group has pledged to purchase nearly 6 TWh/y of green electricity generated at those solar plants as part of a PPA.

In January 2021, TOTAL and 174 Power Global, a wholly owned Hanwha Group subsidiary, signed an agreement to form a 50/50 joint venture to develop 12 utility-scale solar and energy storage projects of 1.6 GW cumulative capacity in the United States, transferred from 174 Power Global's development pipeline.

In February 2021, TOTAL's presence in the US solar market was strengthened with the acquisition of a portfolio of 2.2 GW of solar projects and 0.6 GW of battery storage projects in Texas. Total will commit to a 1 GW corporate PPA sourced from this solar power and energy storage portfolio in order to cover all the electricity consumption of its operated industrial sites in the US, among which Port Arthur refining and petrochemicals platform and La Porte and Carville petrochemical sites.

Total Solar Distributed Generation

Total Solar Distributed Generation, a wholly owned TOTAL subsidiary, focuses on developing and building rooftop photovoltaic systems that can be combined with batteries or other means of generation and are installed at industrial and commercial sites (BtB) for their own consumption. Depending on each country's laws, Total Solar Distribution Generation can operate those systems or lease them to local firms. The subsidiary enters into private PPAs as part of those activities. In addition, Total Solar Distributed Generation helps to carry out TOTAL's program for solarizing its sites.

Total Solar Distributed Generation operates in more than 15 countries, with customers primarily in Southeast Asia, the Middle East and Europe. In September 2019, Total Solar Distributed Generation and the Envision Group, the world leader in smart energy systems, formed an equally owned joint venture in China to commercially develop distributed solar energy projects for self-supply by BtB customers.

At year-end 2020, Total Solar Distributed Generation had gross installed capacity of 189 MW, including 106 MW in China, 46 MW in Southeast Asia, 24 MW in the Middle East and 13 MW in Europe.

Offshore wind power

As part of its long-term strategy to develop renewable energy sources, in 2020, the Group acquired a strong presence in the fixed and floating offshore wind industry.

In the fixed offshore wind sector, TOTAL acquired a 51% stake from SSE Renewables in the 1,140 MW Seagreen project in the Scottish North Sea. The project is currently under construction, with commissioning projected for late 2022. The acquisition also includes a potential expansion of up to 360 MW.

TOTAL has established a presence in the nascent floating wind industry as well, where it hopes to become a global leader. In March 2020, TOTAL acquired an 80% stake in the groundbreaking Erebus floating wind project from the developer, Simply Blue Energy. Located in the Celtic Sea off the Welsh coast, Erebus has capacity of 96 MW. Plans to expand the project's capacity to 400 MW are currently being examined.

In September 2020, TOTAL and Green Investment Group, an affiliate of Macquarie, entered into an equally owned partnership to develop a portfolio of five floating offshore wind projects in South Korea, with potential total capacity of more than 2 GW.

Finally, in October 2020, TOTAL became a 20% shareholder in the Eolmed floating wind farm pilot project, located in the Mediterranean off the French coast and providing 30 MW of capacity.

In February 2021, a 50/50 joint venture between TOTAL and Green Investment Group (GIG), a subsidiary of the Macquarie Group, was awarded a concession on the UK seabed to jointly develop up to 1.5 GW of offshore wind projects.

SunPower

Since 2011, TOTAL has been the largest shareholder in SunPower Corporation, an American company listed on NASDAQ and based in California.

In August 2020, SunPower spun off a new firm, Maxeon Solar Technologies Ltd., based in Singapore and also listed on NASDAQ. SunPower now focuses on developing and marketing energy services (a combination of photovoltaic systems, energy storage and services) in the residential, industrial and commercial segments of the US market. Maxeon Solar Technologies Ltd., meanwhile, specializes in the design, manufacture and sale worldwide of very-high-efficiency solar cells and panels. Tianjin Zhonghuan Semiconductor Co., Ltd. (TZS), a global force in wafers, acquired a 28.848% stake in Maxeon Solar Technologies Ltd. at the time of the spin-off.

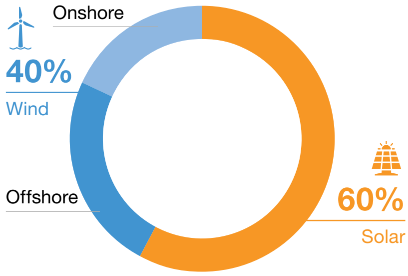
As of December 31, 2020, TOTAL owned 51.6% of SunPower Corporation and 36.4% of Maxeon Solar Technologies Ltd.

Power generation capacity from renewables in construction*

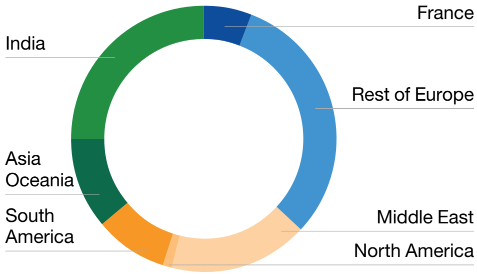
	Gross	Net**
Capacity *(GW)*	**5**	**3**

* At 5 February 2021.
** Group share.

By technology *GW gross*



By geography *GW gross*



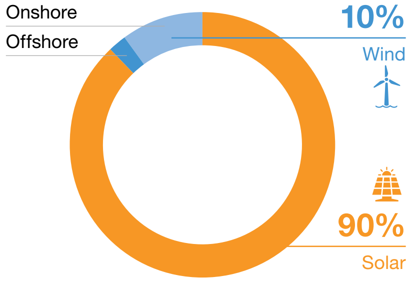
Power generation capacity from renewables in development*

Targeting > 10% equity IRR

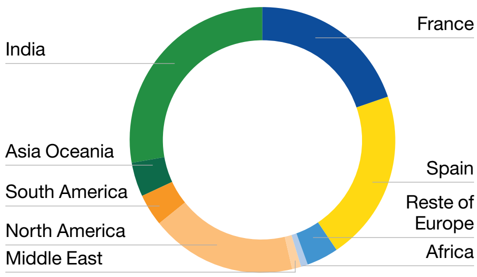
	Gross	Net**
Capacity *(GW)*	**23**	**21**

* At 5 February 2021.
** Group share, before farmdown.

By technology *GW gross*



By geography *GW gross*



Power generation capacity from renewables covered by PPA: >20 GW*

Gross capacity covered by PPA *(GW)*	In operation Onshore wind	In operation Solar	In operation Total	In construction Onshore wind	In construction Offshore wind	In construction Solar	In construction Total	In development to 2025 Onshore wind	In development to 2025 Offshore wind	In development to 2025 Solar	In development to 2025 Total
Europe	1.3	0.5	**1.8**	0.3	0.8	0.3	**1.4**	0.3	X	3.5	**3.9**
Asia	X	4.1	**4.2**	0.3	–	2.1	**2.4**	0.4	–	4.1	**4.4**
North America	X	0.6	**0.6**	X	–	X	**0.1**	X	–	0.5	**0.6**
Rest of the World	X	0.3	**0.4**	0.3	–	0.2	**0.5**	X	–	0.2	**0.3**
Total	**1.4**	**5.6**	**7.0**	**0.9**	**0.8**	**2.7**	**4.4**	**0.8**	**X**	**8.3**	**9.2**

PPA price *($/MWh)*	In operation Onshore wind	In operation Solar	In operation Total	In construction Onshore wind	In construction Offshore wind	In construction Solar	In construction Total	In development to 2025 Onshore wind	In development to 2025 Offshore wind	In development to 2025 Solar	In development to 2025 Total
Europe	119	251	**156**	79	61	63	**64**	72	X	43	**48**
Asia	X	89	**89**	50	–	45	**46**	34	–	40	**40**
North America	X	155	**157**	X	–	–	**147**	X	–	32	**49**
Rest of the World	X	100	**102**	52	–	45	**50**	X	–	95	**126**
Total	**116**	**112**	**113**	**64**	**61**	**47**	**54**	**65**	**X**	**42**	**45**

* At 5 February 2021, X : not disclosed, capacity < 0.2 GW.

2.1.4.3 Electricity storage

Electricity storage is a major challenge for the future of power grids and a vital add-on to renewable energies, which are intermittent by nature. Large-scale electricity storage is essential to promote the growth of renewables and help them capture a significant share of the electricity mix.

Saft Groupe S.A. (Saft), which TOTAL acquired in 2016, is a century-old French company that specializes in the design, manufacture and sale of high-tech batteries for industry.

Saft develops batteries that use nickel, lithium-ion and primary lithium technologies. The company is active in transportation (aeronautics, rail and off-road electric mobility), industrial infrastructure, civil and military electronics, aerospace, defense and energy storage. Building on the strength of its technological know-how, and through its energy storage activities, Saft is well placed to benefit from the growth in renewable energies beyond its current activities, by offering massive storage capacities, combined with the generation of electricity from renewables. This is one of Saft's main sources of growth.

In 2019, Saft strengthened its presence in energy storage and electric mobility by forming a joint venture with Tianneng Energy Technology (TET), a subsidiary of the private Chinese group Tianneng, with a view to developing its lithium-ion activity, and by acquiring Go Electric Inc., a US-based specialist in energy resilience solutions for microgrids. Additionally, Saft signed a contract with the Finnish operator TuuliWatti to build the largest energy storage system in the Nordic countries. Saft is also active in the European alliance working on next-generation, solid electrolyte batteries.

In January 2020, TOTAL and Groupe PSA (newly Stellantis) announced plans to combine their know-how to develop an electric vehicle battery manufacturing business in Europe, and in September 2020 they formed a joint venture (50/50) named ACC (Automotive Cell Company). The project will leverage cutting-edge R&D, notably provided by Saft.

The first phase of the project includes the construction of a pilot plant at the site of Saft's facility in Nersac, France, with start-up scheduled for the final quarter of 2021. The pilot will form the basis for an investment decision regarding two large-scale production plants, in order to reach production of one million batteries a year by 2030.

At year-end 2020, Saft is present in 19 countries (historically in Europe and the United States) and has over 4,200 employees. Saft is expanding, especially in Asia, South America and Russia, and has 14 production sites and approximately 30 sales offices. Saft posted revenue of €694 million in 2020.

2.1.4.4 Access to energy

First launched in 2011 in four pilot countries, TOTAL's solar solutions for access to energy were distributed in 38 countries in 2020. By year-end 2020, a total of 3.8 million lamps and solar kits, including TOTAL's new Sunshine range launched in 2018, had been sold through the project, helping improve the everyday lives of more than 17 million people. As distribution channels, the Group uses both its traditional networks (service stations) and last-mile networks built with local partners to bring these solutions to isolated areas. TOTAL has forged partnerships with NGOs, development agencies, third-party distributors and international organizations to create networks of last-mile distributors.

The Group's goal is to provide energy to 25 million people by 2025.

In addition, TOTAL provides both financial backing (in the form of investment through its Total Carbon Neutrality Ventures fund) and technical support to start-ups promoting energy access or operating in related fields, such as microgrids, minigrids, the circular economy (e.g., repairs to defective products, component reuse and recycling), solar home systems and pay-as-you-go payment models.

2.1.5 Natural gas and electricity marketing and trading

2.1.5.1 Natural gas and electricity marketing

Europe

With a portfolio of more than 8 million sites (BtB and BtC customers), 47 TWh of electricity and 96 TWh of gas supplied in 2020, TOTAL has become a leading player in the sale of natural gas and electricity to both the residential and professional markets (business and industrial segments).

TOTAL is now aiming for nearly 10 million sites (BtB and BtC customers) in Europe across every segment, and a 15% market share in France and Belgium in the residential segment by 2025.

The Group markets natural gas and electricity in the residential and professional segments in **France**, through its Total Direct Énergie subsidiary (a merger of the Total Énergie Gaz, Total Spring France and Direct Énergie entities); in **Belgium**, through its Lampiris (residential) and Total Gas & Power Belgium (professional) subsidiaries; and in **Spain**, where it serves both professional and residential customers following its December 2020 acquisition of EDP's operations in Spain.

TOTAL also markets natural gas and electricity in the professional market in the **United Kingdom**, the **Netherlands** and **Germany**.

(million of sites BtB and BtC)	2020	2019	2018(a)
Europe	8.3	5.8	5.1
France	4.8	4.5	3.8
Belgium	1.0	1.0	1.0
United Kingdom	0.2	0.2	0.2
Germany	0.1	0.0	0.0
Netherlands	0.1	0.1	0.1
Spain	2.1	0.0	0.0

(a) Acquisition of Direct Energie in 2018.

(in TWh of electricity supplied)	2020	2019	2018(a)
Europe	47	46	31
France	27	26.5	16.5
Belgium	4.2	4	4
United Kingdom	9.3	11	9.5
Germany	4	2	1
Netherlands	0.5	0.5	0
Spain	3	2	0

(a) Acquisition of Direct Energie in 2018.

(in TWh of gas supplied)	2020	2019	2018[a]
Europe	96	95	88
France	27	25	19
Belgium	9	9	8
United Kingdom	43	43	44
Germany	12	14	13
Netherlands	4	4	4
Spain	1	0	0

(a) Acquisition of Direct Energie in 2018.

Rest of the world

In **Argentina**, TOTAL markets the natural gas that it produces. In 2020, the volume of gas sales was stable at 4.3 Bcm as in 2019 and 2018.

In **India**, the partnership with Adani was strengthened in October 2019 with the announcement of TOTAL's acquisition of 37.4% of Adani Gas Limited, one of India's leading local distributors of natural gas, holding 38 urban concessions. That alliance was further cemented in 2020 with the creation of a joint venture between TOTAL and Adani Green Energy (refer to point 2.1.4.2 of this chapter).

2.1.5.2 Natural gas and electricity trading

TOTAL is active in the trading of natural gas and electricity in Europe and North America. The Group sells its output to third parties and supplies its affiliates.

In **Europe**, TOTAL sold 89 Bcm of natural gas in 2020, compared to 70.3 Bcm in 2019 and 46.4 Bcm in 2018. The Group also delivered 90 TWh of electricity in 2020, compared to 66 TWh in 2019 and 65.4 TWh in 2018, mainly from external sources.

In **North America**, TOTAL sold 21 Bcm of natural gas in 2020 from its own production or from external resources, compared to 17.4 Bcm in 2019 and 13.7 Bcm in 2018.

2.1.6 Trading (excluding LNG, gas and electricity) and transport

2.1.6.1 Trading (excluding LNG, gas and electricity)

The Group is also active in markets other than natural gas, LNG and electricity, such as LPG, petcoke and sulfur.

In 2020, TOTAL traded and sold nearly 6.2 Mt of LPG (propane and butane) worldwide, compared to 6.4 Mt in 2019 and 5.2 Mt in 2018. About 27% of those quantities came from fields or refineries operated by the Group. This trading activity was conducted using 10 long-term chartered vessels. In 2020, 294 journeys were necessary for transporting the negotiated quantities, including 194 journeys by Total's long-term chartered vessels and 100 journeys by spot-chartered vessels.

TOTAL sells petcoke produced by the Port Arthur refinery in the United States and the Jubail refinery in Saudi Arabia. Petcoke is sold to cement producers and electricity producers, mainly in China, India, as well as in Mexico, Brazil, other Latin American countries and Turkey. In 2020, 2.3 Mt of petcoke were sold in the international market, compared to 2.5 Mt in 2019 and 2.2 Mt in 2018.

TOTAL also sells sulfur, mainly from the production of its refineries. The Group sold 1.8 Mt of sulfur in 2020, compared to 1.6 Mt in 2019 and 1.4 Mt in 2018.

In 2015, TOTAL ceased its coal production activities, and it stopped selling and trading coal in 2016.

2.1.6.2 Transport of natural gas

The Group holds interests in gas pipelines (refer to point 2.3.10 of this chapter) located in Brazil and Argentina.

2.1.7 Carbon Neutrality Businesses

The Group has set itself the goal of proposing and implementing a strategy in the fields of energy efficiency, carbon neutrality, CO_2-related business chains (carbon capture, utilization and storage, nature-based solutions, offsetting, etc.) and the creation of decarbonization offerings.

2.1.7.1 Carbon capture, utilization and storage

The Group is seeking to develop new businesses that will enable its industrial, residential and power-generating customers to capture, store and reuse their CO_2 emissions. To do that, it is testing new industrial solutions at its own facilities.

TOTAL believes that carbon capture, utilization and storage (CCUS) is one of the key elements in the fight against climate change and is particularly interested in developing new business and industrial models connected with that value chain. The Group allocates 10% of its R&D budget, about $100 million per year, to CCUS.

The Group intends to participate directly or indirectly (via the OGCI fund in particular) in large-scale pilot projects related to CCUS. In May 2020, TOTAL made an investment decision with Equinor and Royal Dutch Shell to develop the transportation and storage components of the world's first commercial project for carbon capture, transportation and storage, with a capacity of 1.5 Mt of CO_2 per year. Following a vote in the Norwegian parliament, the Government of the Kingdom of Norway announced its approval of the final investment decision for the Northern Lights project. Once the other necessary permits have been obtained, the project will store the emissions from two industrial sites near Oslo, Norway, and will also be able to collect emissions from other emitters. TOTAL has pledged to study additional projects as well, including initiatives for decarbonizing its own sites, in collaboration with other manufacturers and partners, in line with carbon neutrality commitments made by its host countries, notably in Europe.

The Group is also forming partnerships to test new technology. Svante Inc., LafargeHolcim, Oxy Low Carbon Ventures, LLC (OLCV), a wholly owned subsidiary of Occidental, and TOTAL have announced plans to conduct a joint study to assess the viability and design of a full-scale carbon-capture facility at the Holcim Portland cement plant in Florence, Colorado, in the United States. This joint initiative follows the CO2MENT project recently launched by Svante, LafargeHolcim and TOTAL at the Lafarge Richmond cement plant in Canada, which has already yielded progress in reinjecting captured CO_2 into cement.

2.1.7.2 Natural carbon sinks

Carbon sinks based on natural solutions are an effective means of capturing CO_2. In June 2019, the Group created a new entity, Total Nature Based Solutions (NBS), that is dedicated to investing in those solutions. The mission of NBS is to fund, develop and manage activities that capture carbon naturally (reforestation, regenerative agriculture, etc.) and to help to protect ecosystems that already store large volumes of carbon emissions.

Agriculture that is attuned to cycles for resource regeneration will offer social, economic and environmental benefits for local communities. TOTAL plans to invest an average of $100 million per year between 2020 and 2030. This significant investment should allow the sustainable use of those value chains. TOTAL's target is to reach sustainable capacity of sequestration of at least 5 Mt CO_2 annually by 2030. In March 2021, TOTAL and Forêt Ressources Management have signed a partnership agreement with the Republic of the Congo to plant a 40,000-hectare forest on the Batéké Plateaux. The new forest will create a carbon sink that will sequester more than 10 million tons of CO_2 over 20 years.

2.1.7.3 Total Carbon Neutrality Ventures

Formerly known as Total Energy Ventures, TOTAL's venture capital fund has been renamed Total Carbon Neutrality Ventures (TCNV). Its investments are now dedicated to carbon neutrality businesses and are expected to reach an aggregate amount of $400 million by 2023. TCNV invests in fledgling companies offering technology or business models that enable companies to reduce their energy use or the carbon intensity of their activities. With teams based in Europe and the United States, the fund invests all over the world, in fields such as hydrogen, smart energy, energy storage, energy efficiency, new forms of mobility, bioplastics and recycling. While TCNV mainly invested in Europe and the United States in the past, the fund began investing in Asia in 2018. It has signed cooperation agreements with NIO Capital and Cathay Capital to invest in China's mobility and energy sectors respectively.

TCNV's portfolio extends to emerging markets: the fund made its first investments in Africa in 2016 and more recently in India. TCNV is also studying opportunities in Southeast Asia and Latin America. These investments primarily target the energy access and sustainable mobility sectors.

2.1.7.4 Energy efficiency services

GreenFlex is a wholly owned subsidiary offering services designed to improve the energy and environmental performance of its customers. GreenFlex has more than 700 customers, employs approximately 500 people and logged sales of approximately €400 million at year-end 2020.

2.2 Exploration & Production segment

The Exploration & Production (EP) segment encompasses the oil and natural gas exploration and production activities in more than 50 countries. Since January 1, 2019, the LNG Upstream and midstream activities, which previously reported to the Exploration & Production segment, now report to the Integrated Gas, Renewables & Power segment. This section presents the activities of the Exploration & Production segment accordingly.

2.3 Mboe/d
of hydrocarbons produced in 2020

$9.7 B
DACF[1] in 2020

$5.5 B
of organic investments[2] in 2020

Production

Hydrocarbon production	2020	2019	2018
EP *(kboe/d)*	2,341	2,454	2,394
Liquids *(kb/d)*	1,474	1,601	1,527
Gas *(Mcf/d)*	4,727	4,653	4,724

Exploration & Production segment financial data[3]

(in $M)	2020	2019	2018
Adjusted net operating income[a]	2,363	7,509	8,547
Operating cash flow before working capital changes w/o financial charges (DACF)[b]	9,684	18,030	17,832
Cash flow from operations[c]	9,922	16,917	18,357

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes for fair value.
(b) DACF = debt adjusted cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases.
(c) Excluding financial charges, except those related to leases.

Exploration & Production adjusted net operating income was $2,363 million in 2020, a decrease of 69% linked mainly to lower Brent and gas prices.

The operating cash flow before working capital changes was $9,684 million in 2020, a decrease of 46% due to the same reasons.

2.2.1 Presentation of the segment

The Exploration & Production segment is responsible for exploring, developing and producing oil and gas fields to help meet global energy demand while reducing greenhouse gas emissions associated with fossil fuel production. In order to ensure the coherence of its business in light of the challenges posed by climate change, EP is focused on targeting low cost, low breakeven projects with low carbon emissions for its oil investments and expanding its production of natural gas.

In an environment marked by highly volatile oil and gas prices, EP's strategy is to run an oil and gas production business model that is responsible, profitable and resilient.

This strategy is deployed in accordance with these three primary axes:

- Responsibility: safety is a core value for the Group and is at the heart of everything EP does. EP's operations are also focused on minimizing its environmental impact, in particular by contributing significantly to greenhouse gas emissions reductions across TOTAL's operated oil & gas facilities.
- Profitability: EP's goal is to maximize the value of its assets through operational excellence (continuing efforts to cut costs, improving the availability of facilities and delivering major projects on time and within budget) and to ensure strict investment discipline by carefully selecting new projects that fit within our business objectives.
- Resilience: EP continues to manage its portfolio dynamically, by restructuring or disposing of its lowest-performing assets and high grading the portfolio by accessing new resources through both exploration and the acquisition of resources that have already been discovered, drawing on the Group's competitive advantages with regards to its geographical presence and technical expertise, and by prioritizing to low-cost, low breakeven, low carbon projects.

(1) DACF = debt adjusted cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases.
(2) Organic investments = net investments, excluding acquisitions, divestments and other operations with non-controlling interests (refer to point 1.4.1 of chapter 1).
(3) The data for the 2018 financial year have been restated to take into account the change in the organization of the Group that has been fully effective since January 1, 2019.

EP also strives to maintain significant flexibility in its future investments so that it can resist and react in a low oil and gas price environment over an extended period of time.

EP has taking into account in the economic evaluations of investments submitted to the Executive Committee a CO_2 price of $40/t since January 1, 2020 (or the actual price of CO_2 in a given country if it is higher) with a sensitivity of $100/t as from 2030, independent of the Brent price scenarios. EP is also expanding its expertise in technologies for carbon capture, utilization and storage.

2.2.2 Activities by geographical zone

The information below describes the Exploration & Production segment's main exploration and production activities by geographical region, without detailing all of the assets held by TOTAL. The capacities referred to herein are expressed on a 100% basis, regardless of the Group's interest in the asset. The Group's annual and average daily liquids and natural gas production by country for 2020, 2019 and 2018 are shown in the tables entitled "Production by geographical zone" in point 2.3.3 of this chapter. For information as of December 31, 2020 concerning the Group's interest in each asset (Group share in %) and whether the Group operates the asset, by country, see the table entitled "Producing assets by geographical zone" in point 2.3.3 of this chapter.

2.2.2.1 Europe and Central Asia

In **Russia**, oil and gas production comes mainly from the interests held in the Termokarstovoye (58.89%)[(1)] and Kharyaga (20%) fields and from the shareholding in PAO Novatek (19.4%). The Group's LNG activities in Russia are described in the iGRP segment in point 2.1.2 of this chapter.

Russia is a country subject to international economic sanctions. For further information, refer to point 3.2 of Chapter 3.

In **Norway**, TOTAL's production is sourced from various fields, in particular Ekofisk (39.9%) and Troll (3.69%) and the giant Johan Sverdrup field (8.44%), which started production in October 2019 and for which phase 2 is under development.

As part of the continuous optimization of its portfolio, TOTAL sold its 5% interest in the Vestprosess assets (pipeline and gas terminal) in April 2020.

The Group's LNG activities in Norway are described in the iGRP segment in point 2.1.2 of this chapter.

In the **United Kingdom**, production comes from fields in different areas:
- In the northern North Sea area, production from the Alwyn North (100%) and Dunbar fields (100%) accounts for 56% of the total. The rest of production comes from satellites tied-back to these fields.
- In the Central Graben area, TOTAL operates the Elgin/Franklin complex (46.17%) which includes the West Franklin (46.17%) and Glenelg (58.73%) fields. TOTAL also operates the Culzean gas and condensate field (49.99%), which started production in June 2019; drilling of all productive wells was completed in 2020. In March 2020, as operator, TOTAL announced an oil and natural gas discovery on the Isabella prospect (30%), located close to existing infrastructure operated by TOTAL. In December 2020, a well was spudded to appraise the Glengorm (25%) discovery made in 2019.
- In the West of Shetland area, TOTAL holds interests (60%) and operates the producing Laggan, Tormore, Edradour and Glenlivet fields.
- In the Quad 9 area in the eastern North Sea, TOTAL operates the Gryphon (86.5%), Maclure (38.19%), South Gryphon (89.88%) and Tullich (100%) fields.

In May 2020, TOTAL sold its interests (20%) in the PEDL 273, 305 and 316 shale gas exploration and production licenses and no longer holds any onshore acreage in the United Kingdom. In July 2020, TOTAL finalized the sale of several non-strategic offshore assets located in the eastern and central sections of the North Sea, which include the following fields: Dumbarton, Balloch, Lochranza and Drumtochty (100%), Flyndre (65.94%), Affleck (66.67%), Golden Eagle (31.56%), Scott (5.16%) and Telford (2.36%). The Cawdor license (60.6%) expired before the sale was finalized.

In **Kazakhstan**, oil and gas production comes mainly from the Kashagan field operated by the North Caspian Operating Company (NCOC) in the North Caspian license (16.81%). Production in the first phase of the Kashagan field and the associated processing plant, which began in 2016, reached its capacity of 400 kb/d, although production was capped at 327 kb/d in 2020 to comply with the production quotas adopted by OPEC+. In December 2020, an additional phase was approved to increase the oil and gas production capacity. In the Dunga field (60%, operator), phase 3 of development has proceeded on schedule and the start-up of the production of the first wells occurred in November 2020.

In **Denmark**, TOTAL is operator of the Danish Underground Consortium (DUC) (43.2%). Operated production (100%) comes from DUC's two main assets: the Dan/Halfdan and Gorm/Tyra fields. Production on the Tyra field was halted in September 2019 for the field's redevelopment, whose objective is to extend the lifetime of both the Tyra field and its satellite fields. Due to COVID-19 pandemic, the production restart initially planned in 2022, should now occur in 2023. While the field's installations are shut down, the gas is being exported from the facilities at the Dan/Halfdan fields.

In the **Netherlands**, production originates from the assets held in 22 offshore production licenses, of which 18 are operated. As part of the continuous optimization of its portfolio in the North Sea, TOTAL sold its 22.46% interest in the Unit K9ab-A in 2020. The finalization of this transaction is expected in 2021.

In **Italy**, TOTAL operates the Tempa Rossa field (50%) located on the Gorgoglione concession (Basilicate region). Production at Tempa Rossa started in December 2019 and reached its planned capacity of 50 kboe/d in October 2020. TOTAL also holds interests (13.77% to 80%) in five exploration licenses.

In **Azerbaijan**, the development of the Absheron gas and condensates field (50%) in the Caspian Sea, which is operated by JOCAP (Joint Operating Company of Absheron Petroleum, a company jointly held by TOTAL and SOCAR), is underway, with a view to supplying the domestic market. The drilling operations completed in November 2019 confirmed the deposit's significant potential beyond the first development phase, the production capacity of which will be 35 kboe/d.

In **Bulgaria**, TOTAL operates the deep offshore Han Asparuh exploration block (57.14%). A 3D seismic survey was conducted in 2020.

In **Greece**, TOTAL sold in December 2020 its 50% interest in the Block 2 exploration license in the Ionian Sea. In October 2019, TOTAL gained a 40% interest and the operatorship of two licenses to explore two offshore blocks west and southwest of Crete.

(1) TOTAL's aggregate interest through a direct interest of 49% in the company ZAO Terneftegas and a 9.89% indirect interest through its 19.40% interest in the company PAO Novatek.

Rest of Europe and Central Asia

TOTAL also holds a 33.35% interest in an exploration license without activity in Tajikistan.

2.2.2.2 Africa (excluding North Africa)

In **Nigeria**, the Group's production is mainly offshore. TOTAL is operator on five production licenses (OMLs) out of the 33 licenses in which the Group has a stake.

Specifically, TOTAL has offshore operations on the following licenses:
- On OML 130 (24%, operator), the Egina field reached its production plateau of more than 200 kboe/d in May 2019, after beginning production in December 2018. The Preowei field development plan was approved by the authorities in 2019.
- On OML 99 (40%, operator), following the final investment decision on the Ikike field made in January 2019, the project is currently underway and first oil is expected in late 2021.
- On OML 139 (18%), the plan to develop the Owowo discovery, made by TOTAL in 2012, is under examination. This discovery is near the OML 138 license (20%), where the Usan field is in production.

TOTAL is also present onshore, notably through the SPDC joint venture (10%), which has 19 production licenses (of which 16 are located onshore) following the sale of interests in OML 17 in January 2021.

The Group's LNG activities in Nigeria are described in the iGRP segment in point 2.1.2 of this chapter.

In **Angola**, where TOTAL is the largest operator[1], the Group's production comes from Blocks 17, 32, 0, 14 and 14K:
- The deep offshore Block 17 (38%, operator), TOTAL's main asset in Angola, is composed of four major producing hubs: Girassol, Dalia, Pazflor and CLOV. The three brownfield projects (Zinia Phase 2, Clov Phase 2 and Dalia Phase 3, all launched in 2018) are satellite developments of the Pazflor, CLOV and Dalia FPSOs and are expected to start production by 2022. Following the agreement signed in December 2019 with state-owned Sonangol and the National Oil, Gas and Biofuels Agency (ANPG), all Block 17 production licenses were extended until 2045, effective April 2020. Since April, Sonangol has held a 5% interest in Block 17 and will gain an additional 5% interest in 2036. Since Sonangol's entry into Block 17, the Group has a 38% interest and continues to serve as operator. Other satellite projects were approved in late 2019. They consist of infill wells expected to be drilled and gradually produce from 2021. They will be used to consolidate production in the Pazflor, Rosa, Girassol and Dalia fields. Exploration is also expected to unlock further resources; two exploration wells are expected to be drilled in 2022-2023.
- On the deep offshore Block 32 (30%, operator), production of the Kaombo project started in July 2018 with the start-up of the Kaombo Norte FPSO. The second FPSO, Kaombo Sul, started up in April 2019. The discoveries in the central and northern parts of the Block (outside Kaombo) offer additional potential currently being assessed.
- On Block 0 (10%), production comes from different fields. Drilling was temporarily halted in April 2020 because of the COVID-19 pandemic and is expected to resume in 2021.
- On Block 14 (20%)[2], production comes from the Tombua-Landana and Kuito fields as well as the BBLT project, comprising the Benguela, Belize, Lobito and Tomboco fields.
- Block 14K (36.75%) is the offshore unitization area between Angola (Block 14) and the Republic of Congo (Haute Mer license). Through Angola Block 14 BV, TOTAL holds interests (10%) in the Lianzi field located in Block 14K.

In June 2020, TOTAL completed its acquisition of holdings in Blocks 20/11 (50%) and 21/09 (80%) in the Kwanza basin, off Luanda's coast, with the aim of developing a new production hub. TOTAL has become operator for development of the two blocks, where several discoveries have been made. The drilling of an appraisal well on the Block 20/11 started in January 2021.

In exploration, TOTAL obtained a license for Block 48 (50%, operator) in 2018. The initial two-year exploration period was extended after the onset of the COVID-19 pandemic, and an exploration well is planned for 2021.

The Group's LNG activities in Angola are described in the iGRP segment in point 2.1.2 of this chapter.

In the **Republic of Congo**, the Group's production comes from the Total E&P Congo subsidiary, owned by TOTAL (85%) and Qatar Petroleum (15%).

Two significant assets operated by Total E&P Congo are in production in the Moho Bilondo license (53.3%, operator): the Moho Bilondo field and the Moho Nord field. Since early 2018, Moho Nord field has continued to produce more than its capacity of 100 kboe/d thanks to excellent well productivity.

TOTAL's production on the Kombi, Likalala and Libondo fields (65%) ended in July 2020 when the license expired.

Block 14K (36.75%) is the offshore unitization area between Angola (Block 14) and the Republic of Congo (Haute Mer license). Through Total E&P Congo, TOTAL holds a 26.75% interest in the Lianzi field located in Block 14K.

The licence for the operation of Djeno (63%), the sole oil terminal in the country, expired in November 2020 and negotiations concerning the new licence are ongoing. Total E&P Congo continues to operate the oil terminal as part of an interim agreement during the negotiation phase.

The Republic of Congo awarded three new exploration licenses to TOTAL in February 2020: Marine XX, deep offshore, as well as Nanga and Mokelembembe, located onshore.

In the **Democratic Republic of Congo**, after the completion of seismic survey work, TOTAL informed the authorities of its withdrawal from Block III in January 2019.

In **Gabon**, production comes from TOTAL's stake in Total Gabon[3], the operator (100%) of the offshore fields in the Anguille and Torpille sectors, the onshore fields in the Mandji Island sector and the Cap Lopez oil terminal. Total Gabon also holds interests in the licenses in the Grondin (65.28%) and Hylia (37.50%) sectors.

In July 2020, Total Gabon announced it had signed an agreement with Perenco Oil & Gas Gabon to sell its interests in seven mature offshore fields as well as its interests and operatorship in the Cap Lopez oil terminal. Once the finalization of the transaction expected in 2021, Total Gabon's activities will focus on the Anguille-Mandji and Torpille-Baudroie-Mérou operated assets.

In **Uganda**, TOTAL is a partner, with a 56.67% interest, in the project to develop the Lake Albert oil resources located in Blocks EA1, EA2 and EA3, following its acquisition of Tullow's interest in the project in November 2020 and the entry of UNOC, Uganda's national oil company, with a 15% interest in those blocks. TOTAL is also a shareholder in East African Crude Oil Pipeline Ltd (EACOP), the company responsible for developing and operating the pipeline of close to 1,450 kilometer that will transport the crude oil to a storage and offloading terminal in Tanga, Tanzania.

(1) Company data.
(2) Interest held through Angola Block 14 BV (Total 50.01%).
(3) Total Gabon is a company under Gabonese law. Its shares are listed on Euronext Paris and owned by TOTAL (58.28%), the Republic of Gabon (25%) and the public (16.72%).

The project approved by the Board of Directors during its meeting held on December 16, 2020, after taking into consideration the societal and environmental challenges plans a production capacity of 230 kb/d through the joint development of the resources in Blocks EA-1 and EA-2, operated by TOTAL (the Tilenga project), and those in Block EA-3, operated by CNOOC (the Kingfisher project). It will include drilling of approximatively 450 onshore wells and construction of two crude oil processing facilities.

In **Mauritania**, TOTAL is continuing its exploration activities on two operated offshore blocks: C15 (90%) and C31 (90%) on which a 3D seismic survey has been acquired in 2020. After drilling a well in 2019, TOTAL relinquished Block C9 in January 2020. TOTAL also relinquished Block C7 in June 2020 and Block C18 in December 2020.

In **Senegal**, TOTAL is continuing its exploration activities on two operated offshore blocks. In 2019, TOTAL drilled an exploration well in Rufisque Offshore Profond (ROP) (60%). On the block Ultra Deep Offshore (UDO) (70% following the partial sale of a 20% interest in October 2020), a 3D seismic was acquired.

In **Kenya**, TOTAL holds interests in both onshore (10BA, 10BB and 13T) and offshore (L11A, L11B and L12) exploration licenses. In August 2019, TOTAL announced it signed an agreement that enables Qatar Petroleum to acquire a portion of its interests in those offshore licenses. The finalization of this transaction remains subject to government approval. On the Blocks 10BB and 13T where several oil discoveries have been made, the partners are evaluating possible options for an eventual commercial development.

In **South Africa**, TOTAL operates five deep offshore exploration licenses in the South Outeniqua Block (100%), Block 11B/12B (45%), Block ODB (77.78%), Block DOWB (80%) since November 2019, and Block 5/6/7 (40%) within the Orange Basin following the acquisition in January 2020 of Anadarko Petroleum Corporation's assets in South Africa from Occidental Petroleum Corporation. TOTAL sold its interest in the East Algoa license (30%). The finalization of this transaction remains subject to the government approval.

Following the drilling of the first Brulpadda-1Ax exploration well in Block 11B/12B in January 2019, TOTAL announced a discovery of gas and condensates and proceeded with 3D and 2D seismic surveys. A second discovery of gas and condensates, adjacent to Brulpadda, was made in October 2020 and named Luiperd.

In **Namibia**, TOTAL operates two deep offshore exploration licenses in Blocks 2912 (38%) and 2913B (40%) The interests of TOTAL in these Blocks were respectively reduced to 38% and 40% after government approval of the transactions completed in 2020. An exploration well is planned in 2021 on the Venus prospect (Block 2913B).

Rest of the Africa zone

TOTAL holds interests in three exploration licenses in Côte d'Ivoire: in Blocks CI-705 (45%, operator) and CI-706 (45%, operator) following the acquisition of a 45% interest by Qatar Petroleum in September 2020, as well as in Block CI-605 (90%, operator). TOTAL also holds two exploration licenses granted in March 2019, one for Block ST-1 in São Tomé et Principe and the other for Blocks JDZ-7, 8, 11 in the joint development area between São Tomé et Principe and Nigeria. Additionally, in May 2020 TOTAL announced its decision not to continue the acquisition of Anadarko Petroleum Corporation's assets in Ghana (24% of the Jubilee field and 17% of the Ten field).

2.2.2.3 Middle East and North Africa

In the **United Arab Emirates**, the Group's production, mainly oil, is sourced from different concessions.

Since March 2018, the Group has held a 20% interest in the Umm Shaif/Nasr offshore concession and a 5% interest in the Lower Zakum offshore concession to be operated for a forty-year period by ADNOC Offshore, following the previous Abu Dhabi Marine Areas Ltd. (ADMA) offshore concession. TOTAL also operates the Abu Al Bukoosh offshore field (100%) whose license expires in March 2021.

In addition, the Group owns a 10% interest in the ADNOC Onshore concession, which encompasses Abu Dhabi's 15 major onshore fields; the license was extended for 40 years in 2015.

TOTAL also holds a 10% interest in ADNOC Gas Processing, a company that produces natural gas liquids (NGLs) and condensates from the associated gas produced by ADNOC Onshore, and a 24.5% interest in Dolphin Energy Ltd., which sells gas from the Dolphin Block in Qatar to the United Arab Emirates and Oman. Dolphin Energy's operations have not been affected by the change in diplomatic relations between the United Arab Emirates and Qatar.

In November 2018, the state-owned Abu Dhabi National Oil Company (ADNOC) signed an agreement with TOTAL granting it a 40% interest in the Ruwais Diyab Unconventional Gas Concession. Under the terms of the agreement, TOTAL will explore, appraise and develop the concession area's unconventional gas resources. The program finalizes fracking and testing of the existing three exploration wells and includes two appraisal wells and two new exploration wells. The completion of the facilities and pipeline will allow the exportation of the unconventional gas to the domestic market in 2021.

The Group's LNG activities in the United Arab Emirates are described in the iGRP segment in point 2.1.2 of this chapter.

In **Qatar**, production comes mainly from the Group's interests in the Al Khalij offshore field (40%, operator) and the Al Shaheen field (30%). The latter field, located offshore 80 kilometers north of Ras Laffan, is operated by the North Oil Company, which is owned by TOTAL (30%) and Qatar Petroleum (70%). TOTAL has held a 25-year interest in the Al Shaheen field since 2017. TOTAL also holds a 24.5% interest in the offshore Dolphin Block, producing gas that is sold in the United Arab Emirates and Oman. Dolphin Energy's operations have not been affected by the change in diplomatic relations between the United Arab Emirates and Qatar.

The Group's LNG activities in Qatar are described in the iGRP segment in point 2.1.2 of this chapter.

In **Libya**, production comes in part from the Al Jurf fields located in the offshore areas 15, 16 and 32 (75%) and from the El Sharara fields located in the onshore areas 129-130 (30%) and 130-131 (24%). In those onshore areas, production was suspended on several occasions between July 2018 and October 2020 for reasons of safety and lack of access to export facilities. The Mabruk fields (75%), located in the onshore areas 70 and 87, have been shut down since the end of 2014.

Additionally, in March 2018 TOTAL acquired Marathon Oil Libya Limited, which holds a 16.33% interest in the onshore Waha concessions. That acquisition received final approval from the competent authorities in December 2019. Production at the Waha fields was suspended from January to October 2020 for reasons of safety and lack of access to export facilities. The Waha production restarted in November 2020 and the access to export facilities was restored.

In **Algeria**, production comes from the Group's interests in the TFT II and Timimoun gas fields and the oil fields in the Berkine basin (Blocks 404a and 208).

Under the terms of the comprehensive partnership agreement signed in 2017 with the authorities, two new concession agreements and corresponding gas sales agreements came into effect for TFT II (26.4%) in 2018 and for TFT SUD (49%) in 2019. Moreover, TOTAL finalized an agreement to buy the 22.6% share of a partner in TFTII. This acquisition remains subject to approval by the relevant authorities. A concession agreement and a gas sales agreement for Timimoun (37.75%) also took effect in 2018, replacing the previous contracts from 2012. Production at Timimoun began in 2018.

In addition, TOTAL owns a 12.25% interest in the Hassi Berkine, Ourhoud and El Merk onshore oil fields, which are already in production.

In **Oman**, TOTAL has a presence in oil production in Block 6 (4%). The sale of its 2% interest in Block 53 was finalized in October 2020. Additionally, in February 2020, TOTAL signed a concession agreement with the Oman government to explore the resources in the onshore Block 12, located in the Greater Barik area.

The Group's LNG activities in Oman are described in the iGRP segment in point 2.1.2 of this chapter.

In **Iraq**, the Group's production comes primarily from its 22.5% interest in the risk service contract for the Halfaya field, located in Missan province. Phase 3 of the project to develop the Halfaya field began production in 2018 and reached the production plateau of 400 kb/d in March 2019. A contract was awarded in July 2019 for treatment of the associated gas and recovery of the LPG and condensates. Production in 2020 was affected by the application of the production quotas adopted by the OPEC+.

TOTAL also holds an 18% stake in the Sarsang field in Iraqi Kurdistan, which is already in production.

In **Yemen**, TOTAL has a variety of interests in both the onshore Block 5 (Marib basin, Jannah license, 15) and four onshore exploration licenses, for which force majeure has been declared. The Group's LNG activities in Yemen are described in the iGRP segment in point 2.1.2 of this chapter.

In **Iran**, TOTAL ceased all operational activity prior to the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

In **Syria**, TOTAL discontinued its activities connected with oil and gas production since December 2011.

In **Cyprus**, TOTAL is present in the offshore Blocks 6 (50%) and 11 (50%, operator) and entered the exploration Blocks 2 (20%), 3 (30%), 7 (50%, operator), 8 (40%) and 9 (20%) in October 2019.

In **Lebanon**, TOTAL has been operator since February 2018 of the two offshore exploration Blocks 4 and 9 (40%, operator). The first exploration well was drilled on Block 4 in 2020 and declared as a dry well.

In **Egypt**, TOTAL is present in the offshore exploration Block 7 (25%) where drilling led to a gas discovery in July 2020 and entered the offshore Block 3 (35%) as operator in December 2020.

2.2.2.4 Americas

In the **United States**, TOTAL's oil and gas production in the Gulf of Mexico comes from its interests in the Tahiti (17%) and Jack (25%) deep offshore fields.

TOTAL is operator of the North Platte discovery (60%) and holds a stake in the Anchor project (37.14%). The development of the latter, offering production capacity expected to plateau at 80 kboe/d, continues to move towards first oil in 2024. The FEED (Front End Engineering and Design) studies for the North Platte development began in late 2019 and are still in progress. Both projects, however, have encountered delays related to the COVID-19 pandemic.

For the Ballymore discovery (40%), the studies initiated at the end of the appraisal program to establish the project's profitability based on an optimized development plan, have been completed and the FEED studies are expected to be launched in 2021. In exploration, the Group operated the drilling of the South Platte well in Block GB1003 in 2020.

TOTAL owns a 25% stake in shale gas acreage located mainly in Ohio that is part of the Utica Shale. TOTAL has not participated in any new production drilling since 2016.

The Group's LNG activities in the United States are described in point 2.1.2 of this chapter.

In **Canada**, the Group's output comprises bituminous oil sands. TOTAL has a 50% interest in Surmont, a Steam-Assisted Gravity Drainage (SAGD) production project, and a 24.58% interest in the Fort Hills mining extraction project, both in the province of Alberta. Production at Surmont and Fort Hills, like that of most Canadian producers, was cut back significantly in 2020 as a result of the sharp drop in oil prices and reduced demand related to the COVID-19 pandemic. TOTAL recorded a significant impairment on these assets in view of the evolution of the oil price scenarios and in coherence with the Group's new Climate ambition (refer to Note 3D to the Consolidated Financial Statements). TOTAL also announced it will not approve any new capacity increase project on those Canadian oil sands assets.

In **Argentina**, TOTAL operated approximately 26% of the country's gas production in 2020, becoming the country's leading gas operator[1].

In Tierra del Fuego, on the CMA-1 concession, TOTAL operates the Ara and Cañadon Alfa Complex onshore fields and the Hidra, Carina, Aries and Vega Pleyade offshore fields (37.5%).

In the onshore Neuquén Basin, the Group holds interests in 10 licenses and operates six of them, including Aguada Pichana Este and San Roque. In addition to conventional oil and gas production, TOTAL operates three shale gas and oil pilot projects. The first is in the Aguada Pichana block, in the gas portion of Vaca Muerta; the second is in the Rincón la Ceniza block, in the gas and condensate portion of Vaca Muerta (45%); and the third is in the Aguada San Roque block in the oil portion of Vaca Muerta (24.71%).

Following positive results in the Aguada Pichana gas pilot project and a reduction in drilling costs, the first phase of development was launched on the license. As part of the project, the license partners agreed to split the Block into two sub-blocks, East and West, raising TOTAL's interest to 41% in the eastern unconventional portion of the Block (Vaca Muerta) while maintaining its original 27.27% interest in the conventional portion of the Block (Mulichinco), and its role as operator of both blocks. In exchange, TOTAL limited its interest, now non-operated, in the Aguada Pichana Oeste Block to 25% and where a pilot project has entered into production. On Aguada Pichana Este, a second development phase was launched in 2018, which is expected to allow the production plateau to reach 500 Mcf/d, corresponding to the capacity of the existing plant.

The gas and condensate pilot project in the Rincón la Ceniza block was completed in 2019 with promising results. The delineation well drilled in 2016 on the neighboring La Escalonada block to test the oil portion of the formation has also shown good productivity. This well was connected to the Rincón la Ceniza facility in 2019. Two additional wells drilled on the Rincón la Ceniza block have confirmed the oil potential of those two blocks.

The wells of the first pilot on San Roque have been in production since 2018, and a second series of wells started up in May 2019, confirming the oil potential of the formation.

(1) Source: Argentine Ministry of the Economy, Energy Secretariat.

In exploration, TOTAL is operator for three new exploration licenses in conventional offshore: CAN 111 and CAN 113 (50%) since October 2019 and MLO 123 (37.5%) since November 2019.

In **Bolivia**, TOTAL has a stake in six licenses, five of which are in production: San Alberto (15%), San Antonio (15%), the XX Tarija Oeste Block (Itau) (41%), Aquio and Ipati (50%, operator), which includes the Incahuasi field. The connection of the ICS-3 well in 2018, the drilling of the ICS-5 well in May 2019 and the increase of the treatment facility's capacity to 390 Mcf/d are all expected to ensure stable long-term production of the field.

On the Azero exploration license (50%, operator), the drilling of the NCZ-X1 exploration well proved dry and is being plugged and abandoned.

In **Brazil**, production comes from the Libra (20%), Lapa (35%, operator) and Iara (22.5%) Blocks. TOTAL's acquisition of an additional 10% interest in Lapa under the agreement signed in December 2018, thus increasing the Group's interest in the asset from 35% to 45%, is pending. The finalization of that transaction remains subject to approval by the Brazilian authorities.

The Mero field, on the Libra Block, is located in the Santos Basin, approximately 170 kilometers off the coast of Rio de Janeiro. Production began in 2017 with the Pioneiro de Libra FPSO (with capacity of 50 kb/d) designed to carry out the long-term production testing needed to optimize future development phases.

The construction of three FPSOs was approved at year-end 2020 for the Mero development project: Mero 1, launched in 2017 with a liquid treatment capacity of 180 kb/d, with a start-up expected in the fourth quarter of 2021; Mero 2, launched in 2019, (liquid treatment capacity of 180 kb/d), for which start-up is expected in 2023; and Mero 3 (liquid treatment capacity of 180 kb/d), launched in August 2020 with a start-up expected in 2024. Development of the fourth FPSO is expected to begin in 2021.

At Iara, production started in November 2019 with the P-68 FPSO (capacity of 150 kb/d), designed for developing the Berbigao and Sururu-West fields. Production at the Atapu-North field began in June 2020 with the P-70 FPSO (capacity of 150 kb/d). Production at those two FPSOs is currently being increased to capacity level.

At Lapa, a drilling campaign was conducted from June 2019 to June 2020 in the northeastern section of the field to increase the FPSO's production (capacity of 100 kb/d) by adding two injector wells and replacing two productive wells. Final investment decision of the South West section of Lapa, with two productive wells and one injector well, is expected in 2022.

In exploration, TOTAL and its partners, Qatar Petroleum and Petronas, were awarded Block C-M-541 at the 16th oil bidding round conducted by Brazil's National Agency of Petroleum, Natural Gas and Biofuels (ANP) in October 2019. The Block is located in the Campos Basin pre-salt in ultra-deep water. TOTAL's 40% interest in the Block is expected to decrease to 30% subject to the closing of an ongoing 10% farm-out. In addition, the Group holds interests in 16 exploration licenses located in the Barreirinhas, Ceará, Espirito Santo, Foz do Amazonas and Pelotas basins. In September 2020, TOTAL signed an agreement with Petrobras to transfer to the latter its role as operator as well as its interests in the five Foz do Amazonas exploration blocks. The partners decided to relinquish the Pelotas exploration licenses.

As part of their strategic alliance, TOTAL and Petrobras have formally agreed to promote closer technical cooperation between the two companies, specifically through a joint assessment of the exploration potential of promising areas in Brazil and through the development of new technologies, particularly in deep offshore.

TOTAL holds an interest in the Gato de Mato field discovered in 2012. The field's resources were confirmed with the GDM#4 well, drilled in 2020. The development studies should pave the way for development to begin in 2021.

TOTAL signed an agreement in March 2021 to sell its 28.6% interest in the BM-C-30 where Wahoo discovery is located. The finalization of this transaction is expected in 2021. TOTAL also owns an interest in Itaipu (40%) field in the Campos basin's BM-C-32, currently being evaluated. In 2020, TOTAL (70%, operator) and its partner notified the ANP of their intention to relinquish the license for the Xerelete field.

In **Venezuela**, production comes from the Group's interests in PetroCedeño S.A. (30.32%) and Yucal Placer (69.5%). Following the new international economic sanctions imposed at the beginning of 2019, the development of the PetroCedeño extra heavy oil field and the debottlenecking project for the water separation and treatment facilities were suspended in 2019 (no well drilled in 2020 compared to three wells in 2019, and 26 in 2018). Production in the PetroCedeño field has fallen to extremely low levels (between 0 and 6 kb/d) since June 2019. For further information, see point 3.2 of chapter 3.

In **Suriname**, TOTAL owns a 50% interest in the Block 58. In 2020, three exploration wells have been drilled in the Block – Maka Central-1, Sapakara West-1, Kwaskwasi-1. Each well has yielded a discovery. Appraisal programs have been submitted to the Suriname government for Maka, Sapakara and Kwaskwasi. TOTAL announced a fourth oil and gas discovery at the Keskesi East-1 well, in Block 58 in January 2021. TOTAL assumed the role of operator for Block 58 on January 1, 2021, and will lead the assessment of the discoveries made to date while continuing its exploration of the Block.

In **Mexico**, TOTAL holds licenses in seven offshore exploration blocks in the Gulf of Mexico: Block 2 (50%, operator), located in the Perdido Basin; Blocks 1 (33.33%) and 3 (33.33%), located in the Salina Basin; Block 15 (60%, operator); and Blocks 32 (50%), 33 (50%, operator) and 34 (42.5%), located in the shallow waters of the Campeche Basin. TOTAL has begun the process of relinquishing Block 2 to the Mexican authorities. In 2020, TOTAL received the approval of the authorities for the sale of Blocks 15, 33 and 34 to Qatar Petroleum which would result in TOTAL's interests of 50%, 35% and 27.5% in the Blocks respectively. The closing of this transaction is in progress.

In **Guyana**, TOTAL has interests in the Canje Block (35%), the Kanuku Block (25%) and the Orinduik Block (25%) as part of the exploration of the prolific offshore Guyana Basin. In December 2020, an exploration well was spudded in Block Canje. In March 2021, the sale to Qatar Petroleum of 40% of the company that owns the interests in Orinduik and Kanuku received government approval. A final prospectivity review is to be conducted in 2021 on the Orinduik Block.

2.2.2.5 Asia-Pacific

In **Thailand**, the production of condensates and natural gas comes from the Bongkot (33.33%) offshore gas and condensates field and is purchased in its entirety by PTT, the state-owned oil and gas company. Several new wells were drilled in 2020 to maintain the production plateau. The licenses associated to the Block 15 and the Blocks 16 & 17 will expire in April 2022 and March 2023 respectively.

In **China**, production comes from the South Sulige Block (49%) in the Ordos Basin of Inner Mongolia, where tight gas development wells are being drilled.

TOTAL holds a 49% interest and is operator of the Taiyang exploration Block located in the China Sea in both Chinese and Taiwanese waters. Two 2D seismic surveying campaigns were completed in 2018 and 2019.

In **Myanmar**, the Yadana, Sein and Badamyar fields (31.24%, operator), located on the offshore Blocks M5 and M6, primarily produce gas for delivery to PTT to be used in Thai power plants. Those fields also supply the domestic market via an offshore pipeline built and operated by MOGE, Myanmar's state-owned company. A 3D seismic survey (5,700 square kilometers) was conducted on Block M5 in 2019.

With regard to the A6 exploration license (40%) located in deep offshore waters west of Myanmar, where a gas discovery has been made, the design studies completed in the second quarter of 2019 confirmed the technical and financial viability of the project. The deep offshore Block YWB (100%, operator) was relinquished in August 2020.

In **Brunei**, production comes from the Maharaja Lela Jamalulalam offshore gas and condensates field on Block B (37.5%, operator); the gas is delivered to the Brunei LNG liquefaction plant.

In March 2020 TOTAL completed its sale of Total E&P Deep Offshore Borneo BV, a wholly owned affiliate that holds an 86.95% interest in Block CA1, located 100 kilometers off the coast of Brunei.

In **Indonesia**, production comes from the Ruby gas field on the Sebuku license (15%).

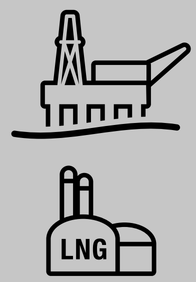
In **Papua New Guinea**, TOTAL holds interests in the PPL339 (35%), PPL589 (100%) and PPL576 (100%) exploration licenses. The Group's LNG activities in Papua New Guinea are described in point 2.1.2 of this chapter.

Rest of the Asia-Pacific zone

TOTAL also holds interests in exploration licenses in Malaysia. In Cambodia, TOTAL is working to implement an agreement signed with the Cambodian government in 2009 to conduct exploration in Block 3, which is located in an area of the Gulf of Thailand claimed by both the Cambodian and Thai governments. The agreement remains subject to the development of an appropriate contractual framework by the two countries. In Sri Lanka, TOTAL signed an agreement in 2016 to conduct studies on the JS-5 and JS-6 Blocks off the country's eastern coast. Based on the findings of these studies, the Group decided not to renew the agreement in September 2020.

2.3 Upstream oil and gas activities

The Group's Upstream oil and gas activities include the oil and gas exploration and production activities of the Exploration & Production and the Integrated Gas, Renewables & Power (iGRP) segments. They are conducted in more than 50 countries.



2.9 Mboe/d
of hydrocarbons produced in 2020

12.3 Bboe
of proved reserves of hydrocarbons as of December 31, 2020(1)

5.1 $/boe
Production costs (ASC932) in 2020

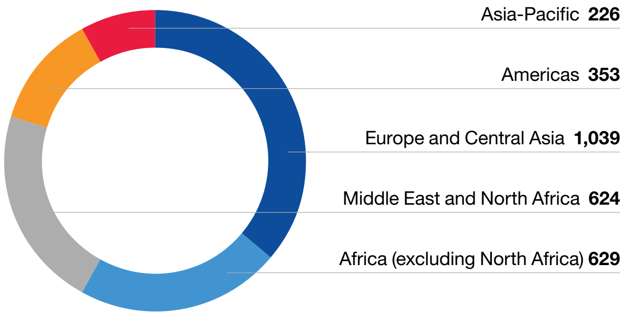
Production(2)

Hydrocarbon production	2020	2019	2018
Combined production *(kboe/d)*	2,871	3,014	2,775
Oil (including bitumen) *(kb/d)*	1,298	1,431	1,378
Gas (including Condensates and associated NGL) *(kboe/d)*	1,573	1,583	1,397

Hydrocarbon production	2020	2019	2018
Combined production *(kboe/d)*	2,871	3,014	2,775
Liquids *(kb/d)*	1,543	1,672	1,566
Gas *(Mcf/d)*	7,246	7,309[a]	6,599

(a) Data restated.

Hydrocarbon production by geographic area (kboe/d)



In 2020, the Group's hydrocarbon production was 2,871 kboe/d, a decrease of 5% compared to last year, due to:

- -5% due to compliance with OPEC+ quotas, notably in Nigeria, the United Arab Emirates and Kazakhstan, as well as voluntary reductions in Canada and disruptions in Libya.
- +5% due to the ramp-up of recently started projects, notably Culzean in the United Kingdom, Johan Sverdrup in Norway, Iara in Brazil, Tempa Rossa in Italy and North Russkoye in Russia.
- -3% due to the natural decline of fields.
- -2% due to maintenance, and unplanned outages, notably in Norway.

Thanks to a significant decrease in capital investments, which peaked in 2013, the Group had regained some flexibility for opportunities. Despite the 2020 crisis and thanks to a disciplined action plan, the Group was able to seize opportunities, including, in particular, the acquisitions of assets in Uganda, South Africa and Angola, and to launch new projects, taking advantage of the current low level of costs. After a nearly 30% rotation of its asset base since 2015, and in order to continue high-grading its portfolio, the Group also performed asset sales in various areas such as the North Sea.

Since 2018, the Group has launched, or plans to launch, numerous projects which will contribute to increase production by around 2% per year on average between 2019 and 2025, most of the increase being generated between 2022 and 2025.

(1) Based on a Brent crude price of $41.32/b (reference price in 2020), according to the rules established by the Securities and Exchange Commission (refer to point 2.3.1 of this chapter).
(2) Group production = EP production + iGRP production.

Technical costs

	2020	2019	2018
Operating expenses *($/b)*	5.1	5.4	5.7
Exploration costs *($/b)*	1.0	1.0	1.0
DD&A *($/b)*	11.9	12.9	12.2
Technical costs *($/b)*[a]	18.0	19.3	18.9

(a) Technical costs for the consolidated subsidiaries, calculated in accordance with ASC 932[1] standards, exluding non-recurrents items (refer to point 9.1.5 of chapter 9).

Production costs for the consolidated subsidiaries, calculated in accordance with ASC 932[1] standards, continued to decrease and were $5.1/boe in 2020, compared to $5.4/boe in 2019.

Liquids and gas sale price

Price realizations[a]	2020	2019	2018
Average liquids price *($/b)*	37.0	59.8	64.3
Average gas price *($/Mbtu)*	2.96	3.88	4.87

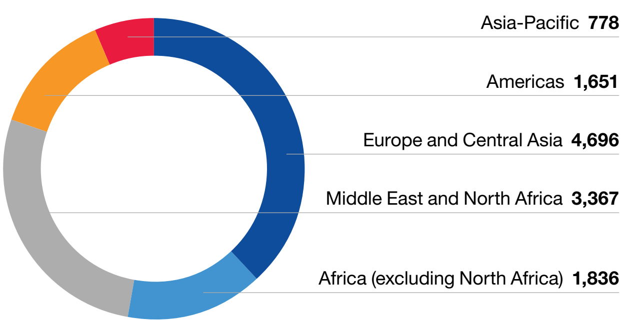
(a) Consolidated subsidiaries.

Proved reserves

As of December 31	2020	2019	2018
Hydrocarbon reserves *(Mboe)*	12,328	12,681	12,050
Oil (including bitumen) *(Mb)*	5,003	5,167	5,203
Gas (including Condensates and associated NGL) *(Mboe)*	7,325	7,514	6,847

As of December 31	2020	2019	2018
Hydrocarbon reserves *(Mboe)*	12,328	12,681	12,050
Liquids *(Mb)*	5,804	6,006	6,049
Gas *(Bcf)*	35,220	36,015	32,325

Hydrocarbon proved reserves by geographic area (Mboe)



Proved reserves of hydrocarbons based on SEC rules (Brent at $41.32/b in 2020) were 12,328 Mboe at December 31, 2020. The proved reserve replacement rate[2], based on SEC rules (Brent at $41.32/b in 2020), was 66% in 2020 and 127% over three years.

(1) FASB Accounting Standards Codification 932, Extractive industries – Oil and Gas.
(2) Change in reserves excluding production: (revisions + discoveries, extensions + acquisitions – divestments)/production for the period.

2.3.1 Oil and Gas reserves

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the United States Securities & Exchange Commission (SEC) Rule 4-10 of Regulation S-X as amended by the SEC Modernization of Oil and Gas Reporting release issued on December 31, 2008. Proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is economically producible under existing regulatory, economic and operating conditions.

TOTAL's oil and gas reserves are consolidated annually, taking into account among other factors, levels of production, field reassessments, additional reserves from discoveries and extensions, disposals and acquisitions of reserves and other economic factors.

Unless otherwise indicated, any reference to TOTAL's proved reserves, proved developed reserves, proved undeveloped reserves and production reflects the Group's entire share of such reserves or such production. TOTAL's worldwide proved reserves include the proved reserves of its consolidated entities as well as its proportionate share of the proved reserves of equity affiliates. The reserves estimation process involves making subjective judgments. Consequently, estimates of reserves are not exact measurements and are subject to revision under well-established control procedures.

The reserves booking process requires, among other actions:

- that an internal peer review of technical evaluations is carried out to ensure that the SEC definitions and guidance are followed; and
- that management makes the necessary funding commitments to their development prior to booking.

For further information concerning the reserves and their evaluation process, refer to points 9.1 and 9.2 of chapter 9.

Proved reserves for 2020, 2019 and 2018

In accordance with the amended Rule 4-10 of SEC Regulation S-X, proved reserves at December 31 are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The average reference prices for Brent crude for 2020, 2019 and 2018 were, respectively, $41.32/b, $62.74/b and $71.43/b.

As of December 31, 2020, TOTAL's combined proved reserves of oil and gas were 12,328 Mboe (65% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 47% of these reserves and natural gas 53%. These reserves were located in Europe and Central Asia (mainly in Kazakhstan, Norway, Russia and the United Kingdom), Africa (mainly in Angola, Mozambique, Nigeria and the Republic of Congo), the Americas (mainly in Argentina, Brazil, Canada, and the United States), the Middle East and North Africa (mainly in Libya, Qatar, United Arab Emirates, and Yemen), and Asia-Pacific (mainly in Australia).

Gas and associated products (condensates and natural gas liquids) represent approximately 59% of the reserves while crude oil and bitumen account for the remaining 41%.

Discoveries of new fields and extensions of existing fields added 1,435 Mboe to TOTAL's proved reserves during the three years 2018, 2019 and 2020 before deducting production and sales of reserves and without adding any reserves acquired during this period. The net level of reserve revisions during this three-year period is 1,580 Mboe, which was mainly due to the overall positive revisions in field behaviors and to the net impact of the changes in hydrocarbon prices in 2018 (increase), in 2019 (decrease) and in 2020 (decrease). This led either to a decrease or increase in reserves, resulting from the shorter or longer producing life of certain producing fields and from partial debooking or rebooking of proved undeveloped reserves due to economic reasons, partially offset by any increase or decrease in reserves on fields with production sharing or risked service contracts.

As of December 31, TOTAL's 2020, combined proved reserves of oil and gas stood at 12,328 Mboe (of which 7,985 Mboe were proved developed reserves) compared to 12,681 Mboe (of which 8,532 Mboe were proved developed reserves) as of December 31, 2019.

Reserve sensitivity to oil and gas prices

Changes in the price used as a reference for the proved reserves estimation result in non-proportionate inverse changes in proved reserves associated with production sharing and risked service contracts (which together represent approximately 22% of TOTAL's reserves as of December 31, 2020). Under such contracts, TOTAL is entitled to a portion of the production, the sale of which is meant to cover expenses incurred by the Group. The more the oil prices decrease, the more the number of barrels necessary to cover the same amount of expenses. Moreover, the number of barrels economically producible under these contracts may vary according to criteria such as cumulative production, the rate of return on investment or the income-cumulative expenses ratio. This increase in reserves is partly offset by a reduction of the duration over which fields are economically producible. However, the effect of a reduction of the duration of production is usually inferior to the impact of the drop in prices in production sharing contracts or risked service contracts. As a result, lower prices usually lead to an increase in TOTAL's reserves, and vice versa. In Canada, a decrease in the reference price per barrel leads to a decrease in the level of royalties and, therefore, an increase of the reserves.

Finally, for any type of contract, a significant decrease in the reference price of petroleum products that negatively impacts projects' profitability may lead to a reduction in proved reserves, and vice versa.

2.3.2 Exploration

TOTAL evaluates exploration opportunities based on a variety of geological, technical, political, economic (including tax and contractual terms), environmental and societal factors.

The exploration strategy deployed since 2015 aims to prioritize the most promising drill targets that have low technical cost and breakeven oil price with a view to creating value. The Group plans balanced exploration investments:

- 50% for emerging basins, where the presence of hydrocarbons is already proven;
- 35% for exploration in mature hydrocarbon plays; and
- 15% for high-potential frontier basins.

In 2020, the Group's exploration expenditure was $1.0 billion, mainly in South Africa, Suriname, the United States, the United Kingdom, Bolivia, Lebanon, Mexico, compared to $1.55 billion in 2019 and $1.2 billion in 2018. Six discoveries have been made by TOTAL in 2020: three oil and gas condensate discoveries in Suriname on Block 58 (Maka Central, Sapakara West, and Kwaskwasi, 50%), a gas condensate discovery in South Africa (Luiperd, 45%), an oil and gas discovery in the North Sea on license P1820 (Isabella, 30%), and a gas discovery in Egypt on the North El Hammad license (Bashrush, 25%).

2.3.3 Oil and gas production

The average daily production of liquids and natural gas was 2,871 kboe/d in 2020, compared to 3,014 kboe/d in 2019 and 2,775 kboe/d in 2018.

Gas and associated products (condensates and natural gas liquids) represented approximately 55% of TOTAL's overall production in 2020, compared to 53% in 2019 and 50% in 2018; crude oil and bitumen represented the remaining 45% in 2020, compared to 47% in 2019 and 50% in 2018.

The tables on the following pages set forth TOTAL's annual and average daily production of liquids and natural gas by geographic area and for each of the last three fiscal years.

Consistent with industry practice, TOTAL often holds a percentage interest in its fields with the balance being held by joint-venture partners (which may include other international oil companies, state-owned oil companies or government entities). The Group's entities may frequently act as an operator (the party responsible for technical production) on the acreage in which it holds an interest. For further information, refer to the table on producing assets by geographical zone below.

In 2020, as in 2019 and 2018, the Trading & Shipping unit of TOTAL's Refining & Chemicals segment marketed substantially all of the Group's liquids production (refer to the table regarding Trading & Shipping's crude oil sales and supply and petroleum products sales in Section 2.4.2.1 of this chapter).

Production by geographical zone

The following table sets forth the Group's annual liquids and natural gas production by geographical zone.

	2020			2019			2018		
	Liquids Mb[(a)]	Natural gas Bcf[(b)(c)]	Total Mboe	Liquids Mb[(a)]	Natural gas Bcf[(b)(c)]	Total Mboe	Liquids Mb[(a)]	Natural gas Bcf[(b)(c)]	Total Mboe
Europe and Central Asia	**139**	**1,298**	**380**	**130**	**1,313**	**374**	**122**	**1,131**	**332**
Denmark	9	20	13	12	42	20	9	36	15
Italy	6	1	6	<1	–	<1	<1	–	<1
Kazakhstan	23	25	28	22	25	27	20	26	26
Norway	47	172	79	38	197	75	38	211	77
Netherlands	<1	31	5	0	33	6	–	36	7
United Kingdom	26	260	74	29	218	69	28	206	65
Russia	28	789	175	29	798	177	27	616	142
Africa (excluding North Africa)	**179**	**262**	**231**	**204**	**269[(d)]**	**257**	**187**	**287**	**245**
Angola	68	53	78	75	51[(d)]	85	68	48	77
Republic of Congo	41	11	43	47	12	49	47	12	50
Gabon	9	2	10	11	2	12	13	4	14
Nigeria	61	196	100	71	204	111	59	223	104
Middle East and North Africa	**173**	**306**	**228**	**200**	**313**	**257**	**190**	**294**	**243**
Algeria	9	40	16	13	48	22	11	34	17
United Arab Emirates	95	17	99	104	19	108	102	21	105
Iraq	9	1	9	7	1	7	7	1	7
Libya	15	4	16	28	5	29	22	3	23
Oman	9	28	14	10	24	14	9	25	14
Qatar	36	216	74	38	216	77	39	210	77
Americas	**58**	**401**	**129**	**61**	**405**	**133**	**67**	**423**	**142**
Argentina	3	156	31	3	160	32	3	147	29
Bolivia	2	81	16	2	70	15	2	74	15
Brazil	13	1	13	6	1	6	7	–	7
Canada	29	–	29	35	–	35	35	–	35
Colombia				<1	–	<1	<1	–	<1
United States	11	148	37	13	154	40	12	176	44
Venezuela	<1	15	3	2	20	5	8	26	12
Asia-Pacific	**16**	**385**	**83**	**16**	**368**	**79**	**6**	**273**	**51**
Australia	12	168	43	10	151	38	1	66	12
Brunei	1	22	5	3	26	8	2	26	7
China	<1	46	9	<1	39	6	–	32	6
Indonesia	<1	4	1	<1	4	1	–	5	1
Myanmar	–	46	6	–	46	6	–	49	6
Thailand	3	99	19	3	102	20	3	95	19
TOTAL PRODUCTION	**565**	**2,652**	**1,051**	**611**	**2,688[(d)]**	**1,100**	**572**	**2,408**	**1,013**
INCLUDING SHARE OF EQUITY AFFILIATES	**74**	**1,006**	**260**	**79**	**1,015[(d)]**	**267**	**90**	**832**	**245**
Angola	2	35	8	2	33[(d)]	8	2	30	7
United Arab Emirates	8	13	11	9	14	12	15	16	18
Oman	9	29	14	9	24	13	9	25	13
Qatar	29	141	54	30	146	57	30	143	58
Russia	26	788	173	27	798	175	26	616	141
Venezuela	<1	<1	<1	2	<1	2	8	2	8

(a) Liquids consist of crude oil, bitumen, condensates and natural gas liquids (NGL).
(b) Including fuel gas (183 Bcf in 2020, 194 Bcf in 2019 and 166 Bcf in 2018).
(c) Gas conversion ratio: 1 boe = 1 b of crude oil = 5,453 cf of gas in 2020 (5,454 cf in 2019 and 5,460 cf in 2018).
(d) Data restated.

The following table sets forth the Group's average daily liquids and natural gas production by geographical zone.

	2020			2019			2018		
	Liquids kb/d[(a)]	Natural gas Mcf/d[(b)(c)]	Total kboe/d	Liquids kb/d[(a)]	Natural gas Mcf/d[(b)(c)]	Total kboe/d	Liquids kb/d[(a)]	Natural gas Mcf/d[(b)(c)]	Total kboe/d
Europe and Central Asia	**380**	**3,547**	**1,039**	**354**	**3,596**	**1,023**	**334**	**3,099**	**909**
Denmark	26	54	36	34	114	56	25	99	42
Italy	15	2	16	<1	–	<1	<1	–	<1
Kazakhstan	62	69	76	59	68	74	56	70	70
Norway	130	470	217	104	539	204	104	577	211
Netherlands	<1	87	15	<1	90	16	–	98	18
United Kingdom	70	710	201	79	598	189	75	566	179
Russia	77	2,155	478	78	2,187	484	74	1,689	389
Africa (excluding North Africa)	**488**	**717**	**629**	**558**	**737[(d)]**	**705**	**513**	**786**	**670**
Angola	184	146	212	205	140[(d)]	232	186	132	211
Republic of Congo	111	29	117	128	32	134	130	32	136
Gabon	26	7	27	31	7	33	36	12	39
Nigeria	167	535	273	194	558	306	161	610	284
Middle East and North Africa	**474**	**835**	**624**	**548**	**857**	**702**	**520**	**805**	**666**
Algeria	26	108	45	35	132	59	30	94	47
United Arab Emirates	261	47	270	286	51	295	276	57	288
Iraq	23	3	24	19	3	20	18	1	19
Libya	41	10	43	78	15	80	62	9	63
Oman	25	78	39	26	65	38	26	67	38
Qatar	98	589	203	104	591	210	108	577	211
Americas	**158**	**1,095**	**353**	**168**	**1,111**	**365**	**183**	**1,161**	**389**
Argentina	7	427	84	7	438	86	7	402	79
Bolivia	6	220	45	5	193	39	5	204	42
Brazil	34	4	35	16	2	16	18	1	19
Canada	81	–	81	98	–	98	95	–	95
Colombia				<1	–	<1	1	–	1
United States	29	404	101	36	423	111	35	483	119
Venezuela	1	40	7	6	55	15	22	71	34
Asia-Pacific	**43**	**1,052**	**226**	**44**	**1,009**	**219**	**16**	**748**	**141**
Australia	33	459	118	29	415	106	3	181	34
Brunei	3	61	15	7	72	21	5	72	19
China	<1	126	23	<1	106	19	–	88	16
Indonesia	<1	10	2	<1	10	2	–	14	3
Myanmar	–	126	16	–	126	16	–	133	17
Thailand	7	270	52	8	280	55	8	260	52
TOTAL PRODUCTION	**1,543**	**7,246**	**2,871**	**1,672**	**7,310[(d)]**	**3,014**	**1,566**	**6,599**	**2,775**
INCLUDING SHARE OF EQUITY AFFILIATES	**202**	**2,748**	**712**	**216**	**2,781[(d)]**	**731**	**247**	**2,281**	**671**
Angola	5	94	23	5	90[(d)]	22	4	81	20
United Arab Emirates	22	36	29	24	39	32	41	45	49
Oman	24	78	38	25	66	37	24	67	37
Qatar	78	386	148	83	400	155	85	395	157
Russia	72	2,154	473	73	2,185	479	71	1,689	385
Venezuela	1	<1	1	6	1	6	22	4	23

(a) Liquids consist of crude oil, bitumen, condensates and natural gas liquids (NGL).
(b) Including fuel gas (500 Mcf/d in 2020, 531 Mcf/d in 2019 and 454 Mcf/d in 2018).
(c) Gas conversion ratio: 1 boe = 1 b of crude oil = 5.453 cf of gas in 2020 (5,454 cf of gas in 2019 and 5,460 cf in 2018).
(d) Data restated.

Producing assets by geographical zone

The table below sets forth, as of December 31, 2020[a] and by geographical zone, TOTAL's producing assets, the year in which TOTAL's activities started, the Group's interest in each asset (Group share in %) and whether the Group operates the asset.

Europe and Central Asia	Exploration & Production segment	iGRP segment
Denmark (2018)	**Operated:** Danish Underground Consortium (DUC) zone (43.20%), comprising the Dan/Halfdan, Gorm and Tyra fields, and all their satellites	
Italy (1960)	**Operated:** Tempa Rossa (50.00%)	
Kazakhstan (1992)	**Operated:** Dunga (60.00%)	
	Non-operated: Kashagan (16.81%)	
Norway (1965)	**Operated:** Skirne (40.00%) **Non-operated:** Johan Sverdrup (8.44%), Åsgard (7.68%), Ekofisk (39.90%), Eldfisk (39.90%), Embla (39.90%), Flyndre (6.26%), Gimle (4.90%), Sindre (4.95%), Heimdal (16.76%), Islay (5.51%)[b], Kristin (6.00%), Kvitebjørn (5.00%), Oseberg (14.70%), Oseberg East (14.70%), Oseberg South (14.70%), Troll (3.69%), Tune (10.00%), Tyrihans (23.15%)	**Non-operated:** Snøhvit (18.40%)
Netherlands (1964)	**Operated:** F6a oil (65.68%), J3a (30.00%), K1a (40.10%), K3b (56.16%), K4a (50.00%), K4b/K5a (36.31%), K5b (50.00%), K6 (56.16%), L1a (60.00%), L1d (60.00%), L1e (55.66%), L1f (55.66%), L4a (55.66%)	
	Non-operated: E16a (16.92%), E17a/E17b (14.10%), J3b/J6 (25.00%), Q16a (6.49%)	
United Kingdom (1962)	**Operated:** Alwyn North (100.00%), Dunbar (100.00%), Ellon (100.00%), Forvie North (100.00%), Grant (100.00%), Jura (100.00%), Nuggets (100.00%), Islay (94.49%)[b], Elgin-Franklin (46.17%), West Franklin (46.17%), Glenelg (58.73%), Culzean (49.99%), Laggan Tormore, Edradour and Glenlivet (all 60.00%), Gryphon (86.50%), Maclure (38.19%), South Gryphon (89.88%), Tullich (100.00%), Ballindalloch (91.8%)	
	Non-operated: Bruce (1.00%), Markham unitized field (7.35%), Harding (30.00%)	
Russia (1991)	**Non-operated:** Kharyaga (20.00%), Termokarstovoye (58.89%)[c], several fields through its interest in PAO Novatek (19.40%)	**Non-operated:** Arctic LNG 2 (21,64%)[d], Yamal LNG (29.73%)[e]

(a) The Group's interest in the local entity is approximately 100% in all cases except for Total Gabon (58.28%), Total E&P Congo (85.00%) and certain entities in Abu Dhabi and Oman (see notes b through l below).
(b) The Islay field extends partially into Norway. Total E&P UK holds a 94.49% interest and Total E&P Norge 5.51%.
(c) TOTAL's aggregate interest through a direct interest of 49% in ZAO Terneftegas and a 9.89% indirect interest through its 19.40% shareholding in PAO Novatek.
(d) TOTAL's aggregate interest through a direct interest of 10% in LLC Arctic LNG 2 and a 11.64% indirect interest through its 19.40% shareholding in PAO Novatek.
(e) TOTAL's aggregate interest through a direct interest of 20.02% in OAO Yamal LNG and a 9.71% indirect interest through its 19.40% shareholding in PAO Novatek.

Africa (excluding North Africa)	Exploration & Production segment	iGRP segment
Angola (1953)	**Operated:** Girassol, Dalia, Pazflor, CLOV (Block 17) (38.00%), Kaombo (Block 32) (30.00%)	
	Non-operated: Cabinda Block 0 (10.00%), Kuito, BBLT, Tombua-Landana (Block 14) (20.00%)(f), Lianzi (Block 14K) (10.00%)[f]	**Non-operated:** Angola LNG (13.60%)
Gabon (1928)	**Operated:** Anguille Marine (100.00%), Anguille Nord Est (100.00%), Baliste (100.00%), Baudroie Marine (100.00%), Baudroie Nord Marine (100.00%), Grand Anguille Marine (100.00%), Lopez Nord (100.00%), Mérou Sardine Sud (100.00%), N'Tchengue (100.00%), Port Gentil Océan (100.00%), Torpille (100.00%), Torpille Nord Est (100.00%)	
	Non-operated: Barbier (65.28%), Girelle (65.28%), Gonelle (65.28%), Grondin (65.28%), Hylia Marine (37.50%), Mandaros (65.28%), Pageau (65.28%)	
Nigeria (1962)	**Operated:** OML 99 Amenam-Kpono (30.40%), OML 100 (40.00%), OML 102 (40.00%), OML 130 (24.00%)	**Operated:** OML 58 (40.00%)
	Non-operated: Shell Petroleum Development Company (SPDC 10.00%), OML 118 – Bonga (12.50%), OML 138 (20.00%)	**Non-operated:** Nigeria LNG (15.00%)
Republic of Congo (1968)	**Operated:** Moho Bilondo (53.50%), Moho Nord (53.50%), Nkossa (53.50%), Nsoko (53.50%), Sendji (55.25%), Yanga (55.25%)	
	Non-operated: Lianzi (26.75%), Loango (42.50%), Zatchi (29.75%)	

(f) Interest held through Angola Block 14 BV (TOTAL 50.01%).

Middle East and North Africa	Exploration & Production segment	iGRP segment
Algeria (1952)	**Non-operated:** TFT II (26.40%), Timimoun (37.75%), 404a & 208 (12.25%)	
United Arab Emirates (1939)	**Non-operated:** ADNOC Onshore (10.00%), ADNOC Offshore: Umm Shaif/Nasr (20.00%), Lower Zakum (5.00%), ADNOC Gas Processing (15.00%)	**Non-operated:** ADNOC LNG (5.00%)
Iraq (1920)	**Non-operated:** Halfaya (22.50%)[g], Sarsang (18.00%)	
Libya (1959)	**Non-operated:** zones 15, 16 & 32 (75.00%)[h], zones 129 & 130 (30.00%)[h], zones 130 & 131 (24.00%)[h], zones 70 & 87 (75.00%)[h], Waha (16.33%)	
Oman (1937)	**Non-operated:** various onshore fields (Block 6) (4.00%)[i]	**Non-operated:** Oman LNG (5.54%), Qalhat LNG (2.04%, through Oman LNG)
Qatar (1936)	**Operated:** Al Khalij (40.00%)	
	Non-operated: North Field-Block NF Dolphin (24.50%), Al Shaheen (30.00%)	**Non-operated:** North Field-Qatargas 1 Upstream (20.00%), North Field-Qatargas 1 Downstream (10.00%), North Field-Qatargas 2 Train 5 (16.70%)

(g) TOTAL's shareholding in the joint venture.
(h) TOTAL's shareholding in the foreign consortium.
(i) TOTAL's indirect interest (4.00%) in the concession through its 10.00% shareholding in Private Oil Holdings Oman Ltd.

Americas	Exploration & Production segment	iGRP segment
Argentina (1978)	**Operated:** Aguada Pichana Este – Mulichinco (27.27%), Aguada Pichana Este – Vaca Muerta (41.00%), Aguada San Roque (24.71%), Rincon La Ceniza (45.00%), La Escalonada (45%), Aries (37.50%), Cañadon Alfa Complex (37.50%), Carina (37.50%), Hidra (37.50%), Kaus (37.50%), Vega Pleyade (37.50%)	
	Non-operated: Aguada Pichana Oeste (25.00%), Aguada de Castro (25.00%)	
Bolivia (1995)	**Operated:** Incahuasi (50.00%)	
	Non-operated: San Alberto (15.00%), San Antonio (15.00%), Itaú (41.00%)	
Brazil (1999)	**Operated:** Lapa (35.00%)[j]	
	Non-operated: Libra (20.00%), Iara (22.50%)	
Canada (1999)	**Non-operated:** Surmont (50.00%), Fort Hills (24.58%)	
United States (1957)	**Non-operated:** several assets in the Utica Shale area (25.00%)[k], Tahiti (17.00%), Jack (25.00%)	**Operated:** several assets in the Barnett Shale area (91% on average)
Venezuela (1980)	**Non-operated:** PetroCedeño (30.32%), Yucal Placer (69.50%)	

(j) TOTAL signed in December 2018 an agreement to acquire an additional 10% interest in the Lapa project in Brazil. The transaction, which remains subject to the approval of the Brazilian authorities, will increase TOTAL's interest in this asset from 35% to 45%.
(k) TOTAL's shareholding in the joint venture with Encino and Enervest.

Asia-Pacific	Exploration & Production segment	iGRP segment
Australia (2006)		**Non-operated:** several assets in UJV GLNG (27.50%)[l], Ichthys (26.00%)
Brunei (1986)	**Operated:** Maharaja Lela Jamalulalam (37.50%)	
China (2006)	**Non-operated:** South Sulige (49.00%)	
Indonesia (1968)	**Non-operated:** Block Sebuku (15.00%)	
Myanmar (1992)	**Operated:** Blocks M5/M6 (Yadana, Sein, Badamyar) (31.24%)	
Thailand (1990)	**Non-operated:** Bongkot (33.33%)	

(l) Total's interest in the unincorporated joint venture.

2.3.4 Delivery commitments

The majority of TOTAL's natural gas production is sold under long-term contracts. However, most of its North American and United Kingdom production, and part of its production from Argentina, Denmark, the Netherlands, Norway and Russia, is sold in the spot market.

The long-term contracts under which TOTAL sells its natural gas usually provide for a price related to, among other factors, average crude oil and other petroleum product prices, as well as, in some cases, a cost-of-living index. Though the price of natural gas tends to fluctuate in line with crude oil prices, a slight delay may occur before changes in crude oil prices are reflected in long-term natural gas prices.

Some of TOTAL's long-term contracts, such as in Bolivia, Nigeria, Norway, Thailand and Qatar, specify the delivery of quantities of natural gas that may or may not be fixed and determinable. Such delivery commitments vary substantially, both in duration and scope, from contract to contract throughout the world. For example, in some cases, contracts require delivery of natural gas on an as-needed basis, and, in other cases, contracts call for the delivery of varied amounts of natural gas over different periods of time. Nevertheless, TOTAL estimates the fixed and determinable quantity of gas to be delivered over the period 2021-2023 to be 5,225 Bcf. The Group expects to satisfy most of these obligations through the production of its proved reserves of natural gas, with, if needed, additional sourcing from spot market purchases (refer to points 9.1 and 9.2 of chapter 9).

2.3.5 Contractual framework of Upstream oil and gas production activities

Licenses, permits and contracts governing the Group entities' ownership of oil and gas interests have terms that vary from country to country and are generally granted by or entered into with a government entity or a state-owned company or sometimes with private owners. These agreements usually take the form of concessions or production-sharing contracts.

In the framework of oil concession agreements, the oil company (or consortium) owns the assets and the facilities and is entitled to the entire production. In exchange, the operating risks, costs and investments are the oil company's or the consortium's responsibility and it agrees to remit to the relevant host country, usually the owner of the subsoil resources, a production-based royalty, income tax, and possibly other taxes that may apply under local tax legislation.

The production sharing contract (PSC) involves a more complex legal framework than the concession agreement. It defines the terms and conditions of production sharing and sets the rules governing the cooperation between the company (the contractor) or consortium (the contracting group) in possession of the license and the host country, which is generally represented by a state-owned company. The latter can thus be involved in operating decisions, cost accounting and production allocation. The contractor (or contractor group) undertakes the execution and financing, at its own risk, of all exploration, development or operational activities. In exchange, it is entitled to a portion of the production, known as "cost oil", the sale of which is intended to cover its incurred expenses (capital and operating costs). The balance of production, known as "profit oil", is then shared in varying proportions, between the contractor (or the contracting group), on the one hand, and the host country or state-owned company, on the other hand.

Today, concession agreements and PSCs can coexist, sometimes in the same country. Even though there are other contractual models, TOTAL's license portfolio is comprised mainly of concession agreements.

On most licenses, the partners and authorities of the host country, often assisted by international accounting firms, perform joint venture and PSC cost audits and ensure the observance of contractual obligations.

In some countries, TOTAL has also signed contracts called "risked service contracts", which are similar to PSCs. However, the profit oil is replaced by a defined or determinable cash monetary remuneration, agreed by contract, which depends notably on field performance parameters such as the amount of barrels produced.

Oil and gas exploration and production activities are subject to authorization granted by public authorities (licenses), which are granted for specific and limited periods of time and include an obligation to relinquish a large portion, or the entire portion in case of failure, of the area covered by the license at the end of the exploration period.

TOTAL pays taxes on income generated from its oil and gas production and sales activities under its concessions, PSCs and risked service contracts, as provided for by local regulations. In addition, depending on the country, TOTAL's production and sales activities may be subject to a number of other taxes, fees and withholdings, including special petroleum taxes and fees. The taxes imposed on oil and gas production and sales activities are generally substantially higher than those imposed on other industrial or commercial businesses.

2.3.6 Oil and gas acreage

As of December 31 *(in thousands of acres)*		2020 Undeveloped acreage[a]	2020 Developed acreage
Europe and Central Asia (excl. Russia)	Gross	29,080	923
	Net	11,479	232
Russia[b]	Gross	23,689	718
	Net	4,278	148
Africa (excl. North Africa)	Gross	97,001	800
	Net	56,918	210
Middle East and North Africa	Gross	53,237	3,489
	Net	11,717	519
Americas	Gross	20,156	1,135
	Net	8,387	495
Asia-Pacific	Gross	34,204	773
	Net	18,780	243
TOTAL	**GROSS**	**257,367**	**7,838**
	NET[c]	**111,559**	**1,847**

(a) Undeveloped acreage includes leases and concessions.
(b) Undeveloped acreage in Russia includes all the licenses of PAO Novatek in which the Group has an indirect interest.
(c) Net acreage equals the sum of the Group's equity interests in gross acreage.

2.3.7 Productive wells

As of December 31 *(number of wells)*		2020 Gross productive wells	2020 Net productive wells[a]
Europe and Central Asia (excl. Russia)	Liquids	732	263
	Gas	250	83
Russia	Liquids	350	57
	Gas	823	151
Africa (excl. North Africa)	Liquids	1,526	416
	Gas	86	18
Middle East and North Africa	Liquids	11,041	837
	Gas	200	48
Americas	Liquids	1,079	354
	Gas	3,601	2,177
Asia-Pacific	Liquids	–	–
	Gas	3,336	1,040
TOTAL	**LIQUIDS**	**14,728**	**1,927**
	GAS	**8,296**	**3,517**

(a) Net productive wells equal the sum of the Group's equity interests in gross productive wells.

2.3.8 Net productive and dry wells drilled

As of December 31 *(number of wells)*	2020 Net productive wells drilled (a)(b)	2020 Net dry wells drilled (a)(c)	2020 Net total wells drilled (a)(c)	2019 Net productive wells drilled (a)(b)(d)	2019 Net dry wells drilled (a)(c)(d)	2019 Net dry wells drilled (a)(c)(d)	2018 Net productive wells drilled (a)(b)	2018 Net dry wells drilled (a)(c)	2018 Net total wells drilled (a)(c)
Exploration									
Europe and Central Asia (excl. Russia)	0.3	0.5	0.8	1.3	0.6	1.9	0.9	0.8	1.7
Russia	–	–	–	–	–	–	–	–	–
Africa (excl. North Africa)	0.4	–	0.4	1.1	0.6	1.7	0.1	1.0	1.1
Middle East and North Africa	0.3	0.4	0.7	1	1.4	2.4	0.5	–	0.5
Americas	2.6	0.5	3.1	1.4	2.2	3.6	0.5	1.6	2.1
Asia-Pacific	–	0.7	0.7	–	–	–	0.8	–	0.8
TOTAL	**3.6**	**2.1**	**5.7**	**4.8**	**4.8**	**9.6**	**2.8**	**3.4**	**6.2**
Development									
Europe and Central Asia (excl. Russia)	7.7	–	7.7	9.1	–	9.1	10.1	–	10.1
Russia	21.6	–	21.6	26.2	–	26.2	13.4	–	13.4
Africa (excl. North Africa)	8.0	–	8.0	17.4	–	17.4	13.0	0.1	13.1
Middle East and North Africa	56.4	–	56.4	69.6	–	69.6	68.8	–	68.8
Americas	256.3	–	256.3	64.3	–	64.3	38.8	0.3	39.1
Asia-Pacific	114.9	–	114.9	170.1	–	170.1	116.3	–	116.3
TOTAL	**464.9**	**–**	**464.9**	**356.7**	**–**	**356.7**	**260.4**	**0.4**	**260.8**
TOTAL	**468.5**	**2.1**	**470.6**	**361.5**	**4.8**	**366.3**	**263.2**	**3.8**	**267.0**

(a) Net wells equal the sum of the Group's equity interests in gross wells.
(b) Includes certain exploratory wells that were abandoned, but which would have been capable of producing oil in sufficient quantities to justify completion.
(c) For information: service wells and stratigraphic wells are not reported in this table.
(d) Includes 1.7 extension wells in 2019.

2.3.9 Wells in the process of being drilled (including wells temporarily suspended)

As of December 31 *(number of wells)*	2020 Gross	2020 Net(a)
Exploration		
Europe and Central Asia (excl. Russia)	–	–
Russia	–	–
Africa (excl. North Africa)	–	–
Middle East and North Africa	2	0.8
Americas	1	0.4
Asia-Pacific	–	–
TOTAL	**3**	**1.2**
Other wells(b)		
Europe and Central Asia (excl. Russia)	99	56.6
Russia	35	7.3
Africa (excl. North Africa)	55	8.2
Middle East and North Africa	522	65.7
Americas	22	7.6
Asia-Pacific	439	114.3
TOTAL	**1,172**	**259.7**
TOTAL	**1,175**	**260.9**

(a) Net wells equal the sum of the Group's equity interests in gross wells. Includes wells for which surface facilities permitting production have not yet been constructed. Such wells are also reported in the table "Number of net productive and dry wells drilled," above, for the year in which they were drilled.
(b) Other wells are development wells, service wells and stratigraphic wells.

2.3.10 Interests in pipelines

The table below shows the main interests held by Group entities[1] in pipelines as of December 31, 2020.

Pipeline(s)	Origin	Destination	(%) interest	Operator	Liquids	Gas
Europe and Central Asia						
Azerbaijan						
BTC	Baku (Azerbaijan)	Ceyhan (Turkey, Mediterranean)	5.00		X	
Norway						
Frostpipe (inhibited)	Lille-Frigg, Froy	Oseberg	36.25		X	
Heimdal to Brae Condensate Line	Heimdal	Brae	16.76		X	
Kvitebjorn Pipeline	Kvitebjorn	Mongstad	5.00		X	
Norpipe Oil	Ekofisk Treatment Center	Teesside (United Kingdom)	34.93		X	
Oseberg Transport System	Oseberg, Brage and Veslefrikk	Sture	12.98		X	
Troll Oil Pipeline I and II	Troll B and C	Vestprosess (Mongstad refinery)	3.71		X	
Netherlands						
WGT K13-Den Helder	K13A	Den Helder	4.66			X
WGT K13-Extension	Markham	K13 (via K4/K5)	23.00			X
United Kingdom						
Alwyn Liquid Export Line	Alwyn North	Cormorant	100.00	X	X	
Bruce Liquid Export Line	Bruce	Forties (Unity)	1.00		X	
Graben Area Export Line (GAEL) Northern Spur	ETAP	Forties (Unity)	9.58		X	
Graben Area Export Line (GAEL) Southern Spur	Elgin-Franklin	ETAP	32.09		X	
Ninian Pipeline System	Ninian	Sullom Voe	16.36		X	
Shearwater Elgin Area Line (SEAL)	Elgin-Franklin, Shearwater	Bacton	25.73			X
SEAL to Interconnector Link (SILK)	Bacton	Interconnector	54.66	X		X
Africa (excluding North Africa)						
Gabon						
Mandji Pipes	Mandji fields	Cap Lopez Terminal	100.00[a]	X	X	
Nigeria						
O.U.R	Obite	Rumuji	40.00	X		X
NOPL	Rumuji	Owaza	40.00	X		X
Middle East and North Africa						
United Arab Emirates						
Dolphin	North Field (Qatar)	Taweelah-Fujairah-Al Ain (United Arab Emirates)	24.50			X
Americas						
Argentina						
TGM	Aldea Brasilera (Entre Rios)	Paso de Los Libres (Argentina-Brazil border)	32.68			X
Brazil						
TBG	Bolivia-Brazil border	Porto Alegre via São Paulo	9.67			X
TSB	Paso de Los Libres (Argentina--Brazil border)	Uruguayana (Brazil)	25.00			X
	Porto Alegre	Canoas	25.00			X
Asia-Pacific						
Australia						
GLNG	Fairview, Roma, Scotia, Arcadia	GLNG (Curtis Island)	27.50			X
Myanmar						
Yadana	Yadana field	Ban-I Tong (Thai border)	31.24	X		X

(a) 100% interest held by Total Gabon. The Group holds an interest of 58.28% in Total Gabon.

All interests in the oil and gas pipelines included above are also included in the Exploration & Production segment, excluding that in Australia, which belongs to the iGRP segment.

(1) Excluding equity affiliates, except for the Yadana and Dolphin pipelines.

2.4 Refining & Chemicals segment

Refining & Chemicals is a large industrial segment that encompasses refining, base petrochemicals (olefins and aromatics), polymer derivatives (polyethylene, polypropylene, polystyrene and hydrocarbon resins), the transformation of biomass and the transformation of elastomers (Hutchinson). This segment is committed to the development of low carbon solutions, in particular biofuels, biopolymers and recycled polymers obtained from chemical or mechanical recycling. It also includes the activities of Trading & Shipping.

Among the world's 10 largest integrated producers[(1)]

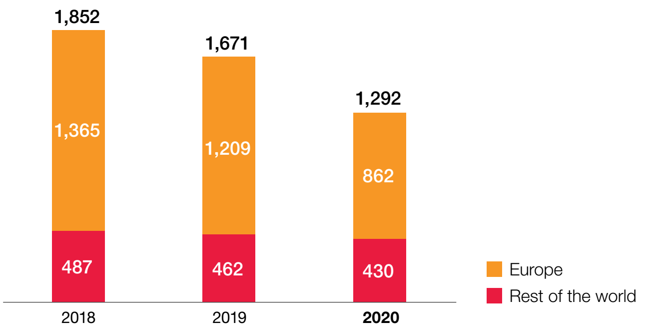
2 Mb/d
Refining capacity at year-end 2020

One of the leading traders of oil and refined products worldwide

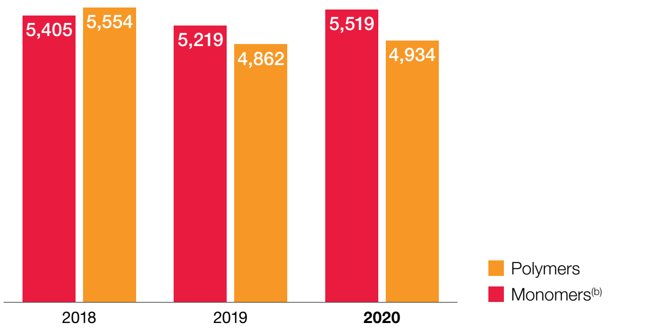
$1.2 B
Organic investments[(2)] in 2020

51,801
employees present

Refinery throughput[(a)] *(in kb/d)*



Petrochemicals production *(in kt)*



(a) Includes refineries in Africa that are reported in the Marketing & Services segment.
(b) Olefins.

Refinery throughput decreased by 23% in 2020 due to notably the drop in demand and the concurrent sharp rise in global inventories of refined products, which led to the voluntary reductions in the operation of refining units and, as of December 2020, the economic shutdown of the Donges refinery. In addition, following the incident that occurred at the end of 2019, the distillation unit at the Normandy platform is in prolonged shutdown for repairs.

Monomer production increased by 6% in 2020 year-on-year, supported by demand, and notably as a result of 2019 planned maintenance on the steamcracker at Daesan in South Korea. Polymer production was stable in 2020 compared to 2019.

Refining & Chemicals segment financial data

(M$ except VCM)	2020	2019	2018
Variable cost margin – Refining Europe, VCM *($/t)*	11.5	34.9	38.2
Adjusted net operating income[(a)]	1,039	3,003	3,379
Operating cash flow before working capital changes w/o financial charges (DACF)[(b)]	2,472	4,072	4,388
Cash flow from operations[(c)]	2,438	3,837	4,308

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes for fair value.
(b) DACF = debt adjusted net cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, without financial charges, except those related to leases.
(c) Excluding financial charges, except those related to leases.

Adjusted net operating income was down 65% year-on-year to $1,039 million in 2020, due to refining margin deterioration, partially offset by resilient petrochemical margins and outperformance of the trading activities.

Operating cash flow before working capital changes fell to $2,472 million in 2020, down by 39%.

(1) Based on publicly available information, production capacities at year-end 2019.
(2) Organic investments = net investments, excluding acquisitions, divestments and other operations with non-controlling interests (refer to point 1.4.1 of chapter 1).

2.4.1 Refining & Chemicals

Refining & Chemicals' activities include refining (including the production of biofuels); base petrochemicals (olefins and aromatics); polymer derivatives (polyethylene, polypropylene, polystyrene and hydrocarbon resins), including biopolymers and recycled polymers obtained from chemical or mechanical recycling; biomass conversion; and elastomer processing (Hutchinson). The volume of its Refining & Chemicals operations places TOTAL among the top 10 integrated producers worldwide[1].

Refining & Chemicals' strategy is underpinned by the constant requirement for safety, a core Group value, and is embedded in the Group's climate ambition to achieve carbon neutrality by 2050, by controlling the CO_2 emissions of its operations (scope 1 and 2), by developing low-carbon solutions, particularly in the biomass (scope 3), and by adapting its activities in Europe in line with the net zero objective set by the European Union. This strategy involves:

- continuously improving the competitiveness of refining and petrochemicals activities by making optimal use of production assets, concentrating investments on its large, integrated platforms and reducing CO_2 emissions linked to its operations;
- growing petrochemicals, mainly in the United States and the Middle East, by exploiting the proximity of cost-effective oil and gas resources in order to supply growing markets, particularly in Asia; and
- developing low carbon activities, on the one hand in biofuels, biopolymers and plastic recycling solutions, and, on the other hand, in materials that help enhance the energy efficiency of the Group's customers, particularly in the automotive market.

2.4.1.1 Refining and petrochemicals

TOTAL has interests in 17 refineries (of which nine are operated by Group companies), located in Europe, the Middle East, the United States, Asia and Africa. As of December 31, 2020, TOTAL's refining capacity was 1,967 kb/d compared to 1,959 kb/d at year-end 2019 and 2,021 kb/d at year-end 2018. The Refining & Chemicals segment managed a refining capacity of 1,950 kb/d at year-end 2020, or 99% of the Group's total capacity[2].

The Group's petrochemicals operations are located in Europe, the United States, Qatar, South Korea and Saudi Arabia. With the vast majority of its sites either adjacent to or connected by pipelines to Group refineries, TOTAL's petrochemical operations are closely integrated with its refining operations, thereby maximizing synergies.

In Europe, the Group keeps reducing its production capacities. The start-up of the La Mède biorefinery mid-2019 completed the conversion of the former oil refinery into a platform focusing on new energies. In July 2020, TOTAL signed an agreement to sell the company that owns the Lindsey refinery and associated assets in the United Kingdom. TOTAL also announced in September 2020 the conversion of its Grandpuits refinery in the Paris region into a zero-crude platform, thanks to an investment totaling more than €500 million. The converted site will focus on four new industrial activities: the production of renewable diesel primarily intended for the aviation industry, the production of bioplastics, plastics recycling, and the operation of two photovoltaic solar power plants.

Activities by geographical area

Europe

TOTAL is the second largest refiner and the second largest petrochemist in Western Europe[3].

Western Europe accounts for 73% of the Group's refining capacity, i.e., 1,437 kb/d at year-end 2020, same as at year-end 2019 and year-end 2018. At year-end 2020, the Group operated there seven refineries (one in Belgium in Antwerp, four in France in Donges, Feyzin, Gonfreville and Grandpuits, one in the United Kingdom in Immingham and one in Germany in Leuna) and one biorefinery in France (La Mède) and held a 55% interest in the Zeeland refinery in the Netherlands (Vlissingen).

The Group's main petrochemical sites in Europe are located in Belgium, in Antwerp (steam crackers, aromatics, polyethylene) and Feluy (polyolefins, polystyrene), and in France, in Carling (polyethylene, polystyrene, polypropylene compounds), Feyzin (steam cracker, aromatics), Gonfreville (steam crackers, aromatics, styrene, polyolefins, polystyrene) and Lavéra (steam cracker, aromatics, polypropylene). Europe accounts for 47% of the Group's petrochemicals capacity, i.e., 10,096 kt at year-end 2020, compared to 10,203 kt at year-end 2019 and 10,277 kt at year-end 2018.

- In **France**, the Group continues to improve its operational efficiency by adapting to demand for petroleum products in Europe.

  In September 2020, TOTAL announced the conversion of its Grandpuits refinery into a zero-crude platform, focusing on new energies and low carbon activities: production of renewable diesel primarily intended for the aviation industry, production of bioplastics, plastics chemical recycling.

  2020 saw the increase in productions of the French biorefinery in La Mède, started-up in 2019 with a production capacity of 500 kt/y, that helps addressing growing demand for biofuels in Europe. In addition to the biorefinery, the site also includes a logistics and storage platform, a solar energy farm and a training center, as well as an AdBlue[4] production unit, which started up in 2018. Ecoslops Provence, the circular economy joint venture in which TOTAL holds a 25% interest, is also building a unit at the La Mède site to regenerate oil residues from maritime transport. With a capacity of 30 kt/y, the unit will use innovative technology to convert oil residues into fuel and light bitumen.

  Owing to a very sharp deterioration in refinery margins, the decision was made early December 2020 to suspend operations at the loss-making Donges refinery until economic conditions improve. Site modernization plans continue nonetheless, with the aim of improving the refinery's competitiveness and TOTAL confirmed in 2020 that work had begun on the construction of a diesel desulfurization unit which, combined with the already launched rerouting of the rail line, represents a total investment of €400 million. The unit will produce low-sulfur fuels aligned with EU standards.

  In petrochemicals, the Group has reconfigured the Carling platform in Lorraine. New hydrocarbon resins and compound polypropylene production units have been operating at the site since the shutdown of its steam cracking activities in 2015.

(1) Based on publicly available information on refining and petrochemical production capacities at year-end 2019.
(2) The balance of the refining capacity is reported in the Marketing & Services segment.
(3) Based on publicly available information on refining and petrochemical production capacities at year-end 2019.
(4) Fuel additive intended for road transport and designed to lower nitrogen oxide (NOX) compound emissions.

- In **Belgium**, the Group operates the Antwerp platform, where a major upgrade completed in 2017 has improved the site's conversion rate, resulting in the production of lighter, low-sulfur products. The upgrade also increased the flexibility of the site's steam crackers, which can process ethane and gases recovered from the refining process. As part of the modernization project of the Feluy polymers production site, announced in 2018, one of the three existing polypropylene units, focused on commodities and in production for 40 years, was shut down in 2020.
- In **Germany**, TOTAL operates the Leuna refinery, where a project is under way to enable the conversion of vacuum residue into diesel and methanol.
- In the **United Kingdom**, TOTAL announced in July 2020 it signed an agreement to sell its interest in the company that owns the Lindsey refinery and its associated assets. This sale was finalized at the end of February 2021.

North America

The Group's main sites in North America are located in Texas, at Port Arthur (refinery, steam cracker), Bayport (polyethylene) and La Porte (polypropylene), and in Louisiana, at Carville (styrene, polystyrene).

At Port Arthur, TOTAL has a refinery with a capacity of 178 kb/d and a 40% shareholding in BASF Total Petrochemicals (BTP), which is located at the same site. BTP primarily owns and operates a steam cracker with the capacity to produce more than 1 Mt/y of ethylene, of which more than 85% from ethane, propane and butane, which are produced in abundance locally. At year-end 2020, TOTAL also owns a 40% interest in a condensate splitter, with an overall capacity of 60 kb/d and operated by the Port Arthur refinery. Following the purchase, in January 2021, of the remaining 60% share, previously owned by BASF, TOTAL has exclusive control over the splitter and continues to work on strengthening the synergies between its different units.

At La Porte, TOTAL holds a 100% interest in a large polypropylene plant, with a capacity of 1.2 Mt/y.

At Carville, TOTAL operates a styrene plant with a capacity of 1.2 Mt/y, through a 50-50 joint venture with SABIC, and a polystyrene unit with a capacity of 600 kt/y, which is 100% owned.

Lastly, the joint venture created in 2018 between TOTAL (50%) and Borealis continued the construction on the Port Arthur site of a new ethane cracker with an ethylene production capacity of 1 Mt/y for an investment of $1.7 billion. The commissioning of this new cracker will take place in 2021. The joint venture has also started building a new polyethylene unit downstream of the cracker, at the Bayport site. Representing an investment of $1.4 billion, this integrated development will more than double the site's polyethylene production capacity to about 1 Mt/y and maximize synergies with existing assets at Port Arthur and Bayport.

Asia, the Middle East and Africa

The Group holds interests in first-rate platforms that are ideally positioned, with easier access to feedstock under competitive conditions, enabling it to pursue its development in order to supply growth regions.

In **Saudi Arabia**, TOTAL has a 37.5% shareholding in SATORP (Saudi Aramco Total Refining and Petrochemical Company), which operates the Jubail refinery. Located close to Saudi Arabia's heavy crude oil fields, the refinery increased its capacity in 2020 from 440 kb/d to 460 kb/d. The refinery's configuration enables it to process heavy crudes and produce fuels and other light products that meet very strict specifications and are mainly intended for export. The refinery is also integrated with petrochemical units: a 800 kt/y paraxylene unit, a 200 kt/y propylene unit, and a 140 kt/y benzene unit. In addition, TOTAL and Saudi Aramco signed an agreement in 2018 to jointly develop the engineering studies for the construction of a petrochemicals complex adjacent to the refinery. This world-class project will include a mixed-feed steam cracker (50% ethane and refinery gases) with a capacity of 1.65 Mt/y and polyethylene units with a capacity of 1 Mt/y, for a total investment of about $6.5 billion.

In **South Korea**, TOTAL has a 50% interest in Hanwha Total Petrochemical Co. (HTC), which operates a petrochemical complex in Daesan (condensate splitter, steam cracker, styrene, paraxylene, polyolefins). Investments totaling $750 million, decided in 2017, increased ethylene production capacity by 30% in 2019 and polyethylene production capacity by more than 50% in 2020. At the end of 2018, TOTAL decided to make an additional investment of $500 million that will increase polypropylene production capacity by nearly 60% by 2021 to 1.1 Mt/y and ethylene production capacity by 10% to 1.5 Mt/y.

In **Qatar**, the Group holds interests[(1)] in two ethane-based steam crackers (Qapco, Ras Laffan Olefin Cracker-RLOC) and four polyethylene lines operated by Qapco in Messaied, including a linear low-density polyethylene plant with a capacity of 550 kt/y (Qatofin) and a 300 kt/y low-density polyethylene line (Qapco). TOTAL also holds a 10% interest in the Ras Laffan condensate refinery, with a total capacity of 300 kb/d.

In **Algeria**, in early 2019, the Group created the STEP joint venture (Sonatrach Total Entreprise de Polymères, in which Sonatrach holds 51% and TOTAL 49%) to implement a petrochemical project in Arzew, in north western Algeria. The project includes the construction of a propane dehydrogenation plant and a polypropylene production unit with a capacity of 550 kt/y.

In the rest of Africa, the Group also has interests in four refineries (South Africa, Cameroon, Côte d'Ivoire and Senegal). Refining & Chemicals provides technical assistance for two of these refineries: the Natref refinery with a capacity of 109 kb/d in South Africa and the SIR refinery with a capacity of 80 kb/d in Côte d'Ivoire.

(1) TOTAL's shareholdings: Qapco (20%); Qatofin (49%); RLOC (22.5%).

Crude oil refining capacity

The table below sets forth TOTAL's crude oil refining capacity[a]:

As of December 31 *(kb/d)*	2020	2019	2018
Eight refineries operated by Group companies			
Normandy-Gonfreville (100%)	253	253	253
Donges (100%)	219	219	219
Feyzin (100%)	109	109	109
Grandpuits (100%)	101	101	101
Antwerp (100%)	338	338	338
Leuna (100%)	227	227	227
Lindsey-Immingham (100%)[b]	109	109	109
Port Arthur (100%) and BTP (40%)	202	202	202
SUBTOTAL	**1,558**	**1,558**	**1,558**
Other refineries in which the Group has interests[c]	409[d]	401	463
TOTAL	**1,967**	**1,959**	**2,021**

(a) Capacity data based on crude distillation unit stream-day capacities under normal operating conditions, less the average impact of shutdowns for regular repair and maintenance activities.
(b) At the end of February 2021, TOTAL finalized the sale of its interest in the Lindsey refinery in the United Kingdom.
(c) TOTAL's share as of December 31, 2020, in the eight refineries in which it has interests ranging from 7% to 55% (one each in the Netherlands, South Korea, Qatar and Saudi Arabia and four in Africa). TOTAL sold its interest in the Wepec refinery in China in 2019 and, in 2018, its interest in TotalErg, which held an interest in the Trecate refinery in Italy.
(d) The increase of the refining capacity between 2019 and 2020 results in the debottlenecking of Jubail refinery (Saudi Arabia) the overall capacity of which increased in 2020 from 440 to 460 kb/d, representing +8 kb/d in Total share.

Refined products

The table below sets forth TOTAL's net share[a] of the refined quantities produced by the Group's refineries, by product category:

(kb/d)	2020	2019	2018
Gasoline	254	288	291
Aviation fuel[b]	78	187	210
Diesel and heating oils	551	672	732
Heavy fuels	53	82	99
Other products	272	377	461
TOTAL	**1,208**	**1,606**	**1,793**

(a) For refineries not 100% owned by TOTAL, the production shown is TOTAL's equity share in the site's overall production.
(b) Avgas, jet fuel and kerosene.

Utilization rate

The table below sets forth the average utilization rates of the Group's refineries:

	2020	2019	2018
On crude and other feedstock[a][b]	66%	83%	92%
On crude[a][c]	61%	80%	88%

(a) Including interest of refineries in which the Group has an interest.
(b) Crude + crackers' feedstock/distillation capacity at the beginning of the year.
(c) Crude/distillation capacity at the beginning of the year.

Petrochemicals: breakdown of main production capacities

As of December 31 *(in kt)*	2020 Europe	2020 North America[a]	2020 Asia and Middle East[b]	2020 Worldwide	2019 Worldwide	2018 Worldwide
Olefins[c]	4,371	1,555	1,938	7,864	7,863	7,430
Aromatics[d]	2,971	1,512	2,535	7,018	6,995	6,967
Polyethylene	1,120	223	1,095	2,438	2,223	2,135
Polypropylene	1,220	1,200	420	2,840	2,990	2,950
Polystyrene	414	610	–	1,024	1,013	1,745
Other[e]	–	–	116	116	116	100

(a) Including 50% of the joint venture between TOTAL and Borealis.
(b) Including interests in Qatar, 50% of Hanwha Total Petrochemicals Co. Ltd. in South Korea and 37.5% of SATORP in Saudi Arabia.
(c) Ethylene + propylene + butadiene.
(d) Including styrene monomer.
(e) Mainly monoethylene glycol (MEG), polylactic acid polymer (PLA) and cyclohexane.

Petrochemicals production and utilization rate

	2020	2019	2018
Monomers[a] *(kt)*	5,519	5,219	5,405
Polymers *(kt)*	4,934	4,862	5,554
Vapocracker utilization rate[b]	83%	83%	85%

(a) Olefins.
(b) Based on olefins production from steamcrackers and their treatment capacity at the start of the year.

Developing new ways to produce fuels and polymers

TOTAL is exploring new ways to unlock the value of carbon resources. These projects are part of the Group's commitment to building a diversified energy mix generating lower CO_2 emissions. TOTAL is also pursuing several industrial and exploratory projects in biomass conversion.

Biofuels production

Biofuels reduce CO_2 emissions by at least 50% compared to their equivalent fossil fuels. In addition, demand for these products is supported by government policies aimed at achieving carbon neutrality (net zero emissions).

The growth of biofuel market is driven by the renewable diesel segment, produced by hydrotreating vegetable oils or waste and residues such as animal fat and used cooking oil. This segment is expected to grow by more than 10% per year, since renewable diesel can be incorporated into diesel without any blending limitation and certified as aviation fuel.

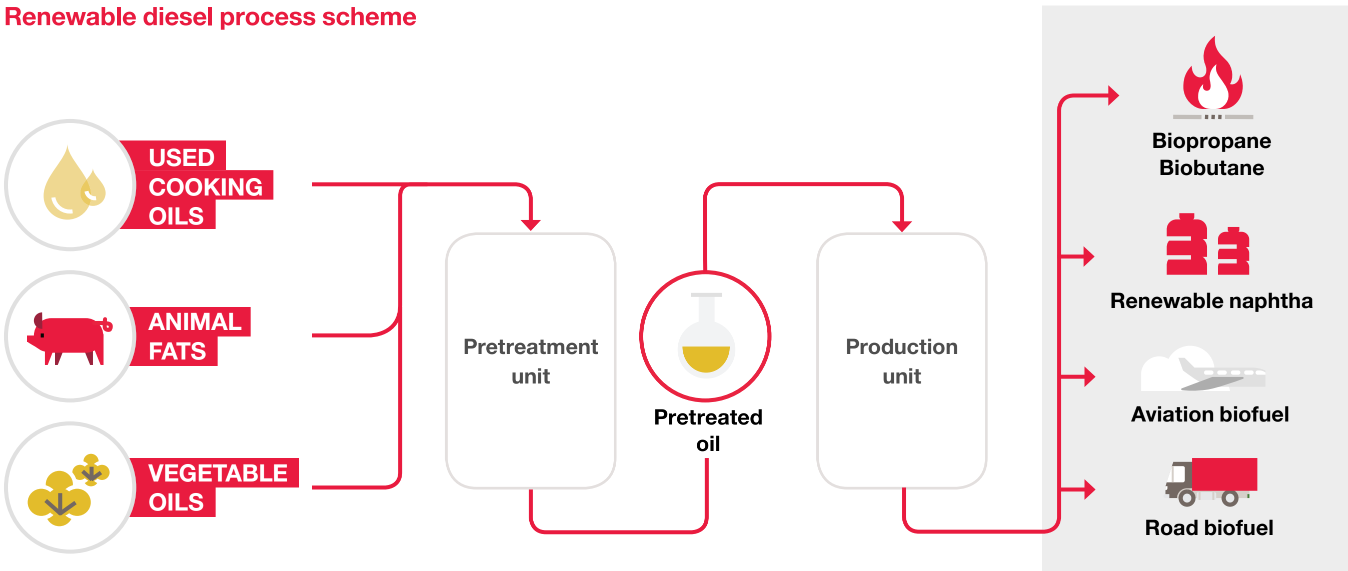
The Group has set the objective to become a leader in renewable diesel with more than 2 Mt/y in 2025, by capturing synergies with existing assets (converting existing assets, co-processing, developing on existing platforms).

In Europe, TOTAL produces biofuels, primarily renewable diesel and ether produced from ethanol and isobutene (ETBE) for incorporation into gasoline.

Since mid-2019, the La Mède refinery produces renewable diesel and petrochemical bio-feedstocks.

As part of the announced conversion of the Grandpuits refinery into a zero-crude platform, TOTAL will build a renewable diesel production unit with a capacity of 400 kt/y, mainly the biojet fuel for the aviation industry but also renewable diesel for road transport and bionaphtha for use in biopolymer production. Its start-up is expected in 2024.

Renewable diesel process scheme



Biopolymer production

TOTAL is actively involved in developing activities associated with the conversion of biomass to polymers. The main area of focus is developing drop-in solutions for direct substitutions, by incorporating biomass into the Group's existing units, for example vegetable oil or hydrogenated residues in a steam cracker and developing the production of new molecules such as polylactic acid polymer (PLA) from sugar.

The Group holds a 50% interest in Total Corbion PLA B.V. (Total Corbion PLA), a joint venture set up in 2017 with Corbion to produce and market PLA from a site in Thailand that brings together existing lactide units and PLA units. Started up in 2018, this plant has a maximum PLA production capacity of 75 kt/y. As part of the announced conversion of the Grandpuits refinery, the Total Corbion PLA joint venture will build a second bioplastics plants at this site, with a production capacity of 100 kt/y. With the start-up of this second plant expected for 2024, Total Corbion PLA will become the global market leader in PLA.

In October 2020, LanzaTech, TOTAL and L'Oréal announced the creation, thanks to their innovative partnership, of the world's first sustainable packaging made from captured and recycled carbon emissions. The successful conversion process takes place in three steps : LanzaTech captures industrial carbon emissions and converts them into ethanol using a unique biological process, TOTAL thanks to an innovative dehydration process jointly developed with IFP Axens converts the ethanol into ethylene before polymerizing it into polyethylene that has the same technical characteristics as its fossile counterpart, L'Oréal uses this polyethylene to produce packaging with the same quality and properties as conventional polyethylene. This technological and industrial success opens the way for new opportunities for the capture and re-use of industrial carbon emissions.

Biomass conversion research programs

On its R&D platform in Solaize (France), TOTAL develops new biocomponents derived from the transformation of the biomass by using a methodology based on predictive modeling and chemical conversion into high added-value biomolecules.

In the longer term, the Group is also studying the potential for developing a cost-effective phototrophic process for producing biofuels through bioengineering of microalgae and microalgae cultivation methods. It has several European partners in this field (CEA, Wageningen).

TOTAL continued extensive research activity in 2020, which targeted the emergence of new solutions in the field of biofuels. The BioTFuel consortium's construction of a pilot demonstration unit on the Dunkirk (France) site led to the commencement in 2017 of a gasification test program for synthesis of biomass into fungible, sulfur-free fuels.

In 2020, TOTAL sold its remaining interest in Amyris Inc., an American NASDAQ-listed company that specializes in the production of farnesene.

Plastics recycling and the circular economy

TOTAL is firmly committed to developing plastics recycling in order to address the issue of end-of-life of plastics and aims to produce 30% of its polymers from recycled materials by 2030. To achieve this, TOTAL has, at the same time, invested in both the chemical and mechanical recycling pathways. Mechanical recycling, for which the technology is mature, requires highly processed feedstock and cannot be used for every form of plastic, and particularly most applications involving contact with food. By contrast, chemical recycling, which returns plastic to its original monomers, can meet the needs of every market but requires more capital-intensive technology and is only at the industrial development stage.

Mechanical recycling

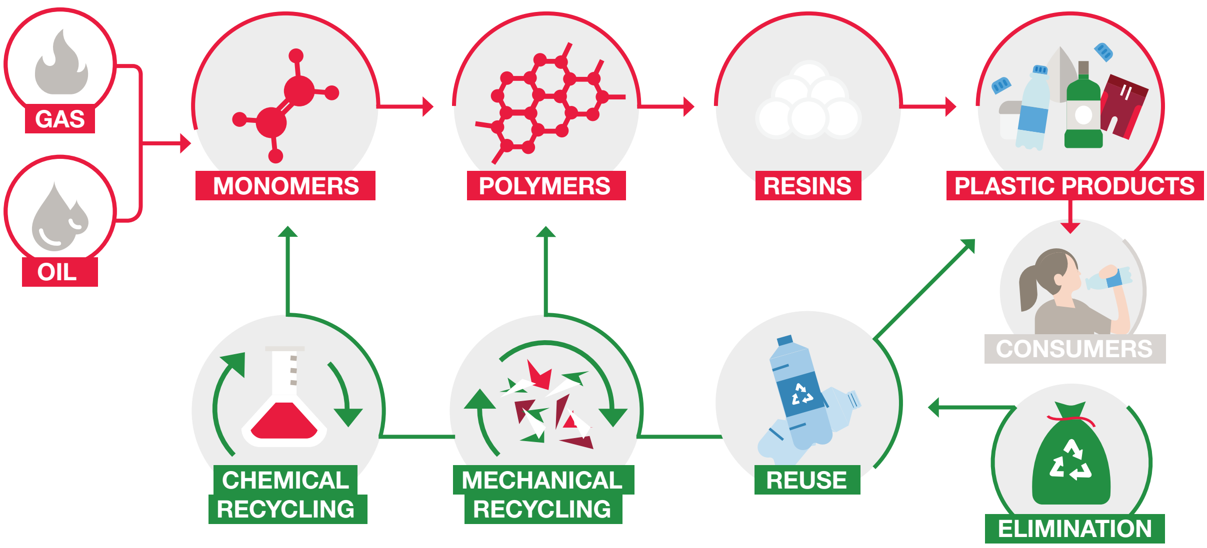
In February 2019, TOTAL acquired French company Synova, a leader in the production of recycled polypropylene made from the plastic materials recovered through waste collection and sorting. To meet growing demand from carmakers and automotive equipment manufacturers for high-performance recycled materials, a project designed to double production capacity to 45 kt/y will be carried out in 2021.

Chemical recycling

In synergy with refining and petrochemicals activities, chemical recycling addresses the issues of the circular economy, and in particular the use of plastics in food-related applications.

In Europe, in September 2020, TOTAL and its partner Plastic Energy announced the construction of France's first chemical recycling plant, with the capacity to process 15 kt/y of plastic waste, a project that is part of the conversion of the Grandpuits refinery in the Paris region. Using an innovative recycling technology, the new plant will convert plastic waste via pyrolysis into feedstock for the production of polymers that will have the same properties as virgin polymers and will notably be suitable for use in food-sector applications. Start-up is expected for 2023.

Plastic recycling process



In the United States, TOTAL signed an agreement in May 2020 to develop a strategic partnership in plastic recycling with PureCycle Technologies, a company that has developed an innovative technology to produce virgin-like recycled polypropylene. Under the agreement, TOTAL has pledged to purchase part of the output of PureCycle Technologies' future facility in the United States and to assess the interest of developing a new plant together in Europe.

R&D and partnerships

TOTAL has announced the creation of a consortium with leading actors in the packaging value chain (Citeo, Recycling Technologies, a provider of plastic recycling technologies, food industry leaders Mars and Nestlé) to study the technical and economic feasibility of recycling complex waste, such as small, flexible and multilayered food-grade packaging.

In France, TOTAL, Saint-Gobain, the eco-organization Citeo and the French fresh dairy producers' union Syndifrais founded a partnership in 2019 to conduct a feasibility study that aims to incorporate collected polystyrene in the Group's plastics production units in Carling and Feluy.

TOTAL is a founding member of the Alliance to End Plastic Waste, numbering around 40 companies in the plastics and consumer goods value chain. The commitment of these companies represents more than $1 billion, with the target of reaching $1.5 billion by 2025, to help end plastic waste in the environment, especially in oceans, and to promote recycling solutions for end-of-life plastics by supporting a circular economy approach.

2.4.1.2 Elastomer processing (Hutchinson)

The elastomer transformation specialist Hutchinson is one of the world leaders in anti-vibratory systems, fluid management, precision sealing and bodywork sealing. These solutions are used worldwide, especially in the automotive, aeronautical and industrial manufacturing sectors (defense, railroads, energy).

Hutchinson draws on wide-ranging expertise and employs its know-how from the custom design of materials to the integration of connected solutions: structural sealing solutions, precision sealing, management of fluids, materials and structures, anti-vibration systems and transmission systems.

As of December 31, 2020, Hutchinson had 89 production sites across the world (of which 59 are in Europe and 19 are in North America) and approximately 40,000 employees.

2.4.2 Trading & Shipping

The activities of Trading & Shipping are focused primarily on serving the Group's needs, and mainly include:

- selling and marketing the Group's crude oil production;
- providing a supply of crude oil for the Group's refineries;
- importing and exporting the appropriate petroleum products for the Group's refineries to be able to adjust their production to the needs of local markets;
- chartering appropriate ships for these activities; and
- trading on various derivatives markets.

In addition, with its acquired expertise, Trading & Shipping is able to expand its scope of operations beyond its primary scope of activities.

Trading & Shipping conducts its activities worldwide through various wholly owned subsidiaries established in strategically important oil markets in Europe, Asia and North America.

2.4.2.1 Trading

Oil prices were very volatile in 2020. The sharp drop in demand beginning in March 2020 related to the COVID-19 pandemic, coupled with increased production following the OPEC+ meeting on March 6, 2020 led to falling prices for petroleum products. On April 12, 2020, OPEC+, Canada, Brazil, Norway and the Unites States have agreed to reduce the world oil production by almost 10% in May and June 2020 with a gradual recovery till April 2022. Oil prices began trending upward from May before leveling off at an average over $40/b till mid-November, supported by the cutbacks in production and a highly disciplined response among the OPEC+ countries, and increasing again to around $50/b during the month of December 2020.

TOTAL is one of the world's largest traders of crude oil and petroleum products on the basis of volumes traded(1). The table below presents Trading's worldwide crude oil sales and supply sources and petroleum products sales for each of the past three years. Trading of physical volumes of crude oil and petroleum products amounted to 5.9 Mb/d in 2020, compared to 6.9 Mb/d in 2019 and 6.6 Mb/d in 2018.

Trading's crude oil sales and supply, and petroleum product sales[a]

(kb/d)	2020	2019	2018
Group's worldwide liquids production	1,543	1,672	1,566
Purchased from Exploration & Production	1,286	1,357	1,167
Purchased from external suppliers	2,502	3,156	3,193[b]
TOTAL OF TRADING'S CRUDE SUPPLY	**3,788**	**4,513**	**4,360**
Sales to Refining & Chemicals and Marketing & Services segments	975	1,356	1,480
Sales to external customers	2,813[b]	3,157[b]	2,880
TOTAL OF TRADING'S CRUDE SALES	**3,788**	**4,513**	**4,360**
PETROLEUM PRODUCTS SALES BY TRADING	2,095	2,393	2,286

(a) Including condensates.
(b) Including inventory variations.

(1) Company data.

Trading operates extensively on physical and derivatives markets, both organized and over the counter. In connection with its Trading activities, TOTAL uses derivative energy instruments (futures, forwards, swaps and options) in order to adjust its exposure to fluctuations in the price of crude oil and petroleum products. These transactions are entered into with a wide variety of counterparties.

For additional information concerning derivatives transactions by Trading & Shipping, refer to Note 16 (Financial instruments related to commodity contracts) to the Consolidated Financial Statements (refer to point 8.7 of Chapter 8).

All of TOTAL's Trading activities are subject to a strict risk management policy and trading limits.

2.4.2.2 Shipping

The transportation of crude oil and petroleum products necessary for the activities of the Group is coordinated by Shipping. These requirements are fulfilled through the balanced use of spot and time-charter markets. Excess transport capacity can be sub-chartered to third parties. Shipping maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels.

In 2020, Shipping chartered approximately 2,750 voyages (compared to 3,000 in 2019 and 2018) to transport 119 Mt of crude oil and petroleum products, compared to 140 Mt in 2019 and 143 Mt in 2018. As of December 31, 2020, the mid-term and long-term chartered fleet numbered 58 vessels (including 10 LPG vessels), compared to 57 in 2019 and 56 in 2018. Shipping only charters vessels that meet the highest international standards, and the average age of the fleet is approximately seven years.

During the first half of 2020, TOTAL joined the Getting to Zero Coalition to support the maritime industry's decarbonization by collaborating with companies across the maritime, energy, infrastructure and finance sectors. The Coalition's ambition is to help achieve the target set by the International Maritime Organization to reduce greenhouse gas emissions from shipping by at least 50% by 2050, compared to 2008 levels. Joining the Coalition marks a further step in TOTAL's commitment alongside its customers in the maritime sector and underlines the Group's intention to act on their energy demand, by supporting them in their own emissions reductions.

During the second half of 2020, TOTAL joined the Sea Cargo Charter, an initiative launched by the largest shipping companies to create a consistent, transparent method for measuring emissions in support of efforts to decarbonize the shipping industry. The charter establishes a common baseline for determining, on the basis of defined standards, whether shipping activities are aligned with the International Maritime Organization's climate ambitions. Its primary goal is to set up ongoing measurements of greenhouse gas emissions so that the relevant parties can take concrete steps to reduce emissions from international shipping by at least half between now and 2050.

In February 2021, TOTAL joined the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping as a strategic partner and accelerates its R&D program for carbon neutral shipping solutions in line with its commitment to work together with its key customers to get to Net Zero. This partnership will allow TOTAL to join forces with leading players across the shipping sector to develop new low-carbon alternative fuels and carbon neutrality solutions.

In April 2020, TOTAL signed a pioneering agreement to charter its first two LNG-powered VLCCs (Very Large Crude Carrier). Delivery of the two vessels, which are able to carry 300,000 tons of crude oil each, is expected in 2022, when they will join TOTAL's time-chartered fleet. In October 2020, the Group announced it would continue its strategy to reduce greenhouse gas emissions in maritime transportation by chartering four LNG-powered Aframax-type vessels, each with a capacity of 110,000 tons of crude oil or petroleum products. The vessels are expected to be delivered and join TOTAL's time-chartered fleet in 2023. The supply of LNG for these six vessels will be provided by Total Marine Fuels Global Solutions, TOTAL's subsidiary based in Singapore and dedicated to worldwide bunkering activities.

As part of its Shipping activity, the Group uses freight rate derivative contracts to adjust its exposure to market fluctuations.

2.5 Marketing & Services segment

The Marketing & Services segment includes worldwide supply and marketing activities of oil products and services. It is also growing in low carbon fuels and new energies for mobility.

2nd largest retail distribution among majors outside of North America[1]

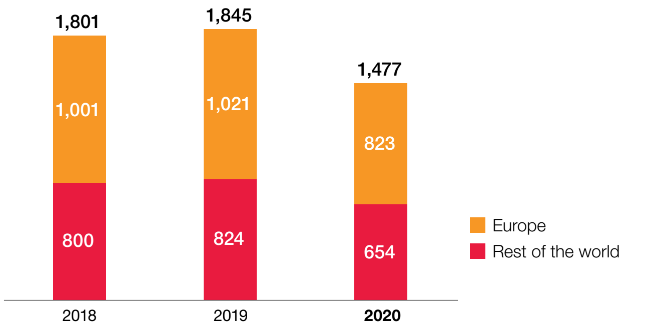
4th worldwide distributor of inland lubricants[2]

15,594 branded service stations[3] at December 31, 2020

$0.8 B Organic investments[4] in 2020

27,008 employees present

Petroleum products sales[a] *(in kb/d)*



(a) Excludes trading and Refining bulk sales.

Sales of petroleum products decreased by 20% in 2020, due to a very strong slowdown of global economy linked to the COVID-19 pandemic. The aviation and marine businesses were particularly impacted in this context and the decline in network sales was partially compensated by new developments in Angola, Brazil, Mexico and Saudi Arabia.

Marketing & Services segment financial data

(M$)	2020	2019	2018
Adjusted net operating income[a]	1,224	1,653	1,652
Operating cash flow before working capital changes w/o financial charges (DACF)[b]	2,180	2,546	2,156
Cash flow from operations[c]	2,101	2,604	2,759

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes for fair value.
(b) DACF = debt adjusted cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, without financial charges, except those related to leases.
(c) Excluding financial charges, except those related to leases.

Marketing & Services' adjusted net operating income decreased by 26% in 2020 to $1,224 million, mainly due to the decrease of sales by 20%.

(1) Source IHS 2020, number of service stations for TOTAL, BP, Chevron, ExxonMobil and Shell.
(2) Source IHS 2020.
(3) TOTAL, Total Access, Elf, Elan and AS24, including service stations owned by third parties.
(4) Organic investments = net investments, excluding acquisitions, divestments and other operations with non-controlling interests (refer to point 1.4.1. of chapter 1).

2.5.1 Presentation of the segment

The Marketing & Services (M&S) business segment is dedicated to the development of TOTAL's petroleum products distribution activities and related services.

TOTAL's ambition is to be a leading brand recognized for its proximity to its customers and the value that it brings to each of them. The Group achieves this ambition by creating solutions aimed at performance, energy efficiency, new energies for mobility[(1)] and digital transformation. M&S promotes brand awareness and a strong presence on the ground, with more than 15,500 Group-branded service stations worldwide. To best meet its customers' current and future needs, M&S continues its efforts to develop new products and services, particularly for the new mobility solutions.

M&S pursues a proactive and primarily organic growth strategy focused on large, fast-growing markets. Its organic investments totaled approximately $0.8 billion in 2020, down 15% from 2019, and focused mainly on retail activity. M&S is one of the main distributors of petroleum products in the key Western European markets[(2)]. The segment continues to develop its activities in Africa, where it is the market leader[(3)].

M&S deploys a dynamic portfolio management strategy and continues to develop its activities through acquisitions and established partnerships, particularly with regard to new energies and major promising growth markets. In January 2020, TOTAL was awarded one of Europe's largest concession contracts[(4)] for electric vehicle charging from the metropolitan authority for Greater Amsterdam (Metropoolregio Amsterdam Elektrisch, or MRA-E). Under this agreement, TOTAL will install and operate up to 20,000 new public charge points in the Netherlands[(5)]. In October 2020, the Group also expanded its presence in Germany with the acquisition of the business unit Charging Solutions based in Munich, which specializes in EV charging infrastructure. In November 2020, TOTAL was awarded a concession tender from the city of Paris to modernize and expand its network of some 2,300 public charge points for electric vehicles. In December 2020, TOTAL completed the acquisition of Blue Point London, taking over the management and operation of Source London, the city's largest electric vehicle charging network with more than 1,600 on-street charge points. Furthermore, in October 2020, TOTAL became the 9th member of the ChargeUp Europe alliance, the voice of the EV charging industry in Europe, actively contributing to discussions on policy initiatives at the EU level that can support an efficient, effective and consumer-friendly rollout of charging infrastructure across the European Union.

M&S's primary activities are:

- **Retail**, with a network of more than 15,500 Group-branded service stations[(6)]. The Group is present in the key Western European markets and continues to grow in Africa, where it is present in 40 countries, as well as in major growth markets in Asia (China, India) and the Americas (Brazil, Mexico). TOTAL sells high-performance fuels and petroleum products. M&S is developing partnerships with leading brands in quick-service restaurants and convenience stores as well as new services that use digital innovations to capture and retain customers. The Group is also pursuing its growth in the car wash market through its TOTAL WASH brand. These offers support customers in their mobility by providing "One Stop Shop" service stations with all the products and services they need. M&S addresses the road freight transport sector through its AS 24 brand, including a secure, chip-based fuel card accepted at more than 1,000 stations that serve heavy-duty vehicles across Europe and are either owned by TOTAL or operated through partnerships. AS 24 also sells a range of mobility-related services for commercial carriers, such as a satellite-based global positioning system and a payment system for Europe's main toll plazas. M&S pursues its solarization program, with nearly 2,000 service stations equipped with solar panels at year-end 2020.
- **Production and sale of lubricants**, a business that accounts for a significant share of M&S's adjusted net operating income. TOTAL intends to maintain the dynamic development of its positions by improving strengthening in particular the growth of its sales of premium lubricants with higher unit margins. The Group also introduced a new packaging in early 2020, designed to reduce its carbon footprint. To promote sales of its automotive lubricants, TOTAL relies on a network of more than 3,000 service centers[(7)] at year-end 2020. To reinforce its position in the metalworking market, TOTAL launched FOLIA in 2018, an innovative biosourced fluid, and in 2019 it acquired Houghton's lubrication activities for the steel rolling and aluminum rolling markets in 20 European countries, the United States, Canada and Mexico. In addition, in September 2020, TOTAL announced its acquisition of LUBRILOG, a French firm that specializes in producing high-performance synthetic lubricants with specific applications in industries such as mining and cement. M&S continues to pursue commercial and technological partnerships with car manufacturers. Investments in R&D enable the Group to supply high-quality premium lubricants to its customers worldwide, notably from its 35 operated production sites.
- **Promotion of new energies for mobility**, such as natural gas, electric mobility and hydrogen.
  - The Group is diversifying its range of new energies for mobility by expanding its network of NGV filling stations, in the wake of its 2017 acquisition of Pitpoint, one of the European leaders in natural gas and biogas. At year-end 2020, TOTAL has more than 900 stations[(8)] dispensing NGV in Asia, Africa, the United States and Europe to consumers and businesses.
  - In the area of natural gas for shipping, TOTAL is responding to the new emission standards for marine fuels that came into effect on January 1, 2020, and supporting its customers through the transition via its subsidiary Total Marine Fuels Global Solutions (TMFGS) , which offers a wide array of marine fuels and related services. The product portfolio has been revamped to promote fuels with a sulfur content below 0.5% and the use of LNG as a marine fuel. TMFGS is a major contributor to the Group's strategy for reducing greenhouse gas emissions in the shipping industry. Moreover, in 2020, TOTAL joined the Getting to Zero Coalition, which, through its members, aims to introduce by 2030 commercially viable, zero-emission ocean-going vessels, themselves powered by zero-emission fuels. Also in 2020, TOTAL joined the Coalition for the Energy of the Future, a group of 14 multinational firms since February 2021 that are pooling their expertise to accelerate the energy transition in transportation and

(1) Electric-mobility, Natural Gas for Vehicle (NGV), hydrogen, LNG bunker fuel.
(2) France, Germany, Belgium, Luxembourg and the Netherlands.
(3) Publicly available information, based on the number of Group-branded service stations in Africa in 2019.
(4) Based on the number of charge points. Company data.
(5) In the provinces of North Holland, Flevoland and Utrecht and with the exception of the municipalities of Amsterdam and Utrecht.
(6) Includes more than 500 stations licensed under the TOTAL brand in Turkey.
(7) At year-end 2020, the network of service centers consisted of independent garages and service stations offering quality automotive maintenance under the brand names Total Quartz Auto Care, Total Quartz Auto Service, Total Quartz Rapid Oil Change or Total Rubia Truck Center or Total Hi-Perf Motozone.
(8) Mainly Group-branded service stations and Clean Energy Fuels Corp. service stations, in which Total acquired a 25% stake in 2018.

logistics, through support for 9 concrete projects developed by 9 working groups, of which 7 projects already launched should see major progress in 2021. In February 2021, TOTAL joined the Maersk Mc-Kinney Møller Center for Zero Carbon Shipping as a strategic partner and accelerates its R&D program for carbon neutral shipping solutions in line with its commitment to work together with its key customers to get to Net Zero. This partnership will allow TOTAL to join forces with leading players across the shipping sector to develop new low-carbon alternative fuels and carbon neutrality solutions (refer to point 2.4.2.2 of this chapter). To meet the needs of its customers in the major bunkering hubs, the Group is strengthening its logistical capacities in the Amsterdam-Rotterdam-Antwerp, Singapore and Oman areas and in the Mediterranean.

– With regard to electric mobility, the Group plans to operate more than 150,000 charge points in Europe by 2025, through concessions in major cities, fast charging stations in urban areas, charging facilities at BtB customer locations and ultra-fast charge points along major highways. With G2Mobility, now renamed Total EV Charge Services, the Group can offer enhanced electric charging solutions to its customers.
– Concerning hydrogen, TOTAL continues to roll out filling stations as part of the H2 Mobility Germany joint venture. That partnership was created in 2015 with Air Liquide, Daimler, Linde, OMV and Shell, with the aim to build a network of hydrogen stations in Germany. The joint venture operated 90 stations in 2020; approximately a quarter of those are based on the Group-branded service stations network. TOTAL is supporting local governments in Belgium and the Netherlands with filling stations specially designed for buses, and closely monitors rail projects as well.
– **Distribution of products and services for businesses.** Benefiting from the diversity of its product ranges and its worldwide logistics network, TOTAL is a leading local supplier of products and multi-energy solutions (primarily bulk fuels, special fluids, liquefied petroleum gas, compressed natural gas, liquefied natural gas, bitumens and marine and aviation fuels) to more than a million customers, including major multinational industrial groups. M&S offers a variety of cards that provide businesses of all sizes with fuel payment solutions, access to electric charging from different networks, and related services for managing their vehicle fleet. M&S is also accompanying its customers through the energy transition by offering services and solutions across the entire value chain, along with new digital platforms designed to help them handle all of their energy needs, from managing onsite facilities to reducing their environmental footprint. Furthermore, TOTAL and Deutsche Post DHL Group signed a strategic cooperative agreement in October 2019 to strengthen their collaboration, particularly in the area of sustainable mobility.

As part of its business, M&S owns stakes through its subsidiaries in four refineries in Africa.

2

2.5.2 Sales of petroleum products

The following table shows M&S's sales of petroleum products[a] by geographical area:

(kb/d)	2020	2019	2018
Europe	823	1,021	1,001
France	418	512	517
Europe, excluding France	405	509	484
Africa	377	444	443
Middle East[b]	47	34	41
Asia Pacific[c]	135	198	199
Americas	95	148	117
TOTAL	**1,477**	**1,845**	**1,801**

(a) In addition to M&S's petroleum product sales, the Group's sales also include international trading 1,498 kb/d in 2020, 1,730 kb/d in 2019 and 1,777 kb/d in 2018) and bulk Refining sales 434 kb/d in 2020, 536 kb/d in 2019 and 575 kb/d in 2018).
(b) Including Turkey.
(c) Including the Indian Ocean islands.

2.5.3 Service stations breakdown

The table below shows the geographical breakdown of the Group-branded[a] service stations:

As of December 31	2020	2019	2018
Europe[b]	5,649	5,632	5,625
of which France	3,418	3,480	3,490
Africa	4,683	4,543[c]	4,449
Middle East	1,017	889	877
Asia Pacific[d]	2,037	2,042	1,951
Americas	964	968	561
AS 24 network (for heavy-duty vehicles)	1,244	986	848
TOTAL	**15,594**	**15,060**	**14,311**

(a) TOTAL, TOTAL ACCESS, Elf, Elan and AS 24, including service stations owned by third parties and those currently being converted. Turkey is included in the Middle East.
(b) Excluding the AS 24 network.
(c) Data restated due to a regularization of the counting of the number of service stations.
(d) Including the Indian Ocean islands.

Moreover, Clean Energy Fuels Corp., in which TOTAL holds a 25.63% stake, has a network of 550 service stations in the United States at year-end 2020 (compared to 530 at year-end 2019 and 530 at year-end 2018).

2.5.4 Activities by geographical zone

The information below describes M&S's principal activities by geographical zone and main area of business.

2.5.4.1 Europe

Retail

M&S is responding to changing markets in Western Europe by developing an innovative and diversified line of products and services. The network is made up of almost 7,000 Group-branded service stations (including AS 24), mainly divided among its key markets – France, Germany, Belgium, the Netherlands and Luxembourg – where M&S reached an average market share of 16%[1] in 2020.

– In **France**, the dense retail network totaled nearly 3,500 stations at year-end 2020; of those, approximately 750 stations offer E85 (superethanol), a fuel mostly renewable, of which TOTAL became the leading distributor in France in December 2020 in term of number of stations[2]. This network includes more than 1,800 TOTAL-branded service stations, approximately 700 TOTAL ACCESS-branded stations (service stations combining low prices and high-quality fuels) and nearly 700 Elan-branded service stations (located in rural areas). The Group-branded service stations enjoy close ties with customers, meeting their everyday needs with a multi-service, multi-product offering that includes restaurants, convenience stores and car washes sustained by leading brands such as Bonjour and TOTAL WASH (the top branded network in France[1]), as well as partnerships tailored to local needs.

  TOTAL has interests in 27 depots in France, seven of which are operated by Group companies.

– In **Germany**, TOTAL is the country's third-largest operator[3] with nearly 1,200 Group-branded service stations at year-end 2020.
– In **Belgium**, TOTAL is the market leader[3] with approximately 550 Group-branded service stations.
– In the **Netherlands**, TOTAL is growing as well, with more than 380 Group-branded service stations at year-end, 2020.
– In **Turkey**, approximately 500 service stations use the TOTAL brand name under the terms of a brand licensing agreement.

In road transport, TOTAL offers services specifically designed for this growing sector with its AS 24 brand, including a secure, chip-based fuel card accepted at more than 1,000 specialized service stations for heavy-duty vehicles across Europe. AS 24 is constantly expanding its regional presence along major international road corridors, primarily in Eastern Europe. As of 2020, European carriers with an AS 24 fuel card can refuel at partner service stations of Lukoil in Russia and Azpetrol in Azerbaijan. AS 24 is supporting the energy transition in the freight transport sector by offering NGV and bio-NGV in several European countries, including France. AS 24 is also expanding its array of innovative mobility-related services, such as a satellite-based global positioning system that can be used at Europe's biggest toll plazas and a standalone system for locating trailers.

Lubricants

TOTAL continues its growth in Europe, drawing primarily on its 10 operated lubricants and greases production sites, particularly in Rouen, France and Ertvelde, Belgium, plus sites in the United Kingdom, Spain, Germany, Romania, Turkey and, since 2018, Russia.

In November 2019, the Group announced the launch of ECO2, a range of hydraulic fluids from the circular economy (re-refining and special patented treatment of waste oil) that enables companies to reduce their environmental footprint.

New Energies

Natural gas

TOTAL operates approximately 200 NGV TOTAL and AS 24 filling stations. The majority of those stations were accessible to the public at year-end 2020. Its goal is to operate 450 NGV filling stations by 2025. The Group intends to accelerate growth in that network to quickly establish coverage that meets its customers' expectations and will initially target the road transport sector in its key European markets (Germany, Belgium, France, Luxembourg, the Netherlands). In that perspective, in February 2021, Total and Sigeif Mobilités (a local semi-public company created by Sigeif and Caisse des Dépôts) inaugurated the largest filling station exclusively dedicated to NGV and bioNGV in France.

In the field of natural gas for marine fuels, the Group welcomed its first LNG bunker vessel in August 2020, named *Gas Agility* and based in the Rotterdam region, the largest such vessel in the world by capacity (18,600 cubic meters). In November 2020, *Gas Agility* conducted the first bunkering operation for the world's largest LNG-powered container ship, the CMA CGM *Jacques Saadé*. In late 2019, the Group announced the signing of a long-term charter contract for a second LNG bunker vessel, expected to be delivered in 2021 and stationed in the Marseille-Fos region in France. Following an agreement formalized by TOTAL and MSC Cruises in March 2021, this vessel will ensure in particular the annual supply of approximately 45,000 tons of LNG to MSC Cruises' upcoming LNG-powered cruise ships to make calls in the port of Marseille. Concerning the two LNG bunker vessels, TOTAL has signed agreements to supply almost 0.6 Mt of LNG per year.

Electric mobility

In January 2020, TOTAL was awarded one of Europe's largest concession contracts[4] for electric vehicle charging from the metropolitan authority for Greater Amsterdam (Metropoolregio Amsterdam Elektrisch, or MRA-E). Under the agreement, TOTAL will install and operate up to 20,000 new public charge points in the Netherlands[5]. In October 2020, the Group expanded its presence in Germany as well with its acquisition of the business unit Charging Solutions based in Munich, which specializes in EV charging infrastructure. With this latest deal, TOTAL assumes responsibility for a network of 2,000 charge points in Germany located at its business customers' sites; some are also open to the public.

In November 2020, TOTAL was awarded a concession tender from the Paris municipal government to modernize and expand the city's network of public charge points for electric vehicles. The Paris city council gave TOTAL a 10-year contract to manage its public charging network of approximately 2,300 charge points. In December 2020, TOTAL completed its acquisition of Blue Point London, taking over the management and operation of Source London, the city's largest electric vehicle charging network with more than 1,600 on-street charge points. Furthermore in October, TOTAL became the 9th member of the ChargeUp Europe alliance, the voice of the EV charging industry in Europe, actively contributing to discussions on policy initiatives at the EU level that can support an efficient, effective and consumer-friendly rollout of charging infrastructure across the European Union.

At year-end 2020, TOTAL operated more than 21,000 charge points in Europe, and almost 20 service stations equipped with ultra-fast charge points in Germany, France and the Benelux countries.

Hydrogen

TOTAL sells hydrogen fuel for trucks, passenger vehicles or for buses at 26 stations in Germany, the Netherlands and Belgium, and plans to continue expanding retail sales of hydrogen fuel.

(1) Company data.
(2) Metropolitan France (excluding Corsica).
(3) Source: IHS 2020, based on the number of stations in the country.
(4) Based on the number of charge points. Company data.
(5) In the provinces of North Holland, Flevoland and Utrecht and with the exception of the municipalities of Amsterdam and Utrecht.

Commercial sales, mobility and other specialties

In Europe, TOTAL produces and markets bulk fuels and specialty products and relies on its industrial facilities to produce special fluids (Oudalle in France) and bitumen (Brunsbüttel in Germany).

TOTAL is a major player in the European market for mobility management cards with more than 3.5 million cards, enabling companies of all sizes to improve fleet energies cost management and access an ever-increasing number of services.

With its TOTAL MOBILITY solutions, the Group assists companies in optimizing the costs related to their company fleets, irrespective of their engine type (conventional fuels, electricity, gas, etc.) and more broadly the costs related to employee mobility. In particular, the TOTAL card can be used to charge electric vehicles at approximately 200,000 charge points in Europe across a variety of networks. With its acquisition of the French start-up WayKonect in 2018, the Group was able to strengthen its company vehicle fleet management services by incorporating a set of tools that combines digital data processing solutions, an app for drivers and an onboard telematics unit.

2.5.4.2 Africa

Retail

TOTAL is the leading retailer of petroleum products on the African continent, with a market share of 17%[(1)] in 2020, and it is pursuing a strategy in Africa to achieve profitable, above-market growth.

In 2020, the African retail network comprised more than 4,600 Group-branded service stations in 40 countries. In particular, the Group has major retail networks in South Africa, Nigeria, Egypt and Morocco. TOTAL is continuing a campaign launched in 2018 to expand its network of service stations in Angola, through its joint venture with the national company Sonangol.

M&S is diversifying its offerings at service stations and providing a range of products and new services, including restaurants, convenience stores and car washes. To that end, the Group is developing partnerships, particularly with an African start-up, to gradually introduce new e-payment solutions across the continent that can improve the customer experience at the point of sale. In 2019, M&S acquired a provider of payment card software and organizational solutions, now renamed Total Fleet Technology & Services, that is active in the African market.

Lubricants

TOTAL is the leading distributor of lubricants[(2)] on the African continent and continues to pursue its growth strategy. M&S operates nine lubricants production sites in Nigeria, Egypt, Kenya, Senegal and South Africa, as well as in Tanzania, where TOTAL acquired a production facility in 2019. Moreover, a new production site came on stream in Algeria in October 2020. In late 2018, TOTAL signed a partnership with CFAO that was designed to boost its visibility in the Group's car service centres. In 2020, TOTAL and Belron have teamed up in Africa to deliver a premium car glass repair and replacement service under a ten-year exclusive operating licence for the Carglass® brand granted to TOTAL. This service supplements the service that TOTAL provides at its "Total Quartz Auto Service" and "Total Quartz Auto Care" centers, as well as services formed with other major partner chains.

Commercial sales, mobility and other specialties

TOTAL is a partner of choice, particularly among mining customers, in providing innovative, low-carbon and comprehensive energy solutions for fuel supply and management and offers hybrid solutions that incorporate solar energy into its existing portfolio of products and services.

In this way, M&S offers a diverse range of products and services aimed at business customers in Africa. Industrial customers receive TOTAL's support in maintaining their onsite facilities, such as in-service lubricant analyses. In mining, construction, agriculture and forestry, the Group offers its Optimizer digital platform, which enables customers to cut their costs by gaining better control over their energy consumption, thanks to data sent from sensors installed on their facilities and equipment.

2.5.4.3 Asia-Pacific/Middle East

M&S markets its products and services in more than 20 countries.

Retail

TOTAL had more than 2,000 Group-branded service stations across the Asia-Pacific/Middle East region at year-end 2020, with networks of service stations in Cambodia, China, Indonesia, Jordan, Lebanon, Pakistan and the Philippines. The Group is also a significant actor in the Pacific islands.

TOTAL continues to grow in the major markets, especially in India with the objective to deploy in partnership with the Indian conglomerate Adani, a network of service stations and NGV filling stations, the size of which is under consideration.

In February 2019, TOTAL and Saudi Aramco signed a joint venture agreement to expand the distribution and sale of petroleum products and related services in Saudi Arabia. The two partners acquired a network of 270 service stations that they are currently modernizing.

TOTAL is also pursuing growth in the region with its TOTAL EXCELLIUM premium fuels, which are now available in Cambodia, China, Fiji, Lebanon, New Caledonia, Pakistan and the Philippines.

In 2020, Total (China) Investment Company Limited signed a memorandum of understanding to pursue strategic collaboration with Alibaba Group and leverage their respective resources to drive the digital transformation of the company's operations in China. The partnership will especially provide digital infrastructure and support for TOTAL's service stations, lubricants and special fluids businesses in China.

Lubricants

The lubricants business is contributing to M&S's growth in Asia and the Middle East. TOTAL's lubricants blending capacity in the region spans 10 operated production sites, including plants in Singapore, Tianjin and Dubai. The Group is also forming partnerships with leading Asian car manufacturers, including Nissan, Mazda, Kia, Great Wall Motors, Maruti, Suzuki and Hitachi, as well as other industries, particularly energy, cement and textiles, and major players in online commerce in order to grow its sales and develop new services.

Commercial sales, mobility and other specialties

TOTAL has signed several partnership agreements with industrial customers, enabling it to expand its operations in multiple markets, such as mining and construction, across several countries in the region.

In Asia, the Group supplies lubricants and services to more than 50 mining sites, including leading industry players such as BHP, Vale and Thiess, operating in Australia, Indonesia, Mongolia, New Caledonia, Papua New Guinea and the Philippines.

(1) Estimated market share. Company data.
(2) Company data.

Following an agreement signed in 2018 with China Communications Construction Company Ltd. (CCCC), a prominent force in China's building and public works sector, TOTAL signed a second preferred supplier agreement in 2019 with another top-ranked Chinese partner in the energy and construction sector to expand their current partnership, currently focused on Africa, into a worldwide alliance.

In specialty products, TOTAL is present in the LPG market in Vietnam, in Bangladesh, in New-Caledonia and in India with a network of nearly 80 service stations that are exclusively devoted to LPG fuel.

In July 2020, TOTAL and Indian Oil formed an equally owned joint venture in India for specialty bitumen products.

In the area of shipping, in October 2019 TOTAL signed an agreement with China's state-owned Zhejiang Energy Group (ZEG) to establish a joint venture in the country's Zhoushan region for the supply and delivery of low-sulfur marine fuels. In addition, TOTAL and Pavilion Energy Singapore signed a 10-year, firm agreement in December 2019 to jointly develop an LNG bunker supply chain in the port of Singapore, which follows a memorandum of understanding signed in 2018. In March 2021, the Maritime and Port Authority of Singapore (MPA) has awarded a third Liquefied Natural Gas (LNG) bunker supplier license to TMFGS, for a five-year term starting January 1st, 2022. In 2020, the Group signed agreements to charter two very large crude carriers (VLCCs), scheduled for delivery in 2022, and four Aframax-type vessels, set for delivery in 2023, all powered by LNG. TMFGS, headquartered in Singapore, will supply LNG bunker to the vessels.

2.5.4.4 Americas

In **retail**, the Group owns nearly 1,000 Group-branded service stations at year-end 2020.

Since 2018 TOTAL has expanded into Brazil's fuel distribution sector, Latin America's largest retail market for petroleum products[(1)], thanks to its acquisition of a network of 280 service stations from a Brazilian retailer along with its petroleum product distribution, resale and import operations. M&S was already active in Brazil's lubricants industry, where it is seeking further growth.

Capitalizing on reforms and liberalization in Mexico's energy market, TOTAL is pursuing its development and is aiming to capitalize on its current network of nearly 230 service stations at year-end 2020.

The Group also owns a 70% stake in the biggest fuel retailer in the Dominican Republic, which operates a network of approximately 130 service stations and is also active in commercial sales and lubricant sales.

In lubricants and other specialty products, TOTAL is pursuing its growth strategy across the region, mainly in lubricants, aviation fuel and special fluids. The Group maintains three operated lubricants production sites in North America (in the U.S., Canada and Mexico) and three more in South America (in Brazil, Argentina and Chile). The Group also has a production unit in Bayport, Texas, in the United-States, world's leading market for high performance fluids[(2)] whose monthly production reached a record 21,000 tons at the end of November 2020.

In new energies for mobility, since 2018 TOTAL has been a leading shareholder (25.63%) in the U.S. based, NASDAQ-listed firm Clean Energy Fuels Corp., North America's top supplier[(3)] of natural gas fuel and a major player in sales of biomethane. In 2020, the Group acquired Platergas, a supplier of LNG for mobility and industry applications in the Dominican Republic.

2.5.5 Products and services development

To address the world markets' evolution and prepare for tomorrow's growth opportunities, TOTAL is working with its customers to develop products and services that reduce their energy consumption, such as its products bearing the Total Ecosolutions label, which include Total Excellium fuels and Fuel Economy lubricants. Those products and services include a diverse range of energy solutions (fuels, gas, solar power, wood pellets) and services for auditing, monitoring and managing energy consumption.

Moreover, by building on its technical partnerships, TOTAL is developing technologically advanced products, including several that are formulated for use in motor sports competition prior to being marketed more broadly. In particular, the Group has joined forces with Groupe PSA (newly Stellantis), renewing a cooperation agreement in early 2021 for a 5-year period. The agreement focuses on lubricants, R&D, automotive racing and mobility. TOTAL partnered with DS Techeetah, two-time Formula E[(4)] world champions, in 2019 and 2020, and has supplied the team with specially developed lubricants since 2019. Since 2018, TOTAL has also become the official fuel supplier for various endurance racing championships[(5)], including the Le Mans 24 Hour race, for five years. In 2019, that partnership was expanded to include hydrogen delivery to help develop a hydrogen-powered endurance car for a special category of the Le Mans 24 Hour race in 2024. These partnerships reflect TOTAL's engineering know-how in formulating fuels and lubricants for the engines of the future, operating under extreme conditions and stringent fuel consumption reduction requirements.

TOTAL is accelerating its strategy of digital innovation so as to develop new offerings tailored to its customers in an array of markets and to improve its operational efficiency. In Europe, for example, M&S is developing a digital solution that allows drivers in Germany and Belgium to pay for their fuel directly from a smart car using the TOTAL eWallet mobile payment solution. Otherwise in France, business customers can purchase bitumen at a fixed price through the Bitume Online platform. In 2019, the Group created Be:Mo, a multi-energy software platform that connects mobility professionals with thermal or electrical energy providers and vehicle-related services (car washes, tolls, parking) via APIs[(6)] (I/O connectors). Be:Mo allows any firm in the mobility sector to create its own vehicle charging or fueling connected solution and integrate it directly into the company's apps or vehicle dashboards. TOTAL subsidiaries as well as a major European car manufacturer have already incorporated these services into their operations. In Africa, TOTAL is continuing to develop new e-payment solutions that will enable it to expand its money transfer and smartphone payment services. Moreover, by leveraging metadata gained through *Customer Relationship Management*, the Group is able to develop more targeted sales offerings and improve its management of customer complaints. So, TOTAL can send personalized sales offers to more than 10 million customers in 13 countries worldwide.

The Group is also continuing to research and deploy IoT[(7)] applications for logistics, maintenance and safety. TOTAL's carriers customers can use its latest innovations to geolocate their trailers and industrial equipment and track deliveries.

(1) Source: IHS 2020.
(2) Company data.
(3) Company data.
(4) Formula E: motor racing championship using single-seater electric cars.
(5) The FIA World Endurance Championship, Le Mans 24 Hour race, the European Le Mans Series and the Asian Le Mans Series.
(6) API: Application Programming Interface.
(7) Internet of Things: smart objects.

3

Risks and control

3.1 Risk factors

The Group conducts its activities in an ever-changing environment. It is exposed to risks that, if they were to occur, could have a material adverse effect on its business, financial condition, reputation, outlook, or the price of financial instruments issued by TOTAL.

This section presents the significant risk factors specific to the Group, to which it believes it is exposed as of the filing date of the Universal Registration Document. However, the Group may be exposed to other non-specific risks, or risks of which it may not be aware, or risks of which it may be underestimating the potential consequences, or other risks that may not have been considered by the Group as being likely to have a material adverse impact on the Group, its business, financial condition, reputation or outlook.

In particular, it could be exposed to systemic risks, such as unexpected major disruptions (health such as the COVID-19 pandemic, security, monetary or cyber), leading to large-scale disruptions with global human and economic repercussions.

In such a context, the management of the COVID-19 health crisis proved the effectiveness of the Group's resilience mechanisms, its responsiveness, its ability to mobilize its crisis units, to implement its business continuity plans and to be agile in its organization.

The risk factors identified in this section are the results of an ongoing risk analysis and identification process, which the Group uses to determine risks that could prevent it from achieving its objectives, and a major element of which is the mapping of the Group's risks. The current mapping of the Group's risks was established in November 2019.

Risk factors are grouped by categories according to their nature. Their materiality (severity) was assessed according to their probability of occurrence and their level of impact. The impact level assessment was performed according to various financial, strategic, environmental, image/reputation, legal, human and HR criteria.

In each category, the risks presented are those considered as being the most material according to the assessment based on the above criteria. The assessment by TOTAL of this level of materiality may be changed at any time, in particular should new facts, whether external or specific to the Group, come to light.

	Materiality assessment
Market environment parameters	
Sensitivity of results to oil and gas prices, refining margins, exchange rates and interest rates	**4**
Climate challenges	
Deployment of the energy transition	**4**
Development of oil and gas reserves	**3**
Operating and financial risks relating to the effects of climate change	**2**
Reputational risk and management of talents	**2**
Risk relating to external threats	
Cybersecurity risks	**4**
Security risks	**3**
Geopolitics and developments in the world	
Protectionist measures affecting free trade	**3**
Deterioration of operating conditions	**3**
Developments in regulation	**2**
Risks relating to operations	
HSE: risk of major accident or damage to third parties and the environment	**3**
Development of major projects	**3**
Business ethics	**3**
Integration of strategic acquisitions	**3**
Partnership management	**3**
Innovation	
Digital transformation	**3**
Technological or market developments	**2**

Materiality rating scale (impact level and probability of occurrence): **1** = less material, **4** = more material

The main internal control and risk management procedures implemented by the Group are described in point 3.3 of this chapter.

3.1.1 Market environment parameters

Sensitivity of results to oil and gas prices, refining margins, exchange rates and interest rates

The results of TOTAL are sensitive to various market environment parameters, the most significant being oil and gas prices, refining margins, exchange rates and interest rates.

Prices for oil and natural gas may fluctuate widely due to many factors over which TOTAL has no control. These factors include:
- global and regional economic and political developments in natural resource-producing regions, particularly in the Middle East, Africa, South America and Russia; along with the security situation in certain regions, the magnitude of international terrorist threats, wars or other conflicts;
- the ability of OPEC and other producing nations to influence global oil and gas production levels and prices;
- prices of unconventional energies as well as evolving approaches for developing oil sands and shale oil, which may affect the Group's realized prices, notably under its long-term gas sales contracts and asset valuations, particularly in North America;
- global economic and financial market conditions;
- regulations and governmental actions;
- variations in global and regional supply of and demand for energy due to changes in consumer preferences or to pandemics such as the COVID-19 pandemic.

Generally, a decline in oil and gas prices has a negative effect on the Group's results due to a decrease in revenues from oil and gas production. Conversely, a rise in oil and gas prices increases the Group's results.

In addition to the adverse effect on sales, margins and profitability, a prolonged period of low oil or natural gas prices may lead the Group to review its development projects, reduce the Group's reported reserves, and cause the Group to revise the price assumptions upon which asset impairment tests are based, which could have an adverse effect on the Group's results in the period in which it occurs. For additional information on impairments recognized on the Group's assets, refer to Note 3D to the Consolidated Financial Statements (point 8.7 of chapter 8).

Prolonged periods of low oil and natural gas prices may reduce the economic viability of projects in production or in development and reduce the Group's liquidity, thereby decreasing its ability to finance capital expenditures and/or causing it to cancel or postpone investment projects.

Conversely, in a high oil and gas price environment, the Group can experience significant increases in costs and government withholdings, and, under some production-sharing contracts, the Group's production rights could be reduced. Higher prices can also reduce demand for the Group's products.

The Group's results from its Refining & Chemicals and Marketing & Services segments are primarily dependent upon the supply and demand for petroleum products and the associated margins on sales of these products with a strong dependence on the transportation sector. Changes in oil and gas prices affect results in these segments, depending on the speed at which the prices of petroleum products adjust to reflect movements in oil and gas prices. The Group's refining margins, in down in 2020, remain highly volatile.

The activities of trading and shipping (oil, gas and power trading and shipping activities) are particularly sensitive to market risks and more specifically to price risks resulting from the volatility of oil, gas and electricity prices, to liquidity risk (inability to buy or sell cargoes at market prices) and to counterparty risks (when a counterparty does not fulfill its contractual obligations).

In 2020, impacted by the collapse in demand due to the COVID-19 pandemic and exacerbated by tensions between oil-exporting countries, oil prices fell sharply in the month of March reaching $20/b (Brent), then increased starting in June to return to an average above $40/b, in particular due to production reduction measures in Opep+ countries and a partial recovery in demand for oil products in road transportation.

Gas prices have declined sharply, particularly in Europe (NBP) and Asia (JKM), going from an average of around $4/Mbtu in January 2020 to around $2/Mbtu at the beginning of the summer due to a drop in demand related to the health lockdown measures. Prices strengthened in the second half of the year, rising above $5.0/Mbtu in December 2020.

The oil and gas markets remain highly volatile.

For the fiscal year 2021, according to the scenarios retained below, the Group estimates that a change of $10 per barrel in the average annual liquids price would impact in the same direction the annual adjusted net operating income(1) by approximately $2.7 billion and annual cash flow from operations by approximately $3.2 billion. In addition, the Group estimates that a change in the average sales price for NBP gas of $1 per Mbtu would impact in the same direction the annual adjusted net operating income(1) by approximately $0.3 billion, and annual cash flow by approximately $0.25 billion.

The impact of changes in crude oil and gas prices on downstream operations depends upon the speed at which the prices of finished products adjust to reflect these changes. The Group estimates that a change in the variable cost margin – Refining Europe (VCM) of $10 per ton would impact in a same direction the annual adjusted net operating income by approximately $0.4 billion and annual cash flow from operations by approximately $0.5 billion.

All of the Group's activities are, for various reasons and to varying degrees, sensitive to fluctuations in the dollar/euro exchange rate. The Group estimates that a year-on-year decrease of $0.10 per euro (strengthening of the dollar versus the euro) would increase annual adjusted net operating income by approximately $0.1 billion and have a limited impact on annual cash flow from operations. Conversely, a year-on-year increase of $0.10 per euro (weakening of the dollar versus the euro) would decrease adjusted net operating income by approximately $0.1 billion and have a limited impact on annual cash flow from operations.

(1) Adjusted results are defined as income at replacement cost, excluding non-recurring items and the impact of changes in fair value.

Sensitivities 2021[a]	Change	Estimated impact on net adjusted operating income[1]	Estimated impact on cash flow from operations
US dollar	+/- \$0.1/€	-/+ \$0.1 B	~ \$0 B
Average liquids sales price[b]	+/- \$10/b	+/- \$2.7 B	+/- \$3.2 B
Price of NBP European gas[c]	+/- \$1/Mbtu	+/- \$0.3 B	+/- \$0.25 B
Margin on variable costs – Refining Europe	+/- \$10/t	+/- \$0.4 B	+/- \$0.5 B

(a) Sensitivities revised once per year upon publication of the previous year's fourth quarter results. Indicated sensitivities are approximate and based upon TOTAL's current view of its 2021 portfolio. Results may differ significantly from the estimates implied by the application of these sensitivities. The impact of the \$/€ sensitivity on adjusted net operating income is attributable essentially to Refining & Chemicals.
(b) Brent environment at \$50/b.
(c) NBP (National Balancing Point) is a virtual natural gas trading point in the United Kingdom for transferring rights in respect of physical gas and which is widely used as a price benchmark for the natural gas markets in Europe. NBP is operated by National Grid Gas plc, the operator of the UK transmission network.

In addition, as part of its financing, TOTAL is exposed to fluctuations in interest rates in the context of its external financing. Based on its portfolio of bond debt, short-term debt securities (commercial papers) and drawn credit lines incurred at the level of the Group's central financing entities, floating rate debt (after accounting for the effect of hedging instruments) was approximately \$28 billion in 2020 on average. On this perimeter, a fluctuation in the various reference rates, mainly the USD 3-month LIBOR rate, of +/- 1% would have resulted in a cost of debt variation, the theoretical impact of which on the Group's adjusted net income and cash flows is estimated at approximately -/+ \$0.23 billion.

3.1.2 Climate challenges

Deployment of the energy transition

TOTAL is exposed to the implementation of the energy transition, particularly by nations.

Civil society, numerous stakeholders and nations are encouraging the reduced consumption of carbon-based energy products and the establishment of an energy mix more geared towards low-carbon energies, so as to effectively combat climate deregulation specifically pursuant to the objectives set by each nation in connection with the Paris Agreement.

The pace of change of the energy mix of countries should, however, take into consideration the needs and abilities to adapt of different energy consumers who expect energy players to supply them with energy that is affordable in terms of cost and environmentally friendly.

In this context, companies in the energy sector will be guided to improve their control over greenhouse gas emissions. They will also be able to help create solutions that contribute to reducing CO_2 emissions associated with the use of their energy products by their clients, and technologies and processes to capture, store and use CO_2. Consequently, they may be led to change the energy mix of the products they offer and will have to manage the execution of projects supporting the energy transition.

An insufficient ability to adapt to the rate of deployment of the energy transition towards carbon neutrality in the various countries where TOTAL supplies energy to its clients could affect the Group's prospects as well as its financial position (lower Group profitability, loss of operating rights, loss of sales, increased funding difficulties), reputation or shareholder value.

Development of oil and gas reserves

The Group's profitability depends on the discovery, acquisition and development of new reserves profitably and in sufficient quantities.

A large portion of the Group's revenues and operating results is derived from the sale of oil and gas that the Group extracts from underground reserves developed as part of its exploration & production activities. The development of oil and gas fields, the construction of facilities and the drilling of production or injection wells is capital intensive and requires advanced technology.

To continue to be profitable and be able to finance its growth drivers, the Group needs to replace its reserves with new proved reserves likely to be developed and produced in an economically viable manner. A number of factors may undermine TOTAL's ability to discover, acquire and develop new reserves, which are inherently uncertain, including:

- the geological nature of oil and gas fields, notably unexpected drilling conditions, including pressure or unexpected heterogeneities in geological formations; the risk of dry holes or failure to find expected commercial quantities of hydrocarbons;
- the Group's inability to anticipate market changes in a timely manner;
- applicable governmental or regulatory requirements, whether anticipated or not, that may prevent the development of reserves or give a competitive advantage to companies not subject to such regulations;
- competition from oil and gas companies for the acquisition and development of assets and licenses;
- disputes related to property titles as well as increases in taxes and royalties, including retroactive claims and changes in regulations and tax reassessments;
- economic or political risks, including threats specific to a certain country or region.

(1) Adjusted results are defined as income at replacement cost, excluding non-recurring items and the impact of changes in fair value.

These factors may impair the Group's ability to complete development projects and to make production economical. They may also affect the Group's projects and facilities further down the oil and gas chain. If TOTAL fails to develop new reserves cost-effectively and in sufficient quantities, the Group's financial condition, including its operating income and cash flow, could be materially affected.

In addition, the Group's proved reserves figures are estimates prepared in accordance with SEC rules. Proved reserves are those reserves which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically recoverable, from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. They involve making subjective judgment (including with respect to the estimate of hydrocarbons initially in place, initial production rates and recovery efficiency) based on available geological, technical and economic data.

The Group's reserves estimates may therefore require substantial downward revisions should its subjective judgments prove not to have been conservative enough based on the available geoscience and engineering data, or the Group's assumptions regarding factors or variables that are beyond its control prove to be incorrect over time. Any downward adjustment could indicate lower future production amounts, which could adversely affect the Group's financial condition, including its operating income and cash flow.

TOTAL is exposed to a risk of more difficult access to the financial resources it needs, in particular, to develop its Oil & Gas activities.

The growth and profitability of the Group depend on its ability to successfully execute development projects that are capital-intensive.

A number of non-governmental organizations tend to increase the number of campaigns targeting investors and financial institutions, to encourage them to reduce their investments in projects or companies related to fossil fuels.

Some of these institutions have adopted policies aimed to restrict the funding of activities related to the exploration, production and marketing of certain categories of hydrocarbons, such as oil shales or oil sands.

Institutional investors are also adopting investment policies that take ESG criteria, and, in particular, the carbon footprint of assets under management into consideration.

The growing concern of civil society and stakeholders in terms of climate change could therefore influence investors in their investment choices and make accessing external funding more difficult or costly for the Group or a number of its projects.

If the Group were unable to find adequate financing for its activities from investors, notably in the Oil & Gas sector, the significant increase in the cost of financing that may result from this could impair its ability to undertake projects in satisfactory economic conditions, and worsen its financial position or shareholder value.

Operating and financial risks relating to the effects of climate change

The effects of climate change may leave TOTAL exposed to an increase in associated operating and financial costs.

TOTAL's businesses operate in various regions, where the potential physical impacts of climate change, including changes in climate prediction models, are uncertain. Climate change potentially has multiple effects that could harm the Group's operations. The increasing scarcity of water resources may negatively affect the Group's operations in some regions of the world, high sea levels may harm certain coastal activities, and the multiplication of extreme weather events may damage offshore and onshore facilities. All these factors may increase the operating costs of facilities and have an adverse effect on the Group's operating income.

In addition, in Europe, the Group's industrial facilities are part of the CO_2 emissions quotas market (EU-ETS), and the financial risk incurred by purchasing these quotas in the market could increase following the reform of the system that was approved in 2018. This emission quotas market is entering its fourth phase in 2021. The Group estimates that about 25% of emissions subjected to EU-ETS were not covered by free quotas in the period 2013-2020 (phase 3) and anticipates a portion of at least 30% of emissions will not be covered by free quotas from 2021 to 2030 (phase 4). At the end of 2020, the price of these quotas was about €25/t CO_2, and the Group expects this price to be higher than €30/t CO_2 in phase 4. This price will depend on the adjustments that will be proposed in 2021 under the European Green Deal. Studies conducted internally by TOTAL have shown that a long-term CO_2 price of $40/t CO_2[(1)] applied worldwide would have negative impact estimated at 6% of the discounted present value of the Group's assets (upstream and downstream).

In the context of increased exposure to legal proceedings, TOTAL may receive claims issued by public entities in certain countries in view of financing the protective measures to be implemented in order to limit the consequences of climate change, which may adversely affect the financial situation of the Group or the Total share price (refer to point 3.5 of this chapter).

Reputational risk and management of talents

TOTAL is exposed to reputational risk and may face difficulties to recruit and retain the key talent and skills required for its development.

The attention of many stakeholders as regards major industrial groups is on the increase, particularly given the challenges of climate change. As a major player in the oil and gas segment, TOTAL faces significant media exposure, both nationally and internationally. This is magnified through the use of social networks.

In addition, the expectations of new generations and employees regarding the Company's commitment in the face of environmental challenges, in particular those related to climate, as well as the increased competition with fast-growing high technology sectors, such as information technologies, are increasing and are visible both in the recruitment process and during their careers. TOTAL may therefore experience difficulties attracting and retaining the key talent and skills needed by the Group for its development.

If the Group were unable to respond adequately to stakeholders, its public image and its reputation could be affected. The Group may therefore face difficulties to recruit and retain the key talent and skills required for its development, which could impair its ability to develop, innovate and could as a result cause a loss of productivity and a slowdown in its growth.

(1) $40/t CO_2 as from 2021, or the current price in a given country if more than $40/t.

3.1.3 Risk relating to external threats

Cybersecurity risks

The Group is exposed to malicious acts that may permanently paralyze its information systems or cause losses of sensitive data.

The global cyber-threat evolves constantly and is growing. TOTAL is exposed to it. Firstly, cyber-attacks, whose techniques are regularly renewed, are becoming more and more sophisticated. Secondly, many factors intensify the exposure and vulnerability of the Group's information systems: digital transformation, the adoption of new technologies such as the Internet of Things, the migration of data to the Cloud or even changes in the architecture of information systems that allow system interconnectivity and the development of remote work.

The Group's activities depend on the reliability and security of its information systems. TOTAL is exposed to a risk of malicious actions, coming from internal or external sources, committed by individuals or by loosely or tightly organized or structured groups against its infrastructure, information systems and data. The Group's information systems, some of which are managed by third parties, are susceptible to being compromised, damaged, disrupted or shutdown due to cyber-attacks (viruses, computer intrusions, etc.).

If the Group and its service providers were unable to conserve the integrity of its critical information systems and its sensitive data, the Group's activities and assets could sustain damage, services provided by the Group could be interrupted, intellectual property rights could be usurped or stolen, and in some cases, personal injury, property damage, environmental harm and regulatory violations could occur, potentially having a material adverse effect on the Group's financial condition and its reputation, and exposing the Group to legal proceedings.

Security risks

The Group is exposed to risks that may jeopardize the security of its personnel, operations and facilities, which may specifically arise in the form of acts of malice, violence or terrorism.

In certain countries where TOTAL operates, political, economic and social instability may favor the emergence of acts of malice, violence or terrorism, either by isolated individuals or by groups that are loosely or tightly organized. As such, TOTAL and its partners may be exposed to direct or collateral risks that may jeopardize the security of its personnel, operations and facilities (plants, industrial or operational sites, pipelines, transport systems), major industrial accidents, in particular, could result.

Depending on their scale, these acts of malice, violence or terrorism, could cause damage to people, property and/or the environment, detrimental to the Group's operating income, financial situation, and reputation.

3.1.4 Geopolitics and developments in the world

Protectionist measures affecting free trade

The development of protectionist measures affecting free trade between nations may have an impact on the Group's business, its strategy or its financial condition.

Against a backdrop of risks of globalization and fragmentation between nations highlighted by the development of protectionist measures affecting free trade, trade tensions between certain countries contribute to restrict the free trade of goods and services, financial flows, along with international transfers of labor or knowledge.

Tensions between countries, in particular commercial tensions and especially when they require the modification of the contractual framework of partnerships or the operating conditions of projects, are likely to have a negative impact on the Group's business and its operating income. If TOTAL were unable to manage the impacts of these commercial tensions in an appropriate manner, the Group would potentially incur significant increases in costs for the development of its projects, lose markets, see its production or the value of its assets fall, which may adversely affect its financial situation.

Deterioration of operating conditions

TOTAL is exposed to risks related to adverse changes in operating conditions in some geographic areas or strategic countries.

A substantial part of the Group's activities is located in strategic areas or countries that may face conditions of political, geopolitical, social and/or economic instability. In recent years, a number of these countries have experienced varying degrees of one or more of the following: economic, political, or geopolitical instability, civil war, violent conflict, and social unrest. Any of these conditions alone or in combination could disrupt the Group's economic and commercial activities in these countries or geographic areas. In addition, the occurrence of epidemics or pandemics can significantly affect the operating conditions of certain projects or perhaps delay their execution, as was the case, for example, in Denmark with the Tyra redevelopment project (refer to point 2.2.2.1 of chapter 2).

In Africa (excluding North Africa), which represented 22% of the Group's 2020 combined liquids and gas production, certain of these situations of political, social and/or economic instability arose in countries where the Group has production, including Nigeria, which is one of the main contributing countries to the Group's production (refer to point 2.3.3 of chapter 2). In northern Mozambique, in the Cabo Delgado province where TOTAL is developing the Mozambique LNG project, the security situation deteriorated in 2020 due to terrorist acts.

The Middle East and North Africa zone, which represented 22% of the Group's 2020 combined liquids and gas production, has suffered increased political instability in connection with violent conflict and social unrest, particularly in Libya and Iraq. In Yemen, the deterioration of security conditions in the vicinity of the Balhaf site caused the company Yemen LNG, in which the Group holds a stake of 39.62%, to stop its commercial production and export of LNG and to declare force majeure to its various stakeholders in 2015. The plant has been put in preservation mode.

In South America, which represented 6% of the Group's 2020 combined liquids and gas production, certain of the countries in which TOTAL has production have recently suffered from political or economic instability, including Argentina and Venezuela.

The occurrence and scale of incidents related to political, geopolitical, economic, health or social instability in certain geographic areas or strategic countries may be unpredictable. Such incidents are likely to adversely affect operating conditions, and may lead to a significant drop in production, the stoppage of some projects, and the loss of market share. Such incidents may also expose employees and jeopardize their security, as well as the safety of the Group's facilities. These risks may well have an adverse impact on the Group's operating income and financial condition.

The Group also faces an increased risk of the imposition of sanctions that are becoming increasingly frequent and less and less coordinated at the international level, as well as a tightening of regulations relating to export controls.

Economic sanction regimes, combined with export controls, can target those countries in which TOTAL operates, and thus restrict certain types of financing or access to critical technologies, impose restrictions on the export or re-export of a number of goods and services, and hinder the Group's ability to continue its operations.

In addition to particularly heavy financial penalties, the breaching of economic sanction regimes adopted by the United States may lead the authorities to impose measures that freeze companies out of the US market, such as a ban on using USD for funding, while most of the Group's funding occurs in US dollars.

For instance, TOTAL held 24% of its proved reserves and produced 17% of the Group's oil and gas in Russia in 2020. Since July 2014, international economic sanctions have been adopted against certain Russian individuals and entities, including various entities operating in the financial, energy and defense sectors. In this country, TOTAL takes part in major LNG projects (Yamal LNG and Arctic LNG 2) both directly and through its holding in the PAO Novatek company(1). The Group's activities in countries subject to international economic sanctions are described in point 3.2 of this chapter.

Developments in regulation

The increasing number of regulations, and the constant developments, whether anticipated or not, in the legal and tax frameworks in countries where the Group operates, may have significant operational and financial effects, jeopardize the Group's business model and affect the conduct of its business and its financial conditions, especially given the size of TOTAL and its international dimension.

Conducting its activities in more than 130 countries throughout the world, TOTAL is subject to increasingly numerous, complex and restrictive laws and regulations, particularly regarding health, safety and the environment, as well as business ethics, which generate significant compliance costs. In Europe and the United States, the Group's sites and products are subject to increasingly stringent laws governing the protection of the environment (water, air, soil, noise, protection of nature, waste management and impact assessments, etc.), health (occupational safety and chemical product risk, etc.), the safety of personnel and residents, product quality and consumer protection.

In some jurisdictions, the legal and fiscal framework of operations may be changed unexpectedly. The application of rights, including contractual rights, may be uncertain and the economics of projects called into question. The legal and fiscal framework of the Group's activities, in particular regarding exploration and production, established through concessions, licenses, permits and contracts granted by or entered into with a government entity, a state-owned company or private owners, is specifically subject to risks of renegotiation that, in certain cases, can reduce or challenge the protections offered by the initial legal framework and/or the economic benefit to TOTAL.

In recent years, in various regions globally, TOTAL has observed governments and state-owned companies impose more stringent conditions on companies pursuing exploration and production activities, increasing the costs and uncertainties of the Group's business operations. TOTAL expects this trend to continue.

Potential increasing intervention by governments in such countries can take a wide variety of forms, including:
- the award or denial of exploration and production interests;
- the imposition of specific drilling obligations;
- price and/or production quota controls and export limits;
- nationalization or expropriation of assets;
- unilateral cancellation or modification of license or contract rights;
- increases in taxes and royalties, including retroactive claims and changes in regulations and tax reassessments;
- the renegotiation of contracts;
- the imposition of increased local content requirements;
- payment delays; and
- currency exchange restrictions or currency devaluation.

As a result of the development of the Group's low-carbon activities, particularly in the electricity sector, it is subject to new, mainly local regulations and which may change at an unexpected pace.

The increasing number of legal and tax regulations, which are occasionally inconsistent with each other, and the constant changes, whether anticipated or not, of legal and fiscal frameworks in the countries in which the Group operates create legal instability, which heightens the risk of legal proceedings and promotes an increase in the number of national or transnational disputes. They may effectively cause a material increase in tax and customs duties, as well as costs relating to operations, thus affecting the profitability of projects or the economic value of a number of Group assets, or even oblige the Group to shorten, change and/or stop certain activities or to implement temporary or permanent site closures.

If TOTAL were unable to anticipate changes in regulations or comply in time with new regulations in force in one or more countries where the Group operates, TOTAL may face increased litigation, and be forced to modify and/or stop some of its activities, which may lead to a downturn in the profitability of certain projects, and adversely affect its financial condition and reputation.

(1) A Russian company listed in Moscow and London, in which the Group held a 19.4% stake as of December 31, 2020, which is the maximum limit specified in the initial 2011 agreement between TOTAL and PAO Novatek.

3.1.5 Risks relating to operations

HSE: risk of major accident or damage to third parties and the environment

The Group's activities entail several operating risks such as the risk of a major industrial accident, or damage to third parties or to the environment.

The Group must face the risk of a major industrial accident both at its sites and during transport by sea or land, or during activities related to its operations.

The occurrence of epidemics or pandemics such as the COVID-19 pandemic may expose Group employees to health risks and require the implementation and deployment of crisis management and business continuity plans.

The Group's upstream activities are exposed to risks related to the physical characteristics of oil and gas fields during drilling and production operations, which can cause blow outs, explosions, fires or other damage, in particular to the environment, and lead to a disruption of the Group's operations or reduce its production. The activities of the Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services business segments are also subject to the risk of a major industrial accident such as fires, explosions, significant damage to the environment, as well as risks related to the overall life cycle of the products manufactured, and the materials used. In addition to its drilling and pipeline transport operations, the Group has at the end of 2020 186 sites and operating zones exposed to the risk of a major industrial accident, which could cause harm or damage to people, property and the environment.

The conduct of the Group's activities, and the nature of some of the products sold, may also entail risks of direct and repeated exposure which have longer-term effects on health and the environment (soil, air, water).

The Group's entities and their legal representatives may be exposed to legal proceedings, notably in the event of damage to human life, bodily injury and material damage, chronic damage to health and environmental damage. Such proceedings could also damage the Group's reputation.

The crisis management plans implemented at the Group level and at subsidiary level to cope with emergency situations may not make it possible to minimize the impacts on third parties, health or the environment, or exclude the risk that the Group's business and operations may be severely disrupted in a crisis situation. An inability for the Group to resume its activities in a timely manner could prolong the impact of any disruption and thus could have a material adverse effect on its financial condition.

The Group is not insured against all potential risks, and if a major industrial accident were to occur, TOTAL's liability may exceed the maximum coverage provided by its third-party liability insurance. The Group cannot guarantee that it will not suffer any uninsured loss, and there can be no guarantee that such loss would not have a material adverse effect on the Group's financial condition and its reputation.

Development of major projects

The Group's energy production growth and profitability depend on the delivery of its major development projects.

Growth of energy production and profitability of the Group rely heavily on the successful execution of its major development projects that are increasingly complex and capital-intensive. These major projects may be affected by the occurrence of a number of difficulties, including, in particular, those related to:

- economic or political risks, including threats specific to a certain country or region, such as terrorism, social unrest or other conflicts;
- negotiations with partners, governments, local communities, suppliers, customers and other third parties;
- obtaining project financing;
- controlling capital and operating costs;
- earning an adequate return in a low price environment (oil, gas and energy prices, etc.);
- respecting project schedules; and
- the timely issuance or renewal of permits and licenses by public agencies.

Failure to deliver any major project that underpins energy production or energy production growth could adversely affect the Group's financial condition, including its operating income and cash flow.

Business ethics

Ethical misconduct or non-compliance of the Group, its employees or third parties acting in its name and/or on its behalf with applicable laws and regulations in particular concerning corruption or fraud may expose TOTAL to criminal and civil proceedings and be damaging to its reputation and shareholder value.

In the energy sector, where the amounts invested may be very high, governments and public authorities are the leading counterparties in what is generally considered to be a strategic sector. The Group is present in more than 130 countries, some of which have a high corruption perception index according to the index established by Transparency International. The Group advocates a zero tolerance principle for fraud of any kind, particularly corruption and influence peddling.

Non-compliance with laws and regulations as well as ethical or human rights misconduct by TOTAL, its employees or a third party acting on its behalf could expose TOTAL and/or its employees to investigations, administrative or legal proceedings, criminal and civil sanctions and to additional penalties (such as debarment from public procurement). Further measures could, depending on applicable legislation (notably, the US Foreign Corrupt Practices Act, the UK Bribery Act, the French law No. 2016-1691 dated December 9, 2016 relating to transparency, the fight against corruption and modernization of the economy or the Regulation (EU) 2016/679 with regard to the protection of personal data), be imposed by competent authorities, such as the review and reinforcement of the compliance program under the supervision of an independent third party. Any of the above may be damaging to the financial condition, shareholder value or reputation of the Group.

Integration of strategic acquisitions

The addition of an asset or company that presents a strategic interest for the Group may not produce the effects initially expected.

The Group has made and may make further acquisitions in different geographic markets, in various activities, and with companies of various sizes. Acquisitions made by the Group stood at a total of $4.2 billion in 2020 and nearly $6.0 billion in 2019. Acquisitions present many challenges (synergies, governance, operating model, key employees, sufficient availability of TOTAL's teams) and require specific adaptation on a case-by-case basis.

If the Group were unable to integrate the assets acquired under the planned conditions, so as to achieve the expected synergies, to retain the key employees of the newly acquired company, or if the Group had to bear liabilities that were not yet identified or appropriately assessed at the time of the transaction, then the Group's financial condition and reputation may be adversely affected.

Partnership management

The Group faces risks related to partnership management.

Almost all exploration & production projects and, more recently, a number of projects undertaken by the Group's other business segments, occur via partnerships (including joint-ventures) to spread the investment costs and associated risks across the various partners. In some countries, specifically in Africa, legislation and/or the authorities make TOTAL's presence conditional on the establishment of a joint-venture with a local company. Some partnerships include companies exposed to specific risks linked to the financial markets, like PAO Novatek[1].

A partnership's success depends on many factors, primarily the quality of the partner (specifically technical skills and financial capacity), the quality of agreements negotiated, and the efficiency of the governance framework implemented. Inappropriate or incomplete contractual agreements, or the partner's breaching of its obligations, specifically those that are financial, legal or ethical, may harm or prevent the development of projects, give rise to disputes and damage the Group's reputation.

Projects developed in partnership may be operated by the Group, by the partners, or by joint-ventures set up for this purpose in the form of a company or via contractual agreements. In cases where the Group's companies are not operators, these companies may have limited influence over, and control of, the behavior, performance and costs of the partnership, and their ability to manage risks may be limited. Even if they are not operators, Group companies may be sued by the authorities or by plaintiffs.

The challenges and risks linked with partnerships may also cover the relationships of Group entities with their suppliers. In the context of a pandemic such as the COVID-19 pandemic and the lockdown or border closure measures taken in various countries, the Group may be faced with an interruption in the services of its suppliers (insufficient inventories, unavailability of personnel, financial difficulties) affecting the continuation of certain activities or projects.

If TOTAL did not select high-quality partners, geographically diverse suppliers or failed to manage its partnerships in an optimum way or to establish an appropriate governance framework, the Group could suffer a loss of profitability at project level, be obliged to incur costs in relation to potential litigation, and face the risk of damage to its reputation should the partner not comply with the rules applicable to the partnership, in particular those covering ethics or compliance.

3.1.6 Innovation

Digital transformation

The Group may be unable to manage its digital transformation at a suitable pace, or on the right scale, which may have an impact on its business model, its organization or its competitiveness.

Across the entire value chain, digital transformation acts on the interaction between the Group and its markets. The Group seeks to benefit from digital technology to improve its industrial operations, in terms of availability, costs or performance, offer new services to customers notably in the area of managing and optimizing energy consumption, make progress in new decentralized energies, and reduce its environmental impact. The Group also seeks to integrate digital technology into its operations so as to improve their efficiency and enable activities and investments to be managed with enhanced performance and agility.

An unsuitable pace or capacity to tailor the Group's organization and skills to the digital transformation may have a negative effect on the Group's financial condition, its reputation, and on its ability to attract and train the necessary human resources.

Technological or market developments

The Group may fail to anticipate appropriately the technological changes related to its main markets, the expectations of its customers and changes in its competitive environment or certain business models or may not respond to them in an appropriate way and at an appropriate pace.

The Group's activities are carried out in a constantly changing environment with new products, new players, new business models and new technologies continuously emerging. The Group must be able to anticipate these changes, understand the market's challenges, identify and integrate technological developments in order to maintain its competitiveness, maintain a high level of performance and operational excellence, best meet the needs and demands of its customers and prepare for the future. The Group's innovation policy requires significant investment, notably in R&D, the expected benefits of which cannot be guaranteed.

An unsuitable pace of innovation or a technological or market development that is unforeseen or uncontrolled may have a negative effect on the Group's market share, its profitability, its reputation, and its ability to attract the necessary human resources.

(1) A Russian company listed in Moscow and London, in which the Group held a 19.4% stake as of December 31, 2020 (the maximum limit specified in the initial 2011 agreement between TOTAL and PAO Novatek).

3.2 Countries under economic sanctions

Economic sanctions or other restrictive measures could target countries, such as Cuba, Iran, and Syria and/or target actors or economic sectors, such as in Russia or in Venezuela.

US and European economic sanctions applicable to the activities of the Group and information concerning the Group's activities related to certain targeted countries are set forth in points 3.2.1 and 3.2.2, respectively.

3.2.1 US and European economic sanctions

TOTAL closely monitors applicable international economic sanctions regimes, including those adopted by the United States and the European Union ("EU") (collectively, "Sanctions Regimes"), changes to such regimes and possible impacts on the Group's activities.

TOTAL takes steps to ensure compliance with applicable Sanctions Regimes and believes that its current activities in targeted countries do not infringe the applicable Sanctions Regimes. However, TOTAL cannot assure that current or future regulations related to Sanctions Regimes will not have a negative impact on its business, financial condition or reputation. A violation by the Group's companies of applicable Sanctions Regimes could result in criminal, civil and/or material financial penalties.

A) Cuba

The United States imposes a sanctions regime against Cuba that prohibits, in general, any US person[1] from engaging, directly or indirectly, in any dealings or activities related to Cuba.

TOTAL has an interest in a liquefied petroleum gas (LPG) cylinder filing plant in Cuba since 1997, in accordance with the economic sanctions regime imposed by the United States. The sale of this interest is underway.

B) Iran

Several countries and international organizations, including the United States and the EU, apply Sanctions Regimes of varying degrees targeting Iran.

On July 14, 2015, the EU, China, France, Russia, the United Kingdom, the United States and Germany entered into an agreement with Iran, known as the Joint Comprehensive Plan of Action (the "JCPOA"), regarding limits on Iran's nuclear activities and relief under certain US, EU and U.N. economic sanctions regarding Iran. On January 16, 2016, the International Atomic Energy Agency ("IAEA") confirmed that Iran had met its initial nuclear compliance commitments under the JCPOA. Therefore, as from that date, U.N. economic sanctions, most US secondary sanctions (i.e., those covering non-US persons and for activities outside US jurisdiction) and most EU economic sanctions were suspended[2].

Following the withdrawal of the United States from the JCPOA in May 2018, US secondary sanctions concerning the oil industry were re-imposed as of November 5, 2018.

In July 2017, TOTAL signed a contract for a period of 20 years with the National Iranian Oil Company ("NIOC") relating to the development and production of phase 11 (SP11)[3] of the giant South Pars gas field. TOTAL withdrew from this project and finalized its withdrawal on October 29, 2018. TOTAL ceased all operational activity in Iran before November 4, 2018. As a consequence, TOTAL has had no operational activity in Iran since the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

Refer to point 3.2.2 below for information concerning Section 13(r) of the Securities Exchange Act of 1934, as amended, pertaining to activities related to Iran carried out by the Group's affiliates in 2020.

C) Russia

Since July 2014, various Sanctions Regimes have been adopted against Russia, including prohibitions on transacting or dealing with certain Russian individuals and entities, as well as restrictions on investments, financings, exports and the re-exportation of certain goods to Russia.

The economic sanctions adopted by the EU do not materially affect TOTAL's activities in Russia. TOTAL has been formally authorized by the French authorities, which are competent for granting authorization under the EU sanctions regime, to continue all its activities in Russia on the Kharyaga, Termokarstovoye and Chernichnoye fields and the Yamal LNG and the Arctic LNG 2 projects.

The United States adopted various economic sanctions, some of which target the company PAO Novatek[4] ("Novatek"), and the entities in which Novatek (individually or with other similarly targeted persons or entities) owns an interest of at least 50%, including OAO Yamal LNG[5] ("Yamal LNG"), Terneftegas[6] and OOO Arctic 2 LNG[7]. These sanctions currently prohibit US persons from transacting in, providing financing for or other dealings in debt issued by such entities of longer than 60 days maturity.

TOTAL continues its activities in Russia in compliance with applicable Sanctions Regimes.

As of December 31, 2020, TOTAL held 24% of its proved reserves in Russia, where the Group had 17% of its combined oil and gas production in 2020.

D) Syria

The EU adopted measures in 2011 regarding trade with and investment in Syria that are applicable to European persons and to entities constituted under the laws of an EU Member State, including, notably, a prohibition on the purchase, import or transportation from Syria of crude oil and petroleum products. The United States also has adopted comprehensive measures that broadly prohibit trade and investment in and with Syria.

(1) "US person" means any US citizen, dual nationality and permanent resident alien wherever he/she is in the world, entity organized under the laws of the United States or any jurisdiction within the United States, including foreign branches, as well as foreign subsidiaries for certain sanctions regimes or any person or entity located in the United States.
(2) Certain US and EU human rights-related and terrorism-related sanctions remain in force.
(3) TOTAL was an operator of the SP11 project and held 50.1% alongside the national Chinese company China National Petroleum Corporation ("CNPC") (30%) and Petropars (19.9%), a wholly-owned subsidiary of NIOC.
(4) A Russian company listed on the Moscow and London stock exchanges and in which the Group held an interest of 19.4% as of December 31, 2020.
(5) A company jointly owned by PAO Novatek, Total E&P Yamal (20.02%), YAYM Limited and China National Oil and Gas Exploration Development Corporation – CNODC, a subsidiary of CNPC.
(6) A company jointly owned by PAO Novatek and Total Termokarstovoye SAS (49%).
(7) A company jointly owned by PAO Novatek, Total E&P Salmanov (10%), CNODC Dawn Light Limited, CEPR Limited et Japan Arctic LNG as of December 31, 2020.

Since 2011, the Group ceased its activities that contributed to oil and gas production in Syria and has not purchased hydrocarbons from Syria since that time (refer to point 3.2.2 of this chapter).

E) Venezuela

Since 2014, different Sanctions Regimes were adopted relating to Venezuela, including measures that prohibit dealings with certain Venezuelan individuals and entities, as well as restrictions on financings.

In August 2017, the United States adopted economic sanctions relating to the Government of Venezuela as well as certain state-owned or controlled entities (collectively, the "Government of Venezuela"), including Petroleos de Venezuela, S.A. ("PdVSA") as well as entities in which PdVSA (individually or with other similarly targeted persons or entities collectively) owns an interest of at least 50% (which includes PetroCedeño S.A., a Venezuelan company in which the Group held an interest of 30.32% as of December 31, 2020). These sanctions prohibit all US persons from transacting in, providing financing for or otherwise dealing in debt issued by PdVSA as from August 25, 2017 of longer than 90 days' maturity. The use of the US dollar is therefore prohibited for these types of financings, including with PetroCedeño S.A. In January 2019, the US Treasury Department's Office of Foreign Asset Control (OFAC) designated PdVSA on the list of Specially Designated Nationals and Blocked Persons List, as well as any entities in which PdVSA owns an interest of at least 50%, including PetroCedeño S.A.

In August 2019, the United States ordered the blocking of all property and interests in property of the Government of Venezuela that come into thepossession or control of US persons and prohibits US persons from dealing in any such property. As a practical matter, these sanctions prohibit US persons from directly or indirectly engaging in any transactions with the Government of Venezuela. This action did not create a US comprehensive-embargo against Venezuela and did not have a significant impact on TOTAL's activities. Since 2017, Venezuela has also been subject to limited European sanctions, which mainly provide for the freezing of assets of certain individuals and entities, a military embargo as well as restrictions on the exportation of certain goods.

In addition to its 30.32% stake in PetroCedeño S.A. (a company more than 50% owned by PDVSA), TOTAL holds an interest of 69.50% in the Yucal Placer field. This field is operated by the company Ypergas S.A.[1] (30%), which uses the national pipeline network to deliver gas to PDVSA Gas (a subsidiary of PDVSA) for local consumption.

3

To date, TOTAL has organized the management of its assets to ensure their compliance with applicable sanctions (for further information on TOTAL's exploration & production's activities in Venezuela, refer to point 2.2.2.4 of chapter 2).

On December 31, 2020, less than 0.5% of the Group's combined oil and gas production came from Venezuela in 2020.

3.2.2 Information concerning certain limited activities related to certain countries under sanctions

All the information concerning TOTAL's activities related to Iran that took place in 2020 provided in this section is disclosed pursuant to Section 13(r) of the Securities Exchange Act of 1934, as amended ("US Exchange Act").

In addition, information for 2020 is provided concerning the payments made by Group affiliates to, or additional cash flow that operations of Group affiliates generate for, governments of any country identified by the United States as state sponsors of terrorism (in 2020, Iran, North Korea[2], Syria and Sudan[3]) or any entity controlled by those governments.

TOTAL believes that these activities are not subject to sanctions under a Sanctions Regime.

A) Iran

The Group's operational activities related to Iran were stopped in 2018 following the withdrawal of the United States from the Joint Comprehensive Plan of Action ("JCPOA") in May 2018 and prior to the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

Statements in this section concerning affiliates of TOTAL SE intending or expecting to continue activities described below are subject to such activities continuing to be permissible under applicable international economic sanctions regimes.

Exploration & Production

The Tehran branch office of Total E&P South Pars S.A.S. (a wholly-owned subsidiary), which opened in 2017 for the purposes of the development and production of phase 11 of the South Pars gas field, ceased all operational activities prior to November 1, 2018. In addition, since November 2018, Total Iran BV maintains a local representative office in Tehran with four employees solely for non-operational functions.

Concerning payments to Iranian entities in 2020, Total Iran BV and Elf Petroleum Iran collectively made payments of approximately IRR 5.42 billion (approximately €115,007[4]) to the Iranian administration for taxes and social security contributions concerning the staff of this representative office. None of these payments were executed in US dollars.

Since November 30, 2018, Total E&P UK Limited ("TEP UK"), a wholly owned subsidiary, holds a 1% interest in a joint-venture relating to the Bruce field in the United Kingdom (the "Bruce Field Joint-Venture") with Serica Energy (UK) Limited ("Serica") (98%, operator) and BP Exploration Operating Company Limited ("BPEOC") (1%), following the completion of the sale of 42.25% of TEP UK's interest in the Bruce Field Joint-Venture on November 30, 2018 pursuant to a sale and purchase agreement dated August 2, 2018 entered into between TEP UK and Serica.

The Bruce Field Joint-Venture is party to an agreement governing certain transportation, processing and operation services provided to another joint-venture at the Rhum field in the UK (the "Bruce Rhum Agreement"). The licensees of the Rhum field are Serica (50%, operator) and the Iranian Oil Company UK Ltd ("IOC UK"), a subsidiary of NIOC (50%), an Iranian government-owned corporation. Under the terms of the Bruce Rhum Agreement, the Rhum field owners pay a proportion of the operating costs of the Bruce field facilities calculated on a gas throughput basis.

(1) A Venezuelan company owned at 37.33% by Total Holdings Nederland B.V.
(2) TOTAL is not present in North Korea. Other than fees related to the renewal of the registration of an international trademark with the World Intellectual Property Organization (WIPO) (which includes North Korea as a member state) in 2020, TOTAL is not aware of any of its activities having resulted in payments to, or additional cash flow for, the government of this country in 2020.
(3) On December 14, 2020, the United States removed Sudan from the list of countries identified by the United States as a state sponsor of terrorism.
(4) Converted using the average exchange rate for fiscal year 2020, as published by the Central Bank of Iran.

In November 2018, the US Treasury Department's Office of Foreign Asset Control ("OFAC") granted a conditional license to BPEOC and Serica authorizing provision of services to the Rhum field following the re-imposition of US secondary sanctions. The principal condition of the license is that the ownership of shares in IOC UK by Naftiran Intertrade Company Limited (the trading branch of the NIOC) are transferred into and held in a Jersey-based trust, thereby ensuring that the Iranian government does not derive any economic benefit from the Rhum field so long as US sanctions against these entities remain in place. IOC UK's interest is managed by an independent management company established by the trust and referred to as the "Rhum Management Company" ("RMC"). Where necessary TEP UK liaises with RMC in relation to the Bruce Rhum Agreement and TEP UK expects to continue liaising with RMC on the same basis in 2021.

In January 2021, OFAC renewed the conditional license to Serica authorizing the provision of services to the Rhum field, until January 31, 2023, subject to early termination if the trust arrangements described above should terminate. In addition, OFAC confirmed that, to the extent that the license remains valid and Serica represents that the conditions set out in the license are met, activities and transactions of non-US persons involving the Rhum field or the Bruce field, including in relation to the operation of the trust, IOC UK and RMC will not be exposed to US secondary sanctions with respect to Iran.

IOC UK's share of costs incurred under the Bruce Rhum Agreement have been paid to TEP UK in 2020 by RMC. In 2020, based upon TEP UK's 1% interest in the Bruce Field Joint Venture and income from the net cash flow sharing arrangement with Serica, gross revenue to TEP UK from IOC UK's share of the Rhum field resulting from the Bruce Rhum Agreement was approximately £5.18 million. This amount was used to offset operating costs on the Bruce field and as such, generated no net profit to TEP UK. TEP UK expects to continue this activity in 2021.

TEP UK is also party to an agreement with Serica whereby TEP UK uses reasonable endeavors to evacuate Rhum NGL from the St Fergus Terminal (the "Rhum NGL Agreement"). TEP UK provides this service subject to Serica having title to all of the Rhum NGL to be evacuated and Serica having a valid license from OFAC for the activity. The service is provided on a cost basis, and TEP UK charges a monthly handling fee that generates an income of approximately £35,400 per annum relating to IOC UK's 50% stake in the Rhum field. After costs, TEP UK realizes little profit from this arrangement. TEP UK expects to continue this activity in 2021.

Gas, Renewables & Power

In 2020, Total Direct Energie, a wholly owned subsidiary, supplied electricity to the Iranian Embassy in Paris (France). This activity generated a gross turnover of €41,997 and a net margin of approximately €2,650 in 2020. The Group expects to continue this activity in 2021.

Marketing & Services

In 2020, Total Marketing France ("TMF"), a wholly owned subsidiary, provided fuel payment cards to be used in the Group's service stations to the Iranian embassy and the Iranian delegation to UNESCO located in Paris (France). This activity generated a gross turnover of approximately €17,500 and a net profit of approximately €1,900 in 2020. TMF does not expect to continue this activity in 2021.

In 2020, Total Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in the Group's service stations to the Iranian embassy located in Brussels (Belgium). This activity generated a gross turnover of approximately €8,500 and a net profit of approximately €1,300 (without tax) in 2020. Total Belgium expects to continue this activity in 2021.

Patents & Trademarks

TOTAL paid approximately €5,000 to Iranian authorities related to various patents. These patents have since been abandoned so that no payment should be made in 2021. In addition, TOTAL could make small payments in 2021 to Iranian authorities related to the maintenance and protection of trademarks and designs in this country. These payments are made in accordance with US regulation (Section 560.509 of the Iranian Transactions and Sanctions Regulations).

B) Syria

Since early December 2011, TOTAL ceased its activities that contributed to oil and gas production in Syria and maintained a local office solely for non-operational functions. In late 2014, the Group initiated a downsizing of its Damascus office and reduced its staff to a few employees. Following the termination of their employment contracts in May 2019, the Damascus office was closed.

Marketing & Services

In 2020, Caldeo, a wholly owned subsidiary of TMF, delivered fuel oil to the Syrian embassy located in Paris (France) as part of its refueling activities in France. This activity generated a turnover of approximately €4,913 (without tax), and a net profit of approximately €972 (without tax) in 2020. Caldeo expects to continue this activity in 2021.

In 2020, Total Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in the Group's service stations to the Syrian's delegation to the European Union located in Brussels (Belgium). This activity generated a gross turnover of approximately €2,400 and a net profit of approximately €400 (without tax) in 2020. Total Belgium expects to continue this activity in 2021.

Trademarks

TOTAL may make small payments to Syrian authorities related to the maintenance and protection of trademarks and designs in this country. These payments are made in accordance with US regulation (Section 560.509 of the Syrian Sanctions Regulations).

C) Sudan

TOTAL is not present in Sudan. Other than fees related to the renewal of the registration of an international trademark with the World Intellectual Property Organization (WIPO) (which includes Sudan as a member state) in 2020, TOTAL is not aware of any of its activities having resulted in payments to, or additional cash flow for, the government of this country in 2020 other than those specified below.

Marketing & Services

In 2020, Total Marketing France ("TMF"), a wholly owned subsidiary, provided fuel payment cards to be used in the Group's service stations to the Sudanese embassy located in Paris (France). This activity generated a gross turnover of approximately €3,500 and a net profit of approximately €600 in 2020. TMF expects to continue this activity in 2021.

In 2020, Total Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in the Group's service stations to the Sudanese embassy and Sudanese cultural delegation located in Brussels (Belgium). This activity generated a gross turnover of approximately €7,300 and a net profit of approximately €1,100 (without tax) in 2020. Total Belgium expects to continue this activity in 2021.

Trademarks

TOTAL may make small payments to Sudanese authorities related to the maintenance and protection of trademarks and designs in this country.

3.3 Internal control and risk management procedures

The following information was prepared with the support of several functional divisions of the Company, and in particular the Audit & Internal Control, Legal and Finance Divisions. It was examined by the Audit Committee and then approved by the Board of Directors.

3.3.1 Fundamental elements of the internal control and risk management systems

The Group is structured around its business segments, to which the Group's operational entities report. The business segments' management is responsible, within its area of responsibility, for ensuring that operations are carried out in accordance with the strategic objectives defined by the Board of Directors and General Management. The functional divisions at the Holding level help General Management define norms and standards, oversee their application and monitor activities. They also lend their expertise to the operational divisions.

The Group's internal control and risk management systems are structured around a three-level organization – Holding, business segments, operational entities – where each level is directly involved and accountable in line with the level of delegation determined by General Management.

General Management constantly strives to maintain an efficient internal control system, based on the framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In this framework, internal control is a process intended to provide reasonable assurance that the objectives related to operations, reporting and compliance with applicable laws and regulations are achieved. As for any internal control system, it cannot provide an absolute guarantee that all risks are completely controlled or eliminated.

The COSO framework is considered equivalent to the reference framework of the French Financial Markets Authority (*Autorité des marchés financiers*). The Group has also chosen to rely on this framework as part of its obligations under the Sarbanes-Oxley Act. The Group's internal control and risk management systems are therefore built around the five components of this framework.

The Group's risk management system draws on the main international standards (COSO Enterprise Risk Management integrated framework, ISO 31000: 2018 – Risk management) as well as on French standards (Reference framework of the French Financial Markets Authority). The internal directive on the Principles of Risk Management, Internal Control and Auditing forms the common framework on which the Group relies to implement control on its activities.

The Group's internal control and risk management systems cover the processes of the fully consolidated entities. Regarding acquisitions, the Group's control environment is implemented in the acquired entities after a critical analysis of their own systems.

The principles of control fit into the framework of the rules of corporate governance. In particular, these rules task the Board of Directors' Audit Committee with monitoring the efficiency of the internal control and risk management systems, and of the internal audit. The Audit Committee also monitors the process of producing accounting and financial information, in order to guarantee its integrity.

Approximately 400 employees monitor the internal control systems within the Group. The assessment of the internal control and risk management system is mainly overseen by the Audit & Internal Control Division.

3.3.2 Control environment

Business integrity and ethics

TOTAL's control environment is based primarily on its Code of Conduct, which spells out the Group's five values, including Respect for Each Other, which is reflected in the areas of integrity (fraud and corruption), respect for human rights, as well as the environment and health. The principles of the Code of Conduct are set forth in a number of guides, such as the Business Integrity Guide and the Human Rights Guide. These documents are distributed to employees and are available on the intranet. They also set out the rules of individual behavior expected of all employees in the countries where the Group is present. Similarly, a Financial Code of Ethics sets forth the obligations applicable to the Chairman and Chief Executive Officer, the Chief Financial Officer, the Vice President of the Corporate Accounting Division and the financial and accounting officers of the principal Group activities.

As a priority of General Management, compliance programs are deployed at Group level, in particular for the prevention of corruption, fraud, competition law infringement as well as compliance with applicable economic sanctions. The programs covering anti-corruption, anti-fraud and compliance with economic sanctions include reporting and control actions (reviews and audits). Ethical assessments are also conducted (refer to point 5.7 of chapter 5). In the areas of business integrity and ethics, the Group relies on the Compliance network, the Ethics Officers' network and the Ethics Committee, which plays a key role in listening and providing assistance.

Governance, authorities and responsibilities

The Board of Directors, with the support of its Committees, ensures that the internal control functions are operating properly. The Audit Committee ensures that General Management implements internal control and risk management procedures based on the risks identified, such that the Group's objectives are achieved.

General Management ensures that the organizational structure and reporting lines plan, execute, control and periodically assess the Group's activities. It regularly reviews the relevance of the organizational structures so as to be able to adapt them quickly to changes in the activities and in the environment in which they are carried out.

The business segments' and operational entities' general management bodies are responsible for the internal control and risk management system within the scope of their responsibility.

The Group has also defined central responsibilities that cover the three lines of internal control: (1) operational management, which is responsible for implementing internal control, (2) support functions (such as Finance, Legal, Human Resources, etc.), which prescribe the internal control systems, verify their implementation and effectiveness and assist operational employees, and (3) internal auditors who, through their internal control reports, provide recommendations to improve the effectiveness of the system.

An accountability system is defined and formalized at all levels of the organization, through organization notes, organization charts, appointment notes, job descriptions and delegations of powers.

TOTAL has a Group framework that is supplemented by a series of practical recommendations and feedbacks. Like the Group's organization, this framework has a three-level structure: a Group level, frameworks for each business segment, and a specific framework for each significant operational entity.

The Group's Audit & Internal Control Division pursues a continual process aimed at strengthening the assessment of the role and involvement of all employees in terms of internal control. Training initiatives tailored to the various stakeholders involved in the internal control process are regularly launched within the Group.

Control activities and assessment

Any activity, process or management system may be the subject of an internal audit conducted by Group Audit in accordance with the international framework of the internal audit and its Code of Ethics. The Group's Audit & Internal Control Division also conducts joint audits with third party auditors and assistance missions (advice, analysis, input regarding methodology). The audit plan, which is based on an analysis of the risks and risk management systems, is submitted annually to the Executive Committee and the Audit Committee. The Group's Audit & Internal Control Division employed 75 people and conducted around 120 internal audit missions in 2020, in the particular context of the COVID-19 pandemic.

The Group regularly examines and assesses the design and effectiveness of the key operational, financial and information technology controls related to internal control over financial reporting, in compliance with the Sarbanes-Oxley Act.

In 2020, this assessment was performed with the assistance of the Group's main entities and the Audit & Internal Control Division.

The system in place covers:
- the most significant entities, which assess the key operational controls of their main processes and complete a Group questionnaire assessing the internal control framework;
- other less significant entities, which respond only to the Group questionnaire for assessing the internal control framework.

These two categories of entities, which include the central functions of the business segments and the Holding, account for approximately 80% and 10%, respectively, of the financial aggregates in the Group's Consolidated Financial Statements.

The statutory auditors also review the internal control as part of their certification of the financial statements. In accordance with the US Sarbanes-Oxley Act, during the fiscal year 2020, they reviewed the implementation of the Group's internal control framework and the design and effectiveness of the controls selected as key by the Group in its main entities for the preparation and processing of accounting and financial information. On the basis of the work they have carried out, they have not made any observations in their report on internal control as of December 31, 2020. The reports on the work performed by Group Audit and the statutory auditors are periodically summarized and presented to the Audit Committee and, thereby, to the Board of Directors. The Senior Vice President Audit & Internal Control attended all Audit Committee meetings held in 2020. The Audit Committee also meets with the statutory auditors at least once a year without the presence of any Company representatives.

If areas of improvement are identified by these internal audits and operational controls, then corrective action plans are drawn up and shared with operational management, who, along with the Group's Audit & Internal Control Division, monitor their implementation closely.

Based on the internal reviews, General Management has reasonable assurance of the effectiveness of the Group's internal control.

3.3.3 Risk assessment and management

3.3.3.1 General principles

To implement its strategy, General Management ensures that clear and precise objectives are defined at the various levels of the organization with regard to operations, reporting and compliance.

Operational, financial and non-financial objectives focus on the definition and efficient use of human, financial and technical resources. They are documented, notably during the budgetary process and in the long-term plan. They are regularly monitored which allows for decision-making and monitoring the performance of activities at each level of the organization.

The Group implements a comprehensive risk management system that is an essential factor in the deployment of its strategy. This system relies on an organization at Group level and in the business segments, on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of TOTAL's goals as well as the management systems.

The Executive Committee, with the assistance of the Group Risk Management Committee (GRMC), is responsible for identifying and analyzing internal and external risks that could impact the achievement of the Group's objectives. The main responsibilities of the GRMC include ensuring that the Group has mapped the risks to which it is exposed and that efficient risk management systems are in place. The GRMC's work focuses on continuously improving risk awareness and the risk management systems.

Risk mapping is a dynamic process that has taken shape over the years. The Group's risk map feeds into the audit plan, which is based on an analysis of the risks and the risk management systems, and the work of the GRMC.

The GRMC relies on the work carried out by the business segments and functional divisions, which concurrently establish their own risk mapping. The business segments are responsible for defining and implementing a risk management policy suited to their specific activities. However, the handling of certain transverse risks is more closely coordinated by the respective functional divisions.

Regarding commitments, General Management exercises operational control over TOTAL's activities through the Executive Committee's approval of investments and expenses that exceed defined thresholds. The Risk Committee (CORISK) is tasked with reviewing these projects in advance, and in particular, with verifying the analysis of the various associated risks.

3.3.3.2 Implementation of the organizational framework

The Group Risk Management Committee (GRMC)

The GRMC is chaired by the Group's Chief Financial Officer, who is a member of the Executive Committee, and includes the Senior Vice Presidents of the corporate functions, together with the chief administrative officers or chief financial officers from the business segments. The Group's Chief Financial Officer attends all meetings of the Board of Directors' Audit Committee, thereby strengthening the link between the GRMC and the Audit Committee.

The GRMC met at least five times in 2020. At each meeting, the participants share any potential risks they have identified and presentations are given on one or more risk-related topics, during which the members of the GRMC are invited to cast a critical eye over the subject, question the work done, including audit reports and related action plans. The GRMC provides additional information or clarification in order to enhance the understanding of the risk and improve the risk management systems.

The work of the GRMC is led by the Audit & Internal Control Division, which assists contributors in preparing presentations and acts as the Committee's Secretary. In this capacity, the Audit & Internal Control Division reports annually on the work of the GRMC to the Executive Committee and to the Audit Committee in the presence of the Group's Chief Financial Officer.

The Risk Committee (CORISK)

The Risk Committee is chaired by a member of the Executive Committee: the President of Strategy & Innovation or, during her absence, the Chief Financial Officer. It is made up of representatives from the corporate Strategy & Climate, Finance, Legal, Insurance, HSE and Civil Society Engagement divisions.

The Risk Committee meets on the same schedule as the Executive Committee. Any project submitted to the Executive Committee (and therefore giving rise to a financial commitment that exceeds certain thresholds) is first examined by the Risk Committee.

Following the review by the Risk Committee of the risks associated with the project submitted, a memorandum from the Strategy & Climate division reflecting its comments is sent to the Executive Committee.

The Audit & Internal Control Division

The Risk team of the Audit & Internal Control Division is responsible for producing and continuously updating the Group's risk mapping. To this end, it uses all of the risk-mapping work carried out across the Group, in the business segments and in the functional divisions, the results of all audits and internal control activities, the action plans resulting from this work and the monitoring of their implementation, structured feedback, benchmarks and other external information sources, regular interviews with the Group's executive officers, and all information gathered during GRMC meetings and the preparation for these meetings.

3.3.3.3 Systems in place

Risk management systems are implemented in the operational, financial and non-financial fields. The main risk management systems covering social challenges, health, safety, industrial security, environment, climate change-related challenges and the prevention of corruption are presented in the Statement of Non-Financial Performance (chapter 5).

Regarding financial risks

The management and conditions of use of financial instruments are governed by strict rules, defined by the Group's General Management, which provide for centralization by the Treasury Division of liquidity, interest and exchange rate positions, management of financial instruments and access to capital markets. The Group's financing policy consists in favoring long-term debt, at a floating or fixed rate, depending on the Group's general corporate needs, and the interest rate environment, in dollars or euros.

The Group's cash balances, which mainly consist of dollars and euros, are managed to maintain liquidity based on daily interest rates in the given currency. Ceilings are set for transactions exceeding one month, with placements not to exceed 12 months. TOTAL SE also benefits from credit facilities granted by international banks. These credit facilities, along with the Group's net cash position, allow it to continually maintain a high level of liquidity in accordance with objectives set by General Management in order to meet short-term needs.

In terms of counterparty risk linked to financial transactions, the Group adheres to a cautious policy, and only enters into commitments with institutions featuring a high degree of financial soundness, as assessed based on a multi-criteria analysis. An overall credit limit is set for each authorized financial counterparty and is allocated among the affiliates and the Group's central treasury entities according to the Group's financial needs. In addition, to reduce market valuation risk on its commitments, the Treasury Division has entered into margin call agreements with its counterparties in compliance with applicable regulations. Moreover, since December 21, 2018, pursuant to Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate swap (excluding cross currency swaps) entered into by a Group's entity is centrally cleared.

The Group seeks to minimize its currency exposure, on the one hand, by financing its long-term assets in the functional currency of the entity to which they belong and, on the other hand, by systematically hedging the currency exposure generated by commercial activity. These risks are managed centrally by the Treasury Division, which operates within a set of limits defined by General Management.

The policy for managing risks related to financing and cash management activities, as well as the Group's currency exposure and interest rate risks, are described in detail in Note 15 to the Consolidated Financial Statements (point 8.7 of chapter 8).

The Group finances its activities either by using its own resources, by issuing bonds on international markets, or by obtaining financing for specific projects from financial institutions and banks. The medium- and long-term debt policy implemented by the Group ensures that cash is available, notably to cover any major new project or significant acquisition.

A tightening of the selection criteria set by certain financial institutions and banks on financing for projects related to the exploration, production and sale of oil and gas could lead the Group to increase the diversification of its financing methods and sources. The Group will nonetheless continue to rely on the long-term relationships already formed with numerous banks and financial institutions.

Regarding risks relating to security

With regard to **security**, the Group has put in place means to analyze threats and assess risks in order to take preventive measures to limit its exposure to security risks in the countries where it operates. In the face of various types of threat, the Group ensures that people and assets are protected effectively and responsibly by conducting expert appraisal, consulting and control activities. In particular, it defines security measures for the Group's operational divisions, various entities and projects, ensures that these measures are implemented; and provides expertise in the event of a crisis. It relies on a network of Country Chairs assisted by Country Security Officers and on a continuously updated "security" framework. The production, updating and distribution of this framework are part of the risk management system.

The Group also deploys policies to retain documents and to protect personal data and the security of its information assets in order to address ever-increasing levels of legal and safety-related risks.

Regarding risks relating to the security of information systems

In order to maintain information systems that are appropriate to the organization's needs and limit the risks relating to **the security of information systems** and their data, TOTAL's Information Systems Division has developed and distributed governance and security rules that describe the recommended infrastructure, organization and operating procedures. These rules are implemented across the Group under the responsibility of the various business segments. The Group has an Operational Security Center to detect and analyze information system security events.

To address cyber threats, the Group conducts specific risk analyses permitting the definition and implementation of appropriate security controls concerning information systems. In the event of a cyberattack on the information systems, a cyber crisis management process has been set up within the Group. In addition, cyber crisis management exercises based on specific risk scenarios are organized each year and used for training at the Group's various entities. In order to prevent cyber risks, awareness and training actions are also carried out regularly with the Group's employees.

In the particular context of the health crisis, TOTAL maintained its defense in terms of cyber security and was able to ensure the continuity of its activities while working remotely.

Regarding risk prevention relating to changes in the regulatory environment and business ethics

Reporting to General Management, with a point of contact on the Executive Committee in the form of the Group's Chief Financial Officer, the Legal Division is responsible for establishing and implementing the Group's legal policy. It coordinates legal activities in close cooperation with the business segments' legal departments and supports the various Group entities in order to meet their legal needs. The Group's lawyers monitor developments in their specific areas of expertise. The Compliance and Legal Risk Management Division is responsible, at Group level, for formulating policies on preventing and fighting against corruption and fraud, as well as compliance with applicable regulations on economic sanctions. This division is also in charge of devising and overseeing the implementation of the corresponding training programs, as well as coordinating the network of anti-corruption and anti-fraud compliance officers, and the points of contact for economic sanctions.

Since 2015, the Group has implemented a **fraud fighting and prevention** program and has established a range of procedures and control systems that help prevent and detect different types of fraud. This effort is supported by the business principles and values of individual behavior described in the Group's Code of Conduct and other standards applied by the Group's business segments.

The Group has widely distributed to employees a directive for handling incidents of fraud, recalling in particular the whistleblowing system that any employee can use to report acts that may constitute fraud. In addition, a rule was adopted in late 2020 to formalize the procedure for collecting integrity alerts (corruption, fraud and influence peddling) et to remind the various existing alert channels.

The Group's anti-fraud compliance program includes an e-learning module for all Group employees, a guide Prevention and fight against fraud, a map of fraud risks at the Group level updated in 2019, a Typological guide of fraud risks that includes descriptions of the main risks, and video campaigns to raise awareness of the major risks of fraud.

This program is deployed by the network of fraud risk coordinators in the business segments and operational entities. The role of coordinator is usually performed by the Compliance Officer. Fraud risk mapping is also performed in the subsidiaries.

For information on corruption prevention, refer to point 5.8.1 of chapter 5.

With regard to **international economic sanctions** and **export control**, the Group carries out its activities in compliance with applicable laws and regulations, in particular those of the European Union (EU) and United States (US).

The Group has a compliance program in place to prevent the risk of non-compliance with these laws and regulations. This program is deployed by a dedicated Economic Sanctions and Export Control department within the Legal Division and by the points of contact within the business segments to ensure that regulations are monitored on a daily basis, to analyze all of the Group's transactions and projects in relation to a country under sanctions and to ensure that the compliance with applicable regulations. An e-learning module on this topic was introduced in 2020.

A Group policy aimed at ensuring compliance with, and preventing infringement of, **competition law** has been in place since 2014 and is a follow-up to the various measures previously implemented by the business segments. Its deployment is based, in particular, on management and staff involvement, training courses that include an e-learning module, and an appropriate organization.

Regarding the prevention of **conflicts of interest**, each of the Group's senior executives completes an annual declaration of the absence of conflicts of interest (or, if applicable, declares any conflicts of interest to which they may be subject). By completing this declaration, each senior executive also agrees to report to his or her manager any conflict of interest that he or she has had, or would have, knowledge of in the course of his or her duties. The "Conflicts of Interest" internal rule also reminds all employees of their obligation to report to their manager any situation that might give rise to a conflict of interest.

In order to prevent **market abuse** linked to trading on the financial markets, the Group applies a policy based in particular on internal ethics rules that are regularly updated and distributed. In addition, the Group's senior executives and certain categories of employees, in light of the positions they hold, are asked to refrain from carrying out any transactions, including hedging transactions, on Total shares or ADRs and in collective investment plans (FCPE) invested primarily in Total shares (as well as derivatives related to such shares) on the day on which the Company discloses its periodic result publications (quarterly, interim and annual), as well as during the 30 calendar-day period preceding such date. An annual campaign specifies the blackout periods and rules applicable to those affected.

To mitigate the risks of third parties infringing its **intellectual property rights** and the leak of know-how, TOTAL protects its rights under research partnership agreements negotiated by the Group's intellectual property specialists, the terms and conditions of which are consistent with the Group's industrial and commercial strategy. The Group has a policy of filing and maintaining patents, monitors technological developments in terms of freedom of use, and takes, when necessary, all appropriate measures to ensure the protection of its rights.

In addition, since some of its employees have access to confidential documents while performing their duties, TOTAL has adopted internal rules concerning the management of confidential information. The Group's intellectual property specialists also carry out awareness-raising activities with Group employees, so that they are better informed about restrictions that may apply to the use of information and data.

Regarding risks relating to management of partnerships

The procedures for selecting the Group's partners (joint-ventures and suppliers) and managing the different stages in the life cycle of each partnership are governed by structured internal governance frameworks, applied by all TOTAL entities.

In order to ensure that the process of selecting future partners for the creation of a joint company and/or the completion of a joint project is robust, the Group's framework includes performing due diligence relating to the partner's HSE, technical, legal and financial activities and operating methods. A corruption risk analysis is also carried out.

The agreements signed with these third parties are mainly drafted by multi-disciplinary negotiation teams. Training programs, at the Group and business segment levels, ensure that the necessary knowledge and skills are transferred to ensure that contracts are correctly prepared, activities are monitored, and the Group's interests are represented within the partnership.

The relevant operational entity puts in place the structure required to monitor and manage the partnership.

Partnerships signed with third party suppliers are managed under the Group's dedicated procurement system (structure, rules and tools). This system includes a supplier evaluation and qualification process, and the monitoring and coordination of contract performance (refer to point 5.10 of chapter 5).

Regular audits specified in the partnership agreements (joint-ventures and suppliers) complete the system.

3.3.4 Main characteristics of the internal control and risk management procedures relating to the preparation and processing of accounting and financial information

Accounting and financial internal control covers the processes that produce accounting and financial data, and mainly the financial statements processes and the processes to produce and publish accounting and financial information. The internal control system aims to:
- conserve the Group's assets;
- comply with accounting regulations, and properly apply standards and methods to the production of financial information; and
- guarantee the reliability of accounting and financial information by controlling the production of accounting and financial information and its consistency with the information used to produce the control panels at every appropriate level of the organization.

At the Group level, the Finance Division, which includes the Accounting Division, the Budget & Financial Control Division and the Tax Division, is responsible for the production and processing of accounting and financial information. The scope of the internal control procedures relating to the production and processing of financial and accounting information includes the parent company (TOTAL SE) and all fully consolidated entities or entities whose assets are under joint control.

Refer to point 4.1.2.3 of chapter 4 for a description of the role and the missions of the Audit Committee. These missions are defined by Directive 2014/56/EU and regulation (EU) No. 537/2014 regarding statutory audits.

3.3.4.1 Production of accounting and financial information

Organization of the Financial function

Dedicated teams implement the accounting and financial processes in the areas of consolidation, tax, budget and management control, financing, cash positions and information systems. The entities, business segments and General Management are respectively responsible for accounting activities.

The Accounting Division, which is part of the Finance Division, is responsible for drawing up the Consolidated Financial Statements and manages the Group's network of accounting teams.

The tax function, made up of a network of tax experts at the corporate level, in the business segments and the entities, monitors changes in local and international rules. It oversees the implementation of the Group's tax policy.

Management control contributes to the reinforcement of the internal control system at every level of the organization. The network of management controllers in the entities and the business segments is supervised by the Budget & Financial Control Division. This department also produces the monthly control panel, the budget and the long-term plan for the Group.

The Treasury Division implements the financial policy, and in particular the processing and centralization of cash flows, the debt and liquidity investment policy and the coverage of currency exposure and interest rate risks.

The Information Systems Division makes decisions on the choice of software suited to the Group's accounting and financial requirements. These information systems are subject to developments to reinforce the task separation system and to improve the control of access rights. Tools are available to make sure that access rights comply with the Group's rules in this area.

Consolidated Financial Statements process

The Accounting Division, which reports to the Finance Division, prepares the Group's quarterly Consolidated Financial Statements according to IFRS standards, on the basis of the consolidated reporting packages prepared by the entities concerned. The Consolidated Financial Statements are examined by the Audit Committee and then approved by the Board of Directors.

The main factors in the preparation of the Consolidated Financial Statements are as follows:
- the processes feeding the individual accounts used to prepare the reporting packages for consolidation purposes are subject to validation, authorization and booking rules;
- the consistency and reliability of the accounting and control data are validated for each consolidated entity and at each relevant level of the organization;
- a consolidation tool, supervised by the Accounting Division, is used by each consolidated entity and the Group. It guarantees the consistency and reliability of the data at each relevant level of the organization;
- a consolidation reporting package from each entity concerned is sent directly to the Accounting Division. It is used to optimize the transmission and the completeness of the information;
- a corpus of accounting rules and methods is formally defined. Its application is compulsory for all the consolidated entities in order to provide uniform and reliable financial information. This framework is built according to IFRS accounting standards. The Accounting Division centrally distributes this framework through regular and formal communication with the business segment managers, formal procedures and a Financial Reporting Manual that is regularly updated. In particular, it specifies the procedures for the booking, identification and valuation of off-balance sheet commitments;

- new accounting standards under preparation and changes to the existing framework are monitored in order to assess and anticipate their impacts on the Consolidated Financial Statements;
- an accounts plan used by all the consolidated entities is formally set forth in the Financial Reporting Manual, specifying the content of each account and the procedures for the preparation of the reporting packages for consolidation purposes;
- the account closing process is supervised and is based mainly on the formalization of economic assumptions, judgments and estimates, treatment of complex accounting transactions and compliance with established timetables announced through Group instructions disclosed to each entity;
- in particular, the processes applicable to the preparation of the accounts of the acquired entities are reviewed and, where appropriate, amended to integrate them into those applicable to the preparation of the Consolidated Financial Statements. Furthermore, the booking in the accounts of the purchase price allocation of each of these entities is based on assumptions, estimates and judgments in line with the Group's business model;
- off-balance sheet commitments, which are valued according to the Financial Reporting Manual, are reported on a quarterly basis to the Audit Committee.

Processing of accounting and financial information

Internal control of accounting information is mainly focused around the following areas:
- a monthly financial report is formalized by Group and business segment control panels. This report and the Consolidated Financial Statements use the same framework and standards. In addition, the quarterly closing schedule is the same for preparing the Consolidated Financial Statements and financial reporting;
- a detailed analysis of differences as part of the quarterly reconciliation between the Consolidated Financial Statements and financial reporting is supervised by the Accounting and Budget & Financial Control Divisions, which are part of the Finance Division;
- a detailed analysis of differences between actual amounts and the yearly budget established on a monthly basis is conducted at each level of the organization. The various monthly indicators are used to continually and uniformly monitor the performance of each of the entities, the business segments and the Group, and to make sure that they are in keeping with the objectives;
- an annual reconciliation between the parent company financial statements and the financial statements based on IFRS standards is performed by entity;
- periodic controls are designed to ensure the reliability of accounting information and mainly concern the processes for preparing aggregated financial items;
- a regular process for the signature of representation letters is deployed at each level of the organization;
- an annual control system of the accounts of equity affiliates based on a questionnaire completed by each entity concerned. This system is integrated into the Group's internal control framework;
- the Disclosure Committee ensures the respect of the procedures in place.

Other significant financial information is produced according to strict internal control procedures.

Proved oil and gas reserves are evaluated annually by the relevant entities. They are reviewed by the Reserves Committees, approved by Exploration & Production's general management and then validated by the Group's General Management. They are also presented to the Audit Committee each year.

The internal control process related to estimating reserves is formalized in a special procedure described in detail in point 2.3.1 of chapter 2. The reserve evaluation and the related internal control processes are audited periodically.

The strategic outlook published by the Group is prepared, in particular, according to the long-term plans drawn up at the business segment and Group levels, and on the work carried out at each relevant level of the organization. The Board of Directors reviews the strategic outlook each year.

3.3.4.2 Publication of accounting and financial information

Significant information about the Group is published externally according to formal internal procedures. These procedures aim to guarantee the quality and fair presentation of the information intended for the financial markets, and its timely publication.

The Disclosure Committee, chaired by the Chief Financial Officer, ensures, in particular, that these procedures are respected. It meets before TOTAL's financial results press releases, strategic presentations and annual reports are submitted to the Audit Committee and the Board of Directors.

A calendar of the publication of financial information is published and made available to investors on the Group's web site. With the help of the Legal Division, Investor Relations Division ensures that all publications are made on time and in accordance with the principle of equal access to information between shareholders.

Assessment of the system for the internal control of accounting and financial information

The Group's General Management is responsible for implementing and assessing the internal control system for financial and accounting disclosure. In this context, the implementation of the Group's internal control framework, based on the various components of the COSO framework, is assessed internally at regular intervals within the Group's main entities.

Pursuant to the requirements introduced by Section 302 of the Sarbanes-Oxley Act, the Chairman and Chief Executive Officer and the Chief Financial Officer of the Company have conducted, with the assistance of members of certain divisions of the Group (in particular Legal, Audit & Internal Control and Corporate Communications), an evaluation of the effectiveness of the internal disclosure controls and procedures (Disclosure Controls and Procedures) over the period covered by the annual report on Form 20-F. For fiscal year 2020, the Chairman and Chief Executive Officer and the Chief Financial Officer concluded that the disclosure controls and procedures were effective.

In addition, a specific process is in place for reporting any information related to the Group's accounting procedures, internal control and auditing. This process is available to any shareholder, employee or third party.

Finally, the Consolidated Financial Statements undergo a limited examination during quarterly closing, and an audit during annual closing. Almost all the audit missions in the countries are fulfilled by the members of the networks of the two statutory auditors, who, after performing their audit, proceed with the annual certification of the Group's Consolidated Financial Statements. They are informed in advance of the process for the preparation of the accounts and present a summary of their work to the Group accounting and financial managers and to the Audit Committee during the quarterly reviews and annual closing. The statutory auditors also review the internal control as part of their certification of the financial statements.

3.4 Insurance and risk management

3.4.1 Organization

TOTAL has its own reinsurance company, Omnium Reinsurance Company (ORC). ORC is integrated within the Group's insurance management and is used as a centralized global operations tool for covering the subsidiaries' insurable risks. It allows the Group's worldwide insurance program to be implemented in compliance with the specific requirements of local regulations applicable in the countries where the Group operates.

Some countries may require the purchase of insurance from a local insurance company. If the local insurer agrees to cover the subsidiary in compliance with its worldwide insurance program, ORC negotiates a retrocession of the covered risks from the local insurer. As a result, ORC enters into reinsurance contracts with the subsidiaries' local insurance companies, which transfer most of the risk to ORC.

At the same time, ORC negotiates reinsurance programs at the Group level with oil industry mutual insurance companies and commercial reinsurance markets. ORC allows the Group to better manage price variations in the insurance market by taking on a greater or lesser amount of risk corresponding to the price trends in the insurance market.

In 2020, the net amount of risk retained by ORC after reinsurance was, on the one hand, a maximum of $118.5 million per onshore claim and $116 million per offshore third-party liability insurance claim and, on the other hand, $125 million per property damage and/or business interruption insurance claim. Accordingly, in the event of any loss giving rise to an aggregate insurance claim, the maximum amount of risk retained by the Group would be limited to $ 243.5 million per occurrence.

3.4.2 Risk and insurance management policy

In this context, the Group risk and insurance management policy is to work with the relevant internal department of each subsidiary to:

- define scenarios of major disaster risks (estimated maximum loss);
- assess the potential financial impact on the Group should a catastrophic event occur;
- help implement measures to limit the probability that a catastrophic event occurs and the financial consequences if such event should occur; and
- manage the level of financial risk from such events to be either covered internally by the Group or transferred to the insurance market.

3.4.3 Insurance policy

The Group has worldwide property insurance and third-party liability coverage for all its subsidiaries. These programs are contracted with first-class insurers (or reinsurers and oil and gas industry mutual insurance companies through ORC).

The amounts insured depend on the financial risks defined in the disaster scenarios and the coverage terms offered by the market (available capacities and price conditions).

More specifically for:

- third-party liability: because the maximum financial risk cannot be evaluated by a systematic approach, the amounts insured are based on market conditions and oil and gas industry practice. In 2020, the Group's third-party liability insurance for any third-party liability (including potential accidental environmental liabilities) was capped at $845 million (onshore) and $825 million (offshore). In addition, the Group adopts, where appropriate, the necessary means to manage the compensation of victims in the event of an industrial accident for which it is liable; and
- property damage and business interruption: the amounts insured vary depending on the sector and on the site and are based on the estimated cost and scenarios of reconstruction under maximum loss situations and on insurance market conditions. The Group purchased business interruption coverage in 2020 for its main refining and petrochemical sites.

For example, for the Group's highest risks (its North Sea platforms and main refineries or petrochemical plants), in 2020 the insurance limit for the Group's share of the installations was approximately $2.03 billion for the Refining & Chemicals segment and approximately $1.55 billion for the Exploration & Production segment.

Deductibles for property damage and third-party liability fluctuate between €0.1 and €10 million depending on the level of risk and liability, and are borne by the relevant subsidiaries. For business interruption, coverage is triggered 90 days after the occurrence of the event giving rise to the interruption. In addition, the main refineries and petrochemical plants bear a combined retention for property damage and business interruption of $75 million per insurance claim.

Other insurance contracts are bought by the Group in addition to property damage and third-party liability coverage, mainly in connection with car fleets, credit insurance and employee benefits. These risks are mostly underwritten by outside insurance companies.

The above-described policy is provided as an example of a situation as of a given date and cannot be considered as representative of future conditions. The Group's insurance policy may be changed at any time depending on market conditions, specific circumstances and General Management's assessment of the risks incurred and the adequacy of their coverage.

TOTAL believes that its insurance coverage is in line with industry practice and sufficient to cover normal risks in its operations. However, the Group is not insured against all potential risks. In the event of a major environmental disaster, for example, TOTAL's liability may exceed the maximum coverage provided by its third-party liability insurance. The Group cannot guarantee that it will not suffer any uninsured loss, and there can be no guarantee, particularly in the event of a major environmental disaster or industrial accident, that such loss would not have a material adverse effect on the Group.

3.5 Legal and arbitration proceedings

There are no governmental, legal or arbitration proceedings, including any proceeding of which the Company is aware that are pending or threatened against the Company, that could have, or could have had during the last 12 months, a material impact on the Group's financial situation or profitability.

Described below are the main administrative, legal and arbitration proceedings in which the Company and the other entities of the Group are involved.

FERC

The Office of Enforcement of the US Federal Energy Regulatory Commission (FERC) began in 2015 an investigation in connection with the natural gas trading activities in the United States of Total Gas & Power North America, Inc. (TGPNA), a US subsidiary of the Group. The investigation covered transactions made by TGPNA between June 2009 and June 2012 on the natural gas market. TGPNA received a Notice of Alleged Violations from FERC on September 21, 2015. On April 28, 2016, FERC issued an order to show cause to TGPNA and two of its former employees, and to the Company and Total Gas & Power Ltd., regarding the same facts. TGPNA contests the claims brought against it.

A class action, launched to seek damages from these three companies, was dismissed by a judgment of the US District court of New York issued on March 15, 2017. The Court of Appeal upheld this judgment on May 4, 2018. In September 2019, a Californian city initiated another class action against the same parties based on the same legal ground. This class action was dismissed by the US District court of New York on June 8, 2020. An appeal is ongoing.

Italy

As part of an investigation led by the Public Prosecutor of the Potenza Court in 2007, Total Italia and also certain Group employees were the subjects of an investigation related to alleged irregularities in connection with the purchase of lands and the award of calls for tenders in relation to the preparation and development of an oil field located in the south of Italy.

Pursuant to a judgment issued on April 4, 2016, the Potenza Criminal Court found four employees to be guilty of corruption, with two of these employees also being found guilty of misappropriation in connection with the purchase of land. The procedure with respect to Total Italia was sent back to the public prosecutor due to the imprecision of the terms of prosecution. The four employees decided to challenge the judgment before the Court of Appeal.

Pursuant to a definitive judgment issued on February 20, 2018, the Court of Appeal of Potenza recorded the termination of the proceedings directed towards the four employees prosecuted for corruption because of the expiration of the statute of limitation.

Pursuant to a judgment issued on July 17, 2018, the Court of Appeal of Potenza acquitted two of the Group's employees prosecuted for misappropriation. On May 28, 2019, the Italian Supreme Court quashed this judgment and the case has been referred to the Court of Appeal of Salerno.

Dispute relating to Climate

In France, the Company was assigned in January 2020 before Nanterre's Court of Justice by certain associations and local communities in order to have the Company completing its Vigilance Plan, by identifying in details risks relating to a global warming above 1.5°C, as well as indicating the expected amount of future greenhouse gas emissions related to the Group's activities and its product utilization via third parties. TOTAL estimates that it has fulfilled its obligations regarding vigilance duty.

In the United States, two subsidiaries of the Group were assigned in 2017 by certain communities and associations for their liability in climate change before a Californian Court. These two subsidiaries, as well as the 34 other companies and professional associations, are contesting the State Court's competence to rule this request. In September 2020, the Attorney General of the State of Delaware launched an indemnity claim based upon climate change against the Company, Total Specialties USA and about 30 other oil companies before a court of this State. These companies are contesting the competence of such court to rule this request.

3.6 Vigilance Plan

3.6.1 Introduction

3.6.1.1 Regulatory framework

In accordance with Article L. 225-102-4 of the French Commercial Code, the vigilance plan (hereinafter referred to as the "Vigilance Plan") aims to set out the reasonable measures of vigilance put in place within the Group to identify risks of and prevent severe impacts on human rights, fundamental freedoms, human health and safety and the environment resulting from the activities of the Company and those of the companies it controls as defined in point II of Article L. 233-16 of the French Commercial Code, directly or indirectly, as well as the activities of subcontractors or suppliers with which it has an established commercial relationship, where such activities are linked to this relationship.

The Vigilance Plan covers the activities (hereafter referred to as the "Activities") of TOTAL SE. and its fully consolidated subsidiaries as defined in II of Article L. 233-16 of the French Commercial Code (hereinafter referred to as the "Subsidiaries")(1). It also covers the activities of suppliers of goods and services with which TOTAL SE. and its Subsidiaries have an established commercial relationship, where such activities are associated with that relationship (hereinafter referred to as the "Suppliers")(2).

TOTAL operates in over 130 countries in a variety of complex economic and socio- cultural contexts and in business areas that are likely to present risks that fall within the scope of the Vigilance Plan.

The reasonable measures of vigilance set out in this Vigilance Plan take into account the diversity and the geographic reach of the Group's Activities. As part of its reporting of the implementation of the Vigilance Plan, TOTAL has chosen to illustrate its actions by referring to situations upon which the Group was specifically questioned.

3.6.1.2 Methodology and preparation of the Vigilance Plan

TOTAL's corporate culture has, for many years, been mindful of the impact of TOTAL's Activities on health, safety, the environment and human rights.

In formulating its Vigilance Plan, TOTAL was able to rely on a solid foundation of procedures, management and reporting tools, including with respect to HSE and human rights. Experience acquired has contributed to develop further the Vigilance Plan.

Health, safety and the environment (HSE) have long been the object of specific attention at Group level. Given their nature, the Activities give rise to health and safety risks for the Group's employees, the personnel of external contractors, and residents in the vicinity of industrial sites.

In 2016, the Group set up a Group HSE Committee, which includes members of the Executive Committee and is chaired by the Chairman and Chief Executive Officer. The Committee's role is to generate momentum at top management level to ensure that safety is a value shared by all. Also in 2016, TOTAL made changes to its internal organization to bring together in a single HSE division, all HSE activities at headquarters and in the business segments. This unified organization is designed to pool existing strengths and expertise and harmonise good practices. In 2018, TOTAL created a unified reference framework, applicable to all business segments: "One MAESTRO"(3). In practice, TOTAL takes a continuous improvement approach to HSE at every level of the Group. HSE objectives are presented to the Executive Committee every year. One MAESTRO standards, defined at Group level, are implemented by the Subsidiaries through their own HSE management systems.

Human rights are, and have been for many years, at the heart of the Group's operations. Since 2000, TOTAL has adopted a Group Code of conduct. In 2002, TOTAL joined the United Nations Global Compact. In 2010, the Group created a Human Rights Coordination Committee, which in 2019 became the Human Rights Steering Committee. Following this trend, in 2011 TOTAL notably published a practical human rights guide. In 2013, the Executive Committee examined and validated the Group human rights roadmap, and in 2016, its first human rights briefing paper, which has since been updated. The human rights roadmap is presented and reviewed regularly at Executive Committee meetings.

(1) Certain companies, such as Hutchinson, Saft Groupe and SunPower, have set up risk management and impact prevention measures specific to their organizations. In addition, for newly acquired companies, reasonable vigilance measures are intended to be implemented progressively during the integration phase of these companies into the Group systems. They do not therefore fall within the scope of the Vigilance Plan for 2020.

(2) In accordance with regulatory provisions, suppliers with which the Group does not have an established commercial relationship do not fall within the scope of this Plan. This Plan reflects the sustainable procurement principles applicable to relationships with Suppliers, but is not aimed at replacing the measures in place at those Suppliers.

(3) MAESTRO stands for Management and Expectations Standards Toward Robust Operations.

2000	Group Code of Conduct
2002	Signing of the United Nations Global Compact
2010	Creation of the Human Rights Committee, which became the Human Rights Steering Committee in 2019
2011	Human Rights Guide
2012	Member of the Voluntary Principles on Security and Human Rights (VPSHR)
2013	Presentation to the Executive Committee of the Group's Human Rights Roadmap
2015	Worldwide framework agreement with IndustriALL
2016	Information document on human rights (a reporting framework that complies with the United Nations Guiding Principles)
2018	LEAD company, according to the criteria of the United Nations Global Compact (status renewed in 2019 and 2020)

The elaboration of the Vigilance Plan is part of a broader set of work to identify and analyse risks within the Group, including a new Group risk map, drawn up in November 2019. The combined knowledge of the various functions (HSE, human rights, procurement, human resources, societal, security and legal) was drawn upon to ensure an integrated approach.

At the meetings of the European Operational Committee – the operational instance of the European Works Council – in 2018, Committee members were provided with information on the law on the duty of vigilance and the methods used to prepare the Vigilance Plan, and were given an opportunity to comment.

The Board of Directors reviews the Vigilance Plan and its annual implementation report.

3.6.1.3 Dialogue with stakeholders

TOTAL engages in dialogue with stakeholders at every level of the organization. In accordance with the Group's framework documents on societal matters, stakeholders are identified, mapped out and organized by level of priority according to their expectations and degree of involvement, using internal Stakeholder Relationship Management (SRM+) methodology. This includes the following steps: list the main stakeholders for each Subsidiary and site (depots, refineries, etc.), categorize them and schedule consultation meetings to better understand expectations, concerns and opinions. The outcome of this process is the definition of action plans to manage the impacts of activities and consider local development needs, in order to build a long-term relationship based on trust. This tool allows the Subsidiary to explain its activities to communities and other stakeholders, and to single out potentially vulnerable local populations. It has been deployed in almost all Subsidiaries.

A number of Subsidiaries within the Exploration & Production segment also have in place a network of mediators with local communities, with a view to maintaining a constructive dialogue with neighboring communities. These mediators act as Community Liaison Officers (CLO) and are tasked with establishing an ongoing dialogue with stakeholders on the ground (*Stakeholder Engagement*), including local authorities and communities and, more broadly, local players in civil society. CLOs are employed by TOTAL, sometimes come from the local communities, speak the local languages and understand the local way of life. They play a decisive role in establishing good relations between TOTAL and its stakeholders and pay close attention to the most vulnerable populations.

A structured dialogue with stakeholders is established and maintained, primarily at local level. Subsidiaries manage local relations with civil society and are encouraged to enter into dialogue with NGOs. The Group also cooperates with external experts specialized in preventing and managing conflict between businesses and local communities. Centrally, relevant divisions of the Holding ensure a continuous dialogue with Group stakeholders. The Civil Society Engagement division manages relations between the Group and civil society, represented notably by non-governmental organizations (NGOs), as well as large institutions and multilateral agencies (e.g. Global Compact). TOTAL maintains ongoing exchanges with Group employees and their representatives – whose role and position allows for privileged interactions, particularly with management. Social dialogue is a key component of the Group's corporate vision. It includes all types of negotiations, consultations or exchanges of information between the Group entities, the employees and their representatives about economic and social issues related to the life of the company. Topics discussed may vary according to each entity, however shared concerns include health and safety, hours worked, compensation, training and equal opportunity. The Group strives to maintain this dialogue at both local and head office levels or centrally. It also takes the form of membership in organizations and the signing of agreements.

In countries where employee representation is not required by law, Subsidiaries strive to set up such representation. A majority of Subsidiaries therefore have employee representatives, most of whom are elected.

At the European level, as part of the transformation of TOTAL S.A into a European company (SE), an agreement was reached on April 15, 2020, to create the SE Works Council (known as the Total European Works Council) to replace the former European Works Council, while maintaining continuity in its operations and missions.

The Total European Works Council allows the sharing of information and exchanges on the Group's strategy and social, economic and financial situation, as well as on sustainable development, environmental and societal responsibility, and safety matters. It examines any significant proposed organizational change impacting at least two companies in two European countries and expresses its opinion on this in addition to the procedures initiated before the national representative bodies. Innovative measures that allowed improved dialogue with members of the European Works Council in the past (field safety visits and learning expeditions to discuss the Group's strategy directly on site) have been re-included in the agreement that established the new Total European Works Council.

The signature of international agreements also reflect the Group's commitment, including at top management level, to foster dialogue with employee representatives. In 2015, the Group signed a four-year global agreement with IndustriALL Global Union(1) on the promotion of human rights at work, diversity, the dialogue with employees and their representatives and the recognition of health and safety at work. TOTAL continues to apply the commitments of this global agreement, pending the outcome of discussions with IndustriALL Global Union to reach a new agreement, the process has been slowed down with the health crises and the lockdown measures in 2020.

In December 2017, TOTAL joined the Global Deal initiative, a multi-stakeholder worldwide partnership whose goal is to encourage governments, companies, unions and other organizations to make concrete commitments to improve dialogue with employees. The Global Deal promotes the idea that effective dialogue with employees can contribute to more decent work and quality jobs and, as a result, to more equality and inclusive growth from which workers, companies and civil society will benefit. In 2019, Global Deal members were invited by the French Minister for Labor, in the context notably of the G7 Social summit, to take part in two working groups: on universal access to benefits adapted to changing needs and risks, and on equal treatment of women and men at work. In 2020, TOTAL continued to share best practices with Global Deal companies.

3.6.2 Severe impact risk mapping

The mapping work presented below, which includes risks for people and the environment, was carried out using the Group's risk management tools.

3.6.2.1 Safety, health and the environment

The Group defines the risk of a severe impact on safety, health or the environment as the probability of TOTAL's Activities having a direct and significant impact on the health or safety of **employees of Group companies, employees of external contractors**(2) **and third parties, or on the environment** following a large scale pollution or a pollution impacting a sensitive natural environment(3).

TOTAL has developed regular safety, health and environment risk assessment procedures and tools applicable to operate its Activities at various levels (Group, activities and/or industrial sites):

- prior to investment decisions in industrial projects of the Group, acquisition and divestment decisions;
- during operations;
- prior to releasing new substances on the market.

With respect to potential major industrial accidents, analyses are based notably on incident scenarios at the site level, for each of which the probability of occurrence and potential consequences (in terms of severity) are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures that may be technical or organizational in nature. Each business segment produces, on a yearly basis, an inventory of its identified major industrial accident risks, which is submitted to management/committees in each segment and to an HSE Group Committee once a year, providing a global overview of identified risks and a progress report of action plans launched by the Subsidiaries operating the sites.

This work allowed the Group to identify, analyze and prioritize the risks of severe impacts. These analyses have highlighted the following risks of severe impacts:

- risks to the safety of people and to the environment resulting from a major industrial accident on an *offshore* or *onshore* site. This accident could be an explosion, a fire or a leak resulting in fatalities or bodily harm, and/or accidental pollution on a large scale or on a sensitive natural environment, for example well blowout;
- risks to the safety of people and to the environment related to the overall life cycle of the products manufactured, and to the substances and raw materials used;
- risks associated with transportation, for which the likelihood of an operational accident depends on the hazardous nature of the products handled, as well as on volumes, length of the journey and sensitivity of the regions through which products are transported (quality of infrastructure, population density, environment).

Climate change is a global risk for the planet and results from various human actions such as energy consumption. As an energy producer, TOTAL seeks to reduce direct greenhouse gas emissions resulting from its operated Activities. In 2020, worldwide greenhouse gas emissions (GHG) from the oil and gas facilities operated by TOTAL amounted to 35,8 million tons(4) of CO_2e, which is less than 0.1% of the total worldwide emissions, which were of more than 59 billion tons per year in 2019(5). In addition, TOTAL implements a strategy to tackle climate change challenges and reports on this in detail, notably in its statement of non-financial performance (refer to point 5.6 of chapter 5), in accordance with Articles L. 22-10-36 and L. 225-102-1 of the French Commercial Code.

(1) International trade union representing over 50 million employees of the energy, mining, manufacturing and industrial sectors in 140 countries.
(2) Personnel of companies working on a site operated by a Subsidiary.
(3) Sensitive natural environments include, in particular, remarkable or highly vulnerable natural areas, such as the Arctic, as well as areas covered by significant regulatory protection such as Protected Area Categories I to IV as defined by the International Union for Conservation of Nature (IUCN) or natural sites listed on the UNESCO World Heritage List on December 31, 2020.
(4) Valuation excluding the COVID-19 effect : 39 million tons of CO_2e.
(5) U.N. Environment, Emissions Gap Report 2020.

3.6.2.2 Human rights and fundamental freedoms

The risks of impacts on human rights for **TOTAL personnel and third parties** were identified according to the criteria defined in a well-established reference document for the mapping of human rights risks, the *United Nations Guiding Principles Reporting Framework*:

- severity: the scale of the impact on human rights; and/or
- scope: the number of persons affected or who could be affected; and/or
- the remediable nature of the impact: the ease with which the corresponding rights of the impacted persons can be restored.

TOTAL applied the *United Nations Guiding Principles Reporting Framework* which defines the following process:

- identify all human rights at risk of being negatively impacted by a company's activities or business relations, by taking into account all relevant business activities and entities in the company and the point of view of the persons exposed to a negative impact;
- prioritize potential negative impacts based on their potential gravity (severity and potential extent of the impact and the required remediation efforts) and their probability (while paying particular attention to very severe but unlikely impacts);
- explain the conclusions to internal and external stakeholders and check that factors have not been omitted.

This risk mapping work was carried out by TOTAL in 2016 in consultation with internal and external stakeholders. It included workshops with representatives of key business activities of the Group (human resources, procurement, security, HSE, Ethics Committee, Human Rights Steering Committee) and of Subsidiaries operating in difficult environments or particularly exposed to risks to human rights and fundamental freedoms. A series of interviews was held with independent third parties (Good Corporation, International Alert, Collaborative Learning Project). The participants were able to share return on experience on the ground (dilemmas and controversies faced, proposals for improvements on issues related to human rights and HSE resulting Subsidiary assessments). The questions raised at the Business Ethics Day were also taken into consideration. The results of the local and Groupwide Total Survey – an internal opinion poll of employees (Total Survey) regarding their professional situation and perception of the company conducted at local and Group level, were also taken into account. This risk mapping is periodically updated, in accordance with the *United Nations Guiding Principles Reporting Framework*.

This work allowed TOTAL to identify and analyze human rights issues related to its Activities and to prioritize them according to their saliency i.e. those which were most likely to be negatively impacted by Activities.

The salient risks are thus identified by comparing indicators and information provided by external stakeholders and internal return on experience. The dialogue with local stakeholders and feedback from the field, described above (refer to point 3.6.1.3 of this chapter) also contribute to this.

This risk mapping is supplemented by operational mappings such as the CSR risk mapping for procurement by the Group for each category of goods and services. Risk mapping by the security division also takes into account human rights and the VPSHR.

As a result, the following six salient risks were identified, divided among three key themes for the Group:

- **human rights in the workplace** of TOTAL employees and employees of its suppliers and other business partners:
  - forced labor and child labor;
  - discrimination;
  - just and favorable conditions of work and safety.
- **human rights and local communities**:
  - access to land;
  - the right to health and an adequate standard of living.
- respect for **human rights in security-related activities**:
  - the risk of misuse of force.

In 2019, TOTAL updated its procedures to analyze risks of impacts on human rights (which takes into account the country, activities and types of raw materials or purchased products and services). This work was done with a specialized consultant, and included workshops with internal and external stakeholders. It took into account international country risk indicators established by a third party consultant. This process notably offers a support to Subsidiaries located in geographic areas at higher risk of impacts on human rights.

3.6.2.3 Suppliers

The mapping of the risks of impacts on human rights, health and safety of people and the environment as a result of Activities is supplemented by CSR risk mapping specific to the Group's procurement, by category of goods and services, which has been in place since 2012. This allows the identification of risks relating to human rights and social conditions and those relating to the environment, which are associated with each procurement category. As part of a continuous improvement process, Total Global Procurement – the Group's subsidiary dedicated to procurement – continued with its work on updating this mapping in 2020.

The update was based on researches done by AFNOR experts on the human rights and environment risks associated with each procurement category, work that was supplemented by workshops with buyers for these categories in order to build on the results of those initial researches with their experience and practical knowledge. The Group's human rights and environment experts were also involved throughout the process. This mapping includes particular risks relating to child labor, forced labor, working conditions, discrimination, workers' health and safety, as well as risks relating to pollution and adverse impact to biodiversity. It is available to buyers.

3.6.3 Action principles and organization

The Group has defined in its referential framework principles which reflect the Group's values and aim at preventing impacts on human rights and health, safety and the environment (the "Action Principles"). When the legal provisions applicable to Activities provide less protection than the Group's Action Principles, TOTAL strives under all circumstances to give precedence to the latter, within the constraints of applicable regulations.

3.6.3.1 Organization

The Group has a three-tier organization: Corporate, business segments and operational entities. Each tier is involved in and accountable for identifying and implementing measures in the Vigilance Plan deemed appropriate within the scope of the entity in question.

The Action Principles are driven by the Executive Committee.

The **Ethics Committee** is the guarantor of the implementation of the Code of Conduct. Its chairman, who reports to the Chairman and Chief Executive Officer of TOTAL, presents an annual ethics report to the Governance and Ethics Committee.

The **People & Social Responsibility divisions** coordinate action in relation to Social Responsibility at Group level and respond to the concerns of internal and external stakeholders. They include:

The **HSE division** includes the industrial health, safety, environmental and operational societal activities of the Group. Within the division, the HSE Departments of the Exploration & Production, Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services segments are notably responsible for supporting the implementation of the Group's HSE policy. Specific expert teams deal with the following areas: major risks, human and organizational factors, environmental and societal issues, transportation and storage, crisis management and pollution prevention, standards and legislation, audits and return on experience. The Group has set up an HSE Committee chaired by the Chairman and Chief Executive Officer and made up notably of members of the Executive Committee and HSE Directors. Its mission is to ensure that safety is a shared value.

The **Civil Society Engagement division** is tasked with developing relations with civil society and driving the Group's initiatives for societal progress. In this division, the Human Rights Department supports the Group's operational personnel with its expertise in implementing the Action Principles relating to human rights. This division also forms the link between the Group and civil society and is in charge of relations with non-governmental organizations (NGOs), major institutions or multi-lateral agencies at Group level.

The **Group Human Resources division** has, in particular, the role of defining the human resources strategy and policies of the Group in accordance with the business challenges and the *One Total* company project. In line with the multiple situations encountered in the field, it coordinates the diffusion and roll-out of the new policies to support the various human resources departments in the Group's business segments. It is also tasked with coordinating the Group's social relations policy, chairing the Total's European Works Council and negotiating within this scope.

The **Security division** is responsible for the protection of people, facilities and information, and pays particularly close attention to the protection of people and property, by conducting analyses and offering advice.

A dedicated cross-functional Subsidiary, **Total Global Procurement,** coordinates management of supplier relationships and provides in particular purchasing services of Group's goods and services, whether for categories of products or services specific to one business activity or categories shared between several business activities[1].

The **Strategy and Climate division** supports the Group's governing bodies and in particular is in charge of integrating climate into the Group's strategy. It structures the implementation of the Group's action with respect to climate change, while working with the operational divisions of the Group's business segments.

This corporate organization acts in support of the business segments and Subsidiaries in the operational implementation of the Action Principles.

Within the business segments services and advice are offered to Subsidiaries to assist them in the operational implementation of Group requirements.

Depending on their size, type of activities and the risks to which they may be exposed, the Subsidiaries may have dedicated personnel for HSE, societal, human resources, ethical, security and procurement issues.

(1) Present in more than 130 countries, the Group currently works with a network of more than 100,000 suppliers.

3.6.3.2 Code of Conduct

TOTAL's Vigilance Plan is based primarily on the Group's Code of Conduct[1], which defines the Group's values, including safety and respect for others, and their application to human rights, the environment, health and safety.

It is regularly updated, – the last update dates back to 2018.

The Code particularly sets forth the Group's compliance with the following international standards:

- the principles of the Universal Declaration of Human Rights;
- the United Nations Guiding Principles on Business & Human Rights;
- the principles set out in the International Labor Organization's fundamental conventions;
- the principles of the United Nations Global Compact;
- the OECD Guidelines for Multinational Enterprises;
- the Voluntary Principles on Security and Human Rights, or VPSHR.

The Code of Conduct, which can be accessed on the Group's website, is aimed at all employees and external stakeholders (host countries, local communities, customers, suppliers, industrial and commercial partners and shareholders).

3.6.3.3 Human rights

In addition to the Code of Conduct, matters relating to respect of human rights are included in a number of internal rules, such as those relating to ethics, human resources, societal, security and procurement. In addition to these, there are a number of practical tools dedicated specifically to societal issues.

For example, a rule concerning stakeholder and local impact management describes TOTAL's requirements for a unified approach to managing the risks and societal impact of its operations. This is based on an assessment of the sensitivity of the societal context and the impacts relating to operations. Furthermore, the Charter of Principles and Guidelines regarding indigenous and tribal peoples states how TOTAL endeavours to know and understand the legitimate requirements of the communities living in its Subsidiaries' sphere of activities.

The Group's charters and rules are supplemented by guides and manuals at Group level or at the level of the business segment, which serve as reference documents for Subsidiaries on meeting requirements. Thus, there are guides relating to carrying out societal impact assessments and impact assessments on human rights, managing the local societal approach, and developing local content in projects.

General specifications define more technical requirements, such as the implementation of the social baseline study and analysis of the societal impact.

As regards community grievance management, a guide describes the methodology and procedures for managing individual and collective grievances resulting from Activities, based on the UNGPs eight effectiveness criteria. A specific toolbox for certain business segments rounds off the procedures.

Furthermore, requirements relating to the implementation of VPSHR in conducting security operations are detailed in an internal rule concerning risk assessment, preliminary verifications, formalization of the relationship with security providers, training and management of possible incidents.

Lastly, for procurement, requirements relating to respect for human rights by Suppliers are specified in an internal rule defining the procurement principles for goods and services, including the Fundamental Principles of Purchasing, which reflect the principles of the Group's Code of Conduct with regard to Suppliers.

3.6.3.4 Safety, health and the environment

TOTAL conducts its operations on the basis of its **Safety Health Environment Quality Charter** (available at total.com). It forms the common foundation for the Group's management frameworks, and sets out the basic principles applicable to safety, security, health, the environment, quality and societal commitment. This Charter is implemented at several levels (head office and Subsidiaries). Group directives and rules define the minimum requirements expected. General specifications, guides and manuals are available as a tool to implement these directives and rules. The Subsidiaries incorporate these requirements into their own management systems, whilst taking into account local specificities and regulatory requirements. The Group's framework is available to all employees.

Since 2018, an HSE reference framework common to all the business segments has been rolled out in order to give greater overall consistency to the Group's operations, while taking into account the specificities of each business segment. This **reference framework**, which is named **One MAESTRO** (***Management and Expectations Standards Toward Robust Operations***), applies to all the Group's operated sites as defined in point 5.11 of chapter 5 (scope of One MAESTRO).

One MAESTRO is structured around ten fundamental principles: (1) leadership and management commitment, (2) compliance with laws, regulations and Group requirements, (3) risk management, (4) operational accountability, (5) contractors and suppliers, (6) expertise and training, (7) emergency preparedness, (8) learning from events, (9) monitoring, audit and inspection, (10) performance improvement.

In 2010, the Group also introduced the *TOTAL* ***Golden Rules*** of safety at work. This has been widely circulated within the Group and outlines the fundamental rules which must be scrupulously observed by all personnel, whether employees or the staff of external contractors, in all countries and business segments in which the Group is active. The aim of the Golden Rules is to define simple, easy-to-remember rules based on situations reflecting a number of occupational accidents. These rules cover the following subjects:

TOTAL Golden Rules

1	High-Risk Situations	7	Powered Systems
2	Traffic	8	Confined Spaces
3	Body Mechanics and Tools	9	Excavation Work
4	Protective Equipment	10	Work at Height
5	Work Permits	11	Change Management
6	Lifting Operations	12	Simultaneous Operations or Co-Activities

(1) SunPower has its own code of conduct and ethics.

Between 2019 and 2020, the Group also rolled out the “**Our lives first: zero fatal accidents**” program, comprising the introduction of joint safety tours with contractors, the incorporation into the permit to work process of a ritual to be performed prior to undertaking work at the Group’s operated sites (Safety Green Light), and tools to step up on-site checks and assess compliance with safety rules for eight high-risk activities (working at height, lifting operations, work on process or powered systems, working in confined spaces, hot work, excavation work, manual cleaning using high pressure jets and Industrial cleaning using mobile pump and vacuum truck).

In addition, everyone, irrespective of their level in the organization, is authorized to interrupt work in progress, if they notice a high-risk situation, by using their **Stop Card**.

The Stop Card is a plastic-coated card, signed by the manager of the entity or site. It grants its holder the authority to intervene and stop work in progress, if he/she notices high-risk actions or situations, or situations that may lead to an accident, with an assurance that no disciplinary action will be taken as a result, even in the intervention turns out to have been unnecessary.

If an action or situation seems hazardous for one or more people, a facility or the environment, the Stop Card provides means of intervening. Uses of the Stop Card can range from a simple question to check that no risks are present, to interrupting the work in progress.

This interruption offers an opportunity to exchange with the colleagues involved (members of staff and their supervisor) with a view of finding a solution to the perceived problem. If necessary, changes are made to the way of working before resuming the work in progress.

If the problem cannot be solved immediately, the work is suspended, pending the implementation of suitable measures.

Preventing the occurrence of major industrial accidents

To **prevent the occurrence of a major industrial accident** such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or damage to property, TOTAL implements suitable risk management policies and measures which apply to the Group’s operated activities that are exposed to such risks. The Major Risks division of the Group HSE department provides its support with applying this policy.

The Group’s policy for the management of major industrial accident risks applies from the facilities design stage in order to minimize the potential impacts associated with its activities. It is described in the One MAESTRO reference framework. It provides for analysis of the risks related to the Group’s industrial operations at each operated site, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures and may be technical or organizational in nature. These analyses are updated periodically, at least every five years, or when facilities are modified.

With regard to **the design and construction of facilities**, technical standards include applicable statutory requirements and refer to industry best practices. The construction of the Group’s facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Group’s rules define the management process to be adopted.

With regard to **the management of operations and integrity of facilities**, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a permit to work, the process of which, from preparation through to closure, is defined. The Group’s reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety-critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. These rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings.

Preventing transport accidents

In the field of **road transport**, the Group has for many years adopted a policy intended to reduce the number of accidents by applying standards that are, in some cases, more stringent than certain local regulations. This policy, defined in the One MAESTRO reference framework, applies to all the Group’s personnel and contractors. For example, it includes a ban on telephoning while driving, even with a hands-free set, a ban on using motorized two-wheeled vehicles for business travel, mandatory training for drivers, and the definition of strict technical specifications for vehicles. Additional requirements are defined depending on the level of road traffic risks in the country in question and the nature of the activity. Thus, in countries with high road traffic risks, vehicles are equipped with recorders of driving inputs and the conduct of drivers is monitored.

For **maritime and inland waterway transportation**, the process and criteria by which ships and barges are selected are defined by the Group vetting procedure. These criteria take account of not only the ship or barge but also the crew, ensuring that it has all the necessary qualifications and training required under the STCW convention (Standards of Training, Certification and Watchkeeping for Seafarers). The vetting also verifies the application of the security management system defined for ships by the ISM (International Safety Management) code of the IMO (International Maritime Organization), as well as industry recommendations such as the OCIMF (Oil Companies International Marine Forum) and SIGTTO (Society of International Gas Tanker and Terminal Operators), which take account of the human element in preventing personal accidents on board ships or barges.

In addition, TOTAL's chartering contracts require that the crew belong to a recognized union and be affiliated to the ITF (International Transport Workers' Federation). The ITF represents the interests of transport workers' unions in bodies that make decisions concerning jobs, conditions of employment or safety in the transport sector, such as the International Labor Organization (ILO) and the International Maritime Organization (IMO).

With regard to **air transport**, a carrier selection process exists to limit the risks relating to travel by Group and contractors' employees, if their journey is organized by TOTAL. This process is based on data provided by recognized international bodies: the International Civil Aviation Organization (ICAO), the IATA Operational Safety Audit (IOSA), the International Association of Oil and Gas Producers (IOGP), and civil aviation authorities' recommendations. Airlines that do not have a rating from an international body are assessed by an independent body commissioned by the Group.

Preventing occupational accidents

The Group has a policy for **preventing occupational accidents** that applies to all employees of Group Subsidiaries and employees of contractors working on a site operated by one of these Subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework.

As part of the **policy for preventing workplace accidents**, TOTAL has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Group employees and contractors working on a site operated by the Group. In order to continually move its practices forward, TOTAL also implements a process for analyzing accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event.

The Group's HSE division includes a division of specialists in high-risk operations (work at height, lifting, electricity, excavations, high-pressure cleaning etc.) which consolidate in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for Subsidiaries to improve their safety culture upon their request. This division develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors of a work situation and defining appropriate measures.

Preventing occupational health risks

With regard to the **prevention of health risks**, the One MAESTRO framework provides that Subsidiaries of the Group identify and assess risks at the workplace in the short, medium and long term. To do this, the framework provides application guides for implementation. The analysis of these health risks results in the roll-out of an action plan. An Industrial Health correspondent at each Group entity concerned is identified with the task of implementing the policy for identifying and assessing work-related health risks. Measures taken within this framework, included in entities' HSE action plans, can be audited as part of One MAESTRO audits.

In general, **potential exposure to chemical or hazardous products** at a site operated by a Group entity or nearby is one of the most closely monitored risks in view of the potential consequences. New facility construction projects comply with international technical standards from the design stage in order to limit exposure. For production sites operated by a Group entity and subject to this risk, the One MAESTRO reference framework sets out the prevention process in several stages. First, hazardous products such as carcinogenic, mutagenic or toxic to reproduction (CMR) chemicals are listed and their risks identified. Second, potential exposure to levels that may present a risk to the health of personnel, contractors or local residents at the site or nearby are identified and assessed, and prevention or attenuation measures are implemented in order to control the risk. Lastly, the approach is checked (atmospheric checks, specific medical monitoring, audits etc.) in order to verify its effectiveness and implement improvement measures if necessary. This is also set out formally in a risk assessment file, which is revised regularly by the Subsidiary.

Limiting the environmental footprint of the Group's sites

TOTAL implements a policy of avoiding, reducing, managing and monitoring the environmental footprint of its operations. As part of this policy, emissions are identified and quantified by environment (water, air and soil) so that appropriate measures can be taken to better control them.

Water, air

The Group's operations generate discharges such as smokes from combustion plants, emissions into the air from the various conversion processes and discharges of wastewater. In addition to complying with applicable legislation, TOTAL has drawn up rules and guidelines that the Group's Subsidiaries can use to limit the quantities discharged. TOTAL has set itself targets for reducing sulfur dioxide (SO_2) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites can introduce various reduction systems that include organizational measures (such as using predictive models to control peaks in sulfur dioxide (SO_2) emissions based on weather forecast data and the improvement of combustion process management, etc.) and technical measures (wastewater treatment plants, using low NO_x burners and electrostatic scrubbers, etc.). To date, all refineries wholly owned by the Group have this type of system.

For new facilities developed by the Group, the internal rules require impact assessments to be carried out and, if necessary, actions must be taken to limit the impact of these emissions.

Soil

The risks of soil pollution related to TOTAL's operations come mainly from accidental spills and waste storage. TOTAL has drawn up a guide that the Subsidiaries can use to prevent and contain this pollution. The recommended approach is based on four pillars:
– preventing leaks, by implementing, as far as possible, industry best practices in engineering, operations and transport;
– carrying out maintenance at appropriate frequency to minimize the risk of leaks;
– overall monitoring of the environment to identify any soil and groundwater pollution; and
– managing any pollution from previous activities by means of containment and reduction or elimination operations.

In addition, a Group rule defines the following minimum requirements:
- systematic identification of each site's environmental and health impacts related to possible soil and groundwater contamination;
- assessment of soil and groundwater contamination based on various factors (extent of pollution inside or outside the site's boundaries, nature and concentrations of pollutants, presence of a vector that could allow the pollution to migrate, use of the land and groundwater in and around the site); and
- management of health or environmental impacts identified based on the use of the site.

Lastly, decommissioned facilities operated by the Group (i.e., chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all the precautions taken, have been sources of chronic or accidental pollution. In addition to the appropriate management of waste produced by the dismantling and securing of sites, TOTAL has created a policy to evaluate and manage the risks related to soil and groundwater pollution. For the sites at the end of their activity, the management of pollution is determined in accordance with regulatory obligations with an objective of continuing to control the use of the sites while favoring the possibility of redevelopment of Group activities (solar, reforestation, etc.) and protecting biodiversity. Remediation operations are carried out by specialized entities created by the Group.

Managing impacts on biodiversity and ecosystems during projects and operations

In 2016, the Group pledged to contribute to the success of the United Nations' Sustainable Development Goals (SDGs), including those relating to biodiversity. In 2018, TOTAL signed up to the Act4Nature initiative promoted by the French Association of Enterprises for the Environment, now Act4Nature international.

In 2020, TOTAL extended its ambitions on the occasion of preparing for the United Nations' global biodiversity plan, which aims to protect global biodiversity and updates its public commitments concerning biodiversity (sustainable-performance.total.com). This new ambition has been factored into the One MAESTRO reference framework. The four core principles of this ambition are described in point 5.5.4 of chapter 5, which includes the following principles of action:
- The Group has made a commitment not to conduct any exploration activities in oil fields under sea ice in the Arctic;
- the Group has made a commitment to recognize the universal value of UNESCO's world natural heritage sites, with no oil and gas exploration or production activity in these areas;
- for each new project located in an IUCN Protected areas I or II area or Ramsar areas, the Group undertakes to implement measures to produce a net positive impact on biodiversity.

Limiting risks for the health and safety of consumers

Unless certain precautions are taken, some of the petroleum or chemical products marketed by TOTAL pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the lifecycle of these products.

TOTAL has also defined the minimum requirements to be observed in order to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety datasheets that accompany the petroleum and chemical products marketed by the Group (available in at least one of the languages used in the relevant country), as well as product labels, are two key sources of information.

The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Group. The task of these teams is to ensure the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. They therefore draw up the material safety datasheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and ensure REACH registration if necessary. They also monitor scientific and regulatory developments and verify the rapid implementation of new datasheets and updates within Group entities.

Governance of the process is rounded off within the Group's business units or Subsidiaries of the Refining & Chemicals and Marketing & Services segments with the designation of a product manager who ensures compliance during the market release of his or her entity's petroleum and chemical products. The networks of product managers are coordinated by the Group's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment.

The safety datasheets for oil and gas produced by the Exploration & Production and Integrated Gas, Renewables & Power Subsidiaries are produced by the Marketing & Services expertise center. The compliance of the go-to-market process of these products is ensured by the Subsidiary.

Finally, TOTAL has set up an intersegmental working group that works on the harmonization of practices and classifications for the petroleum and chemical products common to the different segments, as well as on the development of good practices.

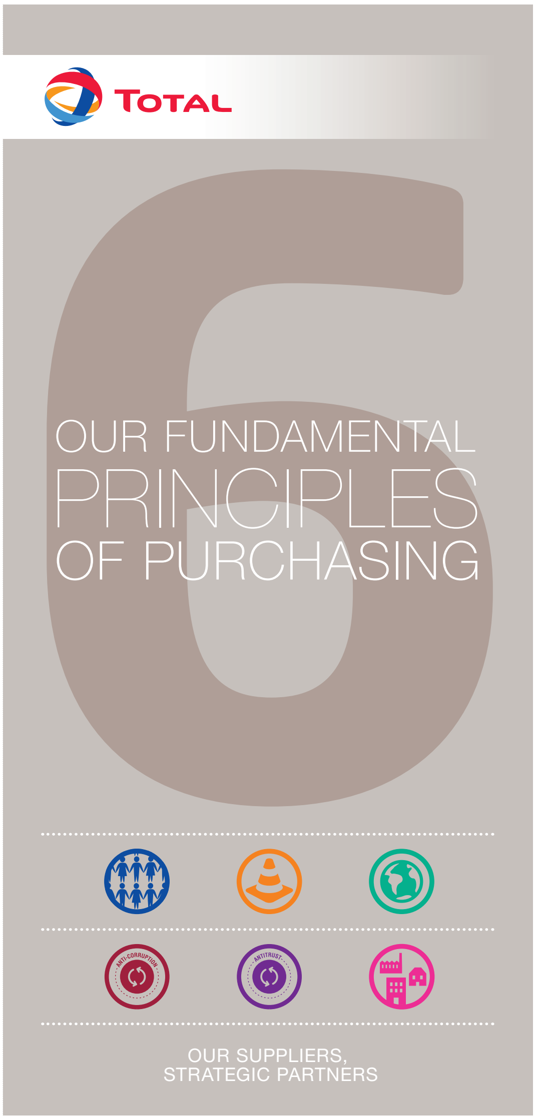
3.6.3.5 Fundamental principles of purchasing

The relationship between the Group and its Suppliers is based on adhesion to the Fundamental Principles of Purchasing[(1)] that are consistent with the principles laid down in the Code of Conduct.

The Fundamental Principles of Purchasing lay out the commitments that TOTAL expects from its suppliers in the following areas: respect for human rights at work, protection of health, safety and security, preservation of the environment, prevention of corruption, conflicts of interest and fraud, respect for competition law, as well as the promotion of economic and social development.

Subsidiaries ensure that the requirements of the Fundamental Principles of Purchasing are communicated to Suppliers and endeavor to include them in contracts or replace them with equivalent principles at the end of negotiation. These principles are also accessible to all suppliers in French and English on TOTAL's website.

(1) Saft Groupe and SunPower have defined fundamental principles of procurement specific to their activities (for example, SunPower Supplier Sustainability Guidelines).



Extract from the Fundamental Principles of Purchasing

Suppliers are required to comply with and to make sure that their own suppliers and subcontractors comply with applicable laws, as well as principles equivalent to those set forth in the Universal Declaration of Human Rights, the fundamental Conventions of the International Labour Organization, the United Nations Guiding Principles on Business and Human Rights, United Nations Global Compact, the Voluntary Principles on Security and Human Rights, and the OECD Guidelines for Multinational Enterprises.

Effective policies and procedures should be implemented, in particular with respect to the principles set out below.

- **Respecting human rights at work:**

Ensure that working conditions and remuneration of workers preserve human dignity and are consistent with the principles defined by the Universal Declaration of Human Rights and by the fundamental Conventions of the International Labour Organization.

Prohibition and prevention of child labour
Prohibit employment of workers under the age of 18 for hazardous and night work, and prohibit employment of workers under the age of 15, except where local law provides for greater protection for the child.

Prohibition and prevention of forced labour
Ensure that no worker is coerced to work against his/her will through the use of violence, intimidation, financial coercion or threat of penalty or sanction.

Prohibit confiscation of workers' identity documents, provided that where local law requires such document to be retained, workers must have immediate and automatic access to such documents.

Ensure that no recruitment fees are charged to the worker.

Working conditions, remuneration and compensation
Establish an employment contract.

Provide a living wage and ensure compliance with a maximum number of working hours, adequate rest time and parental leave.

Document compliance with such requirements.

Health and Safety at work
Provide a healthy and safe workplace where workers are protected from accidents, injuries, and work-caused illness.

When accommodation is provided by the employer, ensure that it is safe, clean and adequate as a living space.

Prohibition and prevention of discrimination and harassment at the workplace
Prohibit harassment and practices resulting in discriminatory treatment of workers with particular attention to recruitment, compensation, benefits or termination.

Freedom of speech, association and collective bargaining, freedom of thought, conscience and religion
Allow workers to choose whether to be member of a collective bargaining organization. In countries where such right is restricted, ensure employees have the right to participate in a dialogue about their collective work situation.

Grievances and Concerns
Ensure workers can express grievances and concerns without fear of reprisal.

3.6.3.6 Internal control framework

The Group consistently ensures that an internal control framework, based on the referential of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) is in place.

TOTAL has a Group reference framework that is supplemented by a series of practical recommendations and return on experience. Like the Group's organization, this framework has a three-tier structure: at Group level, the REFLEX Group framework (including One MAESTRO) and the technical framework set out by the Group Technology Committee, frameworks for each business segment, and for each significant operational entity.

3.6.4 Assessment procedures

The Group has defined procedures to assess its Subsidiaries and Suppliers, including in collaboration with independent bodies, which help identify and prevent risks of impacts on human rights, health, safety and the environment. **Staff training, particularly of managers**, is the **necessary** complement to assist the Subsidiaries in the implementation of the TOTAL Action Principles (refer to point 3.6.5 in this chapter).

3.6.4.1 Procedures for assessing Subsidiaries

HSE assessments

Assessment of the implementation of the HSE framework involves self-assessment by the Subsidiary and HSE audits by experts from the Group HSE division.

Subsidiaries must undertake a **self-assessment** at least every two years.

The Audit unit of the HSE division conducts an **HSE audit** on operated sites at least every five years, according to an audit protocol. These audits deal with a set of activities and facilities governed by a single HSE management system. They address notably: management involvement, compliance with applicable rules, risk management, individual involvement at every level, relationships with suppliers present on the Subsidiary's site, skills, preparations for emergency situations, return on experience, self-assessment by the Subsidiary and the continual improvement process. The Group's HSE audit protocol is based on the One MAESTRO framework and includes the requirements of the international standards ISO 14001:2015 (environmental management) and ISO 45001:2018 (occupational health and safety). The audit protocol is applied in full during self-assessments and according to a risk-based approach during audits. The goal is to identify potential gaps in the implementation of the rules by the Subsidiaries and to enable them to define and implement improvement actions. The progress of improvement actions is reported to management at the appropriate level in the management chain. The status of actions taken following audit observations beyond a defined severity level is reported to the business segment and HSE divisions every semester.

The HSE division defines the rule and reporting guide and ensures the implementation of the standards for the consolidation of data, provided by the Subsidiaries, related to the Group greenhouse gas (GHG) emissions.

Assessments regarding human rights

The Group appoints a service provider specialized in **ethics and human rights assessments** to check the proper application in the Subsidiaries of the principles included in the Code of Conduct. These assessments include criteria relating to human rights. As part of the process, a panel of employees and external stakeholders of the Subsidiary is questioned to understand how its Activities are perceived locally. The content of the assessment is adapted to each Subsidiary and may address issues such as the involvement of Subsidiary management, employee awareness of the Code of Conduct, employee working conditions, supplier selection procedures, security measures taken or proactive collaboration with local stakeholders. Following the assessment, the Subsidiary defines and implements an action plan, and a monitoring procedure is put in place.

At a project level, TOTAL conducts **assessments of the impacts on human rights** of the Group's activities in sensitive situations (including according to criteria relating to human rights risks in the relevant country) with independent organizations specialized in human rights, or in the prevention and management of conflicts between corporations and local communities. These assessments take account of the salient issues identified by the Group (refer to point 3.6.2.1 in this chapter).

Security, which is identified as a potential salient risk in the map of the risks of impacts on human rights, is subject to **risk assessment processes** at an entity and project level. The Security division is notably tasked with ensuring the implementation of TOTAL's commitments to enforce the Voluntary Principles on Security and Human Rights (VPSHR, a multi-stakeholder initiative that TOTAL joined in 2012, involving governments, companies and associations, that addresses relations with government or private security forces). As part of this process, the Subsidiary undertakes an assessment of risks in relation to both security and human rights. In addition, a VPSHR self-diagnostic tool has been developed to enable Subsidiaries to assess their own implementation of the VPSHR and to identify areas of improvement. This tool measures the Subsidiary's commitment to VPSHR, personnel training and relations with government security forces and private security companies.

Finally, an **annual self-assessment questionnaire** enables measurement and evaluation of the level of implementation of their **societal initiative** on the ground. Actions involving dialogue, impact management and the contribution to socioeconomic and cultural development are recorded and analyzed.

3.6.4.2 Procedures for assessing Suppliers

With respect to Suppliers, a **risk mapping related to procurement**, by category of goods and services, was established in 2012 on the basis of questionnaires completed by the managers of each procurement category. This risk mapping is periodically reviewed. **Qualification procedures for Suppliers** of goods and services have been harmonized at Group level. A new internal framework was published in 2018. The qualification process includes a review of human rights at work, environment and health and safety. A risk analysis is carried out for each Supplier, followed where deemed necessary by a detailed assessment. The detailed assessment includes questionnaires on each of the aforementioned issues and, if needed, results in an action plan, a technical inspection of the site by employees or an audit of working conditions carried out by a consultant. A qualification software was developed in 2019 and will gradually be rolled out in over 100 countries.

The Group put in place a **Supplier assessment** procedure with a view to identifying and preventing risks of severe impacts on human rights and fundamental freedoms, health and safety. The Group periodically audits Suppliers to assess working conditions during the life of the contract. A targeted annual audit plan is defined every year, which includes Suppliers put forward for audit by Subsidiaries based in countries that have been identified as having a high risk of human rights violations.

Crude oil and petroleum product purchasing by Trading & Shipping, gas and electricity purchasing by the Subsidiary Total Gas & Power Ltd, and the purchases made by the Subsidiaries of Hutchinson, Saft Groupe and SunPower are subject to supplier qualification processes specific to their organizations.

At the Subsidiary level, this qualification process may be complemented by specific **verifications of compliance** of a Supplier **with the VPSHR**. When private security companies are used to protect a Subsidiary, preliminary checks are made. They include a review of the recruitment process, technical and professional training (notably on the local context, the use of force and the respect for the rights of individuals), working conditions and the company's reputation. In addition, the proposed Supplier's employees are screened for previous conviction or implication in human rights violations.

Where deemed necessary in certain contexts (notably palm oil, vetting), dedicated teams may be set up to conduct the qualification process.

Palm oil Suppliers are screened to ensure that the palm oil supplied is certified as sustainable according European Union criteria (EU ISCC certification). These criteria include a review of carbon footprint, the preservation of forests, good use of land and respect for human rights. In addition to this mandatory certification, Suppliers must have signed the Fundamental Principles of Purchasing and be members of the Roundtable on Sustainable Palm Oil (RSPO).

The **Vetting department of Trading & Shipping** defines and applies the selection criteria for the tankers and barges used to transport the Group's liquid petroleum or chemical and gas products. This review aims notably at ascertaining the proposed Supplier's technical qualities relative to internationally recognized industry practices, the crews' experience, and the quality of the shipowners' technical management. A green light from the Vetting department, granted strictly on the basis of technical data and independently of business considerations, is required for all ships and barges chartered by a Subsidiary, third parties transporting cargo belonging to the Group, or ships and barges which stopover at a terminal operated by a Subsidiary. Audits of shipowners also allows the Group to assess the quality of the technical management systems implemented by operators, crew selection and training, as well as the support provided to vessels.

TOTAL is actively involved in the Ship Inspection Report Program (SIRE) which was set up by the Oil Companies International Marine Forum (OCIMF) to allow the sharing of inspection reports amongst international oil and gas companies, thus contributing to the continuous improvement of safety in oil and gas shipping.

Lastly, since 2012, a large-scale inspection program of road transport contractors has also been rolled out by Marketing & Services, the segment with the most road transportation within the Group with the delivery of products to service stations and consumers. The program is gradually being extended to other business segments as required.

It calls on independent transport experts who inspect the practices and processes adopted by transport contractors with regards to the recruitment and training of drivers, vehicle inspections and maintenance, route management, and the HSE management system. After inspection, an action plan is adopted. If there is a serious shortcoming or repeated poor results, the freight company may be excluded from the list of approved contractors.

3.6.5 Actions to mitigate risks and prevent severe impacts

Specific actions are taken to mitigate risks and prevent severe impacts, drawing mainly on the Action Principles and assessments described above.

They are also based on return on experience from HSE incidents and include training of Group employees, programs to raise the awareness of Suppliers, as well as measures to manage emergency and crisis situations.

With respect to climate, which is a global risk for the planet resulting from all human activities, the Group has structured its approach in order to integrate climate challenges into its strategy and has defined specific objectives within different timeframes, in order to control and reduce the GHG emissions resulting from its Activities (Scope 1 and 2). These are reported in section 3.6.8.4 of this chapter.

3.6.5.1 Return on experience

The Group implements a process for the analysis of accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event.

A return on experience may include an analysis of the incident including of its severity and result in communications to the relevant stakeholders or a wider population within the Group. The purpose of sharing return on experience is to ensure that Subsidiaries are informed and share lessons learned from the incident.

By way of example, a near-miss with a high severity potential undergoes an analysis similar to that of a severe accident. This analysis is considered an essential factor of progress. Depending on its relevance to the other Group entities, it may trigger a safety alert and the communication of a formal return on experience. The Group's corporate culture encourages, more generally, formal and informal return on experience on all matters relevant to of the Vigilance Plan.

3.6.5.2 Awareness and training of Group employees

The Group has a variety of communication and information channels in place, enabling all employees of TOTAL SE and its Subsidiaries to have access to the Action Principles defined by the Group in relation to human rights, health, safety and the environment.

HSE training courses, incorporating on-line educational programs as well as technical training tailored to the various Activities, are offered to all Group employees. Dedicated programs in the fields of health, safety and the environment – which may be general or specific to a type of activity or subject area – have been deployed within the Group. Depending on a person's level of responsibility and experience in the Group, he/she will for example attend: HSE Leadership for Group senior executives, HSE training for managers, and training for new recruits.

These training courses include since 2020 training actions related to climate challenges dedicated to all Group employees. A specific module will also be set up for Group senior executives and managers.

In the Subsidiaries as well as head office, teams regularly engage in crisis management exercises, the scenarios of which are based on potential incidents identified in the risk analysis. Dedicated training (initial and refresher training) also contributes to preparing employees for potential crises including in relation to the various roles played by members of the crisis team (for example crisis team leader, liaison with operations, experts and communicators etc.).

Dedicated human rights training programs have been set up for senior executives, site directors and those employees most exposed to these issues. Awareness-raising sessions are organized regularly for employees, for example as part of an ethical assessment of a Subsidiary.

The Human Rights department has developed a training plan for the Group employees to encourage understanding of issues relating to human rights and thereby better manage the associated risks. This training plan has been rolled out as a priority among employees who are most exposed to human rights risks.

Specific training modules explaining the Group's ethical commitments and the Fundamental Principles of Purchasing have also been developed for the Group's procurement teams.

Every year, the Security division organizes a **training session on the VPSHR** for security managers in the Subsidiaries. Local visits are also organized to deliver in-person training in the Subsidiaries.

Each employee receives a copy of the **Code of Conduct** to raise awareness of the Group's values, including safety and respect for others, which is respect for human rights. The Code of Conduct is also available on the Group's website in nineteen languages. Every new employee is required to read the Code of Conduct (and must certify to having done so) and the TOTAL induction day includes an initiation to ethics and human rights.

Internal channels of communication, such as **intranet** websites accessible to most employees, are also used to **raise employee awareness** of matters pertaining to human rights. Dedicated webpages on ethics and the respect for human rights present the priority areas identified by the Group. These webpages have several goals: explain the Action Principles, present how the Group implements these principles and to help employees implement the ethical conduct expected of them in their everyday work.

Events such as the annual **Business Ethics Day** are used to raise awareness among employees of TOTAL SE and its Subsidiaries.

A **guide to Human rights** is also made available to employees and stakeholders. Its goal is to raise employees' awareness on issues relating to human rights in the oil and gas industry (at work, with local communities and in relation to security) and it provides guidance as to the appropriate behavior to adopt in their activities and relationships with stakeholders. It includes case studies, specifically on Myanmar, Uganda and the Democratic Republic of Congo. This guide serves as a reminder of the Group's commitments in relation to human rights. It offers proposed answers to common questions and concerns about human rights, notably child labor, forced labor, discriminatory practices and collective negotiations.

The **Practical guide to dealing with religious questions**, published in 2017, aims to provide practical solutions to issues raised by Group employees and managers worldwide. It draws on the experiences of the business segments in various countries and encourages listening, dialogue and respect to find solutions suited to the local context. A number of internal and external experts contributed to this document, including representatives of various religious communities. This guide has been translated into ten languages. It is available on the intranet and is also distributed at training courses.

The HSE Division organizes the Group's **World Safety Day** and **World Environment Day**, which aim to bring teams on board and raise awareness of ways implement the Action Principles. Various **HSE guides** exist within the One MAESTRO reference framework to share HSE best practices with the Group's Subsidiaries. In addition, periodic HSE communications are published throughout the year (seminars, webinars, symposia, intranet). Safety culture is reinforced on a day-to-day basis by the Group's employees through safety moments at the beginning of meetings or before hazardous operations, consisting of a short discussion to reiterate the key safety messages and align participants with mutual commitments.

3.6.5.3 Awareness and training of Suppliers

The **Fundamental principles of purchasing** constitute a contractual commitment by Suppliers and are a mean to raise awareness amongst Suppliers notably on HSE and human rights issues. They are communicated to Suppliers at the time of their integration in the Group's Supplier database. A brochure explaining these principles in detail is also handed out to Suppliers at annual meetings or events such as the Suppliers Day. The Fundamental Principles of Purchasing are also available on the TOTAL website.

Training efforts are also made towards Suppliers, such as a **training on responsible security and the VPSHR** is given to employees of security service providers. Contracts with these service providers mention compliance with the VPSHR and the need to train their personnel about the VPSHR. Additionally, the Security division may deliver this training directly to security service providers.

Suppliers working on Subsidiary sites are made aware of the risks to health, safety and the environment of the activities of the site. They receive support in the management of risks related to their activities, those of the site and any potential interactions, such as in the work permit process or during site safety inspections.

3.6.5.4 Responses to emergency or crisis situations

Crisis management is organized to ensure sufficient preparedness and an efficient response to a crisis or emergency event.

In order to manage any major industrial accident efficiently, TOTAL has implemented a global crisis management system, based notably on a 24/7 on-call system, a set of unified procedures deployed in the Subsidiaries and on a dedicated crisis management center that makes it possible to manage two simultaneous crises from head office. The framework requires Subsidiaries to have in place plans and procedures for interventions in the event of leaks, fires or explosions and to test them at regular intervals.

3.6.6 Whistle-blowing mechanisms

The Group has several whistle-blowing mechanisms that are open to **employees, Suppliers and third parties**.

To support employees on a day-to-day basis, the Group encourages a climate of dialogue and trust enabling individuals to express their opinions and concerns. Employees can turn to their line manager, an HR or other manager, their Compliance Officer or their Ethics Officer.

The Group's employees, Suppliers, as well as any other stakeholder, can contact the **Ethics Committee** to ask questions or report any incident involving a risk of non-compliance with the Code of Conduct by using a generic email address (ethics@total.com). This system was set up in 2008, in cooperation with the Group's trade unions organizations on a European level. The Ethics Committee is a central structure, in which all business segments are represented. All its members are Group employees with a good knowledge of its Activities and have demonstrated the independence and impartiality necessary for the performance of their duties. The Ethics Committee assures compliance with the Code of Conduct and ensures its proper implementation. It is assisted in its work by the relevant departments, as well as by a network of local Ethics Officers. The Chairperson of the Ethics Committee reports to the Chairman and Chief Executive Officer of TOTAL. The Chairperson submits an annual report to the *Executive Committee* and the *Governance and Ethics Committee* which reports to the Board of Directors. The members of the Ethics Committee are subject to a confidentiality obligation. The Committee ensures the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. The system is supplemented by specific whistle-blowing mechanisms implemented at certain Subsidiaries.

Suppliers can also contact the **internal supplier mediator** using a generic email address (mediation.fournisseurs@total.com). Available to Suppliers and the Group's procurement teams, the mediator's role is to restores dialogue and help find solutions.

Based on the United Nations Guiding Principles on Business & Human Rights, the One MAESTRO framework requires the Group's operational entities to deploy **procedures to manage stakeholder grievances** related to the Subsidiary's activities (excluding business claims). This provides residents and local communities with a preferential channel to voice their concerns and grievances. Handling these grievances locally makes it possible to offer a response to anyone who feels that they have been negatively affected by the Activities and to improve internal processes in order to reduce impacts that may be caused by the Activities. Managing grievances consists of: informing the stakeholders of this free process; receiving and registering grievances; acknowledging receipt of the grievances and informing the stakeholders about the follow-up actions; if necessary, proposing a means of settling the grievances in collaboration with the stakeholders and monitoring the handling of the grievance. This process is regularly analyzed to see where improvements can be made.

These mechanisms can also be used to implement the **VPSHR**. In addition, **in the event of an incident, a reporting process** requires the Security division to be informed, that an internal analysis be performed to establish the facts resulting in a report. This allows the Subsidiary to re-assess its VPSHR process and to take measures to reduce the risk of incidents.

3.6.7 Monitoring procedures

Multi-disciplinary committees review the implementation of measures within their purview. Indicators are used to measure the effectiveness of the measures, progress made and to identify ways of improvement.

Committees

The **Ethics Committee** is closely involved in monitoring compliance with the Code of Conduct and can be called upon for advice on its implementation.

The **Human Rights Steering Committee** is made up of representatives from different departments (including security, procurement and societal) and business segments. It is chaired by the Group's head of *Civil Society Engagement*. It meets four times a year to coordinate the actions on human rights taken by the business segments and the Subsidiaries, as part of the implementation of the human rights roadmap submitted to the Executive Committee. All country chairs contribute to this monitoring process, notably by acting as the local point of contact for the Security division with respect to compliance with the VPSHR.

Representatives of the Management Committee of Total Global Procurement and of the Civil Society Engagement, HSE and Legal divisions as well as of the Ethics Committee meet at least once a year within the **Responsible Procurement Steering Committee** which monitors the implementation of the Responsible Procurement roadmap.

The **HSE division** has set up cross-functional committees of experts, including in the fields of safety, the environment and crisis management, and monitors the ongoing coordination of HSE issues.

Reporting

Internal reporting and indicators for monitoring implementation of the actions undertaken in the Group in the areas of human rights, safety, health and the environment is based:

- for social indicators (including health), on a guide entitled the "*Corporate Social Reporting Protocol and Methodology*";
- for safety indicators, on a Group rule regarding HSE event and statistical reporting; a return on experience analysis process identifies, notably, events for which a formalized analysis report is required in order to draw lessons in terms of design and operation; and
- for environmental indicators, on a Group reporting procedure, together with activity-specific instructions.

Consolidated objectives are defined for each key indicator and reviewed annually. The business segments apply these indicators as appropriate to their area of responsibility, analyze the results and set out a plan of action.

3.6.8 Implementation report(1)

3.6.8.1 Human rights

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described at point 3.6.8.5 of this chapter.

Subsidiary assessments

TOTAL carries out different types of assessments:

- Human rights and ethics assessment of Subsidiaries, in particular regarding the working conditions of TOTAL employees,
- Impact assessments to analyze the issues and societal context of industrial projects,
- Specific Human Rights assessments,
- Subsidiary self-assessments.

Ethics and human rights assessments

Assessed entities are identified according to several criteria, including the level of risk of human rights violation in each country, the number of alerts received the previous year and the date of the Subsidiary's last assessment. These assessments help identify Subsidiaries' best practices, allow them to be shared within the Group and identify areas for improvement. Knowledge and appropriation of the Code of Conduct are tested and reinforced by ethics and human rights awareness-raising sessions. Employees are encouraged to voice their ethical concerns in a confidential manner and report behaviors potentially contrary to the Code of Conduct.

In 2020, the number of assessments was limited compared to previous years due to the COVID-19 pandemic. Two ethics and human rights assessments were carried out (compared to seven in 2019). These concerned two sites with a total of 3,100 employees (Madagascar and Pau, France). These assessments confirmed that the Code of Conduct has been taken on board by employees.

Action plans implemented following the assessments carried out in 2019 at Subsidiaries in Brazil, Cameroon, Egypt and Nigeria were also followed up in 2020. The action plan concerning the Subsidiary in South Korea was not subject to a follow-up because the Subsidiary was sold. A follow-up of the action plan for the Subsidiary in Russia is planned for 2021.

Impact assessments of industrial projects

When a new industrial site is developed, a **societal baseline study** must be conducted in advance to identify any potentially affected stakeholders, describe the local context and assess the main socio-economic and cultural challenges in the impacted area. This is supplemented by **societal impact assessments** that measure and analyze actual and potential impacts, positive, negative, direct, indirect or cumulative, in the short, medium and long term of the project. In 2020, 50 assessments were launched or carried out in the Integrated Gas, Renewables & Power segment and 13 in Exploration & Production.

In addition to these impact assessments, **stand-alone human rights impact assessments** may also be conducted in high-risk areas or conflict zones with the support of independent experts. The conclusions of the human rights impact assessment relating to the EACOP oil pipeline project in Uganda and Tanzania conducted in 2018 have been made public. Other non-profit partner organizations, such as the CDA Collaborative Learning Projects, also contribute to the evaluation of the societal impact of the Group's activities or projects on nearby local communities, notably by interviewing local communities. CDA's reports are available on its website. As the COVID-19 pandemic severely impacted work on the ground, the assessments planned in 2020 are expected to be carried out in 2021, should the health context allow.

(1) In accordance with Article L.225-102-4 of the French Commercial Code, the report on the effective implementation of the Vigilance Plan is presented below. Since the identification of risks and the prevention of severe impacts on human rights, human health and safety and the environment overlap partially with certain risks covered in the non-financial performance statement (refer to chapter 5), TOTAL has chosen to report below on the implementation of its Vigilance Plan by incorporating certain aspects of its non-financial performance statement although the latter includes risks of varying degrees.

Example: Tilenga and EACOP projects, Uganda and Tanzania

TOTAL reports in detail on the social and environmental issues of the Tilenga and EACOP projects taken into consideration by TOTAL's Board of Directors by publishing the resolution adopted on December 16, 2020 in its non-financial performance statement (refer to point 5.1 of chapter 5).

Furthermore, in accordance with its guiding principle of transparency in engaging with civil society, TOTAL published the studies, independent third-party reviews and social and environmental action plans related to the Tilenga project in Uganda and the EACOP (East African Crude Oil Pipeline) project in Uganda and Tanzania. These documents are available at total.com.

These projects are undertaken in a sensitive environmental context and require the implementation of land acquisition programs with a specific attention to respecting the rights of the communities concerned. Environmental and social impact assessment (ESIA) studies have been conducted and approved by the Ugandan and Tanzanian authorities for both projects, which are carried out in compliance with the stringent performance standards of the International Finance Corporation (IFC). Moreover, several independent reviews have been conducted by third-party organizations to ensure that the projects are implemented in compliance with social and environmental best practices. These reviews allow to assess the effectiveness of the actions undertaken, to identify areas of improvement and have resulted in related action plans.

In line with the "Avoid - Reduce - Compensate" principles that underpin its Biodiversity Policy published in 2020, Total has decided to voluntarily limit the Tilenga project's footprint within Uganda's Murchison Falls park. While the current permits cover nearly 10% of the park, the development will be restricted to an area representing less than 1% of its surface, and the undeveloped areas will be voluntarily relinquished without delay. In addition, the project has been designed to minimize the footprint of the temporary and permanent facilities, which will occupy less than 0.05% of the park's area.

The Group also confirms its commitment to implement action plans designed to produce a net positive impact on biodiversity in the development of these projects. These plans will be defined in close cooperation with the authorities and stakeholders in charge of nature conservation in Uganda and Tanzania. Accordingly, Total will provide its support to increase by 50% the number of rangers ensuring the preservation of Murchison Falls park and will support a program to reintroduce the black rhinoceros in Uganda, in partnership with the Uganda Wildlife Authority (UWA). Total is also working closely with IUCN experts to integrate the best practices for the protection of chimpanzees, particularly by promoting the conservation of forest habitats.

Furthermore, the Tilenga and EACOP projects require the acquisition of 6,400 hectares of land, on which the primary residences of 723 households are located. Each of these households will be given the choice between a new house or monetary compensation. The first 29 relocated households, residing on the Tilenga Central Processing Facility site, have all elected to receive a new house. The other land acquisition activities will be carried out in accordance with the compensation framework approved by the authorities.

Example: Mozambique LNG Project

TOTAL finalized the acquisition of a 26.5%[1] interest, previously held by Anadarko, in the Mozambique LNG project in September 2019. A Subsidiary of the Group is the new operator of the Mozambique LNG Project.

Mozambique LNG is the first onshore development of a liquefied natural gas (LNG) plant in the country.

The Subsidiary is working on the basis of work done by the previous operator and its partners, with the aim of implementing this project in the best interest of all actors concerned, including the government and population of Mozambique.

Context

This project is part of a global plan for economic development and transformation of the region of Cabo Delgado and of Mozambique. It involves many stakeholders, including intergovernmental development agencies. Land acquisitions and the implementation of relocation and livelihood restoration programs for the Afungi peninsula's population are required.

VPSHR

In July 2020, a Memorandum of Understanding (MoU) was signed with the Mozambique government providing for the deployment of government security forces, the Joint Task Force, to ensure the security of personnel and facilities, as well as neighboring communities. The MoU includes observance of the VPSHR (Voluntary Principles on Security and Human Rights), a series of voluntary international standards intended to limit the risks to human rights in connection with security. These standards are implemented jointly with the authorities, private companies and local communities.

In 2020, the position of community-based security advisor was created to ensure observance of the VPSHR and IFC performance standard 4, which sets out requirements in terms of health, safety and security of communities. This involves, on the basis of a community-based security plan, regular dialogue between security forces, local communities and the Subsidiary on security and human rights issues, the management of grievances relating to security and also the implementation of training on the VPSHR. In December 2020, 22 VPSHR training sessions were organized with the support of an external consultant, benefiting 539 people from the Joint Task Force and 42 people from private security forces deployed on the site. In December 2020, two "Train the trainers" sessions were organized for 22 Military Liaison Officers and 12 commanders from the Joint Task Force, thereby ensuring the ongoing training of the Joint Task Force on site. Two awareness-raising sessions about observing the Code of Conduct and human rights were also organized internally for managers and employees.

Impact assessments

The societal and environmental impact assessment began in 2011 and was approved by the government of Mozambique in 2014, since then it has been periodically updated.

A first human rights impact assessment was carried out in 2015.

Following the acquisition by TOTAL of Anadarko's share in the Mozambique LNG project, a new human rights due diligence assessment was initiated by a team of external experts in 2019 and finalized in late 2020. The aim of this assessment was to identify and prioritize the risk of potential risks of impacts to the human rights of people affected by the project and to support the project team in developing a framework for ongoing human rights due diligence.

Societal and stakeholder engagement team

The local societal team is made up of more than 100 persons, engaged in the different neighboring communities, including a CLO network which has an excellent local relationship with residents. In 2020, TOTAL decided to strengthen the teams in charge of human rights with the creation of a position of human rights coordinator. The grievance mechanism in place is accessible and used by local communities.

In 2020, an innovative new mobile app (SIMBA – Societal Impact Management and Baseline Assessment) for the ongoing recording and tracking of the opinions, concerns and expectations of stakeholders was developed, with an initial rollout in Mozambique. The app helps to identify and understand the local context and facilitates ongoing analysis of this context.

(1) TOTAL, operator, holds a share of 26.5% in the Mozambique LNG project, and partners with ENH Rovuma Area Um. S.A. (15%), Mitsui E&P Mozambique Area1 Ltd. (20%), ONGC Videsh Ltd. (10%), Beas Rovuma Energy Mozambique Limited (10%), BPRL Ventures Mozambique B.V. (10%), and PTTEP Mozambique Area 1 Limited (8.5%).

Subsidiary self-assessment

In addition to Subsidiary and industrial project assessments, two types of **subsidiary self-assessment** are used.

VPHSR self-assessment and risk analysis tools are deployed annually, in particular in the Subsidiaries located in countries identified as being at higher risk. In 2020, those tools have been deployed at Subsidiaries in 38 countries with a response rate of 89%.

In the field of **societal governance**, a self-assessment questionnaire is used to measure the extent of deployment of societal governance in the field. These questionnaires are analyzed by the HSE division in order to adapt the support it provides to Subsidiaries (offers of training, assistance). In 2020, more than 99% of the Subsidiaries within the One MAESTRO perimeter had used the questionnaire.

Actions to mitigate risks and prevent impacts

TOTAL has numerous tools to **raise employee awareness** of issues related to human rights. The Group has held **training courses tailored to the challenges faced in the field** by employees who are particularly exposed to these issues.

In 2020, as part of the implementation of the Human Rights training plan two pilot training sessions were organized (remotely due to the COVID-19 pandemic): the first with the Management Committee and community engagement teams at the Subsidiary in Uganda, and the second with the management team for the EACOP project in Tanzania. Other specific training programs designed for issues encountered on the ground were held throughout 2020, in particular:

For all employees:
- An e-learning module on human rights in the workplace with a focus on respecting the ILO's core conventions has been accessible to all Group employees since 2019 in all countries in which the Group operates. It is available in five languages. More than 20,000 of the Group's management-level employees have taken this module to date;
- An initial session to raise awareness about management of religious issues in the workplace organized in partnership with Convivencia Conseil, a consulting organization specializing in religious issues, was attended by around 50 employees online as part of a cycle of conferences on non-discrimination introduced within the Group.

For target groups:
- Annual training in ethics and human rights for newly appointed senior executives (20 participants in 2020);
- A session to raise awareness about crisis communications and management in relation to human rights, organized in partnership with the NGO SHIFT, with 13 participants—(senior executives and others) representing functions that are regularly involved in managing crises at headquarters (Communications, Public Affairs, Legal and Civil Society Engagement);
- A training session provided by Vérité for Trading and Saft Groupe purchasing teams on human rights risks and reasonable diligence in the raw materials supply chains;
- In the context of the Mozambique LNG project, a campaign to raise awareness about respecting human rights and the Code of Conduct was rolled out at the Afungi site in Cabo Delgado, Mozambique, during the Business Ethics Day on December 10, held on International Human Rights Day. Two sessions in Portuguese and English were held for all employees at the site and for those present in the offices of the Subsidiary in Maputo.

In addition to the societal module included into the HSE for Managers training program, remote training modules have been developed for personnel of Subsidiaries in charge of societal issues. In 2020, a digital platform named Societal Academy was created to make the necessary educational resources accessible to Subsidiaries, such as rules, guides, training materials, feedback and best practices. Webinars attended by more than 200 participants were held in October 2020 for the launch of the societal reporting campaign.

In certain situations, intervention by government security forces or private security providers is necessary to protect Subsidiary staff and assets. In order to prevent the risk of misuse of force, TOTAL regularly holds training sessions and awareness-raising activities for its employees on the risk of misuse of force and, more specifically, on the VPSHR, for example the training sessions conducted end of 2020 in the context of the Mozambique LNG project.

Specific work to raise awareness about the VPSHR and their deployment within entities considered most at risk (e.g. service stations with armed security guards) was also carried out in 2020 within the Marketing & Services segment.

The Group's Security division also organized three online training sessions on the updated version of VPSHR tools. This training was provided to 55 Country Security Officers, who support Country Chairs in their role of being responsible for security at country level and who are the correspondents of the Group Security division in charge, among other things, of implementing the VPSHR.

Whistle-blowing mechanisms

TOTAL has set up several levels of whistle-blowing mechanisms that cover the entire Group, or are specific to certain projects.

In 2020, the **Ethics Committee** handled almost 135 referrals (internal, external, anonymous) in relation to compliance with the Code of Conduct. Almost 50% of these reports were about questions related to human resources. Approximately half of the cases resulted in corrective measures. Irrespective of whether the referral is well founded, mediation may be necessary. When the Ethics Committee observes a breach of the Code of Conduct, management draws the necessary conclusions and sanctions may be imposed in keeping with the applicable law and the procedures negotiated locally with staff representatives (examples include verbal reminders, written warnings, suspension or dismissal).

In December 2020, the Ethics Committee published the "Collection and processing of ethical complaints" procedure internally and on the total.com website. This procedure formally sets out the existing approach for collecting and processing complaints sent to the Ethics Committee by internal or external stakeholders concerning behaviors or situations that violate the Code of Conduct. It ensures that the identity of the person making the report is protected, rules out any reprisals against them or against those taking part in the processing of the complaint, and respects applicable laws and regulations in terms of protecting personal data.

The Subsidiaries have also developed **mechanisms to manage grievances raised by external stakeholders**. Deployment is being rolled out throughout the Group. An internal guide was published in 2020 detailing the methodology to design and effectively manage grievance mechanism process. This guide contains practical tools drawing on international recommendations (International Petroleum Industry Environmental Conservation Association (IPIECA), International Council on Mining and Metals (ICMM), International Finance Corporation (IFC)).

In 2020, in order to make progress in this area, an Exploration & Production working group made up of societal experts from head office and Subsidiaries identified best practices. A total of 13 entities received help in developing their grievance handling procedure, bringing the percentage of Exploration & Production operating entities with a mechanism of this kind to 100% at year-end 2020.

At Refining & Chemicals, local residents are involved in searching for solutions to control the impacts of activities.

In Marketing & Services, operating Subsidiaries have been made aware of the grievance handling process, as distinct from business grievances, and given help with setting it up.

At year-end 2020, 99% of entities in the Exploration & Production, Refining & Chemicals and Marketing & Services segments of the One MAESTRO scope which had an operational activity in 2020, had implemented or improved their grievance management system.

Grievances received by Subsidiaries in connection with the societal impact of their activities correspond to the following: access to land and habitat, economic losses/loss of livelihood, dangers for the environment and health, employment and value chain, road safety/ logistics and transportation, adverse impact on culture and heritage, security and social conduct. Other grievances concern the quality of local dialogue and management of economic development projects.

Incidents related to the implementation of the VPSHR are quickly reported to the Security division, and a report is compiled after internal analysis to assess the facts and to determine the measures to be taken to reduce the risk of future incidents.

Monitoring procedures

At regular intervals, **a human rights roadmap** is presented to the Executive Committee to support the ongoing efforts to implement the Code of Conduct and respect human rights. The 2019-2020 roadmap was presented to the Executive Committee in April 2019. The roadmap for 2021-2022 will be built with the various business segments and Group entities concerned and approved by the Executive Committee. The Human Rights Steering Committee monitors the implementation of this roadmap.

For each specialty or business segment, the roadmap addresses questions of governance (for example, an internal procedure to be updated), new trainings to be developed, the prioritization of salient issues in a given specialty or segment, dialogue with stakeholders (for example, by appointing and training CLOs), risk assessment (for example, in the impact assessments of new projects), preventive and remediation actions, monitoring and communication. The Human Rights Department and the Ethics Committee rely on a network of more than one hundred Ethics officers across the countries in which TOTAL operates in charge of promoting the values set out in the Code of Conduct among employees working in Subsidiaries and ensuring that the Group's commitments are correctly implemented at the local level.

Regarding the **VPSHR**, TOTAL takes part in **follow-up meetings** with the other members of the initiative as part of the process of continual improvement. In February 2020, TOTAL published its 2019 VPSHR report, which contains information on the implementation of VPSHR in Subsidiaries worldwide, and reviews progress made. This report is available at sustainable-performance.total.com[1]. The information set out in the report is based on annual reporting organized by the Security division that brings together the results of a VPSHR questionnaire, and of the risk and compliance analyses for each Subsidiary operating in a sensitive context. It contains examples of action taken to raise awareness and process incidents. The 2020 VPSHR report will be published in 2021.

3.6.8.2 Health and safety

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in 3.6.8.5 of this chapter.

Subsidiary assessments

In addition to HSE self-assessments by Subsidiaries at least once every two years, the Group also audits sites operated by Subsidiaries at least once every five years. Based on an analysis of repeated findings, auditors pay specific attention to global risk management, how risks are taken into account in operations, and the involvement of management.

In 2020, 73 HSE audits were carried out, down relative to 113 audits in 2019 due to the COVID-19 pandemic.

Actions to mitigate risks and prevent impacts

In terms of HSE, **training intended for various target groups** (new arrivals, managers, senior executives and directors) is provided in order to establish a broad-based, consistent body of knowledge that is shared by all:

– *Safety Pass*: these safety induction courses were started on January 1st, 2018, for new arrivals within the Group. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to specific activities on site as well as those linked to the workplace. The theoretical content is supplemented by practical first-aid training sessions;
– *HSE for Managers* is aimed at current or future operational or functional managers within one of the Group's entities. This training program was revised in 2020. Four sessions were held in 2020 under the new format to train around 100 managers;
– *Safety Leadership for Executives* is intended for the Group's senior executives. Its objective is to give senior executives the tools to communicate and develop a safety culture within their organization. Two sessions were held in 2020 to train around 40 of the Group's senior executives, representing around 15% of their total number. These sessions also included input from contractors' senior executives to facilitate the sharing of best practices and encourage the convergence of viewpoints on the most important aspects of safety culture.

In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of Subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. More than 120 evaluations were carried out in 2020.

World Safety Day is held each year by the HSE division. The theme in 2020 was "Our lives matter: Joint safety inspections with contractors". TOTAL encourages and promotes its Subsidiaries' initiatives concerning safety. Each year, a safety contest is held and a prize is awarded to the best HSE initiative by a Subsidiary.

As regards crisis management, the intervention teams at Subsidiaries and head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may take dedicated training depending on their specific functions. In 2020, against the backdrop of the COVID-19 pandemic and working from home as a result of this situation, the Group confirmed its resilience by testing out procedures and methodologies by means of remote crisis management exercises. In addition, despite the health situation, training for internal crisis management officers was maintained and provided remotely. In 2020, 187 individuals took crisis management training at Subsidiaries and at head office.

TOTAL also continued to roll out its Incident Management System (IMS) at Subsidiaries operating hydrocarbon or gas exploration and production sites within the Exploration & Production and Integrated Gas, Renewables & Power segments. The IMS is a harmonized system for the management of emergency situations. It is described in an IPIECA good practices guide and is being gradually adopted by the majors. At year-end 2020, 385 people had been trained in or familiarized with the IMS.

(1) The information provided on this website does not form part of the Universal Registration Document.

Return on experience (feedback) on HSE incidents is regularly collected. A return on experience document describes the HSE incident or the corresponding accident, includes an analysis and recommendations applicable to similar situations. 106 documents (feedback, best practices, alerts) were disseminated within the Group in 2020.

Monitoring procedures

In terms of preventing the risk of major accidents, the Group reports the number of Tier 1 and Tier 2 loss of containment as defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP). The Group set itself the target of having fewer than 70 Tier 1 and Tier 2 events in 2020. The target was not achieved in 2020. The number of Tier 1 and Tier 2 events was higher than in 2019 but considerably lower than in 2018. In addition to the 84 Tier 1 and Tier 2 operational events indicated in the table below, the Group recorded five Tier 1 or Tier 2 events due to sabotage or theft in 2020.

Loss of primary containment[a]	2020	2019	2018
Loss of primary containment (Tier 1)	30	26	30
Loss of primary containment (Tier 2)	54	47	73
Loss of primary containment (Tier 1 and Tier 2)	84	73	103

(a) Tier 1 and Tier 2: indicator of the number of losses of primary containment with more or less significant consequences (fires, explosions, injuries, etc.), as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

The Group did not have any major industrial accidents in 2020. Tier 1 and 2 events had only moderate consequences such as lost time injuries, fires or pollution of limited extent or with no impact.

In the area of road transportation, to measure the results of its policy, Total has, for many years, been monitoring the number of severe road accidents involving its employees and those of contractors. The 40% reduction in the number of serious injuries between 2016 and 2020 is a testament to the efforts that have been made. In 2020, the number of serious road accidents involving light vehicles decreased significantly relative to 2019.

The projects launched in 2018 on the use of new technologies for the prevention of road accidents were continued in 2019 and 2020. In Marketing & Services, a new action plan has been introduced covering the fields of driver behavior, vehicles and preparation for emergency situations. In particular, the decision was taken to fit more than 2,500 vehicles with fatigue detection systems following conclusive tests performed over a period of several months. The roll-out of these systems is now nearing completion. In addition, the second part of the SafeDriver video campaign, which began in 2019, is expected to continue until 2022. The subjects chosen for 2019 and 2020 were blind spots, driver tiredness and driving in difficult situations, as well as distractions when driving.

Number of severe road accidents[a]	2020	2019	2018
Light vehicles and public transport[b]	0	9	7
Heavy goods vehicles[b]	27	24	23

(a) Overturned vehicle or other accident resulting in the injury of a crew member (declared incident).
(b) Vehicles on long-term contract with the Group (> 6 months).

In the area of safety, in particular in the workplace, the indicators monitored by the Group include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TOTAL has set itself the target of continuously reducing the TRIR indicator and, for 2020, of keeping it below 0.80 for all personnel of the Group and its contractors.

Safety indicators	2020	2019	2018
Millions of hours worked – All Personnel	389	467	456
Number of occupational fatalities – All Personnel	1	4	4
Number of occupational fatalities per hundred million hours worked – All Personnel	0.26	0.86	0.88
TRIR[a]: number of recorded injuries per million hours worked – All Personnel	0.74	0.81	0.91
Group employees	0.63	0.74	0.82
Contractors' employees[b]	0.87	0.87	1.01
LTIR[c]: number of lost time injuries per million hours worked – All Personnel	0.48	0.48	0.59
SIR[d]: average number of days lost per lost time injury – All Personnel	33	34	26
Number of severe lost time injuries (excluding deaths)[e] – All Personnel	11	19	11

(a) TRIR: Total Recordable Injury Rate.
(b) As defined in point 5.11.4 of chapter 5.
(c) LTIR: Lost Time Injury Rate.
(d) SIR: Severity Injury Rate.
(e) Number of injuries resulting in permanent disability or lost time of more than six months.

In 2020, of the 289 lost time injuries reported, 280 relate to accidents at the workplace. 78% of these occurred, in decreasing order of the number accidents, when walking, handling loads or objects, using portable tools or working with powered systems or lifting systems.

The Group's efforts on safety over a period of more than ten years have allowed it to reduce the TRIR by 70% between 2010 and 2020. This improvement is due to constant efforts in the field of safety and, in particular:

- the implementation of the HSE frameworks, which are regularly updated and audited;
- the prevention of specific risks such as handling loads (ergonomics), road transport, foot traffic;
- training and general familiarization with safety issues for all levels of management (World Safety Day, special training for managers);
- HSE communication efforts targeting all Group personnel;
- the introduction of HSE objectives into the compensation policy for Group employees (refer to point 5.3.1.2 in chapter 5).

Despite the measures taken, a contractor employee sadly lost his life during a disassembly operation on a drilling rig in the Gulf of Mexico in the United States in 2020.

In the area of occupational health, TOTAL has put in place the following indicators:

Health indicators (WHRS scope)	2020	2019	2018
Percentage of employees with specific occupational risks benefiting from regular medical monitoring	97%	98%	98%[(a)]
Number of occupational illnesses recorded in the year (in accordance with local regulations)	136	128	154

(a) As an exception to the reporting principles described in point 5.11 (chapter 5), the 2018 rate does not include a company that did not report its data in time for the 2018 WHRS.

3.6.8.3 Environment

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in 3.6.8.5 of this chapter.

Subsidiary assessments

HSE audits, which include the environment, are described in point 3.6.8.2 of this chapter.

The One MAESTRO reference framework states that the environmental management systems of the sites operated by the Group that are important for the environment[(1)] must be ISO 14001 certified within two years of start-up of operations or acquisition: 97% of these 79 sites were compliant in 2020. The sites not yet certified within this two-year period are the Lapa site in Brazil which should be certified in 2021, and the Kaombo Norte site in Angola, whose certification audit has been postponed until 2021 because of the COVID-19 pandemic. In addition to this requirement, at the end of 2020, a total of 266 sites operated by the Group were ISO 14001 certified. In 2020, 12 sites received ISO 14001 certification.

Actions to mitigate risks and prevent impacts and monitoring procedures

In terms of preventing the risk of accidental pollution, TOTAL monitors indicators that allow it to assess the preparedness of operated sites for oil spills.

Oil spill preparedness	2020	2019	2018
Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water[(a)]	119	128	126
Proportion of those sites with an operational oil spill contingency plan	100%	100%	99%
Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities	88%	85%[(b)]	86%

(a) The variation in the number of sites is due to changes in scope.
(b) The 2019 value was revised in order to account only for impediments following a decision by the authorities.

In accordance with industry best practices, TOTAL monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed on a monthly basis and annual statistics are sent to the Group Performance Management Committee. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible.

Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage	2020	2019	2018
Number of spills	50	57	74
Total volume of spills *(thousands of m^3)*	1.0	1.2	0.3

As part of TOTAL's policy of avoiding, reducing, managing and monitoring the environmental footprint of its operations, discharges of substances are identified and quantified by environment type (water, air and soil) so that appropriate measures can be taken to better control them.

In 2010, SO_2 emissions reached 99 kt. The Group set itself the target of not exceeding 49.5 kt by 2020; it has met this target since 2017.

Chronic emissions into the atmosphere	2020	2019	2018
SO_2 emissions *(kt)*	34	39	48
NO_x emissions *(kt)*	64	72	66
NMVOC[(a)] emissions *(kt)*	69	83	81

(a) Non-methane volatile organic compounds.

SO_2 emissions that are likely to cause acid rain are regularly checked and reduced. The decrease in these emissions in 2020 is mainly due to a decrease in activity at refining units relating to shutdowns and the COVID-19 pandemic.

NO_x emissions mainly concern hydrocarbon exploration and production activities and are primarily located offshore and far away from the coast and their impact on air quality is therefore considered to be minor.

Discharged water quality	2020	2019	2018
Hydrocarbon content of offshore water discharges *(in mg/l)*	12.8	13.0	14.1
% of sites that meet the target for the quality of offshore discharges *(30 mg/l)*	100%[(a)]	100%[(a)]	96%[(a)]
Hydrocarbon content of onshore water discharges *(in mg/l)*	1.9	1.7	1.8
% of sites that meet the target for the quality of onshore discharges *(15 mg/l)*	100%	100%	100%

(a) Alwynn and Gryphon sites (United Kingdom) excluded, as their produced water discharges only occur during the maintenance periods of the water reinjection system and are subject to a specific regulatory declaration.

As part of the roll out of the new Biodiversity Ambition 2020-2025, an overview of measures already taken under the four main areas of this new Ambition is provided in point 5.5.4 of chapter 5.

(1) Production subsidiaries of the Exploration & Production segment, sites producing more than 250,000 tons per year in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas Renewables and Power segment.

3.6.8.4 Climate

Scope of report

This part of the implementation report relates to greenhouse gas emissions resulting from the Company's Activities (Scope 1 & 2), in accordance with the provisions of Article L. 225-102-4 of the French Commercial Code. TOTAL also reports on indirect greenhouse gas emissions related to the use by customers of energy products sold (Scope 3) and related actions, in accordance with Article L. 225-102-1 of the French Commercial Code, in its non-financial performance report (refer to point 5.6 of chapter 5).

Governance

In order to make an effective contribution to the climate change issue, TOTAL relies on an organization and structured governance.

In support of the Group's governance bodies, the Strategy and Climate division shapes the Group's approach to climate change while working with the strategic and operational divisions of the Group's business segments. By defining and monitoring indicators, progress can be measured and the Group's actions can be adjusted.

Oversight by the Board of Directors

TOTAL's Board of Directors endeavors to promote value creation by the Company in the long term by taking into consideration the social and environmental challenges of its business activities. It determines the Group's strategic objectives and regularly reviews – in connection with these strategic objectives – opportunities and risks such as financial, legal, operating, social and environmental risks, as well as the measures taken as a result. It therefore ensures that climate-related issues are incorporated into the Group's strategy and in the investment projects which are submitted to it. It examines climate change risks and opportunities during the annual strategic outlook review of the Group's business segments. It reviews the Group's performance each year.

At its meeting on May 4, 2020, the Board of Directors approved the Group's new Climate ambition to get to net zero carbon emissions by 2050 together with society, and determined the relevant steps and targets for reducing the Group's greenhouse gas emissions (GHG).

To carry out its work, the Board of Directors relies on its Strategy & CSR Committee, whose rules of procedure were changed in September 2017, and again in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Group's strategy. In this regard, the Strategy & CSR Committee met on October 28 and October 29, 2020, to review current climate issues as well as their consequences for the Company's strategy. On this occasion, the Board of Directors engaged in a dialogue with Mrs. Christiana Figueres, the executive secretary of the United Nations Framework Convention on Climate Change (UNFCCC) between 2010 and 2016 and co-founder of the Global Optimism organization.

Furthermore, the Board of Directors decided in 2019 to change the criteria for the determination of the variable portion of the Chairman and Chief Executive Officer's compensation, primarily by applying a quantifiable criterion related to the evolution of GHG emissions (Scopes 1 & 2) on operated oil & gas facilities (refer to point 4.3.2 of chapter 4). This criterion adds to those introduced in 2016 to take better account of the achievements of Corporate Social Responsibility (CSR) and the HSE targets of the Group. CSR performance is assessed by considering the extent to which climate issues are included in the Group's strategy, the Group's reputation in the domain of CSR as well as the policy concerning all aspects of diversity. Variable compensation paid to the Group's senior executives (around 300 people at year-end 2020) includes a criterion relating to the target of reducing greenhouse gas emissions (Scopes 1 & 2) and, since 2020, this target has also been included in the criteria for awarding performance shares to all employees of the Group.

Role of management

TOTAL's Chairman and Chief Executive Officer, in compliance with the long-term strategic direction set by the Board of Directors, implements the strategy of the Group while making sure climate change challenges are taken into account. In particular, he relies on the President, Group Strategy-Innovation, who is a member of the Executive Committee, to whom the Senior Vice President Strategy & Climate, and his Senior Vice President Climate report. The Vice President Climate chairs the Climate-Energy Steering Committee, which mainly includes representatives of Strategy and HSE management from the various business segments. The mission of this Committee consists of structuring the Group's approach to the climate, and in particular to:

- propose targets for reducing greenhouse gas emissions for the Group's operations;
- propose a strategy to reduce the carbon intensity of the energy products used by the Group's customers;
- monitor existing or emerging CO_2 markets; and
- drive new-technology initiatives, in particular with industrial partners, to reduce CO_2 emissions (energy efficiency, CO_2 capture and storage, for example).

Strategy

The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, therefore, TOTAL has factored this development into its strategy and set itself the ambition of being carbon neutral (net zero emissions) by 2050, together with society.

TOTAL actively supports policies favoring carbon neutrality, including carbon pricing, and mobilizes its resources not only to achieve its own ambitions but also to support countries and its customers in achieving carbon neutrality as well. TOTAL is committed to working alongside its customers to provide for the decarbonization of energy consumption offering its customers an energy mix with an increasingly lower carbon intensity.

To accompany this development and achieve its carbon neutrality ambition (net zero emission) in 2050 or sooner, TOTAL acts based on three main axes and commits to targets by 2030 for each of these axes (refer to point 5.6 of chapter 5), including a carbon neutral target (net zero emissions) across TOTAL's worldwide operating activities by 2050 or sooner (Scopes 1 & 2).

To structure its approach, the Group is focusing on four levers, including: acting on emissions, acting on products and developing carbon sinks.

Acting on emissions

Cutting GHG emissions generated by TOTAL's operations (Scopes 1 & 2) is the first step towards carbon neutrality (net zero emissions). TOTAL has set an interim target of reducing Scope 1 and 2 emissions from its operated Oil & Gas facilities from 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e by 2025 (15% reduction). For 2030, the target is to reduce by at least 40% the net emissions[(1)] (Scopes 1 & 2) for its operated oil and gas activities compared to 2015. TOTAL is aiming to reduce its direct emissions by improving energy efficiency, eliminating routine flaring, electrifying its processes and continuing efforts to reduce methane emissions from oil and gas production. In 2019, a dedicated task force of different skills in the Group was set up to help the business segments reduce GHG emissions. More than 500 initiatives for acting on these emissions were identified in 2020.

(1) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.

Improving the energy efficiency of the facilities is an essential part of this effort. Since 2013, TOTAL has used a Group Energy Efficiency Index (GEEI) to assess its performance in this area. It consists of a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business. The Group's target is to improve the energy efficiency of its operated facilities by an average of 1% per year while operating conditions become more complex. The Group's energy efficiency improved by 10% between 2010 and 2020. The Refining & Chemicals segment, which accounts for 66% of the Group's energy consumption, has a dedicated investment of $450 billion to this between 2018 and 2025.

TOTAL also uses appropriate architectures and equipment and introduces technological innovations. For example, at the Gonfreville-l'Orcher complex in France, TOTAL has equipped its steam cracking furnaces with 170 wireless sensors to optimize their operation and has installed 30 temperature sensors on buildings to track the efficiency of the air conditioning system. At year-end of 2020, 50% of sites using more than 50,000 toe/y[(1)] (around 30 sites) had adopted an auditable energy management system, such as ISO 50001 on energy management[(2)].

Reducing routine flaring has been a long-standing Group target, and new projects are designed without it. TOTAL is committed to ending routine flaring at its operated facilities by 2030. Since 2010, routing flaring has been reduced by more than 90%.

To preserve the advantage of gas over coal in terms of GHG emissions from electricity generation, it is necessary to strictly reduce the methane emissions associated with the production and transportation of gas. The Group has cut its methane emissions by nearly 50% since 2010. In 2020, methane emissions in relation to Hydrocarbons Upstream activities were at 0.15% of commercial gas produced for oil and gas facilities operated by the Group[(3)] and less than 0.1% for gas facilities. The Group's target is to maintain this intensity below 0.2% and 0.1%.

TOTAL has been a member since 2014 of the United Nations Environment Program's Oil & Gas Methane Partnership (OGMP) between governments, industrial companies, non-government organization Environmental Defense Fund and the European Commission, for the improvement of tools to measure and control methane emissions. In 2020, TOTAL signed up to a new phase of this partnership defining a more ambitious reporting framework extended to the entire gas value chain and non-operated scope. TOTAL also took several actions as part of the Oil & Gas Climate Initiative and signed the guiding principles on the reduction of methane emissions on the gas value chain[(4)].

Acting on products

The Group intends to gradually reduce the average carbon footprint of its energy product mix and, to do this, change this mix to ensure that gas and renewable energies figure more prominently.

Natural gas, biogas and hydrogen: allies of the energy transition

To respond responsibly to the strong rise in demand for electricity, TOTAL is continuing its growth in the gas sector, which produces half the CO_2 emissions of coal for power generation[(5)]. Gas is also a supplement that is essential to cope with the intermittent supply of renewables and seasonal fluctuations in demand.

The Group has continued its efforts to grow along the entire gas chain, from production to the end customer, particularly in LNG. TOTAL acquired Engie's LNG assets in 2018 and those of Anadarko in Mozambique in 2019, and has launched some major LNG projects, such as Ichthys in Australia (2018) and Cameron in the United States (2019). In addition, the Group has proceeded with or benefited from the launch of major developments, like the Arctic LNG 2 project (in Russia) in 2019 and the Energía Costa Azul LNG export project (in Mexico) in 2020 (refer to point 2.3 of chapter 2). TOTAL is the LNG world's second-ranking[(6)] player with a volume sold of more than 38 Mt in 2020, and it aims to increase its sales to 50 Mt per year by 2025.

In 2018, the Group also entered a partnership with the Adani group, India's largest private conglomerate in energy and gas infrastructures, in order to contribute to the development of the natural gas market. This agreement notably concerns the development of the Dhamra LNG regasification terminal in east India. This partnership, which was extended since then, illustrates the Group's intention to help countries that produce the greatest part of their electricity from coal to diversify their energy mix.

The growth of natural gas is expected to see a steady increase in the proportion of green gas in the existing infrastructure network, such as biogas and hydrogen, to reduce greenhouse gas emissions from the gas value chain. To step up the development of its operations, TOTAL created a Biogas business unit and a Hydrogen business unit in 2020. The Group's target is to produce 4 to 6 TWh of biomethane per year between now and 2030 and supply 10% of the energy requirement of its gas power plants in Europe by 2030. In January 2021, TOTAL announced the acquisition of Fonroche Biogaz, French market leader in biogas production. Fonroche Biogaz designs, builds and operates methanation units in France and owns an installed gross production capacity of nearly 500 GWh of biogas. In December 2020, TOTAL signed a Memorandum of Understanding with Clean Energy Fuels Corp. to establish a $100 million 50/50 joint venture to develop renewable gas production projects in the United States.

TOTAL also has an ambition to become a hydrogen producer and distributor. In January 2021, the Group and Engie signed a cooperation agreement to design, build and operate the Masshylia project, the biggest renewable hydrogen production site in France, located in the heart of TOTAL's La Mède biorefinery.

The 40 MW electrolyzer powered by solar farms is expected to produce 5 tons of green hydrogen a day, meeting the needs of the La Mède biorefinery's biofuels production process, and preventing 15,000 tons of CO_2 emissions a year. The Group is continuing to roll out hydrogen stations under the H2 Mobility Germany joint venture, with 90 stations in 2020.

Electricity: building a world leader

TOTAL is continuing its integrated expansion across the electricity value chain, from power generation – from renewables or natural gas – to storage and sale to end-customers. Since 2015, TOTAL has allocated more than 10% of its investment to renewables and electricity[(7)] representing $1.5 billion per year, and it plans to increase this to more

(1) Combined-cycle natural gas power plants are power generation facilities whose gas consumption is optimized for maximum efficiency. These installations benefit from efficient energy management and do not require the implementation of a specific energy management system.
(2) The ISO 50001 standard accompanies the implementation in companies of an energy management system that allows a better use of energy.
(3) Refer to the OGCI methodology for methane intensity calculation.
(4) Guiding principles on Reducing Methane Emissions across the Natural Gas Value Chain.
(5) Sources : International Reference Center for the Life Cycle of Products, Processes and Services; Life cycle assessment of greenhouse gas emissions associated with natural gas and coal in different geographical contexts, October 2016, and "Review of Life Cycle Analysis of gas and coral supply and power generation from GHG and Air Quality Perspective" Imperial College London, 2017.
(6) Second largest private firm. Source: WoodMackenzie: TOTAL LNG Corporate Report 2020 published in November 2020.
(7) Including gas for power generation.

than 20% a year between 2021 and 2025. In 2018, the Group made strategic acquisitions, including Direct Énergie and its subsidiary Quadran, respectively renamed Total Direct Énergie and Total Quadran, thereby stepping up its presence in renewables (wind, solar, hydropower and biogas). In 2020, TOTAL acquired EDP's residential power operations in Spain and created a solar power distribution joint venture with the Adani Green Energy Limited (AGEL) in India. In January 2021, TOTAL announced the acquisition of a 20% stake in AGEL, thereby strengthening TOTAL's strategic alliance with the Adani group in the Indian market and the Group's positioning in renewable energies.

The Group confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030. At year-end 2020, gross production installed capacity of renewable electricity totaled 7 GW, compared with 3 GW at year-end 2019 and less than 1 GW at year-end 2017. This growth is the result of accelerated projects in 2020, with more than 5 GW of wind power projects in France, the United Kingdom and South Korea, more than 2 GW of solar power assets in operation in India, more than 5 GW of solar power projects in Spain and a giant 0.8 GW solar farm in Qatar. In addition, the Group aims to be carbon neutral (net zero emissions) in all electricity purchasing for operated facilities in Europe by 2025. The electricity needs of these sites are covered by renewable electricity produced by TOTAL.

In 2020, the Group acquired two combined cycle natural gas power plants in Spain representing total capacity of 0.85 GW, and currently has natural gas electricity generation capacity of 3.6 GW. Refer to point 2.1 of chapter 2 for further information on these acquisitions.

TOTAL is aiming for net electricity production of 50 TWh from natural gas and renewables by 2025. As an electricity supplier, the Group served 5.6 million customers in 2020 and aims to distribute 80 TWh of electricity to more than 9 million customers by 2025.

Decarbonizing and saving liquid energies

Technological advances and the shift in usage to lower carbon energies may cause demand for oil to stabilize and then decline over the next decade, as illustrated in the International Energy Agency (IEA)'s Sustainable Development Scenario and TOTAL's Rupture scenario. The Group is changing its mix to reflect this trend. Oil products accounted for 66% of sales in 2015, 55% in 2019, and could decline to 35% in 2030. By 2050, this share could shrink to 20%, with a quarter of that from biofuels, helping TOTAL reduce the carbon intensity of the products it sells by 60%.

However, significant investments are still expected to be needed in the years ahead to meet demand for oil, given the natural decline in field output. The Group is focusing on the most resilient oil projects, meaning those with the lowest breakeven point. In order to ensure the viability of its projects and its long-term strategy in the light of climate change challenges, the Group has integrated, into the financial evaluation of its investments presented to the Executive Committee, a long-term oil and gas price scenario consistent with the Paris Agreement targets, using a price trajectory converging with the IEA's SDS scenario[1] and factoring in a long-term CO_2 price of $40 per ton and a sensitivity analysis of $100 per ton of CO_2 as from 2030.

TOTAL is also reducing the average carbon content of its lineup thanks to biofuels. To comply with European Union standards, biofuels must emit less than 50% the CO_2 equivalent generated by equivalent fossil fuels across their lifecycle[2]. For more than twenty years, TOTAL has been a pioneer in biofuels and aims to become a major force in this market, with sales growth of more than 10% a year by 2030. To make that ambition a reality, TOTAL seeks to develop synergies with existing assets, such as its La Mède refinery, which was converted into a biorefinery in 2019. The oils processed at La Mède, which has annual hydrotreated vegetable oil (HVO) production capacity of 0.5 Mt, are certified sustainable[3] according to European Union criteria. TOTAL has also set up a specific organization on top of this certification by selecting a limited number of responsible partners, with a requirement to join the RSPO (Round table on Sustainable Palm Oil[4], the signing by these suppliers of the Group's Fundamental Principles of Purchasing (refer to point 5.10 of chapter 5) and specific, more stringent checks of sustainability and respect for human rights. In September 2020, the Group announced a project to convert the Grandpuits refinery into a zero-crude complex including a biofuel production plant, which is expected to be commissioned in 2024.

In 2020, TOTAL incorporated 2.2 Mt of sustainable biofuels[5] in Europe, of a global volume distributed by the Group of 3 Mt.

For more than ten years, TOTAL's R&D teams have developed technologies that have broadened the range of usable resources, while also meeting the need for sustainability. The BioTFuel consortium, for example, is working on the development of lignocellulose (plant waste).

Developing carbon sinks

The preservation and restoration of natural carbon sinks (forests, wetlands, etc.) and carbon capture and storage (CCS) will be key for the planet to achieving carbon neutrality (net zero emissions).

TOTAL has launched a new activity based on preserving and restoring the capacity of ecosystems to act as carbon sinks. This activity is owned by a business unit created in 2019 and dedicated to investments in natural carbon sinks, composed of experts in the environment, forestry and agronomy, with an annual investment budget of $100 million from 2020 onwards, and the goal of creating a sustainable capacity of sequestration of at least 5 Mt CO_2e per year by 2030.

Several agroforestry projects in Australia, South America and Africa are soon to be launched or are in the process of being negotiated with partners. These projects, located in both tropical and temperate regions, systematically include the value chains for local farm and forest production, in cooperation with local communities, to reduce the causes of deforestation and changing land use at source.

Furthermore, CCS will be essential for several industries, especially those that emit massive amounts of CO_2 due to the nature of their business (cement, steel, refining etc.). TOTAL has earmarked up to 10% of its R&D budget for this. Several projects have represented significant advances including the Northern Lights project in Norway, in which the

(1) IEA, World Energy Outlook 2020.
(2) European Directive RED, Renewable Energy Directive.
(3) The sustainability of the oils processed at the La Mède biorefinery is guaranteed by an ISCC (International Sustainability & Carbon Certification) type certificate of sustainability recognized by the European Union.
(4) International initiative created in 2004 with the aim of promoting the production and use of sustainable palm oil.
(5) Physical volume of biofuels in equivalent ethanol and esters according to the rules defined by the European RED Directive, excluding volumes sold to third parties by Trading.

Group is involved alongside Equinor and Shell and the final investment decision for which was made in 2020. This project, for which initial investment of the partners totaled more than €600 million, is expected to have a global storage capacity of up to 1.5 Mt CO_2 per year.

TOTAL stepped up its R&D program in 2019 by entering partnerships with the National Carbon Capture Center in the United States and IFPEN in France. The Group has also launched a development study for a major pilot industrial scale project in Dunkerque, a project to produce methanol from CO_2 and hydrogen in Germany with the start-up Sunfire, and a feasibility study of an industrial system to capture and reuse the CO_2 produced by the LafargeHolcim cement works in the United States[1].

Sector initiatives and international framework

TOTAL is committed to various sector initiatives on the main challenges raised by climate change. Indeed, tackling climate change requires cooperation between all actors, from both public and private sectors.

In terms of carbon pricing, in 2014, TOTAL joined the U.N. Global Compact's Paying for Carbon and Caring for Climate call, which encourages companies to consider a CO_2 price internally and publicly support the importance of such a price via regulation mechanisms suited to the local context. In particular, TOTAL advocates the emergence of a balanced, progressive international agreement that prevents the distortion of competition between industries or regions of the world. Drawing attention to future constraints on GHG emissions is crucial to changing the energy mix. TOTAL is therefore encouraging the setting of a worldwide price for each ton of carbon emitted, while ensuring fair treatment of "sectors exposed to carbon leakage" (as defined by the EU). In addition, TOTAL is working with the World Bank as part of the Carbon Pricing Leadership Coalition (CPLC). In June 2017, TOTAL became a founding member of the Climate Leadership Council, an initiative that calls for the introduction of a "carbon dividend", with a redistribution mechanism to the US population.

In terms of sector initiatives, in 2014, TOTAL was actively involved in launching and developing the Oil & Gas Climate Initiative (OGCI), a global industry partnership. At year-end 2020, this initiative involved 12 major international energy players. Its purpose is to develop solutions for a sustainable low emissions future. Launched in 2017, the OGCI Climate Investments fund, which has access to over $1 billion over ten years, invests in technology that significantly cuts emissions. Examples of investments include a large-scale industrial CO_2 capture and storage project (Net Zero Teesside Project), methane emission detection and measurement services by satellite (GHGSat), by aircraft (Kairos Aerospace) and by drone (SeekOps Inc.) and a technology that incorporates CO_2 as a feedstock in the production of polyols used in polyurethanes, which are plastics that have multiple uses (Econic Technologies).

The Group also plays a role in various international initiatives that involve the private and the public sectors to bring about (non-exhaustive list):
- the end of routine flaring of gas associated with oil production within the World Bank's Zero Routine Flaring by 2030 initiative;
- greater transparency, while taking into account the recommendations of the G20 Financial Stability Board on climate, and of the Task Force on Climate-related Financial Disclosures (TCFD); and
- the development of new state-of-the-art energy companies, since 2017 within the Breakthrough Energy Coalition (BEC), a group of investors created by Bill Gates in 2015, and since 2016 within the Breakthrough Energy Ventures, a $1 billion fund created in 2016 by the BEC.

(1) Svante Inc., LafargeHolcim, Oxy Low Carbon Ventures LLC and TOTAL.
(2) The Joint Program on the Science and Policy of Global Change.

The list of trade associations of which TOTAL is a member and the lobbying Ethics Charter that governs these memberships are published on the total.com website. The Group cooperates with these associations mainly on technical and scientific matters, but certain associations sometimes take public stances on climate change. TOTAL assesses the main trade associations to which it belongs in order to check that they are in line with the Group's stance on the climate. This alignment is reviewed according to six key points: their scientific position, the Paris Agreement, carbon pricing, the role of natural gas, the development of renewables and the development of CCS. Following the reviews in 2019 and 2020, TOTAL decided not to renew its membership of the American Petroleum Institute, the American Fuel & Petrochemical Manufacturers and the Canadian Association of Petroleum Producers.

TOTAL also actively participates in the debate on climate issues, thanks especially to its long-term partnerships with university chairs, such as the Climate Economics Chair at Paris-Dauphine University, the climate change research program of Massachusetts Institute of Technology (MIT)[2], and Toulouse School of Economics. TOTAL also offers training and makes presentations at several universities, thereby taking part in the debate.

Targets and metrics related to climate

TOTAL has set targets and introduced a number of indicators to steer its performance.

The Group's climate targets include among others the following:
- Reduce GHG emissions (Scopes 1 & 2) of its operated oil & gas facilities of 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e by 2025, (a 15% decrease). By 2030, the target is a reduction of at least 40% compared to 2015 of the net emissions[1] for its operated oil & gas activities
- Reduce routine flaring[2] by 80% on operated facilities between 2010 and 2020 in order to eliminate it by 2030
- Improve by an average of 1% per year the energy efficiency of the Group's operated facilities since 2010
- Maintain the intensity of methane emissions for Upstream hydrocarbons activities below 0.2% of commercial gas produced at all operated oil and gas facilities, and below 0.1% of commercial gas produced on operated gas facilities
- Maintain the intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities under 20 kg CO_2e/boe

What has been accomplished:
- A GHG emission reduction (Scopes 1 & 2) of its operated oil & gas facilities from 46 Mt CO_2e to 35.8 Mt CO_2e (39 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020
- More than 90% reduction in routine flaring between 2010 and 2020
- 10% improvement in energy efficiency between 2010 and 2020
- Methane intensity for Upstream hydrocarbons activities of 0.15% of commercial gas produced for operated oil and gas facilities in 2020, and less than 0.1% for operated gas facilities
- An intensity of CO_2e emission from operated facilities for Upstream hydrocarbons activities of 18 kg CO_2e/boe in 2020

(1) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.
(2) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.

Indicators related to climate change[a]

GHG emissions

		2020	2019	2018	2015
SCOPE 1 OPERATED					
Direct GHG emissions at operated sites	Mt CO_2e	**36 (38*)**	**41**	**40**	**42**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	21 (22*)	24	24	22
BREAKDOWN BY SEGMENT					
Upstream hydrocarbons activities[I]	Mt CO_2e	16	18	18	19
Integrated Gas, Renewables & Power, excluding upstream gas operations	Mt CO_2e	3	3	2	–
Refining & Chemicals[II]	Mt CO_2e	17	20	21	22
Marketing & Services[III]	Mt CO_2e	<1	<1	<1	<1
BREAKDOWN BY GHG TYPE					
CO_2	Mt CO_2e	34	39	38	39
CH_4	Mt CO_2e	2	2	2	2
N_2O	Mt CO_2e	<1	<1	<1	<1
SCOPE 2 OPERATED[IV]					
Indirect emissions from energy use at operated sites	Mt CO_2e	**3 (3*)**	**4**	**4**	**4**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	2 (2*)	2	2	2
SCOPES 1 & 2 FROM OPERATED OIL & GAS FACILITIES [(I)+(II)+(III)+(IV)]	Mt CO_2e	**35.8 (39*)**	**41.5**	**42**	**46**

Methane emissions

		2020	2019	2018	2015
Methane emissions from Group operated activities	kt CH_4	64	68	79	94
Intensity of methane emissions from operated oil and gas facilities for Upstream hydrocarbons activities	%	0.15	0.16	0.19	0.23
Intensity of methane emissions from operated gas facilities for Upstream hydrocarbons activities	%	<0.1	<0.1	<0.1	<0.1

Carbon intensity indicators

		2020	2019	2018	2015
Intensity of GHG emissions (Scopes 1 & 2) at operated facilities for Upstream hydrocarbons activities	kg CO_2e/boe	18	19	20	21

Other indicators

		2020	2019	2018	2015
Net primary energy consumption (operated scope)	TWh	147	160	143[b]	153
Group energy efficiency indicator (GEEI)	Base 100 in 2010	90.2[c]	88.0	88.4	90.8
Flared gas (Upstream hydrocarbons activities operated scope) (including safety flaring, routine flaring and non-routine flaring)	Mm^3/d	4.2	5.7	6.5	7.2
Of which routine flaring	Mm^3/d	0.6	0.9	1.7	2.3[d]

* Valuation of these indicators excluding the COVID-19 effect.
(a) Report to point 5.11 of chapter 5 for the scope of reporting.
(b) Excluding primary energy consumption of Direct Énergie gas power plants.
(c) The change in this indicator between 2019 and 2020 can be explained by a lower refinery utilization.
(d) Volumes estimated upon historical data.

3.6.8.5 Suppliers

Supplier assessment

The Supplier qualification process

The IT Supplier qualification tool developed in 2019,gradually rolled out, is designed to automate and document the supplier qualification process. In 2020, the tool was rolled out to five additional Subsidiaries (in Congo, Angola and Nigeria). Overall, around 12,000 Suppliers are now included in this tool.

The Supplier assessment process

Since 2016, the Group conducts audits on working conditions amongst Suppliers. A targeted annual audit plan is defined every year and includes the Suppliers put forward by the Subsidiaries based in countries that have been identified as having a certain level of risk of human rights violations. Approximately 100 audits of at-risk suppliers are conducted each year. In 2020, 79 audits were conducted against in the backdrop context of the COVID-19 pandemic. The Group plans to audit, by 2024, 100% of its strategic suppliers and 100% of its suppliers identified as being at risk as per the risk mapping identification process.

Moreover, in 2018, TOTAL, BP, Equinor and Shell launched an industry-wide initiative to develop a common collaborative platform to assess the upholding of human rights by their suppliers. Now joined by AkerBP and Wintershall, this platform is set to be extended to other interested companies in the industry. The collaboration does not cover supplier selection, which will continue to be the responsibility of each company but aims to encourage improvement in working conditions in their supply chains. The platform became operational in 2020 and the first test audits carried out remotely and on-site have begun.

Finally, pursuant to Rule 13p-1 of the Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, since 2014, TOTAL has filed to the United States Securities and Exchange Commission

(SEC) an annual document relating to "conflict minerals"[1] sourced from the Democratic Republic of Congo or an adjoining country. The document indicates whether, during the preceding calendar year, any such minerals were necessary to the functionality or production of a product manufactured by TOTAL SE or one of its consolidated entities (or contracted to be manufactured). The objective of this regulation is to prevent the direct or indirect funding of armed groups in central Africa. For more information, refer to TOTAL's most recent publication available at: sustainable-performance.total.com or sec.gov.

Specific initiatives are in place for certain activities. For example, in 2020, in addition to its annual campaign to collect data from its Suppliers about conflict minerals, Saft Groupe launched a campaign to encourage suppliers to provide information about their cobalt supplies and compiled a Cobalt Reporting Template (CRT) for Saft's specific activity based on the Reporting Templates model provided by the Responsible Minerals Initiative® (RMI®). This tool enables the transfer of information via the supply chain about foundries/refineries and helps to determine the cobalt's country of origin. As part of a progress-led approach, Saft Groupe is also a member of the Global Battery Alliance (GBA), within the World Economic Forum (WEF), a global platform for establishing and collaborating on a sustainable battery value chain.

In addition, in 2020, the Human Rights department organized training programs focusing on human rights risks in the minerals supply chain for the Refining & Chemicals segment, Trading & Shipping activities and for Saft Groupe in the Integrated Gas, Renewables & Power segment.

Mitigation and preventive actions

In 2020, TOTAL updated its Fundamental Principles of Purchasing that Suppliers are required to comply with. The purpose of this update is to align the principles with the latest version of the Code of Conduct and provide more detail about to the necessity of upholding human rights. It is specified in particular that Suppliers must ensure that their own suppliers and subcontractors respect applicable laws, as well as principles equivalent to those set out in the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labor Organization (ILO), the United Nations Guiding Principles on Business and Human Rights, the United Nations Global Compact, Voluntary Principles on Security and Human Rights and the OECD Guidelines for Multinational Enterprises. Clarification was provided about the details of effective policies and procedures to be implemented by Suppliers, such as : the prohibition and prevention of child labor, prohibition and prevention of forced labor, working conditions, remuneration and compensation; protection of health and safety; prohibition and prevention of any discrimination and harassment in the workplace; freedom of speech, association and collective bargaining, freedom of thought, conscience and religion and grievances.

Buyers training

TOTAL has set up several channels of communication to raise employee awareness of the risks and issues related to its supply chain. Training modules explaining the Group's ethical commitments and the Fundamental Principles of Purchasing have been developed for and made available to Group procurement representatives. After more than 300 buyers were made aware and/or trained in 2019, it is 40 buyers that were made aware and/or trained on respect for human rights and working conditions by Suppliers sites, mainly through webinars supporting the rollout of the annual audit plan. These webinars present the audit approach, major compliance issues and how to monitor action plans.

A set of communication tools intended to help procurement representatives initiate discussions on the Fundamental Principles of Purchasing is also circulated within Total Global Procurement. The materials used in the annual performance review include a section on human rights.

By year-end 2020, 210 buyers from Total Global Procurement and Subsidiaries had attended webinars to develop knowledge of CSR risk mapping tool relating to procurement.

The review of the Responsible Procurement roadmap in 2020, which included workshops with buyers, helped to raise their awareness about these issues.

Awareness and training of suppliers

Awareness-raising actions are carried out during meetings with Suppliers, particularly the Suppliers Day event that brings the Group's strategic Suppliers together every two years. This event provides an opportunity to communicate with participants about the Fundamental Principles of Purchasing.

Progress with other companies

Since 2018, TOTAL has been a member of the United Nations Global Compact platform on Decent Work in Global Supply Chains and, in this capacity, takes part in various workshops that aim to help the member companies of the Global Compact make progress in this area. In December 2018, the Group committed to continuing its efforts in terms of decent work and the respect for human rights in its supply chain by signing the "Six Commitments" of the United Nations Global Compact. In October 2020, TOTAL co-facilitated a webinar for the French-speaking network of the Global Compact to promote a toolbox on decent work for sustainable procurement. The Group's buyers also take part in international working groups on responsible procurement. TOTAL belongs to IPIECA's Supply Chain Working Group. Building on the workshops held since 2015, TOTAL continued to participate in the Operationalization of the U.N. Guiding Principles work organized by the IPIECA, aimed at both oil and gas companies and engineering, procurement and construction (EPC) contractors.

Whistleblowing mechanisms

With respect to the development of good practices in business relations, TOTAL has consistently raised its employees' awareness of mediation as an alternative method for resolving disputes. In January 2020, an open day for employees of the Group, lawyers and operational staff, enabled participants to learn about the benefits of mediation. A brochure designed to increase awareness of the mediation process is available to all Group employees. In addition, an email address (mediation.fournisseurs@total.com) is available on the TOTAL website to allow the Group's suppliers to contact the dedicated internal mediator, who is tasked with facilitating relations between the Group and its French and international suppliers. The general purchasing terms and conditions also mention the possibility of recourse to mediation.

Monitoring procedures

Representatives of the Management Committee of Total Global Procurement, of the Civil Society Engagement, HSE and Legal divisions as well as of the Ethics Committee participated to the Responsible Procurement Steering Committee in 2020.

Following its creation within Total Global Procurement in 2020, the Responsible Procurement department (the duties of which were previously performed by the supplier relations department) has further developed 0the Responsible Procurement roadmap to define the direction to be taken between now and 2030, in particular in terms of protecting human rights, the environment and economic development in the supply chain.

(1) Rule 13p-1 defines "conflict minerals" as follows (irrespective of their geographical origin): columbite-tantalite (coltan), cassiterite, gold, wolframite as well as their derivatives, which are limited to tantalum, tin and tungsten.

4

Report on corporate governance

The information set out in this chapter forms the Board of Directors' report on corporate governance, produced pursuant to Article L. 225-37 of the French Commercial Code. This report was prepared on the basis of the deliberations of the Board of Directors, and with the assistance of several of the Company's corporate functional divisions, including in particular the Legal, Finance and People & Social Responsibility Departments. After the sections relevant to their respective duties were reviewed by the Governance and Ethics Committee and the Compensation Committee, the report was approved by the Board of Directors.

4.1 Administration and management bodies

4.1.1 Composition of the Board of Directors

As of March 17, 2021

13 directors	**1** Lead Independent Director	**80%** independent directors[a]	**5.5 years** average length of service on the Board	**50%** gender equality[b]	**4** nationalities represented

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 9.3). For more information, refer to point 4.1.1.4 of this chapter.
(b) Excluding the directors representing employees in accordance with Article L. 22-10-7 (formerly L. 225-27-1) of the French Commercial Code and the director representing employee shareholders in accordance with Article L. 22-10-5 (formerly L. 225-23) of the French Commercial Code.

The Company is administered by a Board of Directors whose 13 members include a director representing employee shareholders elected on the proposal of the shareholders specified in Article L. 225-102 of the French Commercial Code, in accordance with the provisions of Article L. 22-10-5 (formerly L. 225-23) of the French Commercial Code (hereafter referred to as the "director representing employee shareholders"), and two directors representing employees appointed in accordance with the provisions of Article 22-10-7 (formerly L. 225-27-1) of the French Commercial Code and the Company's Articles of Association (the first appointed by the Central Economic and Employee Interest Committee of the Upstream Global Services Holding Company UES and the second appointed by the SE Committee, known as "Total's European Works Committee").

Mr. Patrick Pouyanné is the Chairman and Chief Executive Officer of the Company. He has served as Chairman of the Board of Directors since December 19, 2015, the date on which the functions of Chairman of the Board of Directors and Chief Executive Officer of the Company were combined (refer to point 4.1.5.1 of this chapter).

A Lead Independent Director has served since December 19, 2015. Her duties are specified in the Rules of Procedure of the Board of Directors (refer to point 4.1.2.1 of this chapter).

Directors are appointed for a three-year period (Article 11 of the Company's Articles of Association)[1]. The terms of office of the members of the Board are staggered to space more evenly the renewal of appointments and to ensure the continuity of the work of the Board of Directors and its Committees, in accordance with the recommendations of the AFEP-MEDEF Code, which the Company refers to.

The profiles, experience and expertise of the directors are detailed in the biographies below.

Changes that occurred within the membership of the Board of Directors and Committees during fiscal year 2020

Appendix 3 of the AFEP-MEDEF Code – Situation as of March 17, 2021

	Departure	Appointment/designation	Reappointment
Board of Directors			
May 29, 2020	Christine Renaud[a]	Jérôme Contamine	Patricia Barbizet[b]
	Carlos Tavares		Marie-Christine Coisne-Roquette[c]
			Mark Cutifani
June 9, 2020		Romain Garcia-Ivaldi[a]	
October 14, 2020		Angel Pobo[a]	
Audit Committee			
May 29, 2020	Marie-Christine Coisne-Roquette[c]	Jérôme Contamine	
Compensation Committee			
May 29, 2020	Christine Renaud[a]	Marie-Christine Coisne-Roquette[c]	
	Carlos Tavares	Valérie Della Puppa Tibi[d]	
Strategy & CSR Committee			
May 29, 2020	Christine Renaud[a]	Marie-Christine Coisne-Roquette[c]	

(a) Director representing employees.
(b) Lead Independent Director until May 29, 2020.
(c) Lead Independent Director since May 29, 2020.
(d) Director representing employee shareholders.

(1) The Articles of Association also contain specific provisions concerning the terms of office of directors representing employees, taking into account the method of their appointment.

Overview of the Board of Directors as of March 17, 2021

Appendix 3 of the AFEP-MEDEF Code

	Personal information				Experience	Position on the Board				Participation in Board Committees
As of March 17, 2021	Age	Sex	Nationality	Number of shares	Number of directorships[a]	Indepen-dence	Initial date of appoint-ment	Term of office expires	Length of service on the Board	
Patrick Pouyanné *Chairman and Chief Executive Officer*	57	M		217,087	1		2015	2021	6	✓
Patrick Artus	69	M		1,000	2	✓	2009	2021	12	✓
Patricia Barbizet	65	F		11,050	3		2008	2023	13	✓
Marie-Christine Coisne-Roquette *Lead Independent Director*	64	F		4,559	1	✓	2011	2023	10	✓
Jérôme Contamine	63	M		10,275	2	✓	2020	2023	1	✓
Lise Croteau	60	F		1,100	3	✓	2019	2022	2	✓
Mark Cutifani	62	M		2,000	1	✓	2017	2023	4	✓
Valérie Della Puppa Tibi *Director representing employee shareholders*	52	F		30	0	n/a	2019	2022	2	✓
Romain Garcia-Ivaldi *Director representing employees*	32	M		0	0	n/a	2020	2023	1	
Maria van der Hoeven	71	F		1,000	1	✓	2016	2022	5	✓
Anne-Marie Idrac	69	F		1,385	4	✓	2012	2021	9	✓
Jean Lemierre	70	M		1,042	1	✓	2016	2022	5	✓
Angel Pobo *Director representing employees*	51	M		154	0	n/a	2020	2023	1	

(a) Number of directorships held by the director at listed companies outside his or her group, including foreign companies, assessed in accordance with the recommendations of the AFEP-MEDEF Code, point 19 (refer to point 4.1.1.3 of this chapter).

As of March 17, 2021

Audit Committee

4 members
100% independent members

Patrick Artus*
Jérôme Contamine
Lise Croteau
Maria van der Hoeven

Governance and Ethics Committee

4 members
75% independent members

Marie-Christine Coisne-Roquette*
Patricia Barbizet
Anne-Marie Idrac
Jean Lemierre

Compensation Committee

4 members
67% independent members[a]

Mark Cutifani*
Patricia Barbizet
Marie-Christine Coisne-Roquette
Valérie Della Puppa Tibi[b]

Strategy & CSR Committee

6 members
67% independent members

Patrick Pouyanné*
Patrick Artus
Patricia Barbizet
Marie-Christine Coisne-Roquette
Anne-Marie Idrac
Jean Lemierre

(a) Excluding the director representing employee shareholders in accordance with the recommendations of AFEP-MEDEF Code (point 9.3).
(b) Director representing employee shareholders.
* Chair of the Committee.

Renewal of directorships and appointment proposed to the Shareholders' Meeting to be held on May 28, 2021

The terms of office of directors Messrs. Patrick Pouyanné and Patrick Artus and Ms. Anne-Marie Idrac will expire at the Annual Ordinary Shareholders' Meeting to be held on May 28, 2021.

Mr. Patrick Artus was appointed as a director of the Company on May 15, 2009 and reaches a seniority of 12 years. Consequently, in view of the rules of independence for directors laid down in the AFEP-MEDEF Code to which the Company refers, it is not proposed to the Shareholders' Meeting of May 28, 2021 to renew the term of office as director of Mr. Patrick Artus. The Board thanks Mr. Patrick Artus for the quality of his participation in the work of the Board of Directors and its Committees since May 15, 2009.

– **Renewal of directorships**

At its meeting on March 17, 2021, the Board of Directors, upon the proposal of the Governance and Ethics Committee, decided to submit to the Annual Shareholders' Meeting to be held on May 28, 2021, the renewal of the directorships of Mr. Patrick Pouyanné and Ms. Anne-Marie Idrac for a three-year term to expire at the end of the Annual Shareholders' Meeting to be held in 2024 to approve the 2023 financial statements.

Mr. Patrick Pouyanné is Chief Executive Officer since October 22, 2014 and Chairman and Chief Executive Officer since December 19, 2015. Refer to point 4.1.5.1 of this chapter for additional information concerning the renewal of M. Pouyanné's term of office as Chairman and Chief Executive officer and on the unified management form.

Ms. Anne-Marie Idrac has been a director of the Company since May 11, 2012. She is a member of the Governance and Ethics Committee and the Strategy & CSR Committee. She will continue to give the Group the benefit of her expertise in foreign trade and international relations and the managerial and operational experience she has acquired over the course of her career.

– **Appointment of two new directors**

The term of office of Mr. Carlos Tavares, a director of the Company since May 26, 2017, expired at the end of the Shareholders' Meeting of May 29, 2020. The term of office of Mr. Patrick Artus, a director of the Company since May 15, 2009, expires at the end of the Shareholders' Meeting of May 28, 2021.

In order to reinforce the presence of CEOs within the Board, the Board of Directors decided, at its meeting held on March 17, 2021, upon the proposal of the Governance and Ethics Committee, to propose to the Shareholders' Meeting, the appointment as a director for a three-year term to expire at the end of the Shareholders' Meeting to be held in 2024 to approve the 2023 financial statements, of Mr. Jacques Aschenbroich, Chairman and Chief Executive Officer of Valeo. Mr. Jacques Aschenbroich will bring his knowledge of the transportation sector, a key sector in terms of energy demand, and his experience as the head of a major industrial company to the industrial company to the Board of Directors of the Company.

In order to maintain within the Board the presence of an economist and the representation of international profiles notably of American origin, taking into account the weight of the shareholding of the Company in the United States, the Board of Directors decided, at its meeting on March 17, 2021, upon the proposal of the Governance and Ethics Committee, to propose to the Annual Shareholders' Meeting to be held on May 28, 2021, the appointment as a director for a three-year term to expire at the end of the Shareholders' Meeting to be held in 2024 to approve the 2023 financial statements, of Mr. Glenn Hubbard, an American economist. Mr. Glenn Hubbard will also bring his experience in corporate governance of large companies and his knowledge in the field of corporate social responsibility.

After analysis based on the independence criteria set forth in point 9.5 of the AFEP-MEDEF Code updated in January 2020, the Board noted that Messrs. Glenn Hubbard and Jacques Aschenbroich could be deemed independent.

Regarding Valeo, of which Mr. Jacques Aschenbroich is Chairman and Chief Executive Officer, on the one hand, the Group's sales to Valeo in 2020 (i.e., $4 million) represented less than 0.1% of the consolidated turnover of the Group in 2020 (i.e., $141 billion) and, on the other hand, the Group's purchases from Valeo in 2020 cannot be considered material. The portion of the Group's business with Valeo cannot be considered material for the Group. Furthermore, for Valeo, on the one hand, the amount of Valeo's purchases from the Group in 2020 (i.e., €33 million) represented 0.29% of the total amount of Valeo's purchases in 2020 (i.e., €11.3 billion) and, on the other hand, the amount of Valeo's sales in 2020 to the Group is not material. The portion of Valeo's business with the Group cannot be considered material for Valeo. The Board noted the absence of economic dependence and exclusivity in the activities between the two groups. It thus concluded that Mr. Jacques Aschenbroich could be deemed to be an independent director.

Business relations between Group companies can currently be considered not material with MetLife, Inc. of which Mr. Glenn Hubbard is Chairman of the Board of Directors. It thus concluded that Mr. Glenn Hubbard could be deemed to be an independent director;

– **Composition of the Committees of the Board of Directors after the Shareholders' Meeting of May 28, 2021**

On the proposal of the Governance and Ethics Committee, the Board of Directors decided at its meeting of March 17, 2021, to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 28, 2021. As of that date:

- the Governance and Ethics Committee will be chaired by Marie-Christine Coisne-Roquette. Patricia Barbizet, Anne-Marie Idrac and Jean Lemierre will be members.
- the Audit Committee will be chaired by Maria van der Hoeven. Patricia Barbizet, Jérôme Contamine*, Lise Croteau* and Romain Garcia-Ivaldi will be members.
- the Compensation Committee will be chaired by Mark Cutifani. Marie-Christine Coisne-Roquette and Valérie Della Puppa Tibi will be members.
- the Strategy & CSR Committee will be chaired by Patrick Pouyanné. Patricia Barbizet, Marie-Christine Coisne-Roquette, Anne-Marie Idrac, Jean Lemierre and Angel Pobo will be members.

* Financial experts.

4.1.1.1 Profile, experience and expertise of the directors (information as of December 31, 2020)(1)

Patrick Pouyanné

Chairman and Chief Executive Officer of TOTAL SE*

Chairman of the Strategy & CSR Committee

Born on June 24, 1963 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 29, 2015
Last reappointment: Annual Ordinary Shareholders' Meeting on June 1, 2018
End of current term: Annual Ordinary Shareholders' Meeting on May 28, 2021

Number of Total shares held: 217,087
Number of Total Actionnariat France collective investment fund units held: 10,372.1016 (as of December 31, 2020)

Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: Chairman and Chief Executive Officer of TOTAL SE*

Biography & Professional Experience

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, Mr. Pouyanné held, between 1989 and 1996, various administrative positions in the French Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister – Édouard Balladur – in the fields of the Environment and Industry from 1993 to 1995, Chief of Staff for the Minister for Information and Aerospace Technologies – François Fillon – from 1995 to 1996). In January 1997, he joined TOTAL's Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Group representative in Qatar and President of the Exploration & Production subsidiary in that country in 1999. In August 2002, he was appointed President, Finance, Economy and IT for Exploration & Production. In January 2006, he became Senior Vice President, Strategy, Business Development and R&D in Exploration & Production and was appointed a member of the Group's Management Committee in May 2006. In March 2011, Mr. Pouyanné was appointed Deputy General Manager, Chemicals, and Deputy General Manager, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Group's Executive Committee.

On October 22, 2014, he became Chief Executive Officer of TOTAL S.A. and Chairman of the Group's Executive Committee. On May 29, 2015, he was appointed by the Annual Shareholders' Meeting as director of TOTAL S.A. for a three-year term. The Board of Directors of TOTAL appointed him as Chairman of the Board of Directors as of December 19, 2015. Mr. Pouyanné thus became the Chairman and Chief Executive Officer of TOTAL S.A. Following the renewal of Mr. Pouyanné's directorship at the Annual Shareholders' Meeting on June 1, 2018, for a three-year period, the Board of Directors renewed Mr. Pouyanné's term of office as Chairman and Chief Executive Officer for a period equal to that of his directorship. Mr. Pouyanné has also been Chairman of the Alliance pour l'Education – United Way association since June 2018, having accepted that office as TOTAL S.A.'s Chairman and Chief Executive Officer. In addition, he has been a member of the Board of Directors of École Polytechnique since September 2018, of the Institut Polytechnique of Paris since September 2019, of the Association Française des Entreprises Privées (French association of private companies) since 2015, of the Institut du Monde Arabe (since 2017) and of the La France S'Engage foundation since 2017.

Directorships and functions held

Directorships held at any company during fiscal year 2020

Within the TOTAL Group
– Chairman and Chief Executive Officer of TOTAL SE* and Chairman of the Strategy & CSR Committee

Outside the TOTAL Group
– Director of Capgemini S.E.* (since May 10, 2017) and member of the Strategy and CSR Committee (since September 1, 2017)

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

– President of the Alliance pour l'Education – United Way association (since June 2018)
– Member of the Board of Directors of École Polytechnique (a public scientific, cultural or professional establishment under French law) (since September 2018)
– Member of the Board of Directors of the Institut Polytechnique de Paris (since September 2019)
– Member of the Board of Directors of AFEP (French association of private companies) (since 2015)
– Member of the Board of Directors of the La France S'Engage foundation (since September 2017)
– Member of the Board of the Institut du Monde Arabe (since 2017)

(1) Including the information referred to in Article L. 22-10-10 (formerly L. 225-37-4) of the French Commercial Code, and point 12.1 of Annex I to Commission Delegated Regulation EU 2019/980 of March 14, 2019, supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council on the form, content, review and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market.
* For information relating to the offices held by directors, companies marked with an asterisk are listed companies.

Patrick Artus

Independent director

Chairman of the Audit Committee
Member of the Strategy & CSR Committee

Born on October 14, 1951 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 15, 2009
Last reappointment: Annual Ordinary Shareholders' Meeting on June 1, 2018
End of current term: Annual Ordinary Shareholders' Meeting on May 28, 2021

Number of Total shares held: 1,000 (as of December 31, 2020)

Business address: Natixis, 47 quai d'Austerlitz, 75013 Paris, France

Main function: Head of the Research Department and member of the Executive Committee of Natixis*

Biography & Professional Experience

A graduate of École Polytechnique, École Nationale de la Statistique et de l'Administration Économique (ENSAE) and the Institut d'Études Politiques de Paris, Mr. Artus began his career at INSEE (the French National Institute for Statistics and Economic Studies) where his work included economic forecasting and modeling. He then worked at the Economics Department of the OECD (1980), later becoming the Head of Research at ENSAE from 1982 to 1985. He was the scientific advisor at the Research Department of the Banque de France, before joining the Natixis Group as the head of the Research Department, and has been a member of its Executive Committee since May 2013. He is an associate professor at the Paris School of Economics. He is also a member of the Cercle des Économistes.

Directorships and functions held

Directorships held at any company during fiscal year 2020

Within the Natixis group
- Head of the Research Department and member of the Executive Committee of Natixis*

Outside the Natixis group
- Director of TOTAL SE*, chairman of the Audit Committee since May 29, 2020, and member of the Strategy & CSR Committee
- Director of IPSOS*

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

None

Patricia Barbizet

Director

Member of the Governance & Ethics Committee
Member of the Compensation Committee
Member of the Strategy & CSR Committee

Born on April 17, 1955 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 16, 2008
Last reappointment: Annual Ordinary Shareholders' Meeting on May 29, 2020
End of current term: 2023 Ordinary Shareholders' Meeting

Number of Total shares held: 11,050[1] (as of December 31, 2020)

Business address: Temaris et Associés SAS, 40 rue François 1er, 75008 Paris, France

Main function: Chairwoman of Temaris et Associés SAS

Biography & Professional Experience

A graduate of École Supérieure de Commerce de Paris (ESCP-Europe) in 1976, Patricia Barbizet started her career in the Treasury division of Renault Véhicules Industriels, and then as CFO of Renault Crédit International. In 1989, she joined the group of François Pinault as CFO, and was CEO of Artémis, the Pinault family's investment company, between 1992 and 2018. She was also CEO and Chairwoman of Christie's from 2014 to 2016.

Patricia Barbizet was Vice Chairwoman of the Board of Directors of Kering and Vice Chairwoman of Christie's plc. She has been a member of the Board of Directors of TOTAL S.A. since 2008, and has also been a director of Bouygues, Air France-KLM and PSA Peugeot-Citroën. She chaired the Investment Committee of the Fonds Stratégique d'Investissement (FSI) from 2008 to 2013.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Chairwoman of Temaris et Associés SAS since October 2018
- Director of TOTAL SE*, member of the Governance and Ethics Committee, the Compensation Committee and the Strategy & CSR Committee
- Director of Axa* since April 2018
- Director of Pernod Ricard* since November 2018
- Director of Colombus Holdings since July 2019

Directorships that have expired in the previous five years

- Director of Groupe Fnac Darty* until May 2019
- Director of Artémis until July 2018
- Chief Executive Officer of Artémis until January 2018
- Deputy Chairwoman of Christie's International plc until January 2018
- Director and Vice Chairwoman of the Board of Directors of Kering S.A.* until December 2018
- General Manager (non-executive) and member of the Supervisory Board of Financière Pinault until January 2018
- Permanent representative of Artémis, member of the Board of Directors of Agefi until January 2018
- Permanent representative of Artémis, member of the Board of Directors of Sebdo le Point until January 2018
- Member of the Management Board of Société Civile du Vignoble de Château Latour until January 2018
- Director of Yves Saint Laurent until November 2018
- Amministratore & Amministratore Delagato of Palazzo Grassi until January 2018
- Member of the Supervisory Board of Ponant until January 2018
- Representative of Artémis on the Supervisory Board of Collection Pinault Paris until January 2018
- Chairwoman and CEO of Christie's International plc until December 2016
- Member of the supervisory board of Peugeot S.A.* until April 2016

Other positions held during fiscal year 2020

- Chairwoman of Cité de la Musique – Philharmonie de Paris (EPIC)
- Chairwoman of the Supervisory Board of Investissements d'Avenir (French governmental body)
- Chairwoman of the Haut Comité de Gouvernance d'Entreprise (HCGE)

(1) Excluding acquisitions in 2020 completed by Temaris et Associés SAS, legal entity related to Patricia Barbizet.

Marie-Christine Coisne-Roquette

Independent director — Lead Independent Director

Chairwoman of the Governance & Ethics Committee
Member of the Compensation Committee
Member of the Strategy & CSR Committee

Born on November 4, 1956 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 13, 2011
Last reappointment: Annual Ordinary Shareholders' Meeting on May 29, 2020
End of current term: 2023 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 4,559 (as of December 31, 2020)

Business address: Sonepar, 25 rue d'Astorg, 75008 Paris, France

Main function: Chairwoman of Sonepar S.A.S. and Chairwoman and Chief Executive Officer of Colam Entreprendre

Biography & Professional Experience

Ms. Coisne-Roquette has a Bachelor's Degree in English. A lawyer by training, with a French Master's in law and a Specialized Law Certificate from the New York bar, she started her career as an attorney in 1981 at the Paris and New York bars, as an associate of Cabinet Sonier & Associés in Paris. In 1984, she became a member of the Board of Directors of Colam Entreprendre, a family holding company that she joined full time in 1988. As Chairwoman of the Board of Colam Entreprendre and the Sonepar Supervisory Board, she consolidated family ownership, reorganized the Group's structures and strengthened its shareholding base to sustain the Group's growth strategy. Chairwoman and Chief Executive Officer of Sonepar as of 2002, Marie-Christine Coisne-Roquette became Chairwoman of Sonepar S.A.S. in 2016. At the same time, she heads Colam Entreprendre as its Chairwoman and Chief Executive Officer. Formerly a member of the Young Presidents' Organization (YPO), she served on the Executive Committee of MEDEF (France's main employers' association) for 13 years and was Chairwoman of its Tax Commission from 2005 to 2013. She was a member of the Economic, Social and Environmental Council from 2013 and 2015 and is currently a Director of TOTAL SE.

Directorships and functions held

Directorships held at any company during fiscal year 2020

Within the Sonepar group
- Chairwoman of Sonepar S.A.S.
- Chairwoman and Chief Executive Officer of Colam Entreprendre (S.A.)
- Legal representative of Sonepar S.A.S., Chairwoman of Sonepar International
- Legal representative of Sonepar S.A.S., director of Sonepar France S.A.S.
- Permanent representative of Colam Entreprendre, director of SO.VE. MAR.CO Europe (S.A.)
- Chief Executive Office of Sonepack S.A.S. until mid-2020 and director of Sonepack SAS since then

Outside the Sonepar group
- Director of TOTAL SE* and, since May 29 2020, Lead Independent Director, Chairwoman of the Governance and Ethics Committee and member of the Compensation Committee and the Strategy & CSR Committee
- Chairwoman of the Board of Directors of Développement Mobilier et Industriel (S.A.)
- Chairwoman of CMI until June 2020
- Managing Partner of Ker Coro (*société civile immobilière*)
- Member of the Supervisory Board of Akuo Energy S.A.S. (until June 2020)

Directorships that have expired in the previous five years
- Legal representative of Sonepar S.A.S., co-manager of Sonedis (*société civile*) until October 29, 2018
- Permanent representative of Colam Entreprendre, co-manager of Sonedis (*société civile*) until October 29, 2018
- Permanent representative of Sonepar Belgium to the Board of Cebeo N.V. (Belgium) until February 2018
- Chairwoman of the Board of Directors of Sonepar S.A. until 2016

Other positions held during fiscal year 2020
- Member of the Board of Directors of AFEP (French association of private companies)
- Vice Chair of the Board of Directors of the Association Nationale des Sociétés par Actions (ANSA)
- Member of the Bureau and director of MEDEF International
- Director at FONDACT
- Director at the Fondation Recherche Alzheimer

Jérôme Contamine

Independent director

Member of the Audit Committee

Born on November 23, 1957 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 29, 2020
End of current term: 2023 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 10,275
Number of Total Actionnariat France collective investment fund units held: 715.2448 (as of December 31, 2020)

Business address: 12 rue Cambacérès, 75008 Paris

Main function: Independent director

Biography & Professional Experience

The French-born Mr. Contamine is a graduate of École Polytechnique, ENSAE and ENA. After spending four years as an auditor with the French Court of Auditors (*Cour des comptes*), he served in a variety of positions between 1988 and 2000 at Elf Aquitaine and later TOTAL. From 2000 to 2009 he was Executive Vice President of Finance at Veolia Environnement, and he was a member of the Board of Directors of Valeo from 2006 to 2017. From 2009 to 2018 he was Chief Financial Officer of Sanofi.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Director of TOTAL SE* and member of the Audit Committee since May 29, 2020
- Director of Société Générale*, member of the Audit and Internal Control Committee and the Compensation Committee
- President of Sigateo

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

None

Lise Croteau

Independent director

Member of the Audit Committee

Born on May 5, 1960 (Canadian)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 29, 2019
End of current term: 2022 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 100
Number of Total ADS held: 1,000 (as of December 31, 2020)

Business address: 580 chemin de la Réserve, Mont-Tremblant, Quebec, J8E 3L8, Canada

Main function: Independent director

Biography & Professional Experience

Ms. Croteau began her career as an auditor, joining Hydro-Québec in 1986 where she held financial management and control positions of increasing responsibility. From 2015 to 2018, she held the position of Executive Vice-President and Chief Financial Officer of Hydro-Québec, prior to retiring. A chartered professional accountant since 1984, Ms. Croteau holds a Bachelor's degree in Business Administration, and in 2008 was named a Fellow of the Order of Chartered Professional Accountants of Quebec in recognition of her contribution to the profession.

Ms. Croteau has been an independent director of Boralex since 2018 and the chairwoman of the Audit Committee since 2019. Boralex is a company listed in Toronto whose activities cover the processing of wood residues, cogeneration, hydroelectric power, as well as wind and solar energy.

Since June 2019, Ms. Croteau has been a director on the Boards of Québecor Inc. and Québecor Media Inc. as well as a member of the Human Resources and Corporate Governance Committee. Québecor is a Canadian leader in the telecommunications, entertainment, news media and culture fields.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Director of TOTAL SE* and member of the Audit Committee
- Director of Québecor Inc.* since June 16, 2019
- Director of Québecor Média Inc.* since June 16, 2019
- Director of Boralex*

Directorships that have expired in the previous five years

- Director of TVA Group Inc.* until June 16, 2019

Other positions held during fiscal year 2020

None

Mark Cutifani

Independent director

Chairman of the Compensation Committee

Born on May 2, 1958 (Australian)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 26, 2017
Last reappointment: Annual Ordinary Shareholders' Meeting on May 29, 2020
End of current term: 2023 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 2,000 (as of December 31, 2020)

Business address: Anglo American plc Group, 20 Carlton House Terrace, London, SW1Y 5AN, United Kingdom

Main function: Chief Executive of Anglo American plc.*

Biography & Professional Experience

Mr. Cutifani was appointed director and Chief Executive of Anglo American plc on April 3, 2013. He is a member of the Board's Sustainability Committee and chairs the Group Management Committee. Mr. Cutifani has 42 years of experience in the mining industry in various parts of the world, covering a broad range of products. Mark Cutifani is a non-executive director of Anglo American Platinum Limited, Chairman of Anglo American South Africa and Chairman of De Beers plc. He was previously the Chief Executive Officer of AngloGold Ashanti Limited. Before joining AngloGold Ashanti, Mr. Cutifani was COO responsible for the global nickel business at Vale. Prior to that, he held various management roles at Normandy Group, Sons of Gwalia, Western Mining Corporation, Kalgoorlie Consolidated Gold Mines and CRA (Rio Tinto).

Mr. Cutifani has a degree in Mining Engineering (with honors) from the University of Wollongong in Australia. He is a Fellow of the Royal Academy of Engineering, the Australasian Institute of Mining and Metallurgy and the Institute of Materials, Minerals and Mining in the United Kingdom.

Mr. Cutifani received an honorary doctorate from the University of Wollongong in Australia in 2013 and an honorary doctorate from Laurentian University in Canada in 2016.

Directorships and functions held

Directorships held at any company during fiscal year 2020

Within the Anglo American group
- Director and Chief Executive Officer of Anglo American plc.*
- Non-executive director of Anglo American Platinum Limited
- Chairman of De Beers plc.
- Chairman of De Beers Investments plc.

Outside the Anglo American group
- Director of TOTAL SE* and, since May 29, 2020, chairman of the Compensation Committee

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

None

4

Valérie Della Puppa Tibi

Director representing employee shareholders

Member of the Compensation Committee

Born on August 22, 1968 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 29, 2019
End of current term: 2022 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 30
Number of Total Actionnariat France collective investment fund units held: 233.32
Number of units of the Total France Capital+ collective investment fund: 18.96 (as of December 31, 2020)

Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: TOTAL SE* employee

Biography & Professional Experience

A graduate of the Institut Universitaire de Technologie of Sceaux (Paris XI) in International Trade, Ms. Della Puppa Tibi joined the Group in 1989. She held several positions in international logistics with the Marine Lubricants unit of the Lubrifiants subsidiary. Ms. Della Puppa Tibi also studied at the Conservatoire des Arts et Métiers (International Trade curriculum – Marketing, International Trade, Commodity Markets courses) as well as studying languages (English, Spanish and Italian). In 2002, she joined the Réseau France as a contract pilot for the maintenance of service stations. In 2011, Ms. Della Puppa Tibi joined the Procurement Division of Total Raffinage Marketing as e-procurement manager, then became Lead Buyer upon the creation of Total Global Procurement in 2017.

Ms. Della Puppa Tibi is also a member of the Total European Works Council (SE Committee) and an alternate elected member of the Supervisory Boards of the Total Actionnariat France and Total France Capital + collective investment funds.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Director representing employee shareholders of TOTAL SE* and, since May 29, 2020, member of the Compensation Committee

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

- Member of the Total European Works Committee (SE Committee)
- Alternate elected member of the Supervisory Boards of the Total Actionnariat France and Total France Capital + collective investment funds

Romain Garcia-Ivaldi

Director representing employees

Born on September 14, 1988 (French)
Director representing employees of TOTAL SE, appointed by the Central Economic and Employee Interest Committee of the Company on June 9, 2020
End of current term: 2023 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 0
Number of Total Actionnariat France collective investment fund units held: 2,506.01
Number of units of the Total France Capital+ collective investment fund: 40.12 (as of December 31, 2020)

Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: TOTAL SE* employee

Biography & Professional Experience

A graduate of ENSTA Paris engineering school and IFP School, Mr. Garcia-Ivaldi began his career at TOTAL in 2012 as an economist on oil and gas projects in the Americas region. In 2015 he became a reservoir engineer, serving in a variety of positions in Paris. He is currently a reservoir engineer for Total E&P Nigeria.

Mr. Garcia-Ivaldi was chairman of the Supervisory Board of the Total Actionnariat France employee shareholding fund from November 9, 2018, to June 17, 2020.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Director representing employees of TOTAL SE* since June 9, 2020

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

- Chairman of the Supervisory Board of the Total Actionnariat France collective investment fund (FCPE) from November 9, 2018, to June 17, 2020

Maria van der Hoeven

Independent director

Member of the Audit Committee

Born on September 13, 1949 (Dutch)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 24, 2016
Last reappointment: Annual Ordinary Shareholders' Meeting on May 29, 2019
End of current term: 2022 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 1,000 (as of December 31, 2020)

Business address: Sadatdomein 31, 6229 HC Maastricht, The Netherlands

Main function: Independent director

Biography & Professional Experience

Ms. van der Hoeven trained as a teacher, becoming a professor in economic sciences and administration and then a school counselor. She subsequently headed the Adult Vocational Education Center in Maastricht for seven years, before leading the Limburg Technology Center. She was a member of the Dutch Parliament, served as Minister of Education, Culture and Science from 2002 to 2007, and was Minister of Economic Affairs of the Netherlands from 2007 to 2010. Ms. van der Hoeven was Executive Director of the International Energy Agency (IEA) from September 2011 to August 2015. During this period, she helped to increase the number of members of the Agency and emphasized the close link between climate and energy policy. In September 2015, Ms. van der Hoeven joined the Board of Trustees of Rocky Mountain Institute (USA), and in the spring of 2016 she became a member of the Supervisory Board of Innogy SE (Germany). Since October 2016, Ms. van der Hoeven has been Vice Chairwoman of the High-level Panel of the European Decarbonisation Pathways Initiative within the European Commission. Since January 2020, she has been a member of the Supervisory Board of COVRA, a privately held Dutch company that serves as the central depository for radioactive waste in the Netherlands.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Director of TOTAL SE* and member of the Audit Committee
- Member of the Supervisory Board of COVRA since January 2020 (Netherlands)
- Member of the Board of Trustees of Rocky Mountain Institute (USA)

Directorships that have expired in the previous five years

- Member of the Supervisory Board of Innogy SE* until October 4, 2019
- Member of the Supervisory Board of RWE AG (Germany)

Other positions held during fiscal year 2020

- Member of the Board of Leaders pour la Paix (France) since January 2019
- Member of the International Advisory Panel on Energy in Singapore since January 2019

Anne-Marie Idrac

Independent director

Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on July 27, 1951 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 11, 2012
Last reappointment: Annual Ordinary Shareholders' Meeting on June 1, 2018
End of current term: Annual Ordinary Shareholders' Meeting on May 28, 2021

Number of Total shares held: 1,385 (as of December 31, 2020)

Business address: 9 place Vauban, 75007 Paris, France

Main function: Independent director

Biography & Professional Experience

A graduate of the Institut d'Études Politiques de Paris and formerly a student at the École Nationale d'Administration (ENA-1974), Ms. Idrac began her career holding various positions as a senior civil servant at the Ministry of Infrastructure (Ministère de l'Équipement) in the fields of environment, housing, urban planning and transportation. She served as Executive Director of the public institution in charge of the development of Cergy-Pontoise (Établissement public d'Aménagement de Cergy-Pontoise) from 1990 to 1993 and Director of land transport from 1993 to 1995. Ms. Idrac was France's State Secretary for Transportation from May 1995 to June 1997, elected member of Parliament for Yvelines from 1997 to 2002, regional councilor for Île-de-France from 1998 to 2002 and State Secretary for Foreign Trade from March 2008 to November 2010. She also served as Chairwoman and Chief Executive Officer of RATP from 2002 to 2006 and then as Chairwoman of SNCF from 2006 to 2008.

Directorships and functions held

Directorships held at any company during fiscal year 2020

- Director of TOTAL SE*, member of the Governance and Ethics Committee and the Strategy & CSR Committee
- Director of Air France-KLM* and Chairwoman of the Sustainable Development and Compliance Committee
- Director of Bouygues*, Chairwoman of the CSR Committee and member of the Audit Committee
- Director of Saint Gobain* and Chairwoman of the Nominations and Compensation Committee
- Director of SANEF since October 2019

Directorships that have expired in the previous five years

- Chairwoman of the Supervisory Board of Toulouse-Blagnac Airport until May 2018

Other positions held during fiscal year 2020

- Member of the Board of Directors of the Fondation Robert Schuman
- Chairwoman of the Fondation Alima since November 2020

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Jean Lemierre

Independent director

Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on June 6, 1950 (French)
Director of TOTAL SE since the Annual Ordinary Shareholders' Meeting on May 24, 2016
Last reappointment: Annual Ordinary Shareholders' Meeting on May 29, 2019
End of current term: 2022 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 1,042 (as of December 31, 2020)

Business address: BNP Paribas, 3 rue d'Antin, 75002 Paris, France

Main function: Chairman of the Board of Directors of BNP Paribas*

Biography & Professional Experience

Mr. Lemierre is a graduate of the Institut d'Études Politiques de Paris and the École Nationale d'Administration. He also has an undergraduate law degree. Mr. Lemierre held various positions at the French tax authority, including as Head of the Fiscal Legislation Department and Director-General of Taxes. He was then appointed as Cabinet Director at the French Ministry of Economy and Finance before becoming Director of the French Treasury in October 1995. Between 2000 and 2008, he was President of the European Bank for Reconstruction and Development (EBRD). He became an advisor to the Chairman of BNP Paribas in 2008 and has been Chairman of the Board of Directors of BNP Paribas since December 1, 2014. During his career, Mr. Lemierre has also been a member of the European Monetary Committee (1995–1998), Chairman of the European Union Economic and Financial Committee (1999–2000) and Chairman of the Paris Club (1999–2000). He later became a member of the International Advisory Council of China Investment Corporation (CIC) and the International Advisory Council of China Development Bank (CDB). He is currently Chairman of the Centre d'Études Prospectives et d'Informations Internationales (CEPII) and a member of the Institute of International Finance (IIF).

Directorships and functions held

Directorships held at any company during fiscal year 2020

Within the BNP Paribas group
- Chairman of the Board of Directors of BNP Paribas*
- Director of TEB Holding AS

Outside the BNP Paribas group
- Director of TOTAL SE*, member of the Governance and Ethics Committee and the Strategy & CSR Committee

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

- Member of the Board of Directors of AFEP (French association of private companies)
- Chairman of Centre d'Études Prospectives et d'Informations Internationales (CEPII)
- Member of the Institute of International Finance (IIF)
- Member of the International Advisory Board of Orange*
- Member of the International Advisory Council of China Development Bank* (CDB)
- Member of the International Advisory Council of China Investment Corporation (CIC)
- Member of the International Advisory Panel (IAP) of the Monetary Authority of Singapore (MAS)
- Vice-Chairman of Paris Europlace since 2014

Angel Pobo

Director representing employees

Born on August 14, 1969 (French)
Director representing employees of TOTAL SE, appointed by the SE Committee, known as the Total European Works Committee, on October 14, 2020, until 2023
End of current term: 2023 Annual Ordinary Shareholders' Meeting

Number of Total shares held: 154
Number of Total Actionnariat France collective investment fund units held: 1,212.88
Number of units of the Total France Capital+ collective investment fund: 46.35 (as of December 31, 2020)

Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Main function: TOTAL SE* employee

Biography & Professional Experience

Mr. Pobo joined the Group in 1989 as part of Argedis, the subsidiary responsible for service station management and operations in France, where he held a variety of positions before becoming site director in 1998. In 2013 he became a member of the European Works Council. He was the central union representative for the Marketing & Services Unit of Economic and Employee Interest (UES) from 2014 to 2017, and then for the Upstream/Global Services/Holding Company UES beginning in 2017. He is also the union representative on the Economic and Employee Interest Committee and the Central Economic and Employee Interest Committee. On October 14, 2020, he was appointed by the SE Committee, known as the otal European Works Committee, to sit on the TOTAL SE Board of Directors as the director representing employees and accordingly resigned from his union responsibilities.

Directorships and functions held

Directorships held at any company during fiscal year 2020

Within the TOTAL Group
– Director representing employees of TOTAL SE* since October 14, 2020

Outside the TOTAL Group
None

Directorships that have expired in the previous five years

None

Other positions held during fiscal year 2020

– Mayor of Aubais, France
– Chairman of ATECA until December 2020

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Directorships of TOTAL SE that expired in 2020

Christine Renaud

Director representing employees

Member of the Compensation Committee and member of the Strategy & CSR Committee until May 29, 2020

Born on May 7, 1968 (French)
Director representing employees of the Company from the Annual Ordinary Shareholders' Meeting on May 26, 2017, to the Annual Ordinary Shareholders' Meeting on May 29, 2020

Main function: TOTAL SE* employee

Biography & Professional Experience

A graduate of the Institut Universitaire de Technologie en Chimie at Poitiers University, Ms. Renaud began her career with the Group in 1990 as an analytical development technician for Sanofi (Ambarès site) and then the Groupement de Recherches de Lacq (GRL). In 2004, she joined the organic analysis laboratory at the Lacq Research Center (PERL). During her time at GRL, Ms. Renaud was elected as a member of the Works Committee before holding office as a union representative and member of the Group's European Works Council from 2004 to 2011. At the end of 2011, Ms. Renaud was elected as Secretary of the Group's European Works Council. Her term of office was renewed in 2013 until April 5, 2017. At its meeting of March 30, 2017, the Upstream/Global Services/Holding Company UES appointed Ms. Renaud as director representing employees on the Board of Directors of TOTAL S.A. as of May 26, 2017, for a period of three years to expire following the Annual Ordinary Shareholders' Meeting of May 29, 2020. Since March 1, 2018, Ms. Renaud has served as communications officer at the CSTJF engineering and research center. Since December 15, 2019, Ms. Renaud has been a Talent Developer in the HR department.

Directorships and functions held

Directorships held at any company during fiscal year 2020[a]

- Director representing employees of TOTAL S.A.*, member of the Strategy & CSR Committee and member of the Compensation Committee until May 29, 2020

Directorships that have expired in the previous five years

- Director representing employees of TOTAL S.A.*, member of the Strategy & CSR Committee and member of the Compensation Committee until May 29, 2020

Carlos Tavares

Independent director

Member of the Compensation Committee until May 29, 2020

Born on August 14, 1958 (Portuguese)
Director of the Company from the Annual Ordinary Shareholders' Meeting on May 26, 2017 until the Annual Ordinary Shareholders' Meeting on May 29, 2020

Main function: Chairman of the Managing Board of Peugeot S.A.*

Biography & Professional Experience

A graduate of the École Centrale de Paris, Mr. Carlos Tavares held various positions of responsibility within the Renault group between 1981 and 2004 before joining the Nissan group. After serving as Executive Vice President, Chairman of the Management Committee Americas and President of Nissan North America, he became Group Chief Operating Officer of the Renault Group from 2011 to 2013. He joined the Managing Board of Peugeot S.A. on January 1, 2014, and was appointed Chairman of the Managing Board on March 31, 2014.

Directorships and functions held

Directorships and functions held at any company during fiscal year 2020[a]

Within the Peugeot group
- Chairman of the Managing Board of Peugeot S.A.*
- Chairman of the Board of Directors of PSA Automobiles S.A.*
- Chairman of the Supervisory Board of Opel Automobiles GmbH

Outside the Peugeot group
- Director of TOTAL* and member of the Compensation Committee until May 29, 2020
- Director of Airbus Group*

Directorships that have expired in the previous five years

- Director of TOTAL S.A.* and member of the Compensation Committee until May 29, 2020
- Director of Banque PSA Finance
- Director of PCMA Holding B.V.
- Director of Faurecia* until October 2018

(a) Information as of May 29, 2020.

4.1.1.2 Absence of conflicts of interest or convictions

The Board of Directors' Rules of Procedure stipulate the specific rules for preventing conflicts of interest applicable to directors in the following terms (refer to point 4.1.2.1 of this chapter for the full version of the Rules of Procedure):

"2.5. Duty of loyalty

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Chairman of the Board of Directors and the Lead Independent Director, if one has been appointed, of any existing or potential conflict of interest with the Company or any Group company. They must refrain from participating in the vote relating to the corresponding resolution as well as from participating in any debates preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Company, or any Group company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Company or any Group company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Company, or from companies directly or indirectly connected to the Company, any advantages liable to be considered as being of a nature that may compromise their independence."

"7.2. Duties of the Lead Independent Director

5. Prevention of conflicts of interest

Within the Governance and Ethics Committee, the Lead Independent Director organizes the performance of due diligence in order to identify and analyze potential conflicts of interest within the Board of Directors. He informs the Chairman and Chief Executive Officer of any conflicts of interest identified as a result. He reports to the Board of Directors in relation to this work.

Pursuant to the obligation to declare conflicts of interest set out in Article 2.5 of these Rules, any director affected by an existing or potential conflict of interest must inform the Chairman and Chief Executive Officer and the Lead Independent Director."

The Lead Independent Director has performed due diligence in order to identify and analyze potential conflicts of interest. The Lead Independent Director was consulted on February 9, 2020, by a director about a potential conflict of interest arising from that director's possible participation on the supervisory board of a privately held company in the waste treatment industry. Upon the Lead Independent Director finding that there was no conflict of interest, said director accepted the role offered by the company as member of its supervisory board.

On the basis of the work carried out, the Board of Directors noted the absence of potential conflicts of interest between the directors' duties with respect to the Company and their private interests.

To the Company's knowledge, there is no family relationship among the members of the Board of Directors of TOTAL SE; there is no arrangement or agreement with the major shareholders, customers or suppliers under which a director was selected; and there is no service agreement that binds a director to TOTAL SE or to any of its subsidiaries and provides for special benefits under the terms thereof.

The current directors of the Company have informed the Company that they have not been convicted of fraud, have not been associated with bankruptcy, sequestration, receivership or court-ordered liquidation proceedings, and have not been subject to any incrimination, conviction or sanction pronounced by an administrative authority or professional body, nor have they been prohibited from managing a company or disqualified as stipulated in item 12.1 of Annex I of Commission Delegated Regulation (EU) 2019/980 of March 14, 2019, over the last five years.

4.1.1.3 Plurality of directorships held by directors

The number of directorships held by the directors at listed companies outside their group, including foreign companies, was assessed as of December 31, 2020, in accordance with the recommendations of the AFEP-MEDEF Code (point 19), which states that *"an executive officer should not hold more than two other directorships in listed corporations, including foreign corporations, outside of his or her group. [This] limit [...] does not apply to directorships held by an executive officer in subsidiaries and holdings, held alone or together with others, of companies whose main activity is to acquire and manage such holdings. [...] A director should not hold more than four other directorships in listed corporations, including foreign corporations outside of the group."*

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Summary of other directorships held by members of the Board of Directors

As of December 31, 2020	Number of directorships held at listed companies[a]	Compliance with the criteria of the AFEP-MEDEF Code
Patrick Pouyanné	1	✓
Patrick Artus	2	✓
Patricia Barbizet	3	✓
Marie-Christine Coisne-Roquette	1	✓
Jérôme Contamine	2	✓
Lise Croteau	3	✓
Mark Cutifani	1	✓
Valérie Della Puppa Tibi[b]	0	✓
Romain Garcia-Ivaldi[c]	0	✓
Maria van der Hoeven	1	✓
Anne-Marie Idrac	4	✓
Jean Lemierre	1	✓
Angel Pobo[c]	0	✓

(a) In accordance with the criteria of the AFEP-MEDEF Code.
(b) Director representing employee shareholders.
(c) Director representing employees.

4.1.1.4 Directors' independence

At its meeting on February 8, 2021, the Board of Directors, on the proposal of the Governance and Ethics Committee, reviewed the independence of the Company's directors as of December 31, 2020. At that Committee's proposal, the Board considered that, pursuant to the AFEP-MEDEF Code to which the Company refers, a director is independent when *"he or she has no relationship of any kind whatsoever with the corporation, its group or its management that may interfere with the exercise of his or her freedom of judgment."*

For each director, this assessment was based on the independence criteria set forth in points 9.5 to 9.7 of the AFEP-MEDEF Code, updated in January 2020, and as described below.

Criterion 1: Employee corporate officer during the previous five years

"Not to be or not to have been within the previous five years:
- *an employee or executive officer of the company;*
- *an employee, executive officer or director of a company consolidated within the corporation;*
- *an employee, executive officer or director of the company's parent company or a company consolidated within this parent company".*

Criterion 2: Cross-directorships

"Not to be an executive officer of a company in which the Corporation holds a directorship, directly or indirectly, or in which an employee appointed as such or an executive officer of the Corporation (currently in office or having held such office within the last five years) holds a directorship".

Criterion 3: Significant business relationships

"Not to be a customer, supplier, commercial banker, investment banker or consultant:
- *that is significant to the corporation or its group;*
- *or for which the corporation or its group represents a significant portion of its activity.*

The evaluation of the significance or otherwise of the relationship with the company or its group must be debated by the Board, and the quantitative and qualitative criteria that led to this evaluation (continuity, economic dependence, exclusivity, etc.) must be explicitly stated in the annual report".

Criterion 4: Family ties

"Not to be related by close family ties to a company officer".

Criterion 5: Auditor

"Not to have been an auditor of the corporation within the previous five years".

Criterion 6: Period of office exceeding 12 years

"Not to have been a director of the corporation for more than 12 years. Loss of the status of independent director occurs on the date of this 12th anniversary."

Criterion 7: Status of non-executive officer

"A non-executive officer cannot be considered independent if he or she receives variable compensation in cash or in the form of securities or any compensation linked to the performance of the corporation or group."

Criterion 8: Status of the major shareholder

"Directors representing major shareholders of the corporation or its parent company may be considered independent, provided these shareholders do not take part in the control of the corporation. Nevertheless, beyond a 10% threshold in capital or voting rights, the Board, upon a report from the nominations committee, should systematically review the qualification of a director as independent in the light of the make-up of the corporation's capital and the existence of a potential conflict of interest."

Regarding the independence of Mses. Coisne-Roquette, Croteau, van der Hoeven and Idrac and Messrs. Artus, Contamine, Cutifani and Lemierre as of December 31, 2020, it was confirmed that the independence analyses carried out previously remained relevant.

In particular, the following was noted as of the date of December 31, 2020.

– The level of activity between Group companies and companies of the Natixis group, of which Mr. Artus is a member of the Executive Committee, did not represent a material part of that group's overall business (the level of activity of Group companies with Natixis is less than 0.4% of that bank's net banking income(1), nor a material part of the total amount of external financing of the Group's activities (less than 5%). The Board noted the absence of economic dependence and exclusivity in the activities between the two groups. It thus concluded that Mr. Artus could be deemed to be an independent director, it being noted that Mr. Artus will complete 12 years on the Board on May 15, 2021.
– The level of activity between Group companies and companies of the Sonepar group, of which Ms. Coisne-Roquette is Chairwoman, did not represent a material part of the overall business of the Sonepar group (the purchases made by Group companies from the Sonepar group totaled €1.7 million in 2018, i.e., 0.01% of the total amount of purchases made by the Group in 2020, i.e., €16.0 billion). The Board noted the absence of economic dependence and exclusivity in the activities between the two groups. It thus concluded that Ms. Coisne-Roquette could be deemed to be an independent director.
– The level of activity between Group companies and companies of the Société Générale group, of which Mr. Contamine is a director and a member of the Audit and Internal Control Committee, did not represent a material part of that group's overall business (the level of activity of Group companies with Société Générale is less than 0.1% of that bank's net banking income(1), nor a material part of the total amount of external financing of the Group's activities (less than 5%). The Board noted the absence of economic dependence and exclusivity in the activities between the two groups. It thus concluded that Mr. Contamine could be deemed to be an independent director.
– Regarding Anglo American plc, of which Mr. Cutifani is Chief Executive, the Group's sales to Anglo American plc in 2020 (which totaled $166 million) represented 0.12% of the Group's consolidated sales in 2020 ($141 billion) while the amount of the Group's purchases from Anglo American plc in 2020 was immaterial. The portion of the Group's business conducted with Anglo American plc cannot be considered material for the Group. Moreover, Anglo American plc's purchases in 2020 from the Group (which totaled $166 million) represented 2.8% of the total amount of Anglo American Plc's purchases in 2020 ($3.3 billion), while the amount of Anglo American plc's sales in 2020 to the Group was immaterial. The portion of Anglo American plc.'s business that was conducted with the Group cannot be considered material for Anglo American plc. The Board noted the absence of economic dependence and exclusivity in the activities between the two groups. It thus concluded that Mr. Cutifani could be deemed to be an independent director.
– The level of activity between Group companies and companies of BNP Paribas, of which Mr. Lemierre is Chairman of the Board of Directors, did not represent a material part of the financial institution's overall business (the level of activity of the Group companies with BNP Paribas is less than 0.1% of that bank's net banking income(1), nor a material part of the total amount of external financing of the Group's activities (less than 5%). The Board noted the absence of economic dependence and exclusivity in the activities between the two groups. It thus concluded that Mr. Lemierre could be deemed to be an independent director.

Accordingly, following the Governance and Ethics Committee's proposal, the Board of Directors deemed Mses. Coisne-Roquette, Croteau, van der Hoeven and Idrac and Messrs. Artus, Contamine, Cutifani and Lemierre to be independent directors.

Ms. Barbizet, who was appointed director by the Annual Shareholders' Meeting held on May 16, 2008, cannot be considered an independent director pursuant to Article 9.5.6 of the AFEP-MEDEF Code.

The percentage of independent directors on the Board based on its composition as of December 31, 2020, was 80%(2).

The rate of independence within the Board of Directors is higher than that recommended by the AFEP-MEDEF Code, which specifies that at least half of the members of the Board in widely-held companies with no controlling shareholders should be independent.

(1) Net banking income 2020.
(2) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 9.3).

Summary of the independence of the members of the Board of Directors

Appendix 3 of the AFEP-MEDEF Code – Independence of directors

As of December 31, 2020

Criteria[a]	Patrick Pouyanné	Patrick Artus	Patricia Barbizet	Marie-Christine Coisne-Roquette	Jérôme Contamine	Lise Croteau	Mark Cutifani	Valérie Della Puppa Tibi[b]	Romain Garcia-Ivaldi[c]	Maria van der Hoeven	Anne-Marie Idrac	Jean Lemierre	Angel Pobo[c]
Criterion 1: Employee corporate officer within the past 5 years	✘	✓	✓	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Criterion 2: Cross-directorships	✓	✓	✓	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Criterion 3: Significant business relationships	✓	✓	✓	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Criterion 4: Family ties	✓	✓	✓	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Criterion 5: Auditor	✓	✓	✓	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Criterion 6: Period of office exceeding 12 years	✓	✓	✘	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Criterion 7: Status of non-executive director	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Criterion 8: Status of the major shareholder	✓	✓	✓	✓	✓	✓	✓	n/a	n/a	✓	✓	✓	n/a
Compliance with the independence criteria of the AFEP-MEDEF Code	✘	✓	✘	✓	✓	✓	✓	n/a[d]	n/a[d]	✓	✓	✓	n/a[d]

(a) In this table, ✓ signifies that a criterion for independence is satisfied and ✘ signifies that a criterion for independence is not satisfied.
(b) Director representing employee shareholders.
(c) Director representing employees.
(d) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 9.3).

4.1.1.5 Diversity policy of the Board of Directors

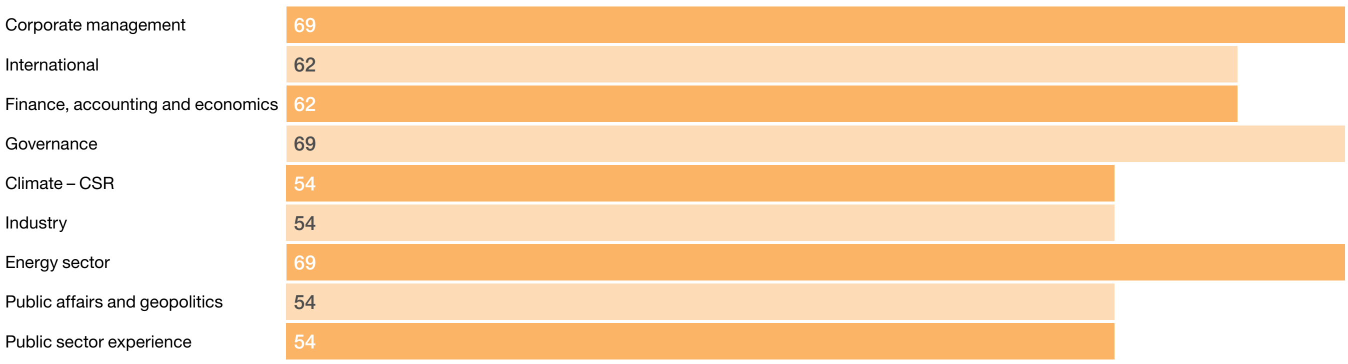
The Board of Directors places a great deal of importance on its composition and the composition of its Committees. In particular, it draws on the work of the Governance and Ethics Committee, which reviews annually and proposes, as circumstances may require, desirable changes to the composition of the Board of Directors and Committees based on the Group's strategy.

The Governance and Ethics Committee conducts its work within the framework of a formal procedure so as to ensure that the directors' areas of expertise are complementary and their backgrounds are diverse, to maintain an overall proportion of independent members that is appropriate to the Company's governance structure and shareholder base, to allow for a balanced representation of women and men on the Board, and to promote an appropriate representation of directors of different nationalities. These principles underpin the selection process for directors.

As part of an effort that began several years ago, the composition of the Board of Directors has changed significantly since 2010 to achieve better gender balance and an openness to more international profiles. Based on its composition as of March 17, 2021, the 13 members of the Board of Directors include seven male directors and six female directors, with four nationalities represented.

In accordance with Articles L. 22-10-7 and L. 22-10-5 (formerly L. 225-27-1 and L. 225-23 respectively) of the French Commercial Code, the directors representing employees and the director representing employee shareholders are not taken into account for the application of the provisions relating to the gender balance of the Board. Therefore, the proportion of women on the Board was 50% as of December 31, 2020 (five men and five women out of 10 directors). The 40% threshold of directors from each gender required by Article L. 22-10-3 (formerly L. 225-18-1) of the French Commercial Code was met as of December 31, 2020.

Expertise of members of the Board of Directors *(%)*



4.1.1.6 Training of directors and knowledge of the Company

Directors may ask to receive training in the specifics of the Company, its businesses and its business sector, as well as any training that may help them perform their duties as directors. At her request, the Lead Director received specific training from the IFA on April 7 and 9, 2020, in relation to her new duties as Lead Director as of May 29, 2020.

In addition, the directors representing employees receive in-house training time at the Company and/or economics training offered by an outside body chosen by the director, after the Secretary of the Board has accepted the body and the training program. This training time, which was initially set at 20 hours per year, was increased to 60 hours per year by decision of the Board of Directors at its meeting of July 26, 2017, a decision the Board confirmed at its meeting of July 29, 2020, pursuant to Article L. 225-30-2 of the French Commercial Code. In addition, in line with the provisions of Article L. 225-23 of the French Commercial Code introduced by Law No. 2019-486 of May 22, 2019, known as the PACTE law, the director representing employee shareholders may, at his or her request, be given training time set at 40 hours per year. Training may be undertaken within the Company or Group, and/or provided by an external body chosen by the director, once the body and program have been accepted by the Secretary of the Board, in line with the conditions set out in the regulations.

Pursuant to Article R. 225-34-3 of the French Commercial Code, and upon a proposal made by the Governance and Ethics Committee, the Board of Directors decided that the training should enable the directors representing employees and the directors representing employee shareholders to acquire and refine the knowledge and techniques needed for the performance of their duties, and that the content of the training should principally address the role and operations of the Board of Directors, the rights and obligations of directors and their liability, and the Company's organization and business activities. The training may be provided at an outside training facility or within the Company itself. The Secretary of the Board, with the consent of the Chairman of the Board of Directors, is responsible for the procedures by which the training program determined by the Board of Directors is implemented.

Since 2013, the Board of Directors has met each year at a Group site. In 2020, the Board of Directors was unable to meet at a Group site in light of the public health measures made necessary by the COVID-19 pandemic. Over the past three years, the Board of Directors has met at the Laggan project site in the North Sea in the United Kingdom, at the Yamal LNG site in northern Russia and on the Halfdan offshore platform off the coast of Denmark.

The directors were likewise unable to take part in site tours, as they had in previous years, as a result of the public health emergency. In 2019, four directors had the opportunity to visit the CSTJF engineering and research center in Pau, France, and two directors visited the site in Saclay, France, where the Group's Research & Development division is located. In 2018, three directors visited the Umm Shaif offshore field in Abu Dhabi, and two other directors visited the deepwater operational center in Lagos, the FPSO of the AKPO offshore field and the LNG plant on Bonny Island, Nigeria.

These site visits by the Board of Directors and its members are opportunities to meet with the Group's employees, partners and local leading figures in the energy sector. They are likely to resume once the public health situation permits.

The directors also have regular contact with Group management, including members of the Executive Committee at Board meetings and operational managers during visits to the Group's sites. These interactions between directors and managers help the directors better understand the Group's activities in a practical way. In October 2020, meetings between 2 or 3 directors and each current or future member of the Executive Committee were organized on the occasion of the strategic workshop.

4.1.2 Functioning of the Board of Directors

8	96.7%	1
meetings of the Board of Directors in 2020	directors' average attendance rate at Board meetings in 2020	executive session chaired by the Lead Independent Director in 2020

4.1.2.1 Working procedures of the Board of Directors

The working procedures of the Board of Directors are set out in its Rules of Procedure, which specify the mission of the Board of Directors and the rules related to the organization of its work. The Board's Rules of Procedure also specify the obligations of each director, as well as the role and powers of the Chairman and the Chief Executive Officer.

Mr. Charles Paris de Bollardière has served as Secretary of the Board of Directors since his appointment by the Board of Directors on September 15, 2009.

Since November 4, 2014, the date of the first appointment of a director representing employees on the Board of Directors, a member of the Central Works Council (replaced since December 2018 by the Central Social and Economic Committee) attends Board meetings in an advisory capacity, pursuant to Article L. 2312-75 of the French Labor Code.

French Law No. 2019-486 of May 22, 2019, on the growth and transformation of businesses (known as the PACTE Law) amended Article L. 225-27-1 of the French Commercial Code, lowering to eight the number of directors above which a second director representing employees must be appointed. Pursuant to those provisions, a second director representing employees was appointed by the SE Committee, on October 14, 2020.

The Rules of Procedure of the Board of Directors are reviewed on a regular basis in order to adapt them to changes in governance rules and practices. In 2014, changes were made to include, in particular, new provisions relating to information of the Board of Directors in the event of new directorships being assumed by the directors or changes in existing directorships, together with a reminder of the obligations of confidentiality inherent to the work of the Board. In December 2015, changes were made to provide for the appointment of a Lead Independent Director in the event of the combination of the functions of Chairman of the Board and Chief Executive Officer and to define his or her duties. In July 2018, changes were made in response to the new demands pertaining to social and environmental responsibility further to the revision of the AFEP-MEDEF Code in June 2018. In July 2020, the Rules of Procedure governing the Board of Directors were amended further to reflect the Company's conversion into a European company and the changes introduced by the PACTE Law.

The text of the latest unabridged version of the Rules of Procedure of the Board of Directors, as approved by the Board of Directors at its meeting on July 29, 2020, is provided below. It is also available on the Company's website under "Our Group/Our identity/Our governance."

The Board of Directors of TOTAL SE[1] has approved the following rules of procedure.

1. ROLE OF THE BOARD OF DIRECTORS

The Board of Directors is a collegial body that determines the course of the Company's business and oversees its implementation, in accordance with its corporate interest by taking into account the social and environmental challenges of its activities. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the Company's legal purpose, the Board may address any issue related to the Company's operation and make any decision concerning the matters falling within its purview. Within this framework, the Board's duties and responsibilities include, but are not limited to, the following:

- appointing the executive and non-executive directors[2] and supervising the handling of their responsibilities;
- striving to promote creation of long-term value by the Company;
- defining the Company's strategic orientations and, more generally, that of the Group;
- regularly reviewing, in relation with such strategic orientations, opportunities and risks such as financial, legal, operational, social and environmental risks as well as measures taken as a result;
- being informed of market developments, the competitive environment and the main challenges facing the Company, including with regard to social and environmental responsibility;
- approving investments or divestments being considered by the Group that exceed 3% of shareholders' equity as well as any significant transaction outside the announced strategy of the Company;
- reviewing information on significant events related to the Company's operations, in particular for investments and divestments involving amounts exceeding 1% of shareholders' equity;
- conducting any audits and investigations it deems appropriate. In particular, the Board, with the assistance of the Committees it has established, ensures that:
  - authority has been properly defined and that the various corporate bodies of the Company make proper use of their powers and responsibilities,
  - no individual is authorized to commit to pay or to make payments, on behalf of the Company, without proper supervision and control,
  - a system for preventing and detecting corruption and influence peddling is in place,
  - a non-discrimination and diversity policy within the Company and its Group exists and is implemented,
  - the internal control function operates properly and the statutory auditors are able to perform their mission satisfactorily, and
  - the Committees duly perform their responsibilities;
- approving the internal assessment procedure regarding ordinary agreements finalized under normal conditions as well as "regulated" agreements;
- ensuring the quality of the information provided to shareholders and financial markets through the financial accounts that it closes and the reports that it publishes, as well as when major transactions are completed;

(1) TOTAL SE is referred to in these rules of procedure as the "Company" and collectively with all its direct and indirect subsidiaries as the "Group".
(2) The term "executive director" refers to the Chairman and Chief Executive Officer, if the Chairman of the Board of Directors is also responsible for the management of the Company; the Chairman of the Board of Directors and the Chief Executive Officer, if the two roles are carried out separately; and, where applicable, any Deputy Chief Executive Officers or Chief Operating Officers, depending on the organizational structure adopted by the Board of Directors.

- convening and setting the agenda for Shareholders' Meetings or meetings of bond holders;
- ensuring that its composition as well as that of the Committees it establishes are balanced in terms of diversity (nationality, age, gender, skills and professional experience);
- preparing on an annual basis, according to criteria set by the Code of Corporate Governance to which the Company refers, the list of directors it deems to be independent amongst the directors other than the director representing employee shareholders and the director or directors representing employees who are not counted for the purpose of determining the proportion of independent directors within the Board of Directors as well as within its Committees; and
- appointing a Lead Independent Director under the conditions set out in article 7, when the Chairman of the Board of Directors is also the Chief Executive Officer pursuant to a decision by the Board of Directors.

2. OBLIGATIONS OF THE DIRECTORS OF TOTAL SE

Before accepting a directorship, all applicants receive a copy of the Company's Articles of Association and these Rules of Procedure. They must ensure that they have broad knowledge of the general and particular obligations related to their duty, especially the laws and regulations governing directorships in European companies (Societas Europaea) registered in France, whose shares are listed in one or several regulated markets. They must also ensure that they are familiar with the guidelines set out in the Corporate Governance Code to which the Company refers.

Accepting a directorship creates an obligation to comply with applicable regulations relating in particular to the functioning of the Board of Directors, and with the ethical Rules of Professional Conduct for directors as described in the Corporate Governance Code to which the Company refers. It also creates an obligation to comply with these rules of procedure and to uphold the Group's values as described in its Code of Conduct.

When directors participate in and vote at meetings of the Board of Directors, they are required to represent all of the Company's shareholders and to act in the interest of the Company as a whole.

2.1 Independence of judgment

Directors undertake to maintain, in all circumstances, the independence of their analysis, judgment, decision-making and actions as well as not to be unduly influenced, directly or indirectly, by other directors, particular groups of shareholders, creditors, suppliers or, more generally, any third party.

2.2 Other directorships or functions

Directors must keep the Board of Directors informed of any position they hold on the management team, Board of Directors or Supervisory Board of any other company, whether French or foreign, listed or unlisted. This includes any positions as a non-voting member (censeur) of a board. To this end, directors expressly undertake to promptly notify the Chairman of the Board of Directors, and the Lead Independent Director if one has been appointed, of any changes to the positions held, for any reason, whether appointment, resignation, termination or non-renewal.

2.3 Participation in the Board's work

Directors undertake to devote the amount of time required to duly consider the information they are given and otherwise prepare for meetings of the Board of Directors and of the Committees of the Board of Directors on which they sit. They may request from the executive and non-executive directors any additional information they deem necessary or useful to their duties. If they consider it necessary, they may request training on the Company's specificities, businesses and industry sector, its challenges in terms of social and environmental responsibility as well as any other training that may be of use to the effective exercise of their duties as directors.

Unless unable, in which case the Chairman of the Board shall be provided advance notice, directors are to attend all meetings of the Board of Directors, meetings of Committees of the Board of Directors on which they serve and Shareholders' Meetings.

The Chairman of the Board ensures that directors receive all relevant information concerning the Company, including that of a negative nature, particularly analyst reports, press releases and the most important media articles.

2.4 Confidentiality

Directors and any other person who attends all or part of any meeting of the Board of Directors or its Committees, are under the strict obligation not to disclose any details of the proceedings.

All documents reviewed at meetings of the Board of Directors, as well as information conveyed prior to or during the meetings, are strictly confidential.

With respect to all non-public information acquired during the exercise of their functions, directors are bound, even after their functions have ceased, by professional secrecy not to divulge such information to employees of the Group or to outside parties.

This obligation goes beyond the mere duty of discretion provided for by law. Directors must not use confidential information obtained prior to or during meetings for their own personal benefit or for the benefit of anyone else, for whatever reason. They must take all necessary steps to ensure that the information remains confidential. Confidentiality and privacy are lifted when such information is made publicly available by the Company.

2.5 Duty of loyalty

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Chairman of the Board of Directors and the Lead Independent Director, if one has been appointed, of any existing or potential conflict of interest with the Company or any Group company. They must refrain from participating in the vote relating to the corresponding resolution as well as from participating in any debates preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Company, or any Group company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Company or any Group company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Company, or from companies directly or indirectly connected to the Company, any advantages liable to be considered as being of a nature that may compromise their independence.

2.6 Duty of expression

Directors undertake to clearly express their opposition if they deem a decision being considered by the Board of Directors is contrary to the Company's corporate interest and they must endeavor to convince the Board of Directors of the pertinence of their position.

2.7 Transactions in the Company's securities and stock exchange rules

While in office, directors are required to hold the minimum number of registered shares of the Company as set by the bylaws.

Generally speaking, directors must act with the highest degree of prudence and vigilance when completing any personal transaction involving the financial instruments of the Company, its subsidiaries or affiliates that are listed or that issue listed financial instruments.

To that end, directors must comply with the following requirements:

1. Any shares or ADRs of the Company or its listed subsidiaries are to be held in registered form, either with the Company or its agent, or as administered registered shares with a French broker (or North American broker for ADRs), whose contact details are communicated by the director to the Secretary of the Board of Directors.
2. Directors shall refrain from directly or indirectly engaging in (or recommending engagement in) transactions involving the financial instruments (shares, ADRs or any other securities related to such financial instruments) of the Company or its listed subsidiaries, or any listed financial instruments for which the director has insider information.
   Insider information is specific information that has not yet been made public and that directly or indirectly concerns one or more issuers of financial instruments or one or more financial instruments and which, if it were made public, could have a significant impact on the price of the financial instruments concerned or on the price of financial instruments related to them.
3. Any transaction in the Company's financial instruments (shares, ADRs or related financial instruments) is strictly prohibited during the thirty calendar days preceding the publication by the Company of its periodic results (quarterly, half-year or annual) as well as on the day of any such announcement.
4. Moreover, directors shall comply with the provisions under which free shares may not be sold:
   - within thirty calendar days prior to the publication by the Company of a press release relating to the half-year and annual results, such publication constituting the announcement of an interim financial report or a year-end report within the meaning of the applicable regulations;
   - as well as in the event of knowledge of inside information within the meaning of Article 7 of Regulation (EU) No. 596/2014 on market abuse, and which has not been made public.
5. Directors are prohibited from carrying out transactions on any financial instruments related to the Company's share (Paris option market (MONEP), warrants, exchangeable bonds, etc.), and from buying on margin or short selling such financial instruments.
6. Directors are also prohibited from hedging the shares of the Company and any financial instruments related to them, and in particular:
   - Company shares that they hold; and, where applicable:
   - Company share subscription or purchase options;
   - rights to Company shares that may be awarded free of charge;
   - Company shares obtained from the exercise of options or granted free of charge.
7. Directors must make all necessary arrangements to declare, pursuant to the form and timeframe provided by applicable law, to the French securities regulator (*Autorité des marchés financiers*), as well as to the Secretary of the Board of Directors, any transaction involving the Company's securities conducted by themselves or by any other person to whom they are closely related.

3. PRACTICES OF THE BOARD OF DIRECTORS

3.1 Board meetings

The Board of Directors meets whenever circumstances require and at least every three months.

Prior to each Board meeting, the directors receive the agenda and, whenever possible, all other materials necessary to consider for the session.

Directors may be represented by another director at a meeting of the Board, provided that no director holds more than one proxy at any single meeting. Each director may represent only one of their colleagues during a given meeting of the Board of Directors.

Whenever authorized by law, directors are considered present for quorum and majority purposes who attend Board meetings through video conferencing or other audiovisual means that are compliant with the technical requirements set by applicable regulations.

3.2 Directors' compensation

Within the limit of a ceiling set by the Shareholders' Meeting, the Board of Directors determines the directors' compensation based on a fixed portion as well as a variable portion that takes into account each directors' actual participation in the work of the Board of Directors and its Committees together with, if applicable, the exercise of the duties of the Lead Independent Director.

The Chief Executive Officer or, if the functions are combined, the Chairman and Chief Executive Officer, does not receive any director's compensation for his participation in the work of the Board and its Committees.

3.3 Secretary of the Board of directors

The Board of Directors, based on the recommendation of its Chairman, appoints a Secretary of the Board who assists the Chairman in organizing the Board's activities, and particularly in preparing the annual work program and the schedule of Board meetings.

The Secretary of the Board drafts the minutes of Board meetings, which are then submitted to the Board for approval. The Secretary is authorized to dispatch Board meeting minutes and to certify copies and excerpts of the minutes.

The minutes of the Board meetings are drafted in French and executed by the Chairman of the meeting and at least one director. If the Chairman of the meeting is unable to attend, it is executed by at least two directors. Non-binding translations of extracts from the minutes may be drawn up into another language than French. However, only the minutes in French shall prevail.

The Secretary of the Board is responsible for all procedures pertaining to the functioning of the Board of Directors. These procedures are reviewed periodically by the Board.

All Board members may ask the Secretary for information or assistance.

3.4 Evaluation of the functioning of the Board of directors

The Board evaluates its functioning at regular intervals not exceeding three years. The evaluation is carried out under the supervision of the Lead Independent Director, if one has been appointed, or under the supervision of the Governance and Ethics Committee, with the assistance of an outside consultant. The Board of Directors also conducts an annual review of its practices.

4. ROLE AND AUTHORITY OF THE CHAIRMAN

The Chairman represents the Board of Directors and, except under exceptional circumstances, has sole authority to act and speak on behalf of the Board of Directors.

The Chairman organizes and oversees the work of the Board of Directors and ensures that the Company's corporate bodies operate effectively and in compliance with good governance principles. The Chairman coordinates the work of the Board of Directors and its Committees. The Chairman establishes the agenda for each Board meeting, including items suggested by the Chief Executive Officer.

The Chairman ensures that directors receive, in a timely manner and in a clear and appropriate format, the information they need to effectively carry out their duties.

In liaison with the Group's General Management, the Chairman is responsible for maintaining relations between the Board of Directors and the Company's shareholders. The Chairman monitors the quality of information disclosed by the Company.

In close cooperation with the Group's General Management, the Chairman may represent the Company in high-level discussions with government authorities and major partners, both at a national and international level.

The Chairman is regularly informed by the Chief Executive Officer of significant events and situations relating to the Group, particularly with regard to strategy, organization, monthly financial reporting, major investment and divestment projects and key financial transactions. The Chairman may ask the Chief Executive Officer or other senior executives of the Company, provided that the Chief Executive Officer is informed, to supply any information that may help the Board or its Committees to carry out their duties.

The Chairman may meet with the statutory auditors in order to prepare the work of the Board of Directors and the Audit Committee.

Every year, the Chairman reports to shareholders at the Shareholders' Meeting on the Board of Directors' work.

5. AUTHORITY OF THE CHIEF EXECUTIVE OFFICER

The Chief Executive Officer is responsible for the Company's overall management. He represents the Company in its relationships with third parties. He also chairs the Executive Committee. The Chief Executive Officer is vested with the broadest powers to act on behalf of the Company in all circumstances, subject to the powers that are, by law, restricted to the Board of Directors and to the Annual Shareholders' Meeting, as well as to the Company's corporate governance rules and in particular these rules of procedure of the Board of Directors. The Board of Directors decides on any limitations of the powers of the Chief Executive Officer.

The Chief Executive Officer is responsible for presenting the Group's results and prospects to shareholders and the financial community on a regular basis.

At each meeting of the Board of Directors, the Chief Executive Officer presents an overview of significant Group events.

The Chief Executive Officer proposes to the Board of Directors who present it to the shareholders at the Shareholders' Meeting, the Management Report of the Company as well as the consolidated Management Report.

6. BOARD COMMITTEES

The Board of Directors approved the creation of:

– an Audit Committee;
– a Governance and Ethics Committee;
– a Compensation Committee;
– a Strategy & CSR Committee.

The roles and composition of each Committee are set forth in their respective rules of procedure, which have been approved by the Board of Directors.

The Committees perform their duties under the authority and for the benefit of the Board of Directors.

Each Committee reports on its activities to the Board of Directors.

7. LEAD INDEPENDENT DIRECTOR

7.1 Appointment of the Lead Independent Director

When the functions of the Chairman of the Board and Chief Executive Officer are combined, the Board of Directors appoints a Lead Independent Director, on the recommendation of the Governance and Ethics Committee, among the directors considered to be independent by the Board of Directors.

The appointed Lead Independent Director holds this position while in office as director, unless otherwise decided by the Board of Directors, which may choose to terminate his duties at any time. If for any reason the director is no longer deemed to be independent, his or her position as Lead Independent Director will be terminated.

The Lead Independent Director, if one is appointed, chairs the Governance and Ethics Committee.

7.2 Duties of the Lead Independent Director

The Lead Independent Director's duties include:

1. Convening meetings of the Board of Directors – Meeting Agenda
   The Lead Independent Director may request that the Chairman and Chief Executive Officer call a meeting of the Board of Directors to discuss a given agenda.

   He may request that the Chairman and Chief Executive Officer include additional items on the agenda of any meeting of the Board of Directors.

2. Participation in the work of the Committees
   If not a member of the Compensation Committee, the Lead Independent Director is invited to attend meetings and participates in the work of the Compensation Committee relating to the annual review of the executive directors' performance and recommendations regarding their compensation.

3. Acting as Chairperson of Board of Directors' meetings
   When the Chairman and Chief Executive Officer is unable to attend all or part of a meeting of the Board of Directors, the Lead Independent Director chairs the meeting. In particular, he or she chairs those Board meetings the proceedings of which relate to the evaluation of the performance of the executive directors and the determination of their compensation, which take place in their absence.

4. Evaluation of the functioning of the Board of Directors
   The Lead Independent Director manages the evaluation process relating to the functioning of the Board of Directors and reports on this evaluation to the Board of Directors.

5. Prevention of conflicts of interest
   Within the Governance and Ethics Committee, the Lead Independent Director organizes the performance of due diligence in order to identify and analyze potential conflicts of interest within the Board of Directors. He informs the Chairman and Chief Executive Officer of any conflicts of interest identified as a result. He reports to the Board of Directors in relation to this work.

   Pursuant to the obligation to declare conflicts of interest set out in Article 2.5 of these Rules, any director affected by an existing or potential conflict of interest must inform the Chairman and Chief Executive Officer and the Lead Independent Director.

6. Monitoring of the satisfactory functioning of the Board and compliance with the Rules of Procedure

   The Lead Independent Director ensures compliance with the rules of the Corporate Governance Code to which TOTAL S.A. refers and with the Rules of Procedure of the Board of Directors. He or she may make any suggestions or recommendations that he deems appropriate to this end.

   He or she ensures that the directors are in a position to carry out their tasks under optimal conditions and that they have sufficient information to perform their duties.

   With the agreement of the Governance and Ethics Committee, the Lead Independent Director may hold meetings of the directors who do not hold executive or salaried positions on the Board of Directors. He reports to the Board of Directors on the conclusions of such meetings.

7. Relationships with Shareholders
   The Chairman and Chief Executive Officer and the Lead Independent Director are the shareholders' dedicated contacts on issues that fall within the remit of the Board.

   When a shareholder approaches the Chairman and Chief Executive Officer in relation to such issues, they may seek the opinion of the Lead Independent Director before responding appropriately to the shareholder's request.

   When the Lead Independent Director is approached by a shareholder in relation to such issues, he or she must inform the Chairman and Chief Executive Officer, providing his or her opinion, so that the Chairman and Chief Executive Officer may respond appropriately to the request. The Chairman and Chief Executive Officer must inform the Lead Independent Director of the response given.

   With the consent of the Chairman of the Board of Directors, the Lead Independent Director may represent the Board of Directors at meetings with the shareholders of the Company on matters of corporate governance.

7.3 Resources, conditions of office and activity report

The Chairman and Chief Executive Officer must regularly update the Lead Independent Director on the Company's activities.

The Lead Independent Director has access to all of the documents and information necessary for the performance of his or her duties.

The Lead Independent Director may consult the Secretary of the Board and use the latter's services in the performance of his or her duties.

Under the conditions set out in Article 3.2 of these Rules and those established by the Board of Directors, the Lead Independent Director may receive additional director's compensation for the duties entrusted to him or her.

The Lead Independent Director must report annually to the Board of Directors on the performance of his or her duties. During Annual Shareholders' Meetings, the Chairman and Chief Executive Officer may invite the Lead Independent Director to report on his or her activities.

4.1.2.2 Activity of the Board of Directors in 2020

Directors are in principle summoned to Board meetings by letter sent the week preceding the meetings. Whenever possible, documents to be considered for decisions to be made at Board meetings are sent with the notice of meetings. The minutes of the previous meeting are expressly approved at the following Board meeting.

In 2020, the Board of Directors met eight times. The overall attendance rate for the directors was 96.7%. The Audit Committee met 7 times, with an attendance rate of 100%; the Compensation Committee met 3 times, with 83.3% attendance; the Governance and Ethics Committee held 3 meetings, with 100% attendance; and the Strategy & CSR Committee met 5 times, with 100% attendance.

A table summarizing individual attendance at the Board of Directors and Committee meetings is provided below.

Directors' attendance at Board and Committee meetings in 2020

	Board of Directors		Audit Committee		Compensation Committee		Governance and Ethics Committee		Strategy & CSR Committee	
Directors	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings
Patrick Pouyanné, *Chairman and Chief Executive Officer*	100%	8/8	–	–	–	–	–	–	100%	5/5
Patrick Artus	100%	8/8	100%	7/7	–	–	–	–	100%	5/5
Patricia Barbizet[a]	100%	8/8	–	–	100%	3/3	100%	3/3	100%	5/5
Marie-Christine Coisne-Roquette, *Lead Independent Director*[b]	100%	8/8	100%	3/3	100%	1/1	100%	3/3	100%	3/3[h]
Jérôme Contamine[c]		4/4	100%	4/4	–	–	–	–	–	3[i]
Lise Croteau	100%	8/8	100%	7/7	–	–	–	–	–	5[i]
Mark Cutifani	100%	8/8	–	–	100%	3/3	–	–	–	4[i]
Valérie Della Puppa Tibi[d]	100%	8/8	–	–	100%	1/1	–	–	–	5[i]
Romain Garcia-Ivaldi[e]	100%	4/4	–	–	–	–	–	–	–	4[i]
Maria van der Hoeven	100%	8/8	100%	7/7	–	–	–	–	–	5[i]
Anne-Marie Idrac	100%	8/8	–	–	–	–	100%	3/3	100%	5/5
Jean Lemierre	100%	8/8	–	–	–	–	100%	3/3	100%	5/5
Angel Pobo[f]	100%	2/2	–	–	–	–	–	–	–	3[i]
Christine Renaud[g]	100%	4/4	–	–	100%	2/2	–	–	100%	1/1
Carlos Tavares[g]	50%	2/4	–	–	0%	0/2	–	–	–	1[i]
Attendance rate	**96.7%**		**100%**		**83.3%**		**100%**		**100%**[j]	

(a) Lead Independent Director until May 29, 2020.
(b) Lead Independent Director since May 29, 2020.
(c) Director since May 29, 2020.
(d) Director representing employee shareholders.
(e) Director representing employees since June 9, 2020.
(f) Director representing employees since October 14, 2020.
(g) Director until May 29, 2020.
(h) One voluntary participation, then participation on three occasions as a member.
(i) Voluntary participation (director not a member of the Strategy & CSR Committee).
(j) Excluding voluntary participation.

The Board meetings included, but were not limited to, a review of the following subjects:

February 5

- presentation to the Board of the work of the Strategy & CSR Committee at its meeting on December 11, 2019
- closing of the 2019 accounts (Consolidated Financial Statements, parent company accounts) after the Audit Committee's report and work performed by the statutory auditors
- draft allocation of the result of TOTAL S.A., setting of the 2019 dividend, ex-dividend and payment dates for fiscal year 2019, final dividend
- main investor relations messages
- presentation to the Board of the work of the Governance and Ethics Committee at its meeting on January 30, 2020
- report of the Lead Independent Director on her mandate
- assessment of the independence of the directors as of December 31, 2019
- allocation of the directors' compensation for the 2019 fiscal year
- market abuse regulations – blackout periods
- information on transactions on the Company's securities by the Chairman and Chief Executive Officer
- approval of the procedure for agreements entered into by the Company
- presentation to the Board of the work of the Compensation Committee at its meeting on January 30, 2020
- presentation of the new procedure for approving compensation for corporate officers (derived from the Ordinance of November 27, 2019)
- implementation conditions for a performance share plan for 2020
- guidelines governing compensation for the Chairman and Chief Executive Officer for fiscal years 2019 and 2020
- information on Company share buybacks
- renewal of the authorization to issue bonds
- renewal of the authorization to issue security, commitments and guarantees
- renewal of the authorization to issue guarantees for certain financial transactions
- notifications regarding thresholds in the Company's share capital or voting rights
- approval of the Board of Directors' report to the Shareholders' Meeting regarding purchases and sales of shares of the Company pursuant to Article L. 225-211 of the French Commercial Code
- review of the suit brought against the Company in Nanterre, France, by four NGOs and 14 local municipalities over the Vigilance Plan

March 18

- presentation to the Board of Directors of the Group's action plan in response to the oil crisis
- approval of the Group's financial policy
- information on investments in India with the Adani group
- presentation to the Board of the work of the Governance and Ethics Committee at its meeting of March 11, 2020
- discussion of the functioning of the Board of Directors
- review of the proposals for appointment and reappointment of the directorships
- presentation to the Board of the work of the Compensation Committee at its meeting of March 11, 2020
- the Chairman and Chief Executive Officer's compensation (in his absence) for fiscal year 2019
- compensation policy for the Chairman and Chief Executive Officer for fiscal year 2020
- Board members' compensation policy
- confirmation of the final grant of performance shares under the 2017 Plan in the light of the fulfillment of the performance conditions
- granting of performance shares to the Chairman and Chief Executive Officer and other beneficiaries (2020 Plan)
- presentation to the Board of the work of the Strategy & CSR Committee at its meeting of March 18, 2020
- preparation for the Annual Shareholders' Meeting; date and location given the public health and/or legal situation or government measures; setting of the agenda for the Shareholders' Meeting; approval of the various chapters of the Universal Registration Document forming the management report as defined by the French Commercial Code, the report on corporate governance and the special reports on subscription and purchase options on shares of the Company and the granting of performance shares; approval of the report of the Board of Directors and the text of the draft resolutions put to the Shareholders' Meeting; press releases
- presentation to the Board of the work of the Compensation Committee at its meeting on March 16, 2020
- setting of the schedule related to the dividend (interim dividends and final dividend) for fiscal year 2021
- information on bond issues

May 4

- information on a projected gas and electricity BtC marketing acquisition in Spain
- the statutory and Consolidated Financial Statements, results for the first quarter of 2020 after the Audit Committee's report and work performed by the statutory auditors
- presentation to the Board of the work of the Audit Committee at its meeting of April 27, 2020
- presentation of the Group's action plan in response to the health and oil crisis
- information on Company share buybacks
- proposal for the distribution of a final dividend for 2019 of €0.68 per share with an option for the payment of the final dividend in share or in cash with a discount
- setting of a first interim dividend on the dividend for fiscal year 2020
- proposal by the Chairman and Chief Executive Office to members of the Executive Committee that they agree to a temporary reduction in their compensation taking into account the health and economic context; reduction in directors' compensation
- press releases
- presentation of the Group's Climate Ambition and the related press release
- report of the meeting of the Strategy & CSR Committee of March 18, 2020
- preparation of the Annual Shareholders' Meeting: information on the employee information and consultation process regarding the Company's conversion to a European company; request submitted by shareholders to add draft resolutions to the Annual Shareholder's Meeting agenda; final report of the Board of Directors on the draft resolutions submitted to the Annual Shareholders' Meeting; final text of the draft resolutions
- information of the Board of Directors regarding the setting of the subscription period and price for Company shares in the 2020 capital increase reserved for employees
- information on the share capital
- information on bond issues
- information on a new syndicated credit facility
- notifications regarding thresholds in the Company's share capital or voting rights

May 29

- preparation for and organization of the Annual Shareholders' Meeting: report from governance roadshows undertaken ahead of the Meeting, responses to written questions submitted by shareholders, press release on the Annual Shareholders' Meeting
- determination of share issue prices for payment of the final dividend for fiscal year 2019 in shares, approval of the press release on the final dividend for fiscal year 2019
- delegation of authority to undertake operations on shares of the Company
- information on bond issues
- authorization to issue guarantees
- information and decisions related to the 2020 capital increase reserved for employees
- conversion of the Company into a European company and powers to effect formalities
- change to the composition of the Board's Committees

July 29

- approval of the Mero 3 project in Brazil
- presentation to the Board of the work of the Governance and Ethics Committee at its meeting of July 29, 2020
- review of the appointment of a director representing employees by the Central Economic and Social Committee of the Company
- determination of the conditions of office for the position of director representing employees
- information on the voting results of the Annual Shareholders' Meeting of May 29, 2020
- registration of the Company as a European company and amendments to the rules of procedure for the Board of Directors and Committees
- confidentiality of the work of the Board of Directors
- presentation of the strategic outlook for Refining & Chemicals, including a focus on safety and energy efficiency, improvement in operational performance and investment discipline
- statutory and Consolidated Financial Statements, results for the second quarter of 2020 and the first half of 2020 after the Audit Committee's report and work performed by the statutory auditors
- presentation to the Board of the work of the Audit Committee at its meetings of June 10 and July 27, 2020
- setting of a second interim dividend for fiscal year 2020
- approval of the press releases on impairments, results and the payment of an interim dividend
- approval of the supplementary report by the Board of Directors on the share capital increase reserved for employees (Total Capital 2020) pursuant to Article R. 225-116 of the French Commercial Code
- results of the option to receive the payment of the final dividend for fiscal year 2019 in shares
- information on the share capital
- information on Company share buybacks
- information on bond issues
- authorization of guarantees
- notifications regarding thresholds in the Company's share capital or voting rights

September 16

- strategic outlook for Exploration & Production activities with a presentation of safety indicators and environmental objectives
- strategic outlook for Gas, Renewables & Power activities

– presentation of the Group's five-year plan
– presentation to the Board of the report of the Strategy & CSR Committee at its meeting on September 16, 2020
– information to be presented to investors in September 2020 on the Group's strategy and outlook
– share capital increase reserved for employees (Total Capital 2021) and grant of free shares as a deferred contribution
– information on bond issues

October 29

– presentation to the Board of the work of the Strategy & CSR Committee at its meeting of September 16, 2020, including the draft communication to investors on September 30, 2020
– strategic outlook for Marketing & Services activities
– information on the appointment by the European Works Committee of the second director representing employees on October 14, 2020
– Consolidated Financial Statements, results for the third quarter of 2020 after the Audit Committee's report and work performed by the statutory auditors
– presentation to the Board of the work of the Audit Committee at its meetings of October 5 and 26, 2020
– determination of a third interim dividend to be paid on the dividend for fiscal year 2020
– authorization of guarantees
– information on Company share buybacks
– notifications regarding thresholds in the Company's share capital
– approval of the recommendation by the Audit Committee on the appointment or reappointment of the statutory auditors by the Annual Shareholders' Meeting of May 25, 2022

December 16

– approval of the project to develop the oil resources at Lake Albert (Uganda and Tanzania) taking into account the social and environmental challenges of the project
– authorization of guarantees
– presentation of the report from the meeting of the Strategy & CSR Committee of October 28-29, 2020
– presentation of the Group's 2021 budget
– the Company's policy on gender equality and pay equity
– information on bond issues
– information on Company share buybacks

4.1.2.3 Committees of the Board of Directors

THE AUDIT COMMITTEE

Composition

As of March 17, 2021, the Audit Committee is made up of four members, with a 100% rate of independence. Mr. Patrick Artus, who was appointed "financial expert" of the Committee by the Board of Directors at its meeting of May 29, 2020, chairs the Committee. Mses. Lise Croteau and Maria van der Hoeven and Mr. Jérôme Contamine are members of the Committee. The careers of the Committee members confirm their possession of acknowledged expertise in the financial, accounting or audit fields (refer to point 4.1.1.1 of this chapter). On the proposal of the Governance and Ethics Committee, the Board of Directors decided at its meeting of March 17, 2021, to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 28, 2021. As of that date, the Audit Committee will be chaired by Maria van der Hoeven. Patricia Barbizet, Jérôme Contamine, Lise Croteau and Romain Garcia-Ivaldi will be members. Jérôme Contamine and Lise Croteau will be the financial experts of the Committee.

Duties

The rules of procedure of the Audit Committee define the Committee's duties as well as its working procedures. Those rules of procedures were amended on February 8, 2017, in order to adapt the Committee's role and responsibilities to the European audit reform; on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018; and most recently on July 29, 2020, to reflect the Company's conversion to a European company and various amendments to the Company's Articles of Association that were approved by the Annual Shareholders' Meeting on May 29, 2020. The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 29, 2020, is available on TOTAL's website under "Our Group/Our Identity/Our Governance."

Notwithstanding the duties of the Board of Directors, the Audit Committee is tasked with the following missions in particular:

Regarding the statutory auditors:

– making a recommendation to the Board of Directors on the statutory auditors the Annual Shareholders' Meeting for designation or renewal, following their selection procedure organized by General Management and enforcing the applicable regulations;
– monitoring the statutory auditors in the performance of their missions and, in particular, examining the additional report drawn up by the statutory auditors for the Committee, while taking account of the observations and conclusions of the High Council of Statutory Auditors (*Haut Conseil du Commissariat aux Comptes*) further to the inspection of the auditors in question in application of the legal provisions, where appropriate;
– ensuring that the statutory auditors meet the conditions of independence as defined by regulations, and analyzing the risks to their independence and the measures taken to mitigate these risks; to this end, examining all the fees paid by the Group to the statutory auditors, including for services other than the certification of the financial statements, and making sure that the rules applying to the maximum length of the term of the statutory auditors and the obligation to alternate are obeyed;
– approving the delivery by the statutory auditors of services other than those relating to the certification of the financial statements, in accordance with the applicable regulations.

Regarding accounting and financial information:

– following the process to produce financial information and, where appropriate, formulating recommendations to guarantee its integrity, where appropriate;
– monitoring the implementation and the proper workings of a disclosures Committee in the Company, and reviewing its conclusions;
– examining the assumptions used to prepare the financial statements, assessing the validity of the methods used to handle significant transactions and examining the parent company financial statements and annual, half-yearly, and quarterly Consolidated Financial Statements prior to their examination by the Board of Directors, after regularly monitoring the financial situation, cash position and off-balance sheet commitments;
– guaranteeing the appropriateness and the permanence of the accounting policies and principles chosen to prepare the statutory and Consolidated Financial Statements of the Company;
– examining the scope of the consolidated companies and, where appropriate, the reasons why companies are not included;
– examining the process to validate the proved reserves of the companies included in the scope of consolidation;
– reviewing, if requested by the Board of Directors, major transactions contemplated by the Company.

Regarding internal control and risk management procedures:

– monitoring the efficiency of the internal control and risk management systems, and of internal audits, in particular with regard to the procedures relating to the production and processing of accounting, financial and non-financial information, without compromising its independence, and in this respect:
  – checking that these systems exist and are deployed, and that actions are taken to correct any identified weaknesses or anomalies;

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- reviewing, based in particular on the risk maps developed by the Company, the exposure to risks, such as financial risks (including material off-balance sheet commitments), legal risks, operational risks, social and environmental risks, as well as measures taken as a result;
- annually examining the reports on the work of the Group Risk Management Committee (formerly named Group Risk Committee) and the major issues for the Group;
- examining the annual work program of the internal auditors and being regularly informed of their work;
- reviewing significant litigation at least once a year;
- overseeing the implementation of the Group's Financial Code of Ethics;
- proposing to the Board of Directors, for implementation, a procedure for complaints or concerns of employees, shareholders and others, related to accounting, internal control or auditing matters, and monitoring the implementation of this procedure;
- where appropriate, examining important operations in which a conflict of interests could have arisen;
- annually examining the results of the controls carried out within the framework of the procedure implemented in order to assess the agreements on current operations finalized under normal conditions and verifying the relevance of the criteria used to qualify those agreements.

The Audit Committee reports to the Board of Directors on the performance of its duties. It also reports on the results of the statutory auditors' mission concerning the certification of the financial statements, on how this mission contributed to the integrity of the accounting and financial information and its role in this process. It shall inform the Board of Directors without delay of any difficulties encountered.

Organization of activities

The Committee meets at least seven times each year: each quarter to review in particular the statutory financial statements of the Company and the annual and quarterly Consolidated Financial Statements, and at least on three other occasions to review matters not directly related to the review of the quarterly financial statements.

At each Committee meeting where the quarterly financial statements are reviewed, the Chief Financial Officer presents the Consolidated Financial Statements and the statutory financial statements of the Company, as well as the Group's financial position and, in particular, its liquidity, cash flow and debt situation. A memo describing risk exposure and off-balance sheet commitments is communicated to the Committee. This review of the financial statements includes a presentation by the statutory auditors underscoring the key points observed.

As part of monitoring the efficiency of the internal control and risk management systems, as well as internal audits with regard to the procedures relating to the production and processing of accounting, financial and non-financial information, the Committee is informed of the work program of the Corporate Internal Control and Audit Department and its organization, on which it may issue an opinion. The Committee also receives a summary of the internal audit reports, which is presented at each Committee meeting where the quarterly financial statements are reviewed. The risk management processes implemented within the Group, as well as updates to them, are presented regularly to the Committee.

The Committee may meet with the Chairman and Chief Executive Officer or, if the functions are separate, the Chairman of the Board of Directors, the Chief Executive Officer as well as, if applicable, any Deputy Chief Executive Officer of the Company. It may perform inspections and consult with managers of operating or non-operating department, as may be useful in performing its duties. The Chairman of the Committee gives prior notice of such meeting to the Chairman and Chief Executive Officer or, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, both the Chairman of the Board of Directors and the Chief Executive Officer. In particular, the Committee is authorized to consult with those involved in preparing or auditing the financial statements (Chief Financial Officer and principal Finance Department managers, Audit Department, Legal Department) by asking the Company's Chief Financial Officer to call them to a meeting.

The Committee consults with the statutory auditors regularly, including at least once a year without any Company representative present. If it is informed of a substantial irregularity, it recommends to the Board of Directors all appropriate action.

If it considers that it is necessary for the accomplishment of its mission, the Committee asks the Board of Directors for resources to receive assistance or conduct external studies on subjects within its competence. If the Committee calls on external consulting services, it makes sure that they are objective.

Work of the Audit Committee

In 2020, the Audit Committee met 7 times, with an attendance rate of 100%. The Chairman and Chief Executive Officer did not attend any of the meetings of the Audit Committee.

The Audit Committee's work mainly focused on the following areas:

February 3

- update on the imminent expiry of the statutory auditors' term and the launch of a tender procedure
- review of the Consolidated Financial Statements and statutory financial statements of the parent company for the fourth quarter of 2019 and the 2019 fiscal year. Presentation by the statutory auditors of their work performed in accordance with French and American professional audit standards
- review of the Group's financial position
- update on outstanding balance of guarantees granted by TOTAL S.A. as of December 31, 2019
- update on the Sarbanes-Oxley process: self-assessment carried out by the Group and audit of the internal control related to financial reporting by the statutory auditors as part of the SOX 404 process
- update on risk factors, countries subject to economic sanctions, legal and arbitration proceedings
- presentation of the section of the Universal Registration Document on internal control and risk management procedures relating to accounting and financial information
- update on the 2019 internal audit and 2020 audit schedule

March 16

- launch of the second round of the tender procedure for the reappointment of the statutory auditors
- review of the Group's financial policy
- presentation of the Group's insurance policy
- process for validating hydrocarbon reserves at the end of the 2019 fiscal year
- presentation of the report on the payments made to governments
- review of the Statutory Auditors' reports
- presentation of the statement of non-financial performance
- presentation of the update to the Vigilance Plan and the report on its implementation
- presentation of the annual procedure for evaluating agreements relating to current operations finalized under ordinary conditions

April 27

- review of the Consolidated Financial Statements and statutory financial statements of the parent company for the first quarter of 2020, with a presentation by the statutory auditors of a summary of their limited review
- review of the Group's financial situation
- presentation of the 2020 health, safety and environment audit plan and review of the fiscal year 2019
- review of the internal audit

June 10

- update on the reappointment of the joint statutory auditors
- presentation of the work of the Group Risk Management Committee
- update on accounting standards and the scope of consolidation

July 27

- review of the Consolidated Financial Statements and statutory financial statements of TOTAL SE for both the second quarter and the first half of 2020, with a presentation by the statutory auditors of a summary of their limited review
- presentation of the Group's financial position as of June 30, 2020
- update on the internal audits conducted
- update on the reappointment of the joint statutory auditors

October 5

- review of the procedure for selecting the joint statutory auditors (examination of the selection process, interview of the candidates for statutory auditors and draft recommendations)
- audit of the accounts as of December 31, 2020: statutory auditors' analysis of the main cross-business risks to be addressed as important points in their audit plan for the closing of the 2020 accounts; presentation by the statutory auditors of the absence of any changes in audit practices and procedures in light of the COVID-19 pandemic and the oil crisis
- review of significant litigation and status update on the main pending proceedings involving the Group
- review of the Group's fiscal position

October 26

- interview of the members of the Audit Committee with the statutory auditors in the absence of Group employees
- proposal to the Board of Directors on the reappointment of the joint statutory auditors
- review of the Consolidated Financial Statements and statutory financial statements of TOTAL SE for the third quarter of 2020 and the first nine months of 2020, with a presentation by the statutory auditors of a summary of their limited review
- review of the Group's financial position at the end of the quarter
- update on the internal audits conducted in the third quarter of 2020
- information of the Committee on compliance by relevant employees with the provisions of the Financial Code of Ethics

At each meeting related to the quarterly financial statements, the Committee reviewed the Group's financial position in terms of liquidity, cash flow and debt, as well as its significant risks and off-balance sheet commitments. The Audit Committee was periodically informed of the risk management processes implemented within the Group as well as the work carried out by the Audit & Internal Control division, which was presented at each Committee meeting where the quarterly financial statements were reviewed.

The Audit Committee reviewed the financial statements no later than two days before they were reviewed by the Board of Directors, a sufficient amount of time as set out in the recommendations of the AFEP-MEDEF Code.

The statutory auditors attended all Audit Committee meetings held in 2020.

The Chief Financial Officer, the Vice President Accounting and the Senior Vice President Audit & Internal Control division, as well as the Corporate Treasurer, attended all Audit Committee meetings related to their area.

The Chairman of the Committee reported to the Board of Directors on the Committee's work.

THE GOVERNANCE AND ETHICS COMMITTEE

Composition

As of March 17, 2021, the Governance and Ethics Committee is made up of four members, with a 75% rate of independence. Ms. Marie-Christine Coisne-Roquette chairs the Committee. Mses. Patricia Barbizet and Anne-Marie Idrac and Mr. Jean Lemierre are members of the Committee. On the proposal of the Governance and Ethics Committee, the Board of Directors decided at its meeting of March 17, 2021, that the composition of the Committees will not be modified at the end of the Shareholders' Meeting on May 28, 2021. As of that date, the Governance and Ethics Committee will be chaired by Marie-Christine Coisne-Roquette. Patricia Barbizet, Anne-Marie Idrac and Jean Lemierre will be members.

Duties

The rules of procedure of the Governance and Ethics Committee define the Committee's duties as well as its working procedures. Those rules were amended on July 25, 2018, in order to extend the duties of the Committee to matters regarding compliance as well as the prevention and detection of corruption and influence peddling, and most recently on July 29, 2020, to reflect the Company's conversion to a European company and various amendments to the Company's Articles of Association that were approved by the Annual Shareholders' Meeting on May 29, 2020. The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 29, 2020, is available on TOTAL's website under "Our Group/Our Identity/Our Governance."

The Governance and Ethics Committee is focused on:

- recommending to the Board of Directors the persons that are qualified to be appointed as directors, so as to guarantee the scope of coverage of the directors' competencies and the diversity of their profiles;
- recommending to the Board of Directors the persons that are qualified to be appointed as executive directors;
- preparing the Company's corporate governance rules and supervising their implementation;
- ensuring compliance with ethics rules and examining any questions related to ethics and situations of conflicting interests;
- reviewing matters regarding compliance as well as the prevention and detection of corruption and influence peddling.

Its duties include:

- presenting recommendations to the Board of Directors for its membership and the membership of its Committees, and the qualification in terms of independence of each applicant for Directors' positions on the Board of Directors;
- proposing annually to the Board of Directors the list of directors who may be considered as "independent directors";
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- assisting the Board of Directors in the selection of the organization of the governance of the Company as well as the selection and evaluation of the executive directors and examining the preparation of their possible successors including establishing a succession plan, including cases of unforeseeable absence;
- recommending to the Board of Directors the persons that are qualified to be appointed as directors;
- recommending to the Board of Directors the persons that are qualified to be appointed as members of a Committee of the Board of Directors;
- proposing methods for the Board of Directors to evaluate its performance, and in particular preparing means of regular self-assessment of the workings of the Board of Directors, and the possible assessment thereof by an external consultant;
- proposing to the Board of Directors the terms and conditions for allocating directors' compensation and the conditions under which expenses incurred by the directors are reimbursed;

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- developing and recommending to the Board of Directors the corporate governance principles applicable to the Company;
- preparing recommendations requested at any time by the Board of Directors or the General Management of the Company regarding appointments or governance;
- examining the conformity of the Company's governance practices with the recommendations of the Code of Corporate Governance to which the Company refers;
- supervising and monitoring the implementation of the approach of the Company with regard to ethics, compliance, prevention and detection of corruption and influence peddling and, in this respect, ensuring that the necessary procedures are in place, including those for updating the Group's Code of Conduct and that this Code is disseminated and applied;
- examining any questions related to ethics and potential situations of conflicting interests;
- examining changes in the duties of the Board of Directors.

Work of the Governance and Ethics Committee

In 2020, the Governance and Ethics Committee held 3 meetings, with 100% attendance. Its work mainly focused on the following areas:

January 30

- review of the terms of office of the directors and the members of the Committees
- report of the Lead Independent Director on her mandate
- proposals to the Board of Directors on the assessment of the directors' independence, based on the independence criteria specified in the AFEP-MEDEF Code
- allocation of the compensation granted to directors and members of the Committees for fiscal year 2019
- Board members' compensation policy
- update on the Market Abuse regulation (Regulation (EU) No. 596/2014 of April 16, 2014) and the applicable blackout periods
- information on transactions involving the Company's securities by executive directors
- procedure relating to agreements entered into by the Company pursuant to Article L. 225-39 (subsequently paragraph 2 of Article L. 22-10-12) of the French Commercial Code

March 11

- discussion of the workings of the Board of Directors
- proposal to the Board of Directors on the appointment of a new director and the renewal of the terms of office of three directors, which was submitted to the Shareholders' Meeting of May 29, 2020
- procedures for appointing directors representing employees connected with the provisions in France's PACTE Law (No. 2019-486) of May 22, 2019
- examination of the sections of the report on corporate governance within its remit
- approval of the draft report to the Annual Shareholders' Meeting and of the text of the draft resolutions
- update on the succession plans

July 29

- presentation of the Group's ethics and compliance policy
- information on the appointment by the Central Economic and Social Committee of the director representing employees and on the terms under which the director representing employee shareholders and the director representing employees perform their duties
- information on the Company's registration as a European company as of July 16, 2020
- proposal to modify the rules of procedure of the Board of Directors and Committees to reflect the Company's conversion into a European company and various amendments to the Company's Articles of Association approved at the Annual Shareholders' Meeting on May 29, 2020
- review of the confidentiality rules governing the work of the Board of Directors
- review of the Chairman and Chief Executive Officer's compensation for fiscal year 2020 in connection with the COVID-19 pandemic and in the light of the extraordinary economic circumstances that require an extensive cost savings plan within the Company, and review of the Chairman and Chief Executive Officer's insurance package
- discussion regarding changes to the Board's composition

THE COMPENSATION COMMITTEE

Composition

As of March 17, 2021, the Compensation Committee is made up of four members, with a 66.7% rate of independence(1). The Committee is chaired by Mr. Mark Cutifani. Mses. Patricia Barbizet, Marie-Christine Coisne-Roquette and Valérie Della Puppa Tibi (director representing employee shareholders) are members of the Committee. On the proposal of the Governance and Ethics Committee, the Board of Directors decided at its meeting of March 17, 2021, to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 28, 2021. As of that date, the Compensation Committee will be chaired by Mark Cutifani. Marie-Christine Coisne-Roquette and Valérie Della Puppa Tibi will be members.

Duties

The rules of procedure of the Compensation Committee define the Committee's duties as well as its working procedures. Those rules of procedures were amended on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and most recently on July 29, 2020, to reflect the Company's conversion to a European company and various amendments to the Company's Articles of Association that were approved by the Annual Shareholders' Meeting on May 29, 2020. The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 29, 2020, is available on TOTAL's website under "Our Group/Our Identity/Our Governance."

The Committee is focused on:
- examining the executive compensation policies implemented by the Group and the compensation of members of the Executive Committee;
- evaluating the performance and recommending the compensation of each executive director;
- preparing reports which the Company must present in these areas.

The Committee's duties include:
- examining the main objectives proposed by the Company's General Management regarding compensation of the Group's senior executives, including stock option and restricted share grant plans as well as "equity-based plans", and advising on this subject;
- presenting recommendations and proposals to the Board of Directors concerning:
  - compensation, pension and life insurance plans, in-kind benefits and other compensation (including severance benefits) for the executive directors of the Company; in particular, the Committee proposes compensation structures that take into account the Company's strategic orientations, objectives and earnings, market practices as well as one or more criteria related to social and environmental responsibility,
  - stock option and restricted share grants, particularly grants of restricted shares to the executive directors;

(1) Excluding the director representing employee shareholders in accordance with the recommendations of the AFEP-MEDEF Code (point 9.3).

  - examining the compensation of the members of the Executive Committee, including stock option and restricted share grant plans as well as "equity-based plans", pension and insurance plans and in-kind benefits;
- preparing and presenting reports in accordance with these rules of procedure;
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- preparing recommendations requested at any time by the Chairman of the Board of Directors or the General Management of the Company regarding compensation;
- at the request of the Chairman of the Board, examining all draft reports of the Company regarding compensation of the executive officers or any other matters within its competence.

Work of the Compensation Committee

In 2020, the Compensation Committee held 3 meetings, with 83.3% attendance. The Chairman and Chief Executive Officer does not attend the Committee's deliberations regarding his own situation.

Its work mainly focused on the following areas:

January 30

- presentation of the new procedure for approving compensation for corporate officers (derived from the Ordinance of November 27, 2019)
- implementation conditions for a performance share plan for 2020
- guidelines governing compensation for the Chairman and Chief Executive Officer for the 2019 and 2020 fiscal years

March 11

- compensation to be paid to the Chairman and Chief Executive Officer for fiscal year 2019
- compensation policy for the Chairman and Chief Executive Officer for fiscal year 2020
- compliance with the restrictions on share transfers by the Chairman and Chief Executive Officer
- Board members' compensation policy
- confirmation of the grant of performance shares pursuant to the 2017 Plan
- conditions for granting performance shares to the Chairman and Chief Executive Officer and other beneficiaries (2020 Plan)
- report on corporate governance; compensation for administration and management bodies; equity ratio
- draft resolutions submitted to the Annual Shareholders' Meeting of May 29, 2020
- report by the Board of Directors on the resolutions submitted to the Annual Shareholders' Meeting of May 29, 2020

December 16

- guidelines governing compensation for the Chairman and Chief Executive Officer for fiscal year 2021

THE STRATEGY & CSR COMMITTEE

Composition

As of March 17, 2021, the Strategy & CSR Committee is made up of six members, including four independent directors and the director representing employees. Mr. Patrick Pouyanné chairs the Committee. Mses. Patricia Barbizet, Marie-Christine Coisne-Roquette and Anne-Marie Idrac and Messrs. Patrick Artus and Jean Lemierre are members of the Committee. On the proposal of the Governance and Ethics Committee, the Board of Directors decided at its meeting of March 17, 2021, to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 28, 2021. As of that date, the Strategy & CSR Committee will be chaired by Patrick Pouyanné. Patricia Barbizet, Marie-Christine Coisne-Roquette, Anne-Marie Idrac, Jean Lemierre and Angel Pobo will be members.

Duties

The rules of procedure of the Strategy & CSR Committee define the Committee's duties as well as its working procedures. Those rules of procedures were amended on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and most recently on July 29, 2020, to reflect the Company's conversion to a European company and various amendments to the Company's Articles of Association that were approved by the Annual Shareholders' Meeting on May 29, 2020. The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 29, 2020, is available on TOTAL's website under "Our Group/Our Identity/Our Governance."

To allow the Board of Directors of the Company to ensure the Group's development, the Strategy & CSR Committee's duties include:
- examining the Group's overall strategy proposed by the Company's Chief Executive Officer;
- examining the Group's corporate social and environmental responsibility (CSR) issues and, in particular, matters relating to the incorporation of the Climate challenge in the Group's strategy;
- examining transactions that are of particular strategic importance;
- reviewing the competitive environment, the main challenges the Group faces, including with regard to social and environmental responsibility, as well as the resulting medium and long-term outlook for the Group.

Work of the Strategy & CSR Committee

In 2020, the Strategy & CSR Committee met 5 times, with 100% attendance. Its work mainly focused on the following areas:

March 18

- presentation of the Group's Climate commitment: benchmarking of industry majors and TOTAL's positioning

September 16

- benchmarking of industry majors: 2020 results and strategic announcements
- presentation of the draft communication to investors on September 30, 2020

October 28 and 29 (strategy workshop)

- climate challenges and impact on energy demand; consequences for TOTAL's strategy
- talk and discussion with Christiana Figueres
- deployment of the human resources strategy: Better Together and One Tech project

December 16

- presentation of the Group's Diversity Policy

4.1.3 Report of the Lead Independent Director on her mandate

During the Board meeting of February 8, 2021, Ms. Barbizet and Ms. Coisne-Roquette presented a report on their mandate as Lead Independent Director in 2020.

The duties of Lead Independent Director were exercised as follows during the 2020 fiscal year:

– **Contact with the Chairman and Chief Executive Officer:**

The Lead Independent Director is a privileged interlocutor of the Chairman and Chief Executive Officer with respect to significant matters concerning the Group's business and preparing meetings of the Board of Directors and of the Governance and Ethics Committee. In 2020, the Lead Independent Director thus met the Chairman and Chief Executive Officer on a monthly basis and before each meeting of the Board of Directors.

– **Assessment of the Board of Directors' practices:**

The Lead Independent Director conducted the assessment of the Board of Directors' practices in February/March 2020.

– **Avoidance of conflicts of interest:**

The Lead Independent Director has performed due diligence in order to identify and analyze potential conflicts of interest. The Lead Independent Director was thus consulted on February 9, 2020, by a director about a potential conflict of interest arising owing to that director's possible participation on the Board of Directors of an unlisted company in the waste treatment sector. The Lead Independent Director concluded there was no conflict of interest, and the said director then accepted the office of member of the supervisory board that was on offer at this company.

– **Monitoring of the Board's practices:**

The Lead Independent Director held a meeting of the independent directors on December 16, 2020. Directors attended remotely owing to the health crisis and were able to share their peers' comments as well as express their views without hindrance.

During the meeting, discussions concerned:
- The impact of the COVID-19 pandemic on how the Board operates, as well on the Group's activity, with all praising the continuity maintained for the Board, and the responsiveness, lucidity and courage of the Chairman and Chief Executive Officer in managing the twofold crisis faced by the Group: the oil price slump and the pandemic.
- The Board's close involvement in the choice concerning the 2020 dividend.
- Sharing and learning about the energy transition new strategy adopted in 2020 against the backdrop of climate change, with unanimous praise for the ambition and relevance of this strategy.
- Monitoring and understanding of the medium- and long-term assumptions forming the basis of the Group's long-term targets and plans, the importance of which increases with the challenges of energy transition.
- The quality of discussions with the Chairman and Chief Executive Officer, capitalizing on talks by Board members during Board meetings to refine or enhance the Group's strategy and opening up the Board to external experts to provide a greater variety of viewpoints.
- Meetings organized with members of the Executive Committee or Group departments that have also been able to enhance Board members' discussions.

Board members expressed their appreciation of the quality of dialogue with the Chair of the Board of Directors and General Management in 2020, as well as the presence of Ms. Christiania Figueres at the Strategy & CSR Committee meeting of October 28, 2020, and the discussion following the presentation. Board members also thought that the Company's governance, particularly during the major health crisis that lasted for the majority of 2020, proved itself to be particularly effective, maintaining a fair balance accompanied by increased vigilance by everyone in a climate of transparency and mutual trust. The Lead Independent Director, through her open and frequent contact with the Chairman and Chief Executive Officer, as well as Board members during the Board meetings that were successfully held by videoconference, were duly informed by General Management of the Company's situation, with the Board of Directors able to make decisions within its competence.

– **Relationships with shareholders:**

The Chairman and Chief Executive Officer and the Lead Independent Director are the privileged points of contact for shareholders concerning matters under the Board's responsibility. In accordance with the provisions of the rules of procedure of the Board, when the Chairman and Chief Executive Officer is solicited in this area, he may consult the Lead Independent Director before responding.

When the Lead Independent Director is approached by a shareholder in relation to such issues, he or she must inform the Chairman and Chief Executive Officer, providing his or her opinion, so that the Chairman and Chief Executive Officer may respond appropriately to the request. The Chairman and Chief Executive Officer must inform the Lead Independent Director of the response given.

On January 21, 2020, the Lead Independent Director received a letter signed by two investors (BNP Paribas Asset Management and Hermès on behalf of a group of investors within the framework of an initiative called Climate Action 100+) with the aim of initiating a discussion with the Company about how it factors the 2005 Paris Climate Agreement into its strategy.

A meeting between the two investors, the Chairman and Chief Executive Officer and the Lead Independent Director was held on March 6, 2020. The two investors, on behalf of Climate Action 100+, suggested the publication of a joint statement between the Company and Climate Action 100+ on the subject of the Climate rather than providing their support for a draft resolution that various shareholders would have been asked to be included on the agenda for the Annual Shareholders' Meeting.

At its meeting of March 18, 2020, the Strategy & CSR Committee proposed to the Board of Directors that discussions be continued on this joint statement, published on May 5, 2020, after the Board meeting of May 4, 2020, when the Board of Directors also decided to include the draft resolution in the agenda for the Annual Shareholders' Meeting of May 29, 2020, on the request of other shareholders who together own 1.37% of the Company's share capital. This draft resolution was rejected by the Annual Shareholders' Meeting on May 29, 2020, with 83.20% of votes cast against.

The Lead Independent Director also attended a number of presentations on governance with various shareholders representing 15% of share capital in Paris and London on March 2 and 4, 2020.

The Lead Independent Director, as well as members of the Governance and Ethics Committee, were informed by the Chairman and Chief Executive Officer on March 15, 2020, of the suggestion from management company PhiTrust regarding the inclusion in Article 14 of the Company's Articles of Association of the words "in accordance with its social interest, taking into consideration the social and environmental challenges of its activities". The Chairman and Chief Executive Officer proposed agreeing to this request. The Governance and Ethics Committee expressed the opinion that such an addition to the Articles of Association would contribute to the Company's good governance. This addition was proposed by the Board of Directors to the Shareholders' Meeting, which approved this amendment of the Articles of Association.

– **Shareholders' Meeting of May 29, 2020:**

The Lead Independent Director was appointed by the Board of Directors as scrutineer for Shareholders' Meetings at the same time as the Board member fulfilling this role at the end of the meeting. This appointment of two scrutineers was made in accordance with regulatory requirements resulting from the health crisis. The two Board members were therefore able to present the activities of the Board of Directors and a report on the exercising of its duties to shareholders by videoconference at the Annual Shareholders' Meeting of May 29, 2020, held behind closed doors.

– **Relations with current or former employees or labor unions:**

On December 20, 2019, the Lead Independent Director received a letter from one of the Company's labor unions on the subject of the proposed conversion of the Company into a European Company and the consequences of this on the rights of employees holding units in the collective investment fund ("FCPE") invested in the Company's shares. This letter was also intended for the Chairman and Chief Executive Officer. In a letter dated January 6, 2020, and after consultation with the Lead Independent Director, the Chairman and Chief Executive Officer responded, stating that a FCPE fund was a co-ownership of financial instruments, with the co-ownership being authorized to exercise rights granted to shareholders, and that holders of FCPE fund units are not direct shareholders of the Company.

The labor organization responded to this letter on February 13, 2020. The Lead Independent Director was informed of this, and the letter did not call for any further response from the Company.

– **Relationships with other stakeholders:**

The Lead Independent Director, as well as other Board members, received various letters in 2020 relating to the Group's investments in wind power, Saft Groupe's investment in a new plant in Israel, the Group's investment in Adani Gas Limited and a sugarcane supplier of Corbion of which the Total-Corbion joint venture is a client. The Group followed up on each of these letters as appropriate after informing the Lead Independent Director and Board members concerned.

– **Training of the Lead Independent Director:**

Ms. Marie-Christine Coisne-Roquette, following her request, received specific training from IFA on April 7 and 9, 2020, on her new duties as Lead Independent Director as of May 29, 2020.

– **Visits to Group sites by the directors:**

Owing to the health emergency, the Lead Independent Director was unable to take part in site visits as she had done during previous years. These may be resumed as soon as the health situation allows.

4.1.4 Assessment of the Board of Directors' practices

In accordance with point 3.4 of its internal regulations, the Board of Directors conducts a formal assessment of its own functioning at regular intervals of up to three years. The evaluation is carried out under the supervision of the Lead Independent Director, if one has been appointed, or under the supervision of the Governance and Ethics Committee, with the assistance of an outside consultant. The Board of Directors also conducts an annual review of its practices. Furthermore, in accordance with point 7.2.4 of the internal regulations of the Board of Directors, the Lead Independent Director manages the evaluation process relating to the functioning of the Board of Directors and reports on this evaluation to the Board of Directors.

In January 2019, a formal self-assessment with the help of an external consultant took place under the guidance of the Lead Independent Director. This took the form of a detailed questionnaire answered by all Board members. In January 2018 and January 2020, a debate was held about the annual running of the Board based on a questionnaire filled in by Board members.

Furthermore, in accordance with point 7.2.6 of the internal regulations of the Board of Directors, which states that the Lead Independent Director may hold meetings of directors who do not hold executive or salaried positions on the Board of Directors, such a meeting was held on December 16, 2020, on the initiative of the Lead Independent Director. In addition to Ms. Marie-Christine Coisne-Roquette, the meeting was attended by Ms. Patrica Barbizet, Ms. Anne-Marie Idrac, Ms. Lise Croteau*, Ms. Maria van der Hoeven, Mr. Patrick Artus, Mr. Jérôme Contamine, Mr. Mark Cutifani* and Mr. Jean Lemierre (*by videoconference).

At its meeting of February 8, 2021, the Board of Directors discussed its functioning.

Ms. Coisne-Roquette, Lead Independent Director since May 29, 2020, managed this evaluation process in January 2021 on the basis of a formal self-assessment in the form of a detailed questionnaire. The responses given by the directors were then presented to the Governance and Ethics Committee to be reviewed and summarized. This summary was then discussed by the Board of Directors. The process made it possible to confirm the quality of each director's contribution to the work of the Board and its Committees.

This formal evaluation showed a very positive opinion of the intensity and quality of the functioning of the Board of Directors and the Committees, which were maintained despite a major health crisis dominating a large part of the year. In particular, it was noted that the suggestions for improvement made by the directors in recent years had generally been taken into account. During Board meetings, General Management paid particular attention to the presentation and implementation of the Group's strategy, which was also the subject of a specific seminar, as well as major investment and divestment projects, particularly in renewable energies. The Board of Directors also deemed that the health crisis was particularly well managed by General Management in terms of the human and operational aspects as well as its financial consequences. The existing relationship of trust between the Board of Directors and the Chairman and Chief Executive Officer was therefore reinforced in 2020.

Furthermore, the main suggestions for improving the Board made by the directors during the self-assessments of the last five years have been implemented:

– Monitoring risks at Board level: an annual presentation of the Group's risk map has been on the Board's agenda since 2016.
– Changes to the composition of the Board: the Governance and Ethics Committee's proposals to the Board of Directors met the expectations of the Board members, particularly with the addition of the experience of various new Board members: the CEO of a global mining company joined the Board of Directors in 2017, the former CFO of a Canadian renewable energies company joined in 2019, and the former CFO of a pharmaceutical company joined in 2020.
– Independent directors' meeting: now held once a year on the initiative of the Lead Independent Director. The last meeting was on December 16, 2020.

– A strategy seminar in October 2020, during which an external speaker specializing in Climate gave a talk, and meetings were held between directors and members of the Executive Committee.

The self-assessment conducted in January 2021 thus highlighted the directors' satisfaction with the functioning of the Board of Directors, both in terms of form and substance, and, in particular, concerning freedom of expression, the quality of dialogue, the collegiality of decision-making and the relevance of subjects addressed. The directors particularly appreciated the pace and agenda of meetings, the quality of the exchanges during lunches before the meetings and during the strategy seminar on the occasion of the Strategy & CSR Committee meeting in October 2020, as well as the quality of relations with the two successively appointed Lead Independent Directors.

The following ways of potentially improving the functioning of the Board of Directors were proposed:

– strengthening the presence of executive directors within the Board of Directors by welcoming a new CEO of another company as Board member;
– continuing to consider alternative disruptive scenarios in terms of both the economic environment and technologies within the framework of strategic reviews;
– continuing to invite external speakers to Strategy & CSR Committee meetings to talk about general themes (Climate, technologies of the future, etc.), as well as meetings between Board members and members of the Executive Committee;
– ongoing comparative analysis of competitors' strategies, extending to their means of operation as well as companies operating in the new energy sources invested in by the Group.

4.1.5 General Management

4.1.5.1 Unified Management Form

Combination of the management positions

Mr. Patrick Pouyanné was appointed Chief Executive Officer on October 22, 2014 for a term of office expiring at the Annual Shareholders' Meeting to be held in 2017 to approve the financial statements for fiscal year 2016. At its meeting of December 16, 2015, the Board of Directors appointed Mr. Patrick Pouyanné as Chairman of the Board of Directors for a term expiring at the Annual Shareholders' Meeting to be held in 2018 to approve the financial statements for fiscal year 2017, pursuant to Article 12 paragraph 3 of the Bylaws. At the same meeting, the Board of Directors decided to align the term of office of Mr. Patrick Pouyanné as Chief Executive Officer with that of his term of office as Director, i.e., until the Shareholders' Meeting of Shareholders held in 2018 to approve the financial statements for fiscal year 2017.

Following the Shareholders' Meeting of June 1, 2018, which decided to renew Mr. Patrick Pouyanné's term of office as Director until the end of the Shareholders' Meeting called to approve the financial statements for fiscal year 2020, the Board of Directors decided to renew Mr. Patrick Pouyanné's terms of office as Chairman of the Board of Directors and Chief Executive Officer for the duration of his term of office as Director, i.e., until the Shareholders' Meeting of Shareholders called on May 28, 2021 to approve the financial statements for fiscal year 2020.

Subject to the renewal of Mr. Patrick Pouyanné's term of office as Director by the Shareholders' Meeting of May 28, 2021, on the proposal of the Governance and Ethics Committee, the Board of Directors will decide, at its meeting to be held on May 28, 2021 after the Shareholders' Meeting, to renew Mr. Patrick Pouyanné's term of office. Patrick Pouyanné as Chairman of the Board of Directors and Chief Executive Officer for the duration of his new term of office as Director, i.e. until the Shareholders' Meeting called to approve the financial statements for the year 2023 in 2024.

At the Board of Directors meeting of March 17, 2021, the Lead Independent Director indicated that the discussions held with the Governance and Ethics Committee in the best interests of the Company had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Company is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Company in its strategic negotiations with States and partners of the Group.

The Lead Independent Director also recalled that the unity of the power to manage and represent the Company is also particularly well regulated by the Company's governance. The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of Procedures, which define the means and prerogatives of the Lead Independent Director, notably:

– in her relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
– in her contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the Directors and Committee Chairpersons;
– in her relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the Directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's internal rules provide that any investment or divestment transactions contemplated by the Group involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the company's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Company's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Company require.

Lead Independent Director

At its meeting on December 16, 2015, the Board of Directors appointed Ms. Barbizet as Lead Independent Director. Her appointment took effect as of December 19, 2015. At its meeting on January 30, 2020, and on the proposal of the Governance and Ethics Committee, the Board of Directors decided to appoint Ms. Marie-Christine Coisne-Roquette as Lead Independent Director on May 29, 2020. With the appointment of Ms. Barbizet as Director on May 16, 2008, having served as a Board member for 12 years, she can no longer be considered an independent director at the end of this period in accordance with the AFEP-MEDEF code.

Pursuant to the provisions of the Rules of Procedure of the Board of Directors, the Lead Independent Director chairs the Governance and Ethics Committee.

The duties of the Lead Independent Director are described in detail in the Rules of Procedure of the Board of Directors, the full version of which is provided in point 4.1.2.1 of this chapter.

4.1.5.2 Executive Committee and Group Performance Management Committee

The Executive Committee

The Executive Committee, under the responsibility of the Chairman and Chief Executive Officer, is the decision-making body of the Group.

It implements the strategy formulated by the Board of Directors and authorizes related investments, subject to the approval of the Board of Directors for investments exceeding 3% of the Group's equity, as well as any significant transactions not included in the announced company strategy, or notification of the Board for investments exceeding 1% of equity.

In 2020, the Executive Committee met at least twice a month, except in August and November when it met only once.

As of December 31, 2020, the members of Executive Committee were as follows:

- Patrick Pouyanné, Chairman and Chief Executive Officer and President of the Executive Committee
- Arnaud Breuillac, President, Exploration & Production
- Helle Kristoffersen, President, Strategy & Innovation
- Bernard Pinatel, President, Refining & Chemicals
- Philippe Sauquet, President, Gas, Renewables & Power[1]
- Jean-Pierre Sbraire, Chief Financial Officer
- Namita Shah, President, People & Social Responsibility
- Alexis Vovk, President, Marketing & Services.

The members of the Executive Committee as of December 31, 2020, informed the Company that they have not been convicted of fraud, have not been associated with bankruptcy, sequestration, receivership or court-ordered liquidation proceedings, and have not been subject to any incrimination, conviction or sanction pronounced by an administrative authority or professional body, prohibited from managing a company or disqualified from doing so over the last five years.

The Group Performance Management Committee

The mission of the Group Performance Management Committee is to examine, analyze and monitor the HSE, financial and operational results of the Group. It is chaired by the Chairman and Chief Executive Officer and meets monthly.

In addition to the members of the Executive Committee, this Committee is made up of the heads of the Group's main business units, along with some of the Senior Vice Presidents of functions at the Group and business segments levels.

Balanced representation of women and men and diversity results in the 10% of positions at the Company with the highest responsibilities (Article L. 225-37-4, 6° of the French Commercial Code)

TOTAL is committed to respecting the principles of gender equality, it promotes this fundamental principle and ensures that it is properly applied. The promotion of gender equality is reflected in the Group's deployment of a global diversity policy, in goals set by General Management, of human resources processes that take into account the gender dimension, in agreements promoting a better balance between personal and professional life (such as the agreement on remote working in France) and in awareness-raising and training initiatives.

TOTAL's commitment to professional equality begins at the recruitment stage and throughout its career. It also guarantees equal treatment between women and men in the process of identifying high-potential employees and appointing executives.

In order to ensure a better gender balance in its senior management, the Group set targets for improvement by year-end 2020 in which women comprise:

- more than 20% of Management Committee members in the business segments and large functional divisions: 27% were women in 2020;
- 25% of senior executives: 25.7% were women in 2020, compared to approximately 5% in 2004;
- more than 20% of Management Committee members at headquarters and in subsidiaries: 23.5% were women in 2020;
- 18% of senior managers: 18.2% were women in 2020, compared to about 8% in 2004.

In order to maintain that momentum, new targets have been set for 2025 for the Group's highest executive bodies, with women comprising:

- 30% of Executive Committee members;
- 30% of the G70[2].

The Group has set the same target for its other governing bodies and leadership positions, with women comprising:

- 30% of Management Committee members in the business segments and large functional divisions;
- 30% of senior executives;
- 30% of Management Committee members at headquarters and in the subsidiaries;
- 30% of senior managers.

Moreover, TOTAL develops talent pools and regularly organizes campaigns to identify high-potential employees across the Group. At year-end 2020, women made up 33% of high-potential employees (versus 15% in 2004) and 32.6% of high-potential Group employees (versus 24% in 2014).

At the level of the Company, TOTAL's commitment to diversity took shape in 2016 as the President of the People & Social Responsibility division joined the Group's Executive Committee (eight people), which the President of the Strategy-Innovation division then joined in 2019. With regard to gender balance in the 10% of the highest management positions of the Company[3], the proportion of women equals 17%. At Group level, which is the most relevant parameter considering the Company's activities, this proportion equals 22.8%[4].

(1) As of March 1, 2021, Stéphane Michel was appointed President, Gas, Renewables & Power, and Executive Committee member, replacing Philippe Sauquet who has retired.
(2) Senior executives with the most important responsibilities.
(3) TOTAL SE, the Group parent company, employs more than 5,000 employees (full time equivalent employees present as of December 31 for each fiscal year of the considered period).
(4) Proportion calculated on the basis of 99,322 employees.

Profile, experience and expertise of the members of the Executive Committee

Patrick Pouyanné

Chairman and Chief Executive Officer of TOTAL SE

Chairman of the Strategy & CSR Committee

Born on June 24, 1963 (French)
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, Mr. Pouyanné held, between 1989 and 1996, various administrative positions in the Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister – Édouard Balladur – in the fields of the Environment and Industry from 1993 to 1995, Chief of staff for the Minister for Information and Aerospace Technologies – François Fillon – from 1995 to 1996). In January 1997, he joined TOTAL's Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Group representative in Qatar and President of the Exploration and Production subsidiary in that country in 1999. In August 2002, he was appointed President, Finance, Economy and IT for Exploration & Production. In January 2006, he became Senior Vice President, Strategy, Business Development and R&D in Exploration & Production and was appointed a member of the Group's Management Committee in May 2006. In March 2011, Mr. Pouyanné was appointed Deputy General Manager, Chemicals, and Deputy General Manager, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Group's Executive Committee.

On October 22, 2014, he became Chief Executive Officer of TOTAL S.A. and Chairman of the Group's Executive Committee. On May 29, 2015, he was appointed by the Annual Shareholders' Meeting as director of TOTAL S.A. for a three-year term. The Board of Directors of TOTAL appointed him as Chairman of the Board of Directors as of December 19, 2015. Mr. Pouyanné thus became the Chairman and Chief Executive Officer of TOTAL S.A. Following the renewal of Mr. Pouyanné's directorship at the Shareholders' Meeting on June 1, 2018, for a three-year period, the Board of Directors renewed Mr. Pouyanné's term of office as Chairman and Chief Executive Officer for a period equal to that of his directorship. Mr. Pouyanné is also the Chairman of the Association United Way – L'Alliance since June 2018, having accepted this office as TOTAL S.A.'s Chairman and Chief Executive Officer. He has also been a member of the Board of Directors of the École Polytechnique (since September 2018), the Institut Polytechnique of Paris (since September 2019), the Association Française des Entreprises Privées (French association of private companies) (since 2015), the Institut du Monde Arabe (since 2017) and Fondation La France s'engage (since 2017).

Arnaud Breuillac

President, Exploration & Production

Member of TOTAL's Executive Committee

Born on July 2, 1958 (French)
Member of the Executive Committee since October 1, 2014
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

A graduate of the École Centrale de Lyon, Arnaud Breuillac joined TOTAL in 1982. He occupied various positions in Exploration & Production in France, Abu Dhabi, the United Kingdom, Indonesia and Angola, and in Refining management in France.

Between 2004 and 2006, he was the Iran director in the Middle East division. In December 2006, he became a member of the Management Committee of the Exploration & Production segment, as the director of the Continental Europe and Central Asia area. In July 2010, he became the Middle East director in the Exploration & Production segment, and joined the Management Committee in January 2011. On January 1, 2014, Arnaud Breuillac was appointed President of TOTAL Exploration & Production, and he has been a member of the Group's Executive Committee since October 1, 2014.

Helle Kristoffersen

President of Strategy-Innovation

Member of TOTAL's Executive Committee

Born on April 13, 1964 (French and Danish)
Member of the Executive Committee since August 19, 2019
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Helle Kristoffersen began her career in 1989 at the investment bank Lazard Frères. In 1991, she moved to the transportation and logistics company Bolloré. In 1994, Ms. Kristoffersen joined Alcatel, where she continued her career until 2010. She served as Alcatel's and then Alcatel-Lucent's Senior Vice President, Strategy.

Ms. Kristoffersen joined Total in January 2011 as Deputy Senior Vice President and then Senior Vice President, Strategy & Business Intelligence. On September 1, 2016, she became Senior Vice President, Strategy & Corporate Affairs, in Gas, Renewables & Power. In 2019, Ms. Kristoffersen was appointed President, Strategy-Innovation and a Total's Executive Committee member.

A dual Danish and French national, Helle Kristoffersen is a graduate of the Ecole Normale Supérieure (Ulm) and the Paris Graduate School of Economics, Statistics and Finance (ENSAE), and holds a master's degree in econometrics from Université Paris I. She is an alumna of the Institute for Higher National Defense Studies (IHEDN) and a Knight of the Legion of Honor.

Bernard Pinatel

President, Refining & Chemicals

Member of TOTAL's Executive Committee

Born on June 5, 1962 (French)
Member of the Executive Committee since September 1, 2016
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Bernard Pinatel is a graduate of the École Polytechnique and the Institut d'Études Politiques (IEP) de Paris, and has an MBA from the Institut Européen d'Administration des Affaires (INSEAD). He is also a statistician-economist (École Nationale de la Statistique et de l'Administration Économique – ENSAE). He started his career at Booz Allen & Hamilton, before joining the TOTAL group in 1991, where he occupied various operational positions in the production plants and head offices of different subsidiaries, including Hutchinson and Coates Lorilleux. He became the CEO France, and then the CEO Europe of Bostik between 2000 and 2006, and the Chairman and Chief Executive Officer of Cray Valley, from 2006 to 2009. In 2010, he became the Chairman and Chief Executive Officer of Bostik. At TOTAL, he became a member of the Group's Management Committee in 2011 and was member of the Management Committee of Refining & Chemicals from 2011 to 2014.

When Arkema took over Bostik in February 2015, he was nominated as a member of the Executive Committee of Arkema, responsible for the High-Performance Materials activity.

He joined the TOTAL Group on September 1, 2016, and was appointed President of the Refining & Chemicals segment and a member of the Group's Executive Committee.

Philippe Sauquet

President, Gas, Renewables & Power

Member of TOTAL's Executive Committee

Born on September 20, 1957 (French)
Member of the Executive Committee since October 29, 2014 until March 1, 2021(1)
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Philippe Sauquet is a graduate of l'École Polytechnique, l'École Nationale des Ponts et Chaussées and of the University of California, Berkeley, United States. He started his career in 1981 as a civil engineer at the French Ministry of Infrastructure, then at the French Ministry of the Economy and Finance. He joined the Orkem Group in 1988 as the sales manager of the Acrylic Materials division. He joined TOTAL in 1990 as Vice President, Anti-Corrosion Paints, before being nominated Chemicals Strategy Vice President.

In 1997, he joined Gas & Power, where he was successively Vice President, Americas, Vice President, International, Senior Vice President, Strategy and Renewable Energies, Senior Vice President, Trading & Marketing, Gas & Power, based in London. On July 1, 2012, he was appointed President of Gas & Power, and became a member of the Group's Management Committee at the same time.

On October 29, 2014, he took charge of the Refining & Chemicals segment and joined the Group Executive Committee. On April 15, 2016, he also became interim President of New Energies. On September 1, 2016, he was appointed President of the newly created Gas, Renewables & Power segment.

Jean-Pierre Sbraire

Chief Financial Officer

Member of TOTAL's Executive Committee

Born on October 28, 1965 (French)
Member of the Executive Committee since August 1, 2019
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Jean-Pierre Sbraire began his career at TOTAL in 1990 in the Trading & Shipping Division. In 1995, he joined Exploration & Production, holding various positions in Paris and Nigeria in finance, economics and business development.

In 2005, he was appointed General Secretary and Finance Manager for TOTAL in Venezuela. In 2009, within the Group's Financial Division, he became Senior Vice President, E&P Subsidiaries Financial Operations.

In 2012, he was appointed Vice President, Equity Crude Acquisitions in Trading & Shipping. From September 2016 to September 2017, he served as Group Treasurer. He then accepted the position of Deputy Chief Financial Officer. In 2019, he was appointed Chief Financial Officer and Executive Committee member.

Jean-Pierre Sbraire is a graduate of ENSTA ParisTech engineering school and has a master's degree from IFP School.

(1) As of March 1, 2021, Stéphane Michel was appointed President, Gas, Renewables & Power, and Executive Committee member, replacing Philippe Sauquet who has retired.

Namita Shah

President, People & Social Responsibility

Member of TOTAL's Executive Committee

Born on August 21, 1968 (French)
Member of the Executive Committee since September 1, 2016
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Namita Shah is a graduate of Delhi University, New Delhi and has a postgraduate degree in Law from the New York University School of Law, USA. She began her career as an Associate Attorney at Shearman & Sterling, a New York-based law firm, where she spent eight years. She supervised transactions including those involving financing of pipeline and power plant companies.

She joined TOTAL in 2002 as a Legal Counsel in the E&P mergers and acquisitions team. In 2008, she joined the New Business team where she was responsible for business development in Australia and Malaysia. She held this position until 2011 when she moved to Yangon as General Manager, Total E&P, Myanmar.

On July 1, 2014, she was appointed Senior Vice President, Corporate Affairs, Exploration & Production.

On September 1, 2016, she was appointed President People & Social Responsibility and member of the Executive Committee.

Alexis Vovk

President, Marketing & Services

Member of TOTAL's Executive Committee

Born on October 11, 1964 (French)
Member of the Executive Committee since January 1, 2020
Business address: TOTAL SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

Biography & Professional Experience

Alexis Vovk began his career at TOTAL in 1991 in the UK, in the division in charge of Refining and Marketing activities.

Following a first position in France, he pursued an international career with several technical and commercial positions in Turkey and Tunisia.

After a position at the division's Strategy department, he was appointed Managing Director for TOTAL in Zambia in 2007, followed by similar positions in Kenya from 2010 and in Nigeria between 2013 and 2016.

In 2016, he became Senior Vice President France and President of Total Marketing France, in charge of operational activities in France, notably overseeing the Group's service station network in the country. He additionally joined the Marketing & Services Management Committee in 2019.

On January 1, 2020, Alexis Vovk was appointed President, Marketing & Services and a TOTAL Executive Committee member.

Alexis Vovk is a graduate of ESSEC Business School (1988).

4.1.6 Shares held by the administration and management bodies

As of December 31, 2020, based on statements by the persons concerned, registered shares ledger and the register of the FCPE fund units custodian, all of the members of the Board of Directors and the Group's executive officers(1) held less than 0.5% of TOTAL SE's share capital:

– members of the Board of Directors(2): 250,682 Total shares and 15,144.99 units of the FCPE (collective investment fund) invested in Total shares;
– Chairman and Chief Executive Officer: 217,087 Total shares and 10,372.10 units of the FCPE invested in Total shares;
– executive officers: 611,756 Total shares and 160,093.96 units of the FCPE invested in Total shares.

By decision of the Board of Directors:

– Executive directors are required to hold a number of Total shares equal in value to two years of the fixed portion of their annual compensation; and
– members of the Executive Committee are required to hold a number of Total shares equal in value to two years of the fixed portion of their annual compensation. These shares must be acquired within three years of their appointment to the Executive Committee.

The number of Total shares to be considered comprises Total shares and units of FCPEs invested in Total shares.

Summary of transactions in the Company's securities (Article L. 621-18-2 of the French Monetary and Financial Code)

The following table presents transactions, of which the Company has been informed, in the Company's shares or related financial instruments carried out in 2020 by the individuals referred to in paragraphs a), b)(3) and c) of Article L. 621-18-2 of the French Monetary and Financial Code:

2020		Acquisition	Subscription	Transfer	Exchange	Exercise of options
Patrick Pouyanné(a)	Total shares	42,000	2,974	–	–	–
	Units in FCPE and other related financial instruments(b)	664.20	230.23	–	–	–
Patrick Artus(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Patricia Barbizet(a)	Total shares	31,788(c)	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Marie-Christine Coisne-Roquette(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Jérôme Contamine(a)	Total shares	–	–	–	–	–
Director since May 29, 2020	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Lise Croteau(a)	Total shares	100	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Mark Cutifani(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Valérie Della Puppa Tibi(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	12.65	211.53	(50.80)	–	–
Romain Garcia-Ivaldi(a)	Total shares	–	–	–	–	–
Director since June 9, 2020	Units in FCPE and other related financial instruments(b)	116.38	1,744.03	(919.26)	–	–
Maria van der Hoeven(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Anne-Marie Idrac(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Jean Lemierre(a)	Total shares	–	–	–	–	–
	Units in FCPE and other related financial instruments(b)	–	–	–	–	–
Angel Pobo(a)	Total shares	–	–	–	–	–
Director since October 14, 2020	Units in FCPE and other related financial instruments(b)	–	–	–	–	–

(1) The Group's executive officers are the members of the Executive Committee (including the Chairman and Chief Executive Officer). During the fiscal year 2020, the Company, taking into account the definition used by the US regulations applicable to Executive Officers and in the interest of harmonization, has chosen to reduce the list of its Executive Officers to the members of the Executive Committee in order to align this list with the list of "Persons Discharging Managerial Responsibilities" (PDMR) within the meaning of Article 19.5 of Regulation (EU) No. 596/2014 on Market Abuse. For the purposes of this Regulation, PDMRs are defined as the persons referred to in Article L. 621-18-2 (a) of the French Monetary and Financial Code (the "Directors") and the persons referred to in Article L. 621-18-2 (b) of the same code that the Company has defined as the members of the Executive Committee.
(2) Including the Chairman and Chief Executive Officer, the director representing employee shareholders and the directors representing employees.
(3) The individuals referred to in paragraph b) of Article L.621-18-2 of the French Monetary and Financial Code include the members of the Executive Committee.

2020		Acquisition	Subscription	Transfer	Exchange	Exercise of options
Christine Renaud[(a)]	Total shares	405	–	(115)	–	–
Director until May 29, 2020	Units in FCPE and other related financial instruments[(b)]	39.32	2,053.84	(1,163.49)	–	–
Carlos Tavares[(a)]	Total shares	–	–	–	–	–
Director until May 29, 2020	Units in FCPE and other related financial instruments[(b)]	–	–	–	–	–
Arnaud Breuillac[(a)]	Total shares	19,250	1,536	–	–	–
	Units in FCPE and other related financial instruments[(b)]	1,235.63	16,880.72	(7,638.59)	–	–
Helle Kristoffersen[(a)]	Total shares	7,350	580	–	–	–
	Units in FCPE and other related financial instruments[(b)]	1,238.79	5,101.07	(2,485.92)	–	–
Bernard Pinatel[(a)]	Total shares	15,750	1,023	(691)	–	–
	Units in FCPE and other related financial instruments[(b)]	1,114.96	20,672.58	(10,005.00)	–	–
Philippe Sauquet[(a)]	Total shares	19,250	1,481	(2,000)	–	–
	Units in FCPE and other related financial instruments[(b)]	2,121.90	19,547.32	(9,546.98)	–	–
Jean-Pierre Sbraire[(a)]	Total shares	6,400	–	–	–	–
	Units in FCPE and other related financial instruments[(b)]	1,605.60	15,459.29	(7,691.67)	–	–
Namita Shah[(a)]	Total shares	15,750	362	–	–	–
	Units in FCPE and other related financial instruments[(b)]	1,814.78	17,392.57	(8,871.67)	–	–
Alexis Vovk[(a)]	Total shares	4,900	164	–	–	–
	Units in FCPE and other related financial instruments[(b)]	529.89	8,228.82	(4,048.46)	–	–

(a) Including related parties within the meaning of the provisions of Article R. 621-43-1 of the French Monetary and Financial Code.
(b) FCPE primarily invested in Total shares.
(c) Acquisition made by Temaris et Associés SAS, legal person related to Patricia Barbizet, a director.

4.2 Statement regarding corporate governance

For many years, TOTAL has taken an active approach to corporate governance and at its meeting on November 4, 2008, the Board of Directors decided to refer to the AFEP-MEDEF Code of Corporate Governance for publicly traded companies (available on the AFEP and MEDEF websites).

Pursuant to Article L. 22-10-10 of the French Commercial Code (formerly L. 225-37-4), the following table sets forth the recommendation made in the AFEP-MEDEF Code that the Company has opted not to follow as at March 17, 2021, as well as the reasons for such decision.

RECOMMENDATION NOT FOLLOWED

Supplementary pension plan (point 25.6.2 of the Code)

Supplementary pension schemes with defined benefits must be subject to the condition that the beneficiary must be a director or employee of the company when claiming his or her pension rights pursuant to the applicable rules.

EXPLANATION – PRACTICE FOLLOWED BY TOTAL

It appeared justified not to deprive the relevant beneficiaries of the benefit of the pension commitments made by the Company in the particular cases of the disability or departure of a beneficiary over 55 years of age at the initiative of the Group. In addition, it should be noted that the supplementary pension plan set up by the Company was declared to URSSAF in 2004, in accordance with Articles L. 137-11 and R. 137-16 of the French Social Security Code. In accordance with the ordinance 2019-697 published on July 4, 2019, this pension plan is closed to all new participants as from July 4, 2019.

4.3 Compensation for the administration and management bodies

4.3.1 Board members' compensation

4.3.1.1 Board members' compensation policy

Aggregate amount of directors' compensation due to their directorships

In accordance with the provisions of Article L. 22-10-14 of the French Commercial Code (formerly Article L. 225-45), the conditions applicable to Board members' compensation are defined by the Board of Directors on the proposal of the Governance and Ethics Committee, under the conditions provided for by Article L. 22-10-8 of the French Commercial Code (formerly Article L. 225-37-2) and within the limit of an annual fixed amount determined by the Annual Shareholders' Meeting.

The Annual Shareholders' Meeting held on May 29, 2020, set the maximum amount of the annual fixed amount to be allocated to board members for their activity as of 2020 at €1.75 million. Previously €1.4 million, this amount had remained unchanged since the Annual Shareholders' Meeting of May 17, 2013, before being increased in 2020 to take account of the increase in the number of directors as well as in the number of meetings, in particular of the Strategy & CSR Committee, whose remit has been extended to social and environmental challenges, including those related to climate. The annual maximum amount for the compensation of the activity of the directors is allocated among the directors in the strict respect of the principles set by the Rules of procedures of the Board and the compensation policy for directors as presented below.

Rules for allocating directors' compensation due to their directorships

The allocation rules of the directors' compensation and their payment conditions defined by the Board at its meeting of July 26, 2017, remain the same. The compensation due to directors by virtue of their directorships are allocated according to a formula comprised of fixed compensation and variable compensation based on fixed amounts per meeting, which makes it possible to take into account each director's actual attendance at the meetings of the Board of Directors and its Committees, subject to the following conditions:

– a fixed annual portion of €20,000 per director[1];
– a fixed annual portion of €30,000 for the Chairman of the Audit Committee[2];
– a fixed annual portion[1] of €25,000 for the Audit Committee members[2];
– a fixed annual portion[1] of €25,000 for the Chairman of the Governance and Ethics Committee and for the Chairman of the Compensation Committee[2];
– an additional fixed annual portion[1] of €30,000 (on top of the amounts above) for the Lead Independent Director;
– an amount of €7,500 per director for each Board meeting actually attended;
– an amount of €3,500 per director for each Governance and Ethics Committee, Compensation Committee or Strategy and CSR Committee meeting actually attended;
– an amount of €7,000 per director for each Audit Committee meeting actually attended;
– a premium of €4,000 in respect of travel from outside France to attend a Board or Committee meeting.

The Chairman and Chief Executive Officer does not receive directors' compensation for his work on the Board and Committees of the Company.

The total amount paid to each director is determined after taking into consideration the director's actual presence at each Board of Directors' or Committee's meeting and, if appropriate, since the decision by the Board of Directors on February 9, 2012, after prorating the amount set for each director such that the overall amount paid remains within the maximum limit set by the Shareholders' Meeting. Directors' compensation for each fiscal year is paid following a decision by the Board of Directors, on the proposal of the Governance and Ethics Committee, at the beginning of the following fiscal year.

The director representing employee shareholders and the director representing employees receive directors' compensation according to the same terms and conditions as any other director.

Moreover, there is no service contract between a director and the Company or any of its controlled companies that provides for the grant of benefits under such a contract.

4.3.1.2 Compensation paid to directors during fiscal year 2020 or allocated during the same fiscal year

At its meeting of February 8, 2021, the Board of Directors, on the proposal of the Governance and Ethics Committee, set the aggregate amount of compensation (formerly fees) allocated to board members due to their directorships in TOTAL SE, for fiscal year 2020.

This amount was determined by applying the principles presented in the directors' compensation policy (point 4.3.1.1 of this chapter), and set for each director, after taking into account his/her actual attendance to each meeting of the Board or of the Committees (refer to point 4.1.2.2 of this chapter – table of the directors' attendance at Board and Committees meetings).

Against the backdrop of the COVID-19 pandemic and in view of the extraordinary economic situation requiring a rigorous cost-cutting plan within the Company, the Board of Directors decided at its meeting of May 4, 2020, to reduce compensation paid to directors by 25%. This reduction is to be applied to compensation awarded to directors in respect of their directorship in fiscal year 2020 as from the Shareholders' Meeting on May 29, 2020, depending on the allocation rules defined by the Board of Directors at its meeting of July 26, 2017, as specified above. In view of the number of Board and Committee meetings held in 2020, the amount of compensation paid to directors on the basis of the above allocation rules was €1,258,447.

The director representing employee shareholders and the directors representing employees benefited from their compensation by virtue of their directorships in the same conditions and under the same basis as the other directors. Ms. Della Puppa Tibi, Ms. Renaud and Mr. Pobo chose to pay, for the entire term of their directorship, all their directors' compensation to their respective trade union membership organizations. Mr. Garcia-Ivaldi chose to pay all its director' compensation to charities of his choice. During the past two years, the directors currently in office have not received any compensation or in-kind benefits from the Company or from its controlled companies other than those mentioned in the table below.

(1) Calculated on a pro rata basis, in the event of change in the course of the year.
(2) Substituting the €20,000 fixed annual portion per director. In case of accumulation of the functions of director and/or Audit Committee member and/or Chairman of a Committee (Audit, Governance and Ethics, Compensation), the difference between the fixed annual portion per director and the fixed annual portion of the other functions is added.

No exceptional compensation was allocated.

Ms. Christine Renaud, director representing employees until May 29, 2020, Ms. Valérie Della Puppa Tibi, director representing employee shareholders since May 29, 2019, Mr. Romain Garcia-Ivaldi, director representing employees since June 9, 2020, as well as Mr. Angel Pobo, director representing employees since October 14, 2020, benefit from the internal defined contribution pension plan applicable to all TOTAL SE employees, known as RECOSUP (*Régime collectif et obligatoire de retraite supplémentaire à cotisations définies*), governed by Article L. 242-1 of the French Social Security Code. The Company's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2020, this pension plan represented an expense accounted for TOTAL SE in favor of Ms. Renaud of €699 in favor of Ms. Della Puppa Tibi of €756, in favor of Mr. Garcia-Ivaldi of €1,099 and in favor of Mr. Pobo of €709.

The table below presents the total compensation paid to directors during fiscal year 2020 or allocated for the same fiscal year.

Table of compensation allocated in respect of directorship and other compensation by non-executive directors

Table 3 – Position-recommendation – DOC-2021-02 (Appendix 2)

Gross (€)		Amount allocated in respect of fiscal year 2019	Amount paid during fiscal year 2019	Amount allocated in respect of fiscal year 2020	Amount paid during fiscal year 2020
Patrick Pouyanné	Compensation by virtue of directorship	None	None	None	None
	Other compensation	(a)	(a)	(a)	(a)
Patrick Artus	Compensation by virtue of directorship	136,032	138,696	132,025	136,032
	Other compensation	–	–	–	–
Patricia Barbizet	Compensation by virtue of directorship	146,461	137,391	119,193	146,461
	Other compensation	–	–	–	–
Marie-Christine Coisne-Roquette	Compensation by virtue of directorship	158,705	149,130	136,389	158,705
	Other compensation	–	–	–	–
Jérôme Contamine	Compensation by virtue of directorship	n/a	n/a	62,441	n/a
	Other compensation	n/a	n/a	–	n/a
Lise Croteau	Compensation by virtue of directorship	104,025	n/a	143,811	104,025
	Other compensation	–	n/a	–	–
Mark Cutifani	Compensation by virtue of directorship	96,356	106,522	90,137	96,356
	Other compensation	–	–	–	–
Valérie Della Puppa Tibi	Compensation by virtue of directorship	49,125	n/a	86,174	49,125
	Other compensation	70,032	70,032	72,744	72,744
Romain Garcia-Ivaldi	Compensation by virtue of directorship	n/a	n/a	44,402	n/a
	Other compensation	n/a	n/a	58,740	58,740
Maria van der Hoeven	Compensation by virtue of directorship	191,405	194,348	159,811	191,405
	Other compensation	–	–	–	–
Anne-Marie Idrac	Compensation by virtue of directorship	104,204	94,348	93,174	104,204
	Other compensation	–	–	–	–
Gérard Lamarche	Compensation by virtue of directorship	82,183	201,304	n/a	82,183
	Other compensation	–	–	n/a	n/a
Jean Lemierre	Compensation by virtue of directorship	104,204	94,348	93,174	104,204
	Other compensation	–	–	–	–
Renata Perycz	Compensation by virtue of directorship[(d)]	69,468	129,130	n/a	69,468
	Other compensation	62,890	62,890	n/a	n/a
Angel Pobo	Compensation by virtue of directorship[(e)]	n/a	n/a	22,322	n/a
	Other compensation	n/a	n/a	70,160	70,160
Christine Renaud	Compensation by virtue of directorship[(f)(g)]	91,996	91,739	48,697	91,996
	Other compensation	67,204	67,204	68,916	68,916
Carlos Tavares	Compensation by virtue of directorship[(f)]	65,836	63,043	26,697	65,836
	Other compensation	–	–	–	–
TOTAL		**1,600,126**	**1,600,125**	**1,529,007**	**1,670,560**

(a) Refer to the summary tables presented in point 4.3.2 of this chapter.
(b) Director since May 29, 2020.
(c) Director since June 9, 2020.
(d) Director until May 29, 2019.
(e) Director since October 14, 2020.
(f) Director until May 29, 2020.
(g) Mrs Christine Renaud also chose to pay, for the entire term of her directorship, all her director's compensation to her trade union membership organization.

4

4.3.2 Chairman and Chief Executive Officer's compensation

4.3.2.1 Compensation of Mr. Patrick Pouyanné for fiscal year 2020

At its meeting of March 17, 2021, the Board of Directors set, on the proposal of the Compensation Committee, the Chairman and Chief Executive Officer's compensation in respect of fiscal year 2020, by applying the principles and criteria set in the compensation policy of the Chairman and Chief Executive Officer for fiscal year 2020 submitted by the Board of Directors to the Ordinary Shareholders' Meeting of May 29, 2020, and approved by the latter at 93.14% (13th resolution). For the setting of the compensation policy, the Board of Directors had decided, at its meeting of March 18, 2020, on the proposal of the Compensation Committee, to continue to align the criteria of the Chairman and Chief Executive Officer's compensation with the key criteria reflecting changes in the Group's strategy to continue to ensure the convergence of compensation with the Company's long-term performance.

In accordance with Article L. 22-10-9 of the French Commercial Code (formerly Article L. 225-37-3), the information presented below reports on the total compensation and benefits of all kinds, paid to Mr. Patrick Pouyanné by virtue of his mandate as Chairman and Chief Executive Officer of TOTAL SE for fiscal year 2020 or allocated by virtue of this mandate in respect of the same fiscal year[(1)] as well as all the other information provided for in this Article L. 22-10-9.

It is reminded that the payment to the Chairman and Chief Executive Officer of the annual variable component for fiscal year 2020 is conditional upon the approval of the Ordinary Shareholders' Meeting on May 28, 2021, of the fixed, variable and extraordinary components of the total compensation and the benefits of all kinds paid during fiscal year 2020 to the Chairman and Chief Executive Officer or allocated to the latter during the same fiscal year, in accordance with Article L. 22-10-34 (formerly Article L. 225-100) of the French Commercial Code. The Ordinary Shareholders' Meeting to be held on May 28, 2021, will be convened to approve the total compensation and the benefits of all kinds paid during fiscal year 2020 or attributed to the Chairman and Chief Executive Officer for the same fiscal year, in accordance with Article L. 22-10-34 (formerly L. 225-100) of the French Commercial Code.

Table summarizing the compensation, options and shares allocated to the Chairman and Chief Executive Officer

Table 1 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)

(€, except the number of shares)	Fiscal year 2019	Fiscal year 2020
Patrick Pouyanné *Chairman and Chief Executive Officer*		
Compensation allocated in respect of the fiscal year (detailed in table 2)	3,845,925	3,204,023
Valuation of multi-year variable compensation allocated during the fiscal year	–	–
Valuation of stock options granted during the fiscal year (detailed in table 4)	–	–
Valuation of performance shares granted during the financial year (detailed in table 6)	2,310,336[(a)]	714,240[(b)]
Number of performance shares granted during the financial year	*72,000*	*72,000*
Valuation of the other long-term compensation plans	–	–
TOTAL	**6,156,261**	**3,918,263**
Variation Fiscal year 2019/Fiscal year 2020		-36.4%[(c)]

Note: The valuations of the options and performance shares correspond to a valuation performed in accordance with IFRS 2 (see Note 9 to the Consolidated Financial Statements) and not to any compensation actually received during the fiscal year. Entitlement to performance shares is subject to the fulfillment of performance conditions assessed over a three-year period.

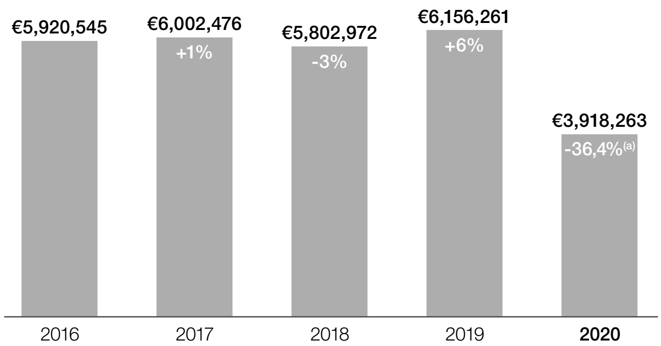
(a) In accordance with the accounting of the performance shares for fiscal year 2019 in accordance with IFRS 2 which takes into account an award rate hypothesis of 80% at the end of the acquisition period, this amount corresponds to the 72,000 shares granted in 2019, valued on the basis of a unit fair value of €40.11.

(b) In accordance with the accounting of performance shares for the year 2020 in application of IFRS 2, which takes into account the assumption of an 80% grant rate at the end of the vesting period, this amount corresponds to 72,000 shares granted in 2020, valued on the basis of a unit fair value of €12.40. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, i.e. March 18, 2020, on the basis of a closing price of the Total share on that date of €21,795. For information, the unit fair value would amount to €24.85 based on a calculation using identical parameters and the average closing price of the Total share in 2020, i.e. €34.957. On the basis of a unit fair value of €24.85, the valuation of the 72,000 performance shares granted in 2020 would have been €1,431,360.

(c) The reduction in compensation paid to Mr. Pouyanné between 2019 and 2020 is partly due to the Chairman and Chief Executive Officer's decision to temporarily cut his fixed compensation by 25% as from May 1, 2020 until December 31, 2020, due to the economic context, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (unit fair value of €12.40 in 2020 compared to a unit fair value of €40.11 in 2019). On the basis of a unit fair value of €24.85, the valuation of the 72,000 performance shares granted in 2020 would have been €1,431,360.

(1) Including attributions in the form of stock, securities or rights giving access to the company's share capital or rights to the attribution of securities of the Company or of the companies mentioned in Articles L. 228-13 and L. 228-93 of the French Commercial Code.

Evolution of the compensation of Mr. Patrick Pouyanné, Chairman and Chief Executive Officer (fiscal years 2016-2020)



(a) The reduction in compensation paid to Mr. Pouyanné between 2019 and 2020 is partly due to the Chairman and Chief Executive Officer's decision to temporarily cut his fixed compensation by 25% as from May 1, 2020 until December 31, 2020, due to the economic context, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (unit fair value of €12.40 in 2020 compared to a unit fair value of €40.11 in 2019). On the basis of a unit fair value of €24.85, the valuation of the 72,000 performance shares granted in 2020 would have been €1,431,360 and the reduction in compensation would have been 25%.

Table of the compensation of the Chairman and Chief Executive Officer

Table 2 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)

	Fiscal year 2019		Fiscal year 2020	
(€)	Amount allocated for the fiscal year	Amount paid during the fiscal year[a]	Amount allocated for the fiscal year	Amount paid during the fiscal year[a]
Patrick Pouyanné *Chairman and Chief Executive Officer*				
Fixed compensation	1,400,000	1,400,000	1,166,667[c]	1,166,667[c]
Annual variable compensation	2,378,300	1,725,900	1,972,740	2,378,300
Multi-year variable compensation	–	–	–	–
Extraordinary compensation	–	–	–	–
Compensation due to his directorship as a director	–	–	–	–
In-kind benefits[b]	67,625	67,625	64,616	64,616
TOTAL	**3,845,925**	**3,193,525**	**3,204,023**	**3,609,583**

(a) Variable portion paid for the prior fiscal year.
(b) Company car and the life insurance and health care plans paid for by the Company.
(c) Mr. Pouyanné's annual fixed compensation in his capacity as Chairman and Chief Executive Officer has been set by the Board of Directors at €1,400,000. However, due to the health crisis, the Chairman and Chief Executive Officer's compensation was reduced by 25% as from May 1, 2020 until December 31, 2020, leading to Mr. Pouyanné's fixed compensation to be set at €1,166,667 for fiscal year 2020.

Summary of the multi-annual variable compensation paid to the executive officer

Table n° 10 – AFEP-MEDEF Code

Patrick Pouyanné *Chairman and Chief Executive*	None

Table 11 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)

Executive directors	Employment contract	Supplementary pension plan	Payments or benefits due or likely to be due upon termination or change in duties	Benefits related to a non-compete agreement
Patrick Pouyanné *Chairman and Chief Executive Officer* Start of term of office: December 19, 2015 End of term of office: Shareholders' Meeting of May 28, 2021, to approve the financial statements for fiscal year 2020	NO	YES Internal supplementary defined benefit pension plan[a] and defined contribution pension plan known as RECOSUP	YES[a] Severance benefit and retirement benefit	NO

(a) Payment subject to performance conditions. Details of these commitments are provided below. The retirement benefit cannot be combined with the severance benefit.

Summary table of the components of the compensation for Mr. Patrick Pouyanné, Chairman and Chief Executive Officer of TOTAL SE, paid during fiscal year 2020 or allocated in respect of the same fiscal year

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
Fixed compensation	€1,166,667	€1,166,667 (amount paid in 2020)	Mr. Pouyanné's annual fixed compensation in his capacity as Chairman and Chief Executive Officer has been set by the Board of Directors at **€1,400,000** (base salary). However, due to the health crisis, the Chairman and Chief Executive Officer's compensation was reduced by 25% as of May 1, 2020 until December 31, 2020, leading Mr. Pouyanné's fixed compensation to be set at €1,166,667 for fiscal year 2020. This fixed compensation represents 37.2% of the total cash compensation allocated in respect of fiscal year 2020 (i.e. excluding performance shares and benefit in kind).
Annual variable compensation	€2,378,300 (amount allocated in respect of fiscal year 2019 and paid in 2020)	€1,972,740 (amount allocated in respect of fiscal year 2020 and to be paid in 2021)	The variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2020 by virtue of his duties as Chairman and Chief Executive Officer has been set at €1,972,740. This corresponds to 140.91% (of a maximum of 180%) of his base salary, taking into account the results of the economic parameters and the evaluation of the personal contribution of the Chairman and Chief Executive Officer. This annual variable compensation corresponds to 62.8% of the total cash compensation allocated in respect of fiscal year 2020 (i.e. excluding performance shares and benefit in kind). The payment to the Chairman and Chief Executive Officer of the annual variable portion allocated in respect of fiscal year 2020 is subject to the approval by the Ordinary Shareholders' Meeting to be held on May 28, 2021, of the fixed, variable and extraordinary components of the total compensation and the benefit-in-kind paid during fiscal year 2020 to the Chairman and Chief Executive Officer or allocated to the latter during the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code (formerly Article L. 225-100). It is reminded that the variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2019 by virtue of his duties as Chairman and Chief Executive Officer and paid in 2020 (after the approval by the Ordinary Shareholders' Meeting of May 29, 2020, of the fixed, variable and extraordinary components of the total compensation and the benefit-in-kind paid in respect of fiscal year 2019) was set at €2,378,300, corresponding to 169.88% (of a maximum of 180%) of his fixed annual compensation based on results of the economic parameters and the evaluation of his personal contribution. For the setting of the variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2020 due to his duties as Chairman and Chief Executive Officer, the Board of Directors reviewed, at its meeting on March 17, 2021, the level of achievement of the economic parameters based on the quantifiable targets set by the Board of Directors at its meeting on March 18, 2020. The Board of Directors also assessed the Chairman and Chief Executive Officer's personal contribution on the basis of the target criteria set during its meeting on March 18, 2020, to qualitatively assess his management.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation

Annual variable compensation allocated in respect of fiscal year 2020 (expressed as a percentage of the base salary)

	Maximum percentage	Percentage allocated
Economic parameters (quantifiable targets)	**140%**	**100.91%**
– HSE	30%	26.01%
a) Safety	20%	16.01%
– *TRIR*	*8%*	*8%*
– *FIR, comparative*	*4%*	*2.05%*
– *Evolution of the number of Tier 1 + Tier 2 incidents*	*8%*	*5.96%*
b) Evolution of greenhouse gas (GHG) emissions	10%	10%
– Return on equity (ROE)	30%	0%
– Gearing ratio	30%	24.90%
– Pre-dividend organic cash breakeven	30%	30%
– Return on average capital employed (ROACE), comparative	20%	20%
Personal contribution (qualitative criteria)	**40%**	**40%**
– steering of the hydrocarbon strategy (successful strategic negotiations with producing countries and achievement of production and reserve targets) and performance and outlook with respect to Downstream activities (Refining & Chemicals/Marketing & Services)	15%	15%
– development of the low-carbon Businesses (Integrated Gas, Renewables & Power perimeter)	10%	10%
– Corporate Social Responsibility (CSR) performance, notably the integration of climate issues in the Group's Strategy, the Group's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity	15%	15%
TOTAL	**180%**	**140.91%**

The Board of Directors assessed achievement of the targets set for the **economic parameters** as follows:

– The **safety criterion** was assessed for a maximum of 20% of the base salary through (i) the achievement of the annual TRIR (Total Recordable Injury Rate) target, (ii) the number of accidental deaths per million hours worked, FIR (Fatality Incident Rate) compared to those of the four large competitor oil companies (ExxonMobil, Royal Dutch Shell, BP and Chevron), as well as (iii) through change in the Tier 1 + Tier 2 indicator[1].

These three sub-criteria were assessed based on the elements set out in the 2020 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting of May 29, 2020, and providing that:

- the maximum weighting of the TRIR criterion is 8% of the base salary. The maximum weighting is reached if the TRIR is less than 0.80; the weighting of the criterion is zero if the TRIR is greater than or equal to 1.3. The interpolations are linear between these points of reference;
- the maximum weighting of the FIR criterion is 4% of the base salary. The maximum weighting is reached if the FIR is the best of the majors' panel; it is zero if the FIR is the worst of the panel. The interpolations are linear between these points of reference;
- the maximum weighting of the evolution of the number of incidents Tier 1 + Tier 2 criterion is 8% of the base salary. The maximum weighting is reached if the number of incidents Tier 1 + Tier 2 is equal to or less than 70, it is zero if the number of incidents Tier 1 + Tier 2 is greater than or equal to 125. The interpolations are linear between these points of reference.

(1) Tier 1 and Tier 2: indicator of the number of loss of primary containment events, with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			Concerning the 2020 fiscal year, the following elements were noted: – the TRIR was 0.742, which is below the target of 0.80. The result of this criterion was thus set at 8%; – the FIR rate is 0.257, which is between the maximum FIR of 0.5263 of the majors' panel and the minimum FIR of 0 of the majors' panel. The result of this criterion was thus fixed at 51.20% of its maximum of 4%, i.e. 2.05%; – the number of Tier 1 + Tier 2 incidents was 84, which is above the level of 70 to achieve the target of 100. The result of this criterion was set at 5.96%. The result of the criterion related to the safety performance was thus set at 16.01%. – The **criterion linked to the greenhouse gas (GHG) emissions on operated oil & gas facilities** was assessed for a maximum weighting of 10% of the base salary, through the achievement of a GHG (Scope 1 and Scope 2) reduction emission target from 46 Mt CO_2e in 2015 to 40 Mt CO_2e in 2025, corresponding to a reduction of 600 kt CO_2e/y, i.e. a target of 43 Mt CO_2e for 2020. This criterion was assessed based on the elements set out in the 2020 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting of May 29, 2020, and providing that: – the maximum weighting of the GHG criterion, i.e. 10% of the base salary, is reached if the GHG Scope 1 and Scope 2 emissions on the operated oil & gas facilities reach the target of 43 Mt CO_2e in 2020; – the weighting of the criterion is zero if the emissions are 1 Mt CO_2e above the set target; – the interpolations are linear between these points of reference. The Board noted that the GHG Scope 1 and Scope 2 emissions on operated oil & gas facilities amounted to 35.8 Mt CO_2e in 2020. The result of this criterion was thus set at its maximum of 10%. – The **return on equity (ROE) criterion**, as published by the Group on the basis of its balance sheet and consolidated statement of income was assessed for a maximum of 30% of the base salary, based on the elements set out in the 2020 compensation policy of the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting of May 29, 2020, and providing that: – the maximum weighting of the criterion is reached if the ROE is greater than or equal to 13%; – the weighting of the criterion is zero if the ROE is less than or equal to 6%; – the weighting of the criterion is at 50% of the maximum for an ROE of 8%; – the interpolations are linear between these three points of reference. The Board noted that the ROE for fiscal year 2020 was 3.7%, i.e. below the limit of 6% corresponding to the maximum weighting. The result of this criterion was thus set at 0%. – The **gearing ratio criterion** was assessed for a maximum of 30% of the base salary, based on the elements set out in the compensation policy of the Chairman and Chief Executive Officer for 2020, as approved by the Shareholders' Meeting of May 29, 2020, and providing that: – the maximum weighting of the criterion is reached for a gearing ratio equal to or less than 20%; – the weighting of the criterion is zero for a gearing ratio equal to or greater than 30%; – the interpolations are linear between these two points of reference. The IFRS 16 accounting standard, applicable as of January 1, 2019, led the Group to consolidate as from this date all leases in the balance sheet and as counterpart to record the corresponding financial debts as a liability in the balance sheet (before January 1, 2019, only finance leases were consolidated). The Board thus decided to assess the gearing ratio criterion without taking into consideration the financial debt corresponding to leases. The Board thus noted that the gearing ratio excluding lease commitments at year-end 2020 was 21.7%, above the 20%-threshold. The result of this criterion was thus set at 24.90%.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			– The **pre-dividend organic cash breakeven** was assessed at a maximum of 30% of the base salary according to components set in the compensation policy of the Chairman and Chief Executive Officer for 2020, as approved by the Shareholders' Meeting of May 29, 2020, and providing that: – the maximum weighting of the criterion is reached, i.e. the breakeven is below or equal to \$30/b; – the weighting of the criterion is zero if the breakeven is above or equal to \$40/b; – the interpolations are linear between these two points of reference. The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes[1] (MBA) covers the organic investments[2]. The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter. Regarding fiscal year 2020, the Board noted that the pre-dividend organic cash breakeven set at \$25.6/b, which is below \$30/b. The result of this criterion was thus set at its maximum of 30%. – The **return on average capital employed (ROACE) criterion**, by comparison, assessed as a maximum weighting of 20% of the base salary. TOTAL's ROACE, as published from the consolidated balance sheet and the income statement, was compared to the ROACE average of each of the four peers (ExxonMobil, Royal Dutch Shell, BP and Chevron). The ROACE is equal to the net adjusted operating income[3] divided by the average of the capital employed (at replacement costs, net of deferred income tax and non-current liabilities) of the start and end of the fiscal year. This criterion was assessed based on the elements set out in the 2020 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting of May 29, 2020, and providing that: – the maximum weighting of the criterion is reached, i.e. 20% of the base salary, if TOTAL's ROACE is above 2% or more compared to the average of the 4 peers' ROACE; – the weighting of the criterion is zero if the TOTAL's ROACE is under 2% or more compared to the average of the four peers' ROACE; – the interpolations are linear between these two points of reference. For fiscal year 2020, the Board noted that TOTAL's ROACE is 3% above the average of the ROACEs of the four peers. The result of this criterion was thus set to 100% of the maximum weighting of this criterion, i.e. 20%. The **personal contribution** of the Chairman and Chief Executive Officer was assessed at its maximum of 40% of the base salary based on the three criteria set in the compensation policy of the Chairman and Chief Executive Officer for 2020, as approved by the Shareholders' Meeting of May 29, 2020: – Steering of the hydrocarbon strategy (successful strategic negotiations with producing countries, achievement of production and reserve targets) and performance and outlook with respect to Downstream activities (Refining & Chemicals/Marketing & Services) for up to 15%; The Board of Directors set the result of this criterion to its maximum, i.e. 15% because of the following components which were observed during the past fiscal year: – countercyclical acquisition of all of Tullow's interests in the Lake Albert project in Uganda – finalization of the agreements with the Ugandan and Tanzanian governments, in order to launch the Tilenga and EACOP projects – launch of the third development phase of the giant Mero field in Brazil – success in exploration, with three significant discoveries at Block 58 in Suriname, as well as a new gas condensate discovery in the British North Sea and a gas discovery in Egypt on the North El Hammad permit – Sale of mature assets in Gabon (agreement with Perenco with a view to selling stakes in seven non-operated mature offshore oil fields and the Cap Lopez oil terminal) and in the North Sea in the United Kingdom – sale of the Lindsey refinery in the United Kingdom – launch of the industrial repurposing of the Grandpuits refinery France as a zero-crude platform by 2024

(1) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020).
(2) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(3) Adjustment items include special items, the inventory effect and the impact for change for fair value.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			– continuation of the asset divestment program with the sale of downstream gas assets in France, and distribution assets in Sierra Leone and Liberia. Furthermore, the hydrocarbon production was noted in decrease in 2020 reaching 2,871 kboe/d compared with 3,014 kboe/d in 2019, mainly due to the impact of production quotas and the decision not to acquire certain African assets from Occidental Petroleum in light of the economic crisis. The three-year renewal rate of proved reserves sets at 127% despite the negative impact of the average price of $41.32/b used in 2020) according to SEC rules. – Development of the low-carbon Businesses (Integrated Gas, Renewables & Power perimeter) for up to 10%. The Board of Directors set the result of this criterion to its maximum, i.e. 10% because of the following components which were observed during the past fiscal year: – acquisition of 50% of a portfolio with a capacity of 2 GW of solar power plants in India as part of a 50/50 joint venture with Adani – agreement to build a large-scale solar power plant (800 MW) in Qatar – entering the Spanish solar energy market with the acquisition of a portfolio of 2 GW of projects – acquisition in France of Global Wind Power France, which owns a portfolio of projects with gross capacity of 1 GW – entering an initial floating offshore wind power project in the United Kingdom – launch in Dunkirk of the biggest battery-based power storage project (25 MW) for the French power grid – investment decision concerning CO_2 transportation and storage by means of the Northern Lights project in Norway – extension of the contract with Sonatrach to supply 2 million tons of LNG per year – agreement with SSE Renewables to acquire a 51% stake in the offshore wind power project with capacity of 1,140 MW in the Scottish North Sea – acquisition from EDP of its portfolio of 2.5 million residential customers and two combined cycle natural gas power plants with cumulative capacity of close to 850 MW – acquisition of a portfolio of 3.3 GW of solar power projects in Spain, bringing the total capacity of Spanish solar power projects under development to over 5 GW – decision to use green electricity produced by Spanish solar power sites to cover all of the Group's industrial sites' power consumption in Europe by 2025 by means of a 3 GW corporate PPA – finalization by SunPower of the succession of Maxeon Solar Technologies in the United States – strengthening of the solar power partnership with Adani, with the extension of the portfolio to 2.3 GW in India – agreement with Macquarie to develop a 2 GW floating offshore wind power portfolio in South Korea – acquisition of a 20% stake in the Eolmed 30 MW floating offshore wind farm project in the Mediterranean – creation with Groupe PSA of Automotive Cell Company, a joint venture dedicated to the development and production of batteries for the automotive industry in Europe[(1)] – acquisition of Blue Point London, which operates the biggest charging network in London with 1,600 electric vehicle charging points. – CSR performance, notably the integration of climate issues in the Group's Strategy, the Group's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity, for up to 15%. The Board of Directors set the result of this criterion to its maximum, i.e. 15% because of the following components which were observed during the past fiscal year:

(1) Now Stellantis N.V.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			– Taking into account the climate into the Group's strategy: – new Climate Ambition to achieve carbon neutrality by 2050 – new Biodiversity Ambition with increased commitments – joining the "Coalition for the energy of the future" alongside 10 major partners to step up the energy transition of transportation and logistics, as well as signing up as a co-founder to the "Sea Cargo" charter to standardize and ensure the consistency of reporting greenhouse gas emissions relating to shipping activities – first-time publication of Sustainability Accounting Standards Board (SASB) reporting: this standard allows companies in the oil and gas sector to highlight a series of financially material indicators concerning sustainable development – Concerning the Group's reputation in the field of societal policy: – actions taken in the context of the Total Foundation program, in particular the continuing significant increase in the commitment to civic action, the development of Industreet, and the deployment of the employee engagement program *Action!* launched 2018 – renewal of TOTAL in 2020 as LEAD company in the United Nations Global Compact (recognition of the Group as one of the most committed members in integrating the 10 principles) – obtaining for all commercial entities of the Group listed in the EcoVadis platform, of Platinum status for Total Direct Energie, Gold Status for Total Marketing & Services, Total Raffinage Chimie, Saft Groupe, and Silver status for Total Gas & Power Limited – Regarding non-financial rating agencies: – maintaining TOTAL in the Dow Jones Sustainability Indexes (New York Stock Exchange) – DJSI World and Europe indices – maintaining TOTAL in the FTSE4Good index ("footsie for good") – London Stock Exchange – Concerning the diversity policy: – results of the diversity policy, in particular the increase in the proportion of women within the Executive Committee (25% in 2020) and G70 (24.7% in 2020); the achievement in 2020 of the target of 20% of women members on Management Committees of branches and large functional divisions; the achievement in 2020 of the target of 25% women senior executives (25.7%); the increase in the proportion of non-French senior executives (36.3% in 2020). – The continuation of the Group's commitment to professional integration of young people (continuation of the commitment made in 2018 in Ile de France with development in the other regions of France for internships for high school (first year); for alternates, confirmation by the Group of its commitment to hire alternates corresponding to 5% of the French workforce per year). – Concerning the disability policy, the continuation of international expansion of the Disability approach (41 subsidiaries involved) within the framework of the ILO's "Business and Disability" global Network Charter. Being that all the objectives were considered as largely met, the personal contribution of the Chairman and Chief Executive Officer was thus determined at its maximum, i.e. 40% of the fixed compensation.
Multi-year variable compensation	N/A	N/A	The Board of Directors has not granted any multi-year or deferred variable compensation.
Extraordinary compensation	N/A	N/A	The Board of Directors has not granted any extraordinary compensation.
Compensation due to his directorship	N/A	N/A	Mr. Pouyanné does not receive compensation due to his directorship in TOTAL SE. Mr. Pouyanné does not receive compensation from companies TOTAL SE controls.

4

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation

Stock options (SO), performance shares (PS) or all other forms of long-term compensation		SO: None
		PS: **€714,240**[1]
		(accounting valuation)
			On March 18, 2020, Mr. Pouyanné was granted 72,000 existing shares of the Company pursuant to the authorization of the Company's Combined Shareholders' Meeting of June 1, 2018 (nineteenth resolution) subject to the conditions set out below. These shares were granted under a broader share plan approved by the Board of Directors on March 18, 2020, in favor of more than 11,000 beneficiaries.
			The definitive number of shares is subject to the beneficiary's continued presence within the Group during the vesting period and to performance conditions as described below. The definitive number of granted shares will be based on the TSR (Total Shareholder Return), the annual variation of the net cash flow by share in dollars, the pre-dividend organic cash breakeven, as well as the change in the greenhouse gas emission on operated oil & gas facilities for fiscal years 2020, 2021 and 2022, applied as follows:
			– For 1/4 of the shares, the Company will be ranked against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) each year during the three vesting years (2020, 2021 and 2022) based on the TSR criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
			– For 1/4 of the shares, the Company will be ranked each year against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) during the three vesting years (2020, 2021 and 2022) using the annual variation in net cash flow criterion expressed in dollars.
			Based on the ranking, a grant rate will be determined for each year for these first two criteria: 1st: 180% of the grant; 2nd: 130% of the grant; 3rd: 80% of the grant; 4th and 5th: 0%.
			– For 1/4 of the shares, the pre-dividend organic cash breakeven criterion will be assessed during the three vesting years (2020, 2021 and 2022) as follows. The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA)[2] covers the organic investments[3]. The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter:
			  – the maximum grant rate will be reached if the breakeven is less than or equal to \$30/b,
			  – the grant rate will be zero if the breakeven is greater than or equal to \$40/b,
			  – the interpolations are linear between these two points of reference.
			– For 1/4 of the shares, the change in greenhouse gas emissions (GHG) on operated oil & gas facilities will be assessed each year as regards achievement of the target to reduce GHG emissions set for fiscal years 2020, 2021 and 2022 and corresponding to 43 Mt CO_2e for 2020, 42.4 Mt CO_2e for 2021 and 41.8 Mt CO_2e for 2022:
			  – the maximum grant rate will be reached if the GHG emissions (Scope 1 and Scope 2) target have been achieved,
			  – the grant rate will be zero if the GHG emissions of the year considered are 1 Mt CO_2e above the set target,
			  – the interpolations are linear between these two points of reference.
			For each of the four criteria, the average of the three grant rates obtained (for each of the three fiscal years for which the performance conditions are assessed) will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%) and capped at 100%. Each criterion will have a weight of 1/4 in the definitive grant rate. The definitive grant rate will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%). In the case of fractional shares, the number of shares definitively granted after determination of performance conditions will be rounded up to the next whole number of shares.

(1) In accordance with the accounting treatment of performance shares for the year 2020 in application of IFRS 2, which takes into account the assumption of an 80% grant rate at the end of the vesting period, this amount corresponds to 72,000 shares granted in 2020, valued on the basis of a unit fair value of €12.40. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, i.e. March 18, 2020, on the basis of a closing price of the Total share on that date of €21,795. For information, the unit fair value would amount to €24.85 based on a calculation using identical parameters and the average closing price of the Total share in 2020, i.e. €34.957. On the basis of a unit fair value of €24.85, the valuation of the 72,000 performance shares granted in 2020 would have been €1,431,360.

(2) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in capital at replacement cost excluding the impact of contracts recognized at fair value in the iGRP segment, including capital gains on the sale of renewables projects (as of the first quarter of 2020).

(3) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			In accordance with Article L. 225-197-1 of the French Commercial Code, Mr. Pouyanné will, until the end of his term, be required to retain in the form of registered shares, 50% of the gains on the granted shares net of tax and national insurance contributions related to the shares granted in 2020. When Mr. Pouyanné holds[(1)] a volume of shares representing five times the fixed portion of his gross annual compensation, this percentage will be equal to 10%. If this condition is no longer met, the above-mentioned 50% holding requirement will again apply. In addition, the Board of Directors has noted that, pursuant to the Board's Rules of Procedure applicable to all directors, the Chairman and Chief Executive Officer is not allowed to hedge the shares of the Company or any related financial instruments and has taken note of Mr. Pouyanné's commitment to abstain from such hedging operations with regard to the performance shares granted. The grant of performance shares to Mr. Pouyanné is subject to the same requirements applicable to the other beneficiaries of the performance share plan as approved by the Board at its meeting on March 18, 2020. In particular, these provisions stipulate that the shares definitively granted at the end of the three-year vesting period will, after confirmation of fulfillment of the presence and performance conditions, be automatically recorded as pure registered shares on the start date of the two-year lock-up period and will remain non-transferable and unavailable until the end of the lock-up period.
Payment for assuming a position	N/A	N/A	Mr. Pouyanné was not granted any payment for assuming his position.
In-kind benefits		€64,616 (accounting valuation)	The Chairman and Chief Executive Officer is entitled to a company vehicle. He is covered by the following life insurance plans provided by various life insurance companies: – An "incapacity, disability, life insurance" plan applicable to all employees, partly paid for by the Company, that provides for two options in case of death of a married employee: either the payment of a lump sum equal to 5 times the annual compensation up to 16 times the PASS, corresponding to a maximum of €3,290,880 in 2020, plus an additional amount if there is a dependent child or children, or the payment of a lump sum equal to 3 times the annual compensation up to 16 times the PASS, plus a survivor's pension and education allowance; – A second "disability and life insurance" plan, fully paid by the Company, applicable to executive officers and senior executives whose annual gross compensation is more than 16 times the PASS. This contract, signed on October 17, 2002, amended on January 28 and December 11, 2015, guarantees the beneficiary the payment of a lump sum, in case of death, equal to two years of compensation (defined as the gross annual fixed reference compensation (base France), which corresponds to 12 times the monthly gross fixed compensation paid during the month prior to death or sick leave, to which is added the highest amount in absolute value of the variable portion received during one of the five previous years of activity), which is increased to three years in case of accidental death and, in case of accidental permanent disability, a lump sum proportional to the degree of disability. Death benefits are increased by 15% for each dependent child. Payments due under this contract are made after the deduction of any amount paid under the above-mentioned plan applicable to all employees. The Chairman and Chief Executive Officer also benefits from the health care plan applicable to all employees.
Severance benefit	None	None	The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office. The severance benefit will only be paid in the event of a forced departure related to a change of control or strategy. It will not be due in case of gross negligence or willful misconduct or if the Chairman and Chief Executive Officer leaves the Company of his own volition, accepts new responsibilities within the Group or may claim full retirement benefits within a short time period.

(1) In the form of shares or units of mutual funds invested in shares of the Company.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			Receipt of this severance benefit is contingent upon a performance-related condition applicable to the beneficiary, which is deemed to be fulfilled if at least two of the following criteria are met: – the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%; – the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and – the average pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer leaves is below or equal to $30/b (criterion introduced by the Board of Directors at its meeting of March 18, 2020).
Retirement benefit	None	None	The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Group under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement. Receipt of this retirement benefit is contingent upon a performance-related condition applicable to the beneficiary, which is deemed to be fulfilled if at least two of the following criteria are met: – the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%; – the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and – the average pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer leaves is below or equal to $30/b (criterion introduced by the Board of Directors at its meeting of March 18, 2020). The retirement benefit cannot be combined with the severance benefit described above.
Non-compete compensation		N/A	Mr. Pouyanné has not received any non-compete compensation.
Supplementary pension plan		None	Pursuant to applicable legislation, the Chairman and Chief Executive Officer is eligible for the basic French Social Security pension and for pension benefits under the ARRCO and AGIRC supplementary pension plans. He also participates in the internal defined contribution pension plan applicable to all TOTAL SE employees, known as RECOSUP *(Régime collectif et obligatoire de retraite supplémentaire à cotisations définies)*, covered by Article L. 242-1 of the French Social Security Code. The Company's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2020, this pension plan represented a booked expense to TOTAL SE in favor of the Chairman and Chief Executive Officer of €2,468. The Chairman and Chief Executive Officer also participates in a supplementary defined benefit pension plan, covered by Article L. 137-11 of the French Social Security Code, set up and financed by the Company and approved by the Board of Directors on March 13, 2001, for which management is outsourced to two insurance companies effective January 1, 2012. In accordance with the ordinance 2019-697 published on July 4, 2019, this plan is closed to any new participant as from July 4, 2019, and, for participants as of July 4, 2019, and retiring as from January 1, 2020, the amount of supplementary pension provided for in this plan is calculated on the basis of number of years of service as at December 31, 2019, and up to a maximum of 20 years. This plan applies to all TOTAL SE employees whose compensation exceeds eight times the annual ceiling for calculating French Social Security contributions (PASS), set at €41,136 for 2020 (i.e. €329,088), and above which there is no conventional pension plan. To be eligible for this supplementary pension plan, participants must have served for at least five years, be at least 60 years old and exercised his or her rights to retirement from the French Social Security. The benefits under this plan are subject to a presence condition under which the beneficiary must still be employed at the time of retirement. However, the presence condition does not apply if a beneficiary aged 55 or older leaves the Company at the Company's initiative or in case of disability.

Components of compensation submitted for vote	Amount paid during fiscal year 2020	Amount allocated in respect of fiscal year 2020 or accounting valuation	Presentation
			The length of service acquired by Mr. Pouyanné as a result of his previous salaried duties held at the Group since January 1, 1997, has been maintained for the benefit of this plan. The compensation taken into account to calculate the supplementary pension is the average gross annual compensation (fixed and variable portion) over the last three years. This pension plan provides a pension for its beneficiaries equal to 1.8% of the portion of the compensation failing between 8 and 40 times the PASS and 1% for the portion of the compensation falling between 40 and 60 times the PASS, multiplied by the number of years as at December 31, 2019, of service up to a maximum of 20 years. The sum of the annual supplementary pension plan benefits and other pension plan benefits (other than those set up individually and on a voluntary basis) may not exceed 45% of the average gross compensation (fixed and variable portion) over the last three years. In the event that this percentage is exceeded, the supplementary pension is reduced accordingly. The amount of the supplementary pension determined in this way is indexed to the ARRCO pension point. The supplementary pension includes a clause whereby 60% of the amount will be paid to beneficiaries in the event of death after retirement. The Board noted that Mr. Pouyanné can no longer acquire additional pension rights under this plan given the rules for determining pension rights set out in the plan and the 20 years of service of Mr. Pouyanné as of December 31, 2016. The conditional rights granted to Mr. Patrick Pouyanné for the period from January 1, 1997, to December 31, 2016 (inclusive), are now equal to a reference rate of 36% for the portion of the base compensation falling between 8 and 40 times the PASS and 20% for the portion of the base compensation falling between 40 and 60 times the PASS. Based on Mr. Pouyanné's seniority at the Company, capped at 20 years on December 31, 2016, the commitments made by TOTAL SE to the Chairman and Chief Executive Officer in terms of supplementary defined benefits and similar pension plans represented, at December 31, 2020, a gross annual retirement pension estimated at €638,431. It corresponds to 20.34% of Mr. Pouyanné's gross annual compensation consisting of the annual fixed portion for 2020 (i.e. €1,166,667) and the variable portion paid in 2021[(1)] for fiscal year 2020 (i.e. €1,972,740). Nearly the full amount of TOTAL SE's commitments under these supplementary and similar retirement plans (including the retirement benefit) is outsourced for all beneficiaries to insurance companies and the non-outsourced balance is evaluated annually and adjusted through a provision in the accounts. The amount of these commitments as of December 31, 2020, is €23.1 million for the Chairman and Chief Executive Officer (€23.2 million for the Chairman and Chief Executive Officer and the executive and non-executive directors covered by these plans). These amounts represent the gross value of TOTAL SE's commitments to these beneficiaries based on the estimated gross annual pensions as of December 31, 2020, as well as the statistical life expectancy of the beneficiaries. The total amount of all the pension plans in which Mr. Pouyanné participates represents, at December 31, 2020, a gross annual pension estimated at €750,720, corresponding to 23.91% of Mr. Pouyanné's gross annual compensation defined above (annual fixed portion for 2020 and variable portion paid in 2021 for fiscal year 2020[(1)]). In line with the principles for determining the compensation of executive directors as set out in the AFEP-MEDEF Code which the Company uses as a reference, the Board of Directors took into account the benefit accruing from participation in the pension plans when determining the Chairman and Chief Executive Officer's compensation.
Approval by the Shareholders' Meeting		–	The commitments made to the Chairman and Chief Executive Officer regarding the pension and insurance plans, the retirement benefit and the severance benefit (in the event of forced departure related to a change of control or strategy) were authorized by the Board of Directors on March 14, 2018, and approved by the Shareholders' Meeting on June 1, 2018.

(1) Subject to approval by the Ordinary Shareholders' Meeting on May 28, 2021.

Compensation ratios – Annual trend of the compensation, of performances of the Company and of the ratios

In accordance with Article L. 22-10-9, 6° and 7° (formerly L. 225-37-3) of the French Commercial Code, below are indicated the ratios between the level of compensation of the Chairman and Chief Executive Officer and the average and median compensation of TOTAL SE(1) employees, as well as the annual trend of the compensation, of performances of the Company, of the average compensation of the Company's employees and of the ratios during the last five fiscal years.

The compensation ratios were calculated based on the following elements:

– The retained compensation **for the executive directors** corresponds to the compensation paid during fiscal year N (excluding in-kind benefits). It is composed of the fixed component, of the variable component paid during fiscal year N in respect of fiscal year N-1, of performance shares granted during fiscal year N(2).
– **For employees**, the retained compensation corresponds to the compensation paid during fiscal year N (excluding in-kind benefits). It is composed of the full-time equivalent fixed portion, of the variable portion paid during fiscal year N in respect of fiscal year N-1, of the incentive and profit-sharing compensation paid during fiscal year N in respect of N-1 and of performance shares granted during fiscal year N.

Also presented are the ratios between the level of compensation of the Chairman and Chief Executive Officer of TOTAL SE and the average and median compensation of employees within the "Socle Social Commun (SSC)" as well as the annual trend of the compensation, of performances of the Company, of the average compensation of the Company's employees and of the ratios during the last five fiscal years.

The Socle Social Commun, which gathers the three economic and social units (Upstream – Global Services – Holding, Refining-Petrochemicals, Marketing-Services), is the perimeter covering negotiations regarding annual wage measures driven by the management of TOTAL SE. The Socle Social Commun gather workforce of subsidiaries in France (more than 15,000 employees in 2020).

Table of ratios pursuant to I. 6° et 7° of Article L. 22-10-9 of the French Commercial Code de presented in accordance with Afep guidelines updated in February 2021

	2016	2017	2018	2019	2020
Change (%) in compensation paid to Mr. Patrick Pouyanné, Chairman and Chief Executive Officer of TOTAL SE (since December 19, 2015)	74%	11%	12%	-8%	-22%(3)
Information relating to the scope of TOTAL SE: 5,426 employees (16% of employees in France) as at 12/31/2020					
Change (%) in average compensation of employees		-1%	3%	3%	-8%(4)
Ratio compared to average compensation of employees	42	47	51	46	39
Change in ratio (%) relative to previous year		12%	9%	-11%	-14%
Ratio compared to median compensation of employees	55	61	66	59	48
Change in ratio (%) relative to previous year		10%	9%	-11%	-20%
Additional information relating to the enlarged scope of the Common Corpus (SSC): 15,071 employees (46% of employees in France) as at 12/31/2020					
Change (%) in average compensation of employees		0%	3%	4%	-6%(4)
Ratio compared to average compensation of employees	54	60	66	58	49
Change in ratio (%) relative to previous year		11%	9%	-12%	-16%
Ratio compared to median compensation of employees	72	80	87	77	61
Change in ratio (%) relative to previous year		12%	9%	-12%	-21%
Performance of TOTAL SE (on a consolidated basis)					
Change in net adjusted result(5)		28%	28%	-13%	-66%
Change in operating cash flow before working capital changes(6)		24%	15%	7%	-40%

4.3.2.2 Compensation policy of the Chairman and Chief Executive Officer

The compensation policy of the Chairman and Chief Executive Officer for fiscal year 2021 was set by the Board of Directors, at its meeting of March 17, 2021, in accordance with the provisions of Article L. 22-10-8 of the French Commercial Code, on the proposal of the Compensation Committee. It is based on the general principles for determining the compensation of the executive directors specified below.

(1) TOTAL SE, the Group parent company, employs more than 5,000 employees (full-time equivalent employees and present as of December 31 for each fiscal year of the considered period).
(2) Performance shares valued on the basis of their unit fair value, in accordance with their accounting in accordance with IFRS 2, taking into account the assumption of a 70% grant rate for years 2016 and 2017 and 80% for 2018, 2019 and 2020 at the end of the acquisition period.
(3) The reduction in compensation paid to Mr. Pouyanné between 2019 and 2020 is partly due to the Chairman and Chief Executive Officer's decision to temporarily cut his fixed compensation by 25% as from May 1, 2020 until December 31, 2020, due to the economic context, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019). If the fixed compensation of Mr. Pouyanné had not been reduced by 25% as from May 1, 2020 until December 31, 2020 and if the performance shares granted had been valued on the basis of a unit fair value of €24.85 (fair value based on a calculation using identical parameters and the average of the closing prices for the Total share during the year 2020 of €34.957), the compensation ratio of the Chairman and Chief Executive Officer compared to the average compensation of the TOTAL SE's employees between 2019 and 2020 would have been 46 (instead of 39), and the compensation ratio of the Chairman and Chief Executive Officer compared to the median compensation of the TOTAL SE's employees between 2019 and 2020 would have been 57 (instead of 48). Within the limits of the SSC, the compensation ratio of the Chairman and Chief Executive Officer compared to the average compensation of the TOTAL SE's employees between 2019 and 2020 would have been 58 (instead of 49), and the compensation ratio of the Chairman and Chief Executive Officer compared to the median compensation of the TOTAL SE's employees between 2019 and 2020 would have been 74 (instead of 61).
(4) The reduction in compensation paid to the employees between 2019 and 2020 is partly due to the decrease of the incentive and profit-sharing compensation due to the economic context notably, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019).
(5) Net adjusted result (Group share) published in the consolidated financial statements for the fiscal year in question.
(6) Operating cash flow before working capital changes as published in the consolidated financial statements for the fiscal year in question. This is defined as operating cash flows before working capital changes at the replacement cost excluding the impact of contracts recognized at fair value in the iGRP segment, and including capital gains on the disposal of renewables projects (as of the first quarter of 2020).

General principles for determining the compensation of the executive directors

The general principles for determining the compensation and other benefits granted to the executive directors of TOTAL SE are as follows.

- Compensation as well as benefits for the executive directors are set by the Board of Directors on the proposal of the Compensation Committee. Such compensation must be reasonable and fair in a context of solidarity and motivation within the company. Compensation for the executive directors is based on the market, the work performed, the results obtained and the responsibilities assumed.
- Compensation for the executive directors includes a fixed portion and a variable portion. The fixed portion is reviewed at least every two years.
- The amount of the variable portion is reviewed each year and may not exceed a stated percentage of the fixed portion. Variable compensation is determined based on pre-defined quantifiable and qualitative criteria that are periodically reviewed by the Board of Directors. Quantifiable criteria are limited in number, objective, measurable and adapted to the Company's strategy.
- The variable portion rewards short-term performance and the progress made toward paving the way for medium-term development. It is determined in a manner consistent with the annual performance review of the executive directors and the Company's medium-term strategy.
- The Board of Directors monitors the change in the fixed and variable portions of the executive directors' compensation over several years in light of the Company's performance.
- There is no specific pension plan for the executive directors. They are eligible for retirement benefits and pension plans available to certain employee categories in the Group under conditions determined by the Board.
- In line with the principles for determining the compensation of executive directors as set out in the AFEP-MEDEF Code which the Company uses as a reference, the Board of Directors takes into account the benefit accruing from participation in the pension plans when determining the compensation policy of the executive directors.
- Stock options and performance shares are designed to align the interests of the executive directors with those of the shareholders over the long term.

  The grant of options and performance shares to the executive directors is reviewed in light of all the components of compensation of the person in question. No discount is applied when stock options are granted.

  The exercise of options and the definitive grant of performance shares to which the executive directors are entitled are subject to conditions of presence in the Company and performance that must be met over several years. The departure of executive directors from the Group results in the inapplicability of share options and the rights to the definitive attribution of performance shares. Under exceptional circumstances, the Board of Directors can decide to maintain the share options and the rights to the definitive attribution of performance shares after the executive beneficiary's departure, if the decision of the Board of Directors is specially justified and taken in the Company's interest.

  The Board of Directors determines the rules related to holding a portion of the shares resulting from the exercise of options as well as the performance shares definitively granted, which apply to the executive directors until the end of their term of office.

  The executive directors cannot be granted stock options or performance shares when they leave office.
- After three years in office, the executive directors are required to hold at least the number of Company shares set by the Board.
- The components of compensation of the executive directors are made public after the Board of Directors' meeting at which they are approved.
- The executive directors do not take part in any discussions or deliberations of the corporate bodies regarding items on the agenda of Board of Directors' meetings related to the assessment of their performance or the determination of the components of their compensation.
- When a new executive director is nominated, the Board of Directors decides on his or her compensation as well as benefits, further to a proposal by the Compensation Committee, and in accordance with the above general principles for determining the compensation of the executive directors. Exceptional compensation or specific benefits when taking office are forbidden, unless the Board of Directors decides otherwise for particular reasons, in the Company's interest and within the limits of the exceptional circumstances.

Compensation policy's principles for the next term of office of the Chairman and Chief Executive Officer

The criteria used to determine the compensation paid to the Chairman and Chief Executive Officer were set by the Board of Directors during its meeting of December 16, 2015, when Mr. Patrick Pouyanné, Chief Executive Officer since October 22, 2014, was appointed Chairman of the Board of Directors. In September 2016, a new Group organizational structure was introduced with the aim of making the Group more resilient, reducing its sensitivity to oil price volatility across the integrated oil chain, and ensuring its development in the integrated gas chain in both renewable energies and low-carbon electricity, against the backdrop of the 2°C Climate scenario.

At its meetings of December 16, 2020, and February 2, 2021, with the help of an external consultant, the Compensation Committee reviewed the compensation paid to the Chairman and Chief Executive Officer by comparing it with that of his peers. Consulting firm Mercer was used to carry out an independent study into the compensation paid to executive directors of companies in the oil and gas sector worldwide, as well as at French companies, in order to obtain an overview of the position of the Company's Chairman and Chief Executive Officer in the current competitive landscape.

This study showed that the compensation paid to Mr. Patrick Pouyanné (fixed and variable) is in the median of salaries paid at international companies, and in the third quartile for CAC 40 French companies. The valuation of performance shares granted to Mr. Patrick Pouyanné is in the lower third quartile compared with CAC 40 companies.

The Board of Directors took into consideration:

- The size, scope and complexity of the Company's global operations in its current and expected configuration.
- The extent of changes needed in the Company's strategy, as well as any changes that will be needed to improve its competitive position.
- Market developments in general and trends in executive compensation.
- The increasing importance of ESG criteria for the entire financial community and how the Company needs to factor these criteria into its executive compensation structure.
- Shareholders' expectations and the need to garner their support for the proposed changes.

As regards the Group's strategic repositioning, the global energy market is currently undergoing major changes that are shaping how the industry will look in the long term. The shift from using fossil fuels will be the biggest change in the energy industry since the Industrial Revolution 200 years ago. The Company has made public its ambitions with regard to the climate, its strategy and the action plan already implemented in the light of this major change, in order to be able to continue to offer its shareholders a sustainable yield. In this context, the Board of Directors needs to ensure that it has the right leadership in terms of both skills and experience to guide the Group through this major transition.

The Board of Directors deemed that Mr. Patrick Pouyanné is recognized within the industry and has demonstrated that he can implement substantial and successful change. The Chairman and Chief Executive Officer has proposed a clear strategy to the Board of Directors with a coherent action plan. The implementation of this new strategy supported by the Board of Directors is possible thanks to the solid foundations and flexible organizational structure implemented over the last five years. This was particularly evident in 2020, when the Chairman and Chief Executive Officer continued to implement the Group's new strategy despite the health crisis. It is therefore important that the Company and its Board of Directors are assured of the stability and motivation of the Chairman and Chief Executive Officer throughout these major changes for the Group.

The Board of Directors deemed that the clear strategy put in place by the Chairman and Chief Executive Officer regarding the Company's transformation, as well as his results compared with those of his peers, justify increasing the compensation paid to Mr. Pouyanné, particularly in terms of performance share grants as a reflection of the Group's long-term performance, when his term of office as Chairman and Chief Executive Officer is renewed.

a) Base salary of the Chairman and Chief Executive Officer (fixed compensation)

The Board of Directors deemed that the amount of fixed compensation, which has been **€1,400,000** for five years (since fiscal year 2016), could be increased by around **10%** to **€1,550,000**. However, in view of the current economic situation, the Board of Directors decided that this increase in fixed compensation will be deferred from fiscal year 2021 to January 1, 2022.

b) Annual variable portion of the Chairman and Chief Executive Officer's compensation

After analyzing the maximum percentage of the base salary attributable to variable compensation, the Board of Directors decided at its meeting of March 17, 2021, not to amend the maximum amount of the variable portion that could be paid to the Chairman and Chief Executive Officer set at 180% of his base salary, but to make changes relating to expectations in terms of exceptional performance and strategic transformation.

As set out below, the Board of Directors decided on the following amendments applicable to the formula for calculating the variable portion of the Chairman and Chief Executive Officer:

The maximum amount of the variable portion that could be paid to the Chairman and Chief Executive Officer is maintained at **180%** of base salary (percentage unchanged relative to the variable portion allocated in respect of fiscal year 2020).

As regards the Chairman and Chief Executive Officer's personal contribution allowing for qualitative assessment of his management, the maximum amount is maintained at **40%** of base salary (percentage unchanged relative to the variable portion allocated in respect of fiscal year 2020), with a change in qualitative criteria, which are now based on progress made in the energy transition transformation process.

As regards quantifiable targets:

– the maximum amount is maintained at **20%** of base salary (percentage unchanged relative to the variable portion allocated in respect of fiscal year 2020) for the HSE criterion
– the maximum amount is maintained at **10%** of base salary (percentage unchanged relative to the variable portion allocated in respect of fiscal year 2020) for the Scopes 1 & 2 GHG emissions criterion
– the maximum amount for financial criteria is maintained at **110%** of base salary (percentage unchanged relative to the variable portion allocated in respect of fiscal year 2020) taking account of the following elements resulting in an amendment:
  – the ROE and gearing ratio criteria thresholds will be aligned with the targets announced to investors
  – an exceptional performance relative to each of the financial criteria, counting overall for 110% of the fixed portion of compensation, may result in the granting of an exceptional performance for the financial criterion concerned, nevertheless ensuring that the granting of an exceptional performance cannot exceed the limit of 110% or offset a significant deficit in another criterion.

The Board of Directors therefore decided to maintain the maximum amount of the variable portion that could be paid to the Chairman and Chief Executive Officer for fiscal year 2021 at **180%** of his base salary (the same percentage as the variable portion paid in fiscal year 2020). This ceiling was set based on the level applied by a benchmark sample of companies operating in the energy sectors.

The formula for calculating the variable portion of the Chairman and Chief Executive Officer's compensation as 180% of base salary for fiscal year 2021 will be (as in 2020): 140% based on quantifiable targets reflecting the Group's performance, and 40% based on the Chairman and Chief Executive Officer's personal contribution allowing for qualitative assessment of his management, equaling total variable compensation of 180% of fixed compensation.

Quantifiable target valuation criteria

The valuation criteria for quantifiable targets, representing **140%** of the fixed portion, are based on three themes: HSE **(20%)**, financial **(110%)** and Scope 1 & 2 GHG emissions **(10%)**.

However, the Board deemed that in the event of an exceptional performance on the basis of financial criteria, the maximum amount for each of the financial criteria may be exceeded, resulting in an increase in the amount of variable compensation attributable to a specific financial criterion, although without exceeding the maximum amount of variable compensation in respect of these criteria equal to 110% of fixed compensation attributable in respect of all financial criteria. The aim of exceptional performance criteria is to put the emphasis on elements that can be controlled and only allow for potential gains if the Group achieves exceptional results. In any case, the maximum amount of the above-mentioned financial criteria on the basis of an exceptional performance cannot exceed 110% of the base salary.

– ROE: 30% with a maximum of 100% for ROE of 10%; minimum of 0% for ROE of 6%; with an increase of 10% if ROE is between 10% and 13% (linear calculation between the points of reference)
– Gearing ratio: 30% with a maximum of 100% for a ratio of 20%; minimum of 0% for a ratio of 40%; with an increase of 10% if the ratio is between 20% and 15% (linear calculation between the points of reference)
– Breakeven: 30% with a maximum of 100% for $30/b and 0% for $40/b; with an increase of 10% if breakeven is between $30/b and $25/b (linear calculation between the points of reference)
– Comparative ROACE versus its peers: 20% with a maximum of 100% if the comparative ROACE is +2% versus its peers and minimum of 0% if it is -2%; with an increase of 10% if it is +4% versus its peers (linear calculation between the points of reference)

The change made therefore makes it possible to reward exceptional performance while also ensuring a level of control in the event of exceptional performance in more than two of the four financial criteria during a given year. The Board of Directors has decided to reserve the right to adjust any exceptional performance if, in the opposite scenario, other financial criteria are much lower than expected, in particular those relating to the operational actions of the Chairman and Chief Executive Officer.

Personal contribution valuation criteria

For the personal contribution, the Board of Directors wanted all criteria proposed to take account of the Company's transformation into a broad energy company, as well as social responsibility in general and in terms of diversity in particular.

The personal contribution will therefore now be valued on the basis of the three following criteria:

- Steering of the Company's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity, for up to **15%**;
- Profitable growth in renewables and electricity, for up to **10%**;
- CSR performance, including the integration of climate issues in the Group's Strategy, the Group's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity, for up to **15%**.

c) Performance shares

The granting of performance shares to the Chairman and Chief Executive Officer corresponds to the long-term component of his global compensation. Performance shares are definitively granted at the end of a three-year vesting period. The definitive grant of shares is subject to a presence condition and performance conditions assessed at the end of this three-year vesting period.

The Compensation Committee deemed that the current structure of the Chairman and Chief Executive Officer's compensation compared to market practices does not take sufficient account of the long-term component represented by the granting of performance shares, a source of alignment of interests with shareholders and involvement in value creation over the long term. The aim of achieving an equal balance between short-term cash elements (fixed and variable annual compensation) and long-term elements, which in turn are subject to medium-term individual and comparative performance criteria, as well as presence and holding conditions, therefore guided the changes proposed by the Compensation Committee.

The comparison made with the help of an external consultant (Mercer) led to the consideration that the valuation of performance shares granted should eventually represent around 50% of total compensation, with the other 50% corresponding to the fixed and variable portion of compensation. Therefore, on the basis of a fixed portion of €1.4 million and variable compensation equal to 150% of the fixed portion, or €2.1 million, the valuation of performance shares should represent €3.5 million. Based on an average IFRS 2 valuation of €35, this amount represents 100,000 shares.

On the proposal of the Compensation Committee, the Board of Directors decided to approve the principle of increasing the number of performance shares to be granted to the Chairman and Chief Executive Officer for fiscal years 2021, 2022 and 2023 to the following levels: **90,000; 100,000** and **110,000** shares.

At its meeting on March 17, 2021, the Board of Directors decided to not set a holding period at the end of the vesting period for the performance shares granted to all beneficiaries (including the executive director) for future granting plans, except for the 2021 plan because the performance shares granting authorization given by the Shareholders' Meeting on June 1, 2018, provides for a two-year holding period. The removal of the holding period as a granting condition will apply as from the plan for the performance shares to be granted in 2022, for all beneficiaries, as well as for future plans.

Notwithstanding, in order to reinforce the long-term nature of performance share grants to the Chairman and Chief Executive Officer, the Board of Directors decided that, as from the 2021 plan, the Chairman and Chief Executive Officer, would, from this point on, be required to retain in the form of registered shares until the end of his term, 50% of the shares which will be definitively granted during the three-year vesting period.

It is reminded that the Board of Directors had decided, that for the previous performance share plans, in particular the plans granted in 2018, 2019 and 2020, the Chairman and Chief Executive Officer would, until the end of his term, be required to retain in the form of registered shares, 50% of the gains on the granted shares net of tax and national insurance contributions related to the granted shares. When the Chairman and Chief Executive Officer will/would hold a volume of shares representing five times the fixed portion of his gross annual compensation at that time, this percentage will/would be equal to 10%. If this condition was no longer met, the abovementioned 50% holding requirement will/would again apply, the nature of this provision as set forth in Article L. 225-197-1 of the French Commercial Code.

In addition, the Compensation Committee reviewed the four performance conditions used for previous performance share grants: comparative TSR ranking, comparative change in net annual cash flow ranking, organic cash breakeven before dividend, change in Scope 1 and 2 GHG emissions on operated oil and gas facilities.

On the proposal of the Compensation Committee, the Board of Directors decided to add a fifth performance condition relating to the change in Scope 3 greenhouse gas (GHG) emissions of the Group's customers in Europe. This criterion relating to Scope 3 emissions is in line with the Company's target of achieving the carbon neutrality in 2050. The Committee considered it important to include this criterion as a condition for awarding performance shares, thereby aligning the Company's long-term objectives with the long-term compensation of the Chairman and Chief Executive Officer. Therefore, the weighting of financial performance conditions is 70% and the weighting of ESG performance conditions is 30%.

Conclusion

The proposed changes can be summarized as follows:

- Increase in base salary from €**1.4** million to €**1.55** million, deferred as of January 1, 2022.
- Maintaining the annual variable portion at **180%** of the fixed portion, but which may result, for each of the financial criteria and up to a maximum of **110%** relating to these criteria, in the granting of additional compensation in the event of exceptional performance in order to reward exceptional results in some or all key dimensions.
- Increase in the number of performance shares from a stable number of shares granted of **72,000** shares in 2018, 2019 and 2020, to an average of **100,000** shares during the next term of office (2021, 2022 and 2023), reflecting an adjustment based on the market and better alignment of qualification variables with the Company's long-term strategy.

On a post-2016 basis and projected up to 2022, these changes reflect the Chairman and Chief Executive Officer's performance and long-term strategy adjustments. The increased weighting relative to performance targets makes the Chairman and Chief Executive Officer's compensation more aligned with shareholders' expectations.

The Group has undergone restructuring and a significant transformation under the leadership of the Chairman and Chief Executive Officer. The emphasis placed on clients at a downstream stage, the updating of the portfolio and the shift towards renewables has provided a solid framework to help the Company deal with the rapid changes in the energy sector and the Company's prospects for the future. The team developed and led by the Chairman and Chief Executive Officer has upheld its commitments and continued this positive transformation.

The Compensation Committee noted that 2020 saw major changes in the markets in which the Group operates. The health crisis due to the pandemic, the spectacular fall in oil prices in the first half of the year and the growing momentum of ESG concerns have all been addressed by the Chairman and Chief Executive Officer and his team with the appropriate care and diligence, building the confidence of employees as well as shareholders and stakeholders. At the same time, the establishment of a strategy that duly takes these various points into account demonstrates the forethought and the sensitivity with which the Chairman and Chief Executive Officer has developed the Group's strategy. The Committee deemed that the Chairman and Chief Executive Officer should be given full credit for successfully navigating such a complex situation.

The energy market is continuing to evolve at a very rapid rate and the Group's ability to continue to develop positively depends to a large extent on the Chairman and Chief Executive Officer and his managing team.

In a world affected by the COVID-19 pandemic and which is increasingly aware of equality and fairness:

- Any changes in compensation should be modest, measured and balanced with the competitive position of the industry and social perceptions.
- Changes reflecting ESG expectations and fairness issues will benefit from general support, particularly those that reflect movements with a significant impact for the Group.
- Increases in compensation should reflect the Group's results in all areas, aligning shareholders' interests with those of General Management and responding to greater social expectations.

The changes made to compensation policy have taken all the above considerations into account and aim to offer fair compensation for the Chairman and Chief Executive Officer.

Compensation policy applicable to the Chairman and Chief Executive Officer for fiscal year 2021

a) Chairman and Chief Executive Officer's base salary (fixed compensation) for fiscal year 2021

The Board of Directors decided to maintain Mr. Patrick Pouyanné's annual base salary (fixed compensation) in respect of his duties as Chairman and Chief Executive Officer for fiscal year 2021 at €1,400,000 (the same amount as the fixed portion for fiscal year 2020).

b) Annual variable compensation due for fiscal year 2021 (expressed as a percentage of base salary)

The parameters used include:

Annual variable compensation due for fiscal year 2021 (expressed as a percentage of the base salary)

			Maximum percentage
Economic parameters (quantifiable targets)			
HSE			30%
a) Safety		20%	
– *TRIR*	*8%*		
– *FIR, comparative*	*4%*		
– *Evolution of the number of Tier 1 + Tier 2 incidents*	*8%*		
b) Evolution of greenhouse gas (GHG) emissions		10%	
Financial parameters			110%
– Return on equity (ROE)			30%
– Gearing ratio (excluding lease commitments)			30%
– Pre-dividend organic cash breakeven			30%
– Return on average capital employed (ROACE), comparative			20%
Maximum percentage that may be allocated in respect of financial parameters (including outperformance)			**110%**
Maximum percentage that may be allocated in respect of economic parameters (including outperformance)			**140%**
Personal contribution (qualitative criteria)			
– Steering of the Company's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity	15%		
– Profitable growth in renewables and electricity	10%		
– Corporate Social Responsibility (CSR) performance, notably the integration of climate issues in the Group's Strategy, the Group's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity	15%		
Maximum percentage that may be allocated in respect of the personal contribution			**40%**
TOTAL			**180%**

- **The change in safety**, for up to 20% of the base salary, will be assessed through the achievement of an annual TRIR (Total Recordable Injury Rate) target and the number of accidental deaths per million hours worked, FIR (Fatality Incident Rate) compared to those of four large competitor oil companies (ExxonMobil, Royal Dutch Shell, BP and Chevron), as well as through changes in the Tier 1 + Tier 2 indicator(1):
  - The maximum weighting of the TRIR criterion is 8% of the base salary. The maximum weighting will be reached if the TRIR is below 0.75 (compared to 0.80 in 2020). The weighting of the criterion will be zero if the TRIR is above or equal to 1.2 (compared to 1.3 in 2020). The interpolations are linear between these points of reference;
  - The maximum weighting of the FIR criterion is 4% of the base salary. The maximum weighting will be reached if the FIR is the best of the panel of the majors. It will be zero if the FIR is the worst of the panel. The interpolations are linear between these two points and depend on the ranking;
  - the maximum weighting of the changes in the number of Tier 1 + Tier 2 incidents is 8% of the base salary. The maximum weighting will be reached if the number of Tier 1 + Tier 2 incidents is equal to or below 70 (as in 2020). The weighting of the parameter will be zero if the number of Tier 1 + Tier 2 incidents is equal to or higher than 125 (as in 2020). The interpolations are linear between these two points of reference.

- **The change in GHG emissions on operated Oil & Gas facilities** will be assessed through the achievement of a GHG (Scopes 1 & 2) reduction emission target from 46 Mt CO_2e in 2015 to 40 Mt CO_2e in 2025, corresponding to a reduction of 600 kt CO_2e/y, i.e. a target of 42.4 Mt CO_2e for 2021. The maximum weighting of the GHG criterion is 10% of the base salary:
  - the maximum weighting of the criterion, i.e. 10% of the base salary, will be obtained if the GHG Scopes 1 & 2 emissions on operated Oil & Gas facilities reaches the target set at 42.4 Mt CO_2e in 2021 (compared to 43 Mt CO_2e in 2020);
  - the weighting of the criterion is zero if the emissions are 1 Mt CO_2e above the set target;
  - the interpolations are linear between these points of reference.

The four financial criteria are as follows:

- **The return on equity (ROE)** as published by the Group on the basis of its balance sheet and consolidated statement of income will be assessed as follows. The maximum weighting of the ROE criterion will be 30% of the base salary:
  - the maximum weighting of the criterion is reached, i.e. 30% of the base salary, if the ROE is higher than or equal to 10%;
  - the weighting of the criterion is zero if the ROE is lower than or equal to 6%;
  - the interpolations are linear between these two points of reference.

  Additional compensation of up to 10% of the base salary will be allocated if ROE is between 10% and 13% (with linear interpolation between these points of reference).

- The **gearing ratio (excluding lease commitments)** will be assessed as follows. The maximum weighting of the gearing ratio criterion is 30% of the base salary:
  - the maximum weighting of the criterion, i.e. 30% of the base salary, is reached for a gearing ratio equal to or below 20%;
  - the weighting of the criterion is zero if the gearing ratio is equal or above 40%;
  - the interpolations are linear between these two points of reference.

  Additional compensation of up to 10% of the base salary will be allocated if gearing ratio is between 20% and 15% (with linear interpolation between these points of reference).

  The IFRS 16 accounting standard, applicable as of January 1, 2019, led the Group to consolidate as from this date all leases in the balance sheet and as counterpart to record the corresponding financial debts as a liability in the balance sheet (before January 1, 2019, only finance leases were consolidated). The entry into force of this accounting standard led to increase the gearing ratio by 3.1% as of January 1, 2019. As the Group discloses a gearing ratio with and without the consideration of the financial debt corresponding to leases, the Board of Directors decided to assess the gearing ratio without considering the financial debt corresponding to the leases.

- The **pre-dividend organic cash breakeven** will be assessed as follows. The maximum weighting of this criterion is 30% of the base salary.
  - the maximum weighting of the criterion is reached, i.e. 30% of the base salary, if the breakeven is below or equal to $30/b;
  - the weighting of the criterion is zero if the breakeven is above or equal to $40/b;
  - the interpolations are linear between these two points of reference.

  Additional compensation of up to 10% of the base salary will be allocated if the pre-dividend organic cash breakeven is between $30/b and $25/b (with linear interpolation between these points of reference).

  The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes(2) (MBA) covers the organic investments(3). The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter.

- The **return on average capital employed (ROACE)**, by comparison, will be assessed as follows. The maximum weighting of the ROACE criterion will be 20% of the base salary. TOTAL's ROACE, as published from the consolidated balance sheet and the income statement, will be compared to the ROACE average of each of the four peers (ExxonMobil, Royal Dutch Shell, BP and Chevron). The ROACE is equal to the net adjusted operating income(4) divided by the average of the capital employed (at replacement costs, net of deferred income tax and non-current liabilities) of the start and end of the fiscal year.
  - the maximum weighting of the criterion is reached, i.e. 20% of the base salary, if TOTAL's ROACE is 2% above the average of the 4 peers' ROACE;
  - the weighting of the criterion is zero if the TOTAL's ROACE is 2% or more below the average of the 4 peers' ROACE;
  - the interpolations are linear between these two points of reference.

  Additional compensation of up to 10% of the base salary will be allocated if TOTAL's ROACE is 4% above the average of the 4 peers' ROACE (with linear interpolation between these points of reference).

The aim of taking account of exceptional performance in financial criteria is to put the emphasis on elements that can be controlled and only allow for potential gains for the Chairman and Chief Executive Officer if exceptional results are achieved. In any case, the maximum amount of the financial criteria, including taking account of exceptional performance, cannot exceed 110% of the base salary. The Board of Directors reserves the right to adjust any exceptional performance if, in the opposite scenario, other financial criteria are much lower than expected, in particular those relating to the operational actions of the Chairman and Chief Executive Officer.

(1) Tier 1 and Tier 2: indicator of the number of loss of primary containment events, with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.
(2) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in capital at replacement cost, excluding the impact of contracts recognized at fair value in the iGRP segment, and including capital gains on the disposal of renewables projects (as of the first quarter of 2020).
(3) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(4) Adjustment items include special items, the inventory effect and the impact for change for fair value.

The Chairman and Chief Executive Officer's **personal contribution**, which may represent up to 40% of the base salary, is evaluated based on the following three criteria:

– Steering of the Company's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity, for up to **15%**;
– Profitable growth in renewables and electricity, for up to **10%**;
– CSR performance, notably the integration of climate issues in the Group's Strategy, the Group's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity, for up to **15%**.

In the event of a significant change in the Group affecting the calculation of the economic perimeters for the Group (change in accounting standard, change in the policy of rating agencies, significant patrimonial transaction approved by the Board of Directors, etc.), the Board reserves the right to calculate the parameters mutatis mutandis with justification of the changes i.e. excluding exogenous extraordinary elements.

Furthermore, the Board of Directors may exercise its discretionary powers regarding the determination of the compensation of the Chairman and Chief Executive Officer, pursuant to Articles L. 22-10-16, paragraph 1 and L. 22-10-17, paragraph 3 of the French Commercial Code (formerly Articles L. 225-47 and 225-53), and according to Articles L. 22-10-8 and L. 22-10-34 of the French Commercial Code (formerly Article L. 225-37-2 and L. 225-100), in the event of particular circumstances that could justify that the Board of Directors adjusts, exceptionally and both on the upside and the downside, one or more of the criteria that make up his compensation to ensure that the results of the application of the criteria described above reflect both the performance of the Chairman and Chief Executive Officer and the performance of the Group either in absolute terms or relative to the four peers of the Group, for the economic criteria measured in comparison with these four peers.

This adjustment would be made to the variable compensation of the Chairman and Chief Executive Officer by the Board of Directors on the proposal of the Compensation Committee, within the limit of the variable compensation cap of 180% of the fixed compensation, after the Board of Directors ensured that the interests of the Company and of its shareholders are aligned with those of the executive director.

Pursuant to Article L. 22-10-34 of French Commercial Code (formerly Article L. 225-100), the payment of this annual variable portion is subject to the approval of the Shareholders' Meeting on May 28, 2021.

c) Performance shares

In view of the compensation policy principles described above, the compensation policy for fiscal year 2021 includes the granting of 90,000 performance shares to the Chairman and Chief Executive Officer as part of a 2021 plan that is not specific to him.

Performance conditions

The definitive number of granted shares will be based on the TSR (Total Shareholder Return), the annual variation of the net cash flow by share in dollars, the pre-dividend organic cash breakeven, the change in the greenhouse gas emissions on operated Oil & Gas facilities (Scopes 1 & 2), as well as the change in greenhouse gas emissions (Scope 3) of the Group's customers in Europe relating to fiscal years 2021, 2022 and 2023, applied as follows:

– For **25%** of the shares, the Company will be ranked against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) each year during the three vesting years (2021, 2022 and 2023) based on the **TSR criterion** of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
– For **25%** of the shares, the Company will be ranked against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) each year during the three vesting years (2021, 2022 and 2023) using the **annual variation in net cash flow per share criterion** expressed in dollars.

Based on the ranking, a grant rate will be determined each year for each of these two first criteria: 1st: 180% of the grant; 2nd: 130% of the grant; 3rd: 80% of the grant; 4th and 5th: 0%, with a maximum of 100%.

– For **20%** of the shares, the **pre-dividend organic cash breakeven criterion** will be assessed during the three vesting years (2021, 2022 and 2023) as follows:
  – the maximum grant rate, i.e. 100% for this criterion, will be achieved if the breakeven is less than or equal to $30/b,
  – the grant rate will be zero if the breakeven is greater than or equal to $40/b,
  – the interpolations are linear between these two points of reference.

  The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes(1) (MBA) covers the organic investments(2). The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter.

– For **15%** of the shares, the **change in the greenhouse gas emissions (GHG) on operated Oil & Gas facilities (Scopes 1 & 2)** will be assessed each year as regard to the achievement of the target to reduce the GHG emissions set for fiscal years 2021, 2022 and 2023 and corresponding to 42.4 Mt CO_2e for 2021, 41.8 Mt CO_2e for 2022 and 41.2 Mt CO_2e for 2023.
  – the maximum grant rate, i.e. 100% for this criterion, will be obtained if the GHG emissions (Scopes 1 & 2) reach the target set;
  – the grant rate will be zero if the GHG emissions (Scopes 1 & 2) of the year considered are 1 Mt CO_2e above the target set;
  – the interpolations are linear between these two points of reference.

– For **15%** of the shares, the **criterion of the change in the indirect greenhouse gas emissions (GHG) related to the use by customers of the energy products sold for end use (Scope 3) in Europe** will be assessed each year for the achievement of the target to reduce these GHG emissions set as follows: 2021: -12%; 2022: -14% and 2023: -16% relative to GHG emissions in 2015.
  – the maximum grant rate, i.e. 100% for this criterion, will be reached if the reductions in GHG emissions (Scope 3) of the Group's customers in Europe achieve the target set;
  – the grant rate will be zero if the reductions in GHG emissions (Scope 3) of the Group's customers in Europe of the year in question are 4 points below the target set, i.e. 2021: -8%, 2022: -10% and 2023: -12%;
  – the interpolations are linear between these two points of reference.

A grant rate will be determined each year for each of these last three criteria.

(1) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in capital at replacement cost, excluding the impact of contracts recognized at fair value in the iGRP segment, and including capital gains on the disposal of renewables projects (as of the first quarter of 2020).
(2) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.

For each of the five criteria, the average of the three grant rates obtained (for each of the three fiscal years for which the performance conditions are assessed) will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%) and capped at 100%. The definitive grant rate will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%). In the case of fractional shares, the number of shares definitively granted after determination of performance conditions will be determined according to the weighting of each criterion and rounded up to the next whole number of shares.

At the end of the three-year vesting period, the executive director will be required to hold 50% of the shares definitively allocated to him at the end of the vesting period in registered form until the end of his term of office.

Commitments made by the Company to the Chairman and Chief Executive Officer

The commitments made by the Company to the Chairman and Chief Executive Officer relate to the pension plans, the retirement benefit and the severance benefit to be paid in the event of forced departure related to a change of control or strategy, as well as the life insurance and health care benefits. They were approved by the Board of Directors on March 14, 2018, and by the Annual Shareholders' Meeting on June 1, 2018, in accordance with the provisions of Article L. 225-42-1 of the French Commercial Code.

It should be noted that Mr. Pouyanné already benefited from all these provisions when he was an employee of the Company, except for the commitment to pay severance benefits in the event of forced departure related to a change of control or strategy. It should also be noted that Mr. Pouyanné, who joined the Group on January 1, 1997, ended the employment contract that he previously had with the Company through his resignation at the time of his appointment as Chief Executive Officer on October 22, 2014.

Pension plans

Pursuant to applicable legislation, the Chairman and Chief Executive Officer is eligible for the basic French Social Security pension and for pension benefits under the ARRCO and AGIRC supplementary pension plans.

He also participates in the internal defined contribution pension plan applicable to all TOTAL SE employees, known as RECOSUP (Régime collectif et obligatoire de retraite supplémentaire à cotisations définies), covered by Article L. 242-1 of the French Social Security Code. The Company's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2020, this pension plan represented a booked expense to TOTAL SE in favor of the Chairman and Chief Executive Officer of €2,468.

The Chairman and Chief Executive Officer also participates in a supplementary defined benefit pension plan, covered by Article L. 137-11 of the French Social Security Code, set up and financed by the Company and approved by the Board of Directors on March 13, 2001, for which management is outsourced to two insurance companies effective January 1, 2012. In accordance with the ordinance 2019-697 published on July 4, 2019, this plan is closed to any new participant as from July 4, 2019, and, for participants as of July 4, 2019, and retiring as from January 1, 2020, the amount of supplementary pension provided for in this plan is calculated on the basis of number of years of service as at December 31, 2019, and up to a maximum of 20 years.

This plan applies to all TOTAL SE employees whose compensation exceeds eight times the annual ceiling for calculating French Social Security contributions (PASS), set at €41,136 for 2020 (i.e. €329,088), and above which there is no conventional pension plan.

To be eligible for this supplementary pension plan, participants must have served for at least five years, be at least 60 years old and exercised his or her rights to retirement from the French Social Security. The benefits under this plan are subject to a presence condition under which the beneficiary must still be employed at the time of retirement. However, the presence condition does not apply if a beneficiary aged 55 or older leaves the Company at the Company's initiative or in case of disability.

The length of service acquired by Mr. Pouyanné as a result of his previous salaried duties held at the Group since January 1, 1997, has been maintained for the benefit of this plan.

The compensation taken into account to calculate the supplementary pension is the average gross annual compensation (fixed and variable portion) over the last three years. The amount paid under this plan is equal to 1.8% of the compensation falling between 8 and 40 times the PASS and 1% for the portion of the compensation falling between 40 and 60 times this ceiling, multiplied by the number of years of service as of December 31, 2019, up to a maximum of 20 years.

The sum of the annual supplementary pension plan benefits and other pension plan benefits (other than those set up individually and on a voluntary basis) may not exceed 45% of the average gross compensation (fixed and variable portion) over the last three years. In the event that this percentage is exceeded, the supplementary pension is reduced accordingly. The amount of the supplementary pension determined in this way is indexed to the ARRCO pension point.

The supplementary pension includes a clause whereby 60% of the amount will be paid to beneficiaries in the event of death after retirement.

The Board noted that Mr. Pouyanné can no longer acquire additional pension rights under this plan given the rules for determining pension rights set out in the plan and the 20 years of service of Mr. Pouyanné as of December 31, 2016.

The conditional rights granted to Mr. Patrick Pouyanné for the period from January 1, 1997, to December 31, 2016 (inclusive), are now equal to a reference rate of 36% for the portion of the base compensation falling between 8 and 40 times the PASS and 20% for the portion of the base compensation falling between 40 and 60 times the PASS.

Based on Mr. Pouyanné's seniority at the Company, capped at 20 years on December 31, 2016, the commitments made by TOTAL SE to the Chairman and Chief Executive Officer in terms of supplementary defined benefits and similar pension plans represented, at December 31, 2020, a gross annual retirement pension estimated at €638,431. It corresponds to 20.34% of Mr. Pouyanné's gross annual compensation consisting of the annual fixed portion for 2020 (i.e. €1,166,667) and the variable portion paid in 2021[1] for fiscal year 2020 (i.e. €1,972,740).

(1) Subject to approval by the Ordinary Shareholders' Meeting on May 28, 2021.

Nearly the full amount of TOTAL SE's commitments under these supplementary and similar retirement plans (including the retirement benefit) is outsourced for all beneficiaries to insurance companies and the non-outsourced balance is evaluated annually and adjusted through a provision in the accounts. The amount of these commitments as of December 31, 2020, is €23.1 million for the Chairman and Chief Executive Officer (€23.2 million for the Chairman and Chief Executive Officer and the executive and non-executive directors covered by these plans). These amounts represent the gross value of TOTAL SE's commitments to these beneficiaries based on the estimated gross annual pensions as of December 31, 2020, as well as the statistical life expectancy of the beneficiaries.

The total amount of all the pension plans in which Mr. Pouyanné participates represents, at December 31, 2020, a gross annual pension estimated at €750,720, corresponding to 23.91% of Mr. Pouyanné's gross annual compensation defined above (annual fixed portion for 2020 and variable portion paid in 2021 for fiscal year 2020).

Retirement benefit

The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Group under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement.

The receipt of this retirement benefit is contingent upon a performance-related condition applicable to the beneficiary, considered as fulfilled when at least two of the criteria defined below are satisfied:

– the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
– the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
– the pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

The retirement benefit cannot be combined with the severance benefit described below.

Severance benefit

The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office.

The severance benefit will only be paid in the event of a forced departure related to a change of control or strategy. It will not be due in case of gross negligence or willful misconduct or if the Chairman and Chief Executive Officer leaves the Company of his own volition, accepts new responsibilities within the Group or may claim full retirement benefits within a short time period.

Receipt of this severance benefit is contingent upon a performance-related condition applicable to the beneficiary, considered as fulfilled when at least two of the criteria defined below are satisfied:

– the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
– the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
– the pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

Life insurance and health care plans

The Chairman and Chief Executive Officer is covered by the following life insurance plans provided by various life insurance companies:

– an "incapacity, disability, life insurance" plan applicable to all employees, partly paid for by the Company, that provides for two options in case of death of a married employee: either the payment of a lump sum equal to five times the annual compensation up to 16 times the PASS, corresponding to a maximum of €3,290,880 in 2020, plus an additional amount if there is a dependent child or children, or the payment of a lump sum equal to three times the annual compensation up to 16 times the PASS, plus a survivor's pension and education allowance;
– a second "disability and life insurance" plan, fully paid by the Company, applicable to executive officers and senior executives whose annual gross compensation is more than 16 times the PASS. This contract, signed on October 17, 2002, amended on January 28 and December 11, 2015, guarantees the beneficiary the payment of a lump sum, in case of death, equal to two years of compensation (defined as the gross annual fixed reference compensation (base France), which corresponds to 12 times the monthly gross fixed compensation paid during the month prior to death or sick leave, to which is added the highest amount in absolute value of the variable portion received during one of the five previous years of activity), which is increased to three years in case of accidental death and, in case of accidental permanent disability, a lump sum proportional to the degree of disability. Death benefits are increased by 15% for each dependent child.

Payments due under this contract are made after the deduction of any amount paid under the above-mentioned plan applicable to all employees.

The Chairman and Chief Executive Officer also has the use of a company car and is covered by the health care plan available to all employees.

4.3.3 Executive officers' compensation

The Group's executive officers include the members of the Executive Committee.

During the fiscal year 2020, the Company, taking into account the definition used by the US regulations applicable to Executive Officers and in the interest of harmonization, has chosen to reduce the list of its Executive Officers to the members of the Executive Committee in order to align this list with the list of "Persons Discharging Managerial Responsibilities" (PDMR) within the meaning of Article 19.5 of Regulation (EU) No. 596/2014 on Market Abuse. For the purposes of this regulation, PDMRs are defined as the persons referred to in Article L. 621-18-2 (a) of the French Monetary and Financial Code (the "Directors") and the persons referred to in Article L. 621-18-2 (b) of the same code that the Company has defined as the members of the Executive Committee.

As of December 31, 2020, the list of the Group's executive officers was as follows (eight people, five fewer than on December 31, 2019):
- Patrick Pouyanné, Chairman and Chief Executive Officer and President of the Executive Committee
- Arnaud Breuillac, President, Exploration & Production, member of the Executive Committee
- Helle Kristoffersen, President of Group Strategy-Innovation, member of the Executive Committee
- Bernard Pinatel, President, Refining & Chemicals, member of the Executive Committee
- Philippe Sauquet, President, Gas, Renewables & Power, member of the Executive Committee[1]
- Jean-Pierre Sbraire, Chief Financial Officer, member of the Executive Committee
- Namita Shah, President, People & Social Responsibility, member of the Executive Committee
- Alexis Vovk, President, Marketing & Services, member of the Executive Committee.

In 2020, the aggregate amount paid directly or indirectly by the Group's French and foreign companies as compensation to the Group's executive officers in office as of December 31, 2020 (8 people, 5 fewer than on December 31, 2019) was €10.84 million (compared to €13.27 million in 2019), including €10.62 million paid to the 8 members of the Executive Committee. The variable component (based on economic, HSE performance and personal contribution criteria) represented 53.23% of this global amount of €10.84 million.

4.3.4 Stock option and performance share grants

4.3.4.1 General policy

In addition to its employee shareholding development policy, TOTAL SE has implemented a policy to involve employees and senior executives in the Group's future performance which entails granting performance shares each year. TOTAL SE also granted stock options until 2011. These shares are granted under selective plans based on a review of individual performance at the time of each grant.

The stock option and performance share plans offered by TOTAL SE concern only Total shares and no shares of the Group's listed subsidiaries or options on them are granted by TOTAL SE.

All grants are approved by the Board of Directors, on the proposal of the Compensation Committee. For each plan, the Compensation Committee recommends a list of beneficiaries, the conditions as well as the number of options or shares granted to each beneficiary. The Board of Directors then gives final approval for this list and the grant conditions.

- **Grant of performance shares**

Grants of performance shares under selective plans become definitive only at the end of a three-year vesting period, subject to the fulfillment of applicable presence and performance conditions. At the end of the vesting period, and provided that the conditions are met, the Total shares are definitively granted to the beneficiaries, who must then hold them for at least two years (lock-up period). The presence condition applies to all shares.

For beneficiaries employed by a non-French company on the grant date, the vesting period for granted shares may be increased to five years, in which case there is no mandatory lock-up period. Since 2011, all shares granted to senior executives have been subject to performance conditions.

- **Stock options**

Stock options were granted until 2011 with a term of eight years, with a strike price set at the average of the closing Total share prices on Euronext Paris during the 20 trading days preceding the grant date, without any discount. Exercise of the options granted between 2007 and 2011 was subject to a presence condition and performance conditions, notably related to the Group's return on equity (ROE), and variable depending on the plan and category of beneficiary.

Since the 2011 plan, the Board of Directors has not granted any new Total stock options, and all the stock option plans have since expired.

The 21st resolution of the Extraordinary Shareholders' Meeting on May 29, 2020, authorized the Board of Directors to grant stock options to certain Group employees and executives for a period of 38 months. This authorization was not used by the Board in 2020.

4.3.4.2 Monitoring of grants to the executive directors

Stock options

No stock options have been granted since September 14, 2011. Until that date, the Company's executive directors in office at the time of the decision were granted stock options as part of broader grant plans approved by the Board of Directors for certain Group employees and senior executives. The options granted to the executive directors were subject to the same requirements applicable to the other beneficiaries of the grant plans.

For the options granted between 2007 and 2011, the Board of Directors made the exercise of the options granted to the executive directors in office contingent upon a presence condition and performance conditions based on the Group's ROE and ROACE. The grant rate of the performance-related options was 60% for the 2008 Plan, and 100% for the 2009, 2010 and 2011 plans.

As of December 31, 2020, Mr. Pouyanné did not hold any Total stock options.

(1) As of March 1, 2021, Stéphane Michel is appointed President, Gas, Renewables & Power, member of the Executive Committee, in replacement of Philippe Sauquet who asserted his pension rights.

Stock options granted in 2020 to each executive director by the issuer and by any Group company

Table 4 – AMF position-recommendation – DOC-2021-02 (Appendix 2)

Executive directors	Plan no. and date	Type of option (purchase or subscription)	Valuation of options (€)[a]	Number of options granted during the fiscal year	Strike price	Exercise period
Patrick Pouyanné Chairman and Chief Executive Officer	–	–	–	–	–	–

(a) According to the method used for the Consolidated Financial Statements.

Stock options exercised in fiscal year 2020 by each executive director

Table 5 – AMF position-recommendation – DOC-2021-02) (Appendix 2)

	Plan no. and date	Number of options exercised during the fiscal year	Strike price
Patrick Pouyanné Chairman and Chief Executive Officer	–	–	–

Grant of performance shares

Mr. Pouyanné is granted performance shares as part of the broader grant plans approved by the Board of Directors for certain Group employees. The performance shares granted to him are subject to the same requirements applicable to the other beneficiaries of the grant plans.

Summary tables

Shares granted to each director[a] in fiscal year 2020 by the issuer and by any Group company

Table 6 – AMF position-recommendation – DOC-2021-02 (Appendix 2)

Executive and non-executive directors	Plan no. and date	Number of shares granted during the fiscal year	Valuation of the shares (€)[b]	Acquisition date	Date of transferability	Performance conditions
Patrick Pouyanné Chairman and Chief Executive Officer	2020 Plan 03/18/2020	72,000	714,240	03/20/2023	03/21/2025	The performance conditions are based for: – 1/4 of the shares, on the Company's ranking against its peers[c] each year during the three vesting years (2020, 2021 and 2022) based on the TSR criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date; – 1/4 of the shares, on the Company's ranking against its peers[c] each year during the three vesting years of using the annual variation in net cash flow per share expressed in dollars criterion; – 1/4 of the shares, depending on the level of the pre-dividend organic cash breakeven criterion during the three vesting years. For this criterion, the maximum grant rate will be reached if the breakeven is less than or equal to \$30/b, the allocation rate will be zero if the breakeven is greater than or equal to \$40/b and the interpolations will be linear between these two points of reference; and – 1/4 of the shares, the change in greenhouse gas emissions (GHG) on operated oil & gas facilities will be assessed each year for the achievement of target to reduce GHG emissions set for fiscal years 2020, 2021 and 2022 and corresponding to 43 Mt CO_2e for 2020, 42.4 Mt CO_2e for 2021 and 41.8 Mt CO_2e for 2022.
Valérie Della Puppa Tibi Director representing employee shareholders since May 29, 2019	2020 Plan 03/18/2020	–	–	–	–	
Romain Garcia-Ivaldi Director representing employees since June 9, 2020	2020 Plan 03/18/2020	n/a	n/a	n/a	n/a	
Angel Pobo Director representing employees since October 14, 2020	2020 Plan 03/18/2020	n/a	n/a	n/a	n/a	
Christine Renaud Director representing employees until May 29, 2020	2020 Plan 03/18/2020	300	2,976	03/20/2023	03/21/2025	
TOTAL		**72,300**	**717,216**			

(a) List of executive and non-executive directors who had this status during fiscal year 2020.
(b) In accordance with the accounting of the performance shares for fiscal year 2020 in accordance with IFRS 2 which takes into account an award rate hypothesis of 80% at the end of the acquisition period, this amount corresponds to the shares awarded in 2020, valued on the basis of a unit fair value of 12.40 euros. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, i.e. March 18, 2020, on the basis of a closing price of the Total share on that date of 21.795 euros. For information, the unit fair value would amount to 24.85 euros based on a calculation using identical parameters and the average of the closing prices for the Total share during the year 2020 of €34.957.
(c) ExxonMobil, Royal Dutch Shell, BP and Chevron.

Shares that have become transferable for each director[a]

Table 7 – AMF position-recommendation – DOC-2021-02 (Appendix 2)

Executive and non-executive directors	Plan no. and date	Number of shares that became transferable during fiscal year 2020	Vesting conditions
Patrick Pouyanné Chairman and Chief Executive Officer	2017 Plan 07/26/2017	42,000	The performance conditions are based for: – 50% of the performance shares granted, on the Company's ranking against its peers[b] completed each year during the three vesting years (2017, 2018 and 2019) based on the TSR criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date; and – 50% of the performance shares granted, on the Company's ranking against its peers[b] completed each year during the three years of vesting (2017, 2018 and 2019) using the annual variation in net cash flow per share expressed in dollars criterion.
Valérie Della Puppa Tibi Director representing employee shareholders since May 29, 2019	2017 Plan 07/26/2017	–	
Romain Garcia-Ivaldi Director representing employees since June 9, 2020	2017 Plan 07/26/2017	–	
Angel Pobo Director representing employees since October 14, 2020	2017 Plan 07/26/2017	n/a	
Christine Renaud Director representing employees until May 29, 2020	2017 Plan 07/26/2017	n/a	

(a) List of executive and non-executive directors who had this status during fiscal year 2020.
(b) ExxonMobil, Royal Dutch Shell, BP and Chevron.

For the 2017 plan, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion and the annual change in net cash flow per share, was 70%.

4.3.4.3 Follow-up of Total stock option plans as of December 31, 2020

Since the 2011 plan, the Board of Directors has not granted any new Total stock options, and all stock option plans have expired.

History of Total stock option grants – Information on stock options

Table 8 – Position-recommendation – DOC-2021-02 (Appendix 2)

	Plan
Total stock option grants	None
Date of the Shareholders' Meeting	–
Date of Board meeting/grant date	
Total number of options granted by the Board of Directors, including to:	–
Executive and non-executive directors[a]	–
– P. Pouyanné	None
– V. Della Puppa Tibi	None
– R. Garcia Ivaldi	None
– A. Pobo	None
– C. Renaud	None
Date as of which the options may be exercised:	–
Expiry date	–
Subscription or purchase price *(€)*	–
Cumulative number of options exercised/subscribed as of December 31, 2020	–
Cumulative number of options canceled or expired as of December 31, 2020	–
Number of options remaining at the end of the year	

(a) List of executive and non-executive directors who had this status during fiscal year 2020.

Stock options granted to the ten employees (other than executive or non-executive directors) receiving the largest number of options/Stock options exercised by the ten employees (other than executive or non-executive directors) exercising the largest number of options

Table 9 – Position-recommendation – DOC-2021-02 (Appendix 2)

	Total number of options granted/exercised	Weighted average strike price (€)	Plan
Options granted in fiscal year 2020 by TOTAL SE and its affiliates[(a)] to the 10 employees of TOTAL SE and its affiliates (other than executive or non-executive directors) receiving the largest number of options (aggregate – not individual information)	–	–	None
Options held on TOTAL SE and its affiliates[(a)] and exercised in fiscal year 2020 by the 10 employees of TOTAL SE and its affiliates (other than executive or non-executive directors at the date of the exercises) who purchased or subscribed for the largest number of shares (aggregate – not individual information)	–	–	None

(a) Pursuant to the conditions of Article L. 225-180 of the French Commercial Code.

4.3.4.4 Follow-up of Total performance share grants as of December 31, 2020

Breakdown history of Total performance share grants by category of beneficiary

The following table gives a breakdown of Total performance share grants by category of beneficiary (executive officers, other senior executives and other employees):

		Number of beneficiaries	Number of notified shares	Percentage	Average number of options per beneficiary
Plan 2016[(a)] Decision of the Board of Directors of July 27, 2016	Executive officers[(b)]	12	269,900	4.8%	22,492
	Senior executives	279	1,322,300	23.4%	4,739
	Other employees[(c)]	10,028	4,047,200	71.8%	404
	TOTAL	**10,319**	**5,639,400**	**100%**	**547**
Plan 2017[(a)] Decision of the Board of Directors of July 26, 2017	Executive officers[(b)]	12	266,500	4.7%	22,208
	Senior executives	277	1,321,200	23.3%	4,770
	Other employees[(c)]	10,288	4,092,249	72.0%	398
	TOTAL	**10,577**	**5,679,949**	**100%**	**537**
Plan 2018[(a)] Decision of the Board of Directors of March 14, 2018	Executive officers[(b)]	13	301,000	5.0%	23,154
	Senior executives	288	1,443,900	23.7%	5,014
	Other employees[(c)]	10,344	4,338,245	71.3%	419
	TOTAL	**10,645**	**6,083,145**	**100%**	**571**
Plan 2019 Decision of the Board of Directors of March 13, 2019	Executive officers[(b)]	13	326,500	5.1%	25,115
	Senior executives	290	1,514,000	23.5%	5,221
	Other employees[(c)]	10,730	4,606,569	71.5%	429
	TOTAL	**11,033**	**6,447,069**	**100%**	**584**
Plan 2020 Decision of the Board of Directors of March 18, 2020	Executive officers[(b)]	13	303,700	4.5%	23,362
	Senior executives	292	1,580,400	23.5%	5,412
	Other employees[(c)]	10,838	4,843,252	72.0%	447
	TOTAL	**11,143**	**6,727,352**	**100%**	**604**

(a) For the 2016, 2017 and 2018 plans, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion and the annual change in net cash flow per share, was 70%.
(b) The executive officers as of the date of the Board meeting authorizing the grant.
(c) Ms. Della Puppa Tibi is a TOTAL SE employee and a TOTAL SE director representing employee shareholders since May 29, 2019, and was not granted any shares under the 2020 plan. Mr. Garcia-Ivaldi is a TOTAL SE employee and a TOTAL SE director representing employees since June 9, 2020. Mr. Pobo is a TOTAL SE employee and a TOTAL SE director representing employees since October 14, 2020. Ms. Renaud is a TOTAL SE employee and was a TOTAL SE director representing employee shareholders between May 26, 2017, and May 29, 2020, and was not granted any shares under the 2017, 2018 and 2019 plans but was granted 300 shares under the 2020 plan.

The breakdown of Total performance share grants by gender and category of beneficiary is as follows:

		Percentage of beneficiaries by gender and by category of beneficiaries		Average number of performance shares granted by beneficiary	
		Men	Women	Men	Women
2016 Plan	Senior management (JL 15+)[a]	86%	89%	1,274	1,394
	JL 10 to 14[b]	25%	27%	266	249
	JL 9-[b]	1%	2%	108	119
2017 Plan	Senior management (JL 15+)[a]	85%	88%	1,294	1,353
	JL 10 to 14[b]	25%	26%	266	249
	JL 9-[b]	2%	2%	108	112
2018 Plan	Senior management (JL 15+)[a]	85%	87%	1,363	1,416
	JL 10 to 14[b]	26%	26%	277	261
	JL 9-[b]	2%	2%	119	121
2019 Plan	Senior management (JL 15+)[a]	83%	91%	1,392	1,405
	JL 10 to 14[b]	24%	26%	288	264
	JL 9-[b]	2%	2%	122	122
2020 Plan	Senior management (JL 15+)[a]	83%	86%	1,444	1,453
	JL 10 to 14[b]	24%	24%	299	279
	JL 9-[b]	2%	2%	126	130

(a) Including senior executives.
(b) JL: Job level of the position according to the Hay method (unique classification and job evaluation reference).

The performance shares, which were previously bought back by the Company on the market, are definitively granted to their beneficiaries at the end of a three-year vesting period from the grant date.

The vesting of performance shares is subject to a presence condition and performance conditions.

For the 2020 plan, the applicable performance conditions are the following:

- for 1/4 of the shares, the Company's ranking against its peers[1] each year during the three vesting years (2020, 2021 and 2022) based on the TSR criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date;
- or 1/4 of the shares, the Company's ranking each year against its peers during the three vesting years (2020, 2021 and 2022) using the annual variation in net cash flow per share criterion expressed in dollars.

Based on the ranking, a grant rate will be determined for each year for these first two criteria: 1st: 180% of the grant; 2nd: 130% of the grant; 3rd: 80% of the grant; 4th and 5th: 0%.

- For 1/4 of the shares, the pre-dividend organic cash breakeven criterion will be assessed during the three vesting years (2020, 2021 and 2022) as follows:
  - the maximum grant rate will be reached if the breakeven is less than or equal to $30/b,
  - the grant rate will be zero if the breakeven is greater than or equal to $40/b,
  - the interpolations are linear between these two points of reference.

  The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes covers the organic investments. The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter.
- For 1/4 of the shares, the change in greenhouse gas emissions (GHG) on operated oil & gas facilities will be assessed each year for the achievement of the target to reduce GHG emissions set for fiscal years 2020, 2021 and 2022 and corresponding to 43 Mt CO_2e for 2020, 42.4 Mt CO_2e for 2021 and 41.8 Mt CO_2e for 2022.
  - the maximum grant rate will be reached if the GHG emissions (Scope 1 and Scope 2) target has been achieved,
  - the grant rate will be zero if the GHG emissions of the year considered are 1 Mt CO_2e above the target set;
  - the interpolations are linear between these two points of reference.

In addition, shares that have been definitively granted cannot be disposed of before the end of a mandatory two-year lock-up period.

(1) ExxonMobil, Royal Dutch Shell, BP and Chevron.

Breakdown history of Total performance share plans

History of Total performance share grants – Information on performance shares granted

Table 10 – Position-recommendation – DOC-2021-02 (Appendix 2)

	2016 plan	2017 plan	2018 plan	2019 plan	2020 plan
Date of the Shareholders' Meeting	**05/24/2016**	**05/24/2016**	**05/24/2016**	**06/01/2018**	**06/01/2018**
Date of Board meeting/grant date	**07/27/2016**	**07/26/2017**	**03/14/2018**	**03/13/2019**	**03/18/2020**
Closing price on grant date	€42.685	€43.220	€47.030	€51.210	€21.795
Average purchase price per share paid by the Company	€46.01	€48.20	€49.29	n/a	n/a
Total number of performance shares granted, including to:	5,639,400	5,679,949	6,083,145	6,447,069	6,727,352
Executive and non-executive directors[(a)]	60,160	60,260	72,280	72,280	72,300
– *P. Pouyanné*	*60 ,000*	*60,000*	*72,000*	*72 ,000*	*72 ,000*
– *V. Della Puppa Tibi*	*n/a*	*n/a*	*n/a*	*n/a*	-
– *R. Garcia-Ivaldi*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
– *A. Pobo*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
– *C. Renaud*	*n/a*	–	–	–	*300*
Start of the vesting period	07/27/2016	07/26/2017	03/14/2018	03/13/2019	03/18/2020
Definitive grant date, subject to the conditions set (end of the vesting period)	07/28/2019	07/27/2020	03/15/2021	03/14/2022	03/20/2023
Vesting rate after determination of the performance conditions – *Executive director*	*70%*	*70%*	*n/a*	*n/a*	*n/a*
– *Employees*	*70%*	*70%*	*n/a*	*n/a*	*n/a*
Total number of performance shares definitively granted[(b)] at the end of the vesting period, including:	4,279,388	4,297,492	n/a	n/a	n/a
– *P. Pouyanné*	*42,000*	*42,000*	*n/a*	*n/a*	*n/a*
Disposal possible from (end of the lock-up period)	07/29/2021	07/28/2022	03/16/2023	03/15/2024	03/21/2025
Number of performance shares granted: – *Outstanding as of January 1, 2020*	–	*5,607,859*	*6,028,435*	*6,407,643*	
– *Notified in 2020*	–	–	–	–	*6,727,352*
– *Canceled in 2020*	–	*(1,313,687)*	*(55,830)*	*(44,289)*	*(18,691)*
– *Definitively granted in 2020*	–	*(4,294,172)*	*(10,740)*	*(10,890)*	*(1,773)*
OUTSTANDING AS OF DECEMBER 31, 2020	**–**	**–**	**5,961,865**	**6,352,464**	**6,706,888**

(a) List of executive and non-executive directors who had this status during fiscal year 2020. Ms. Della Puppa Tibi is a TOTAL SE employee and a TOTAL SE director representing employee shareholders since May 29, 2019. Mr. Garcia-Ivaldi is a TOTAL SE employee and a TOTAL SE director representing employees since June 9, 2020. Mr. Pobo is a TOTAL SE employee and a TOTAL SE director representing employees since October 14, 2020. Ms. Renaud is a TOTAL SE employee and was a TOTAL SE director representing employee shareholders between May 26, 2017, and May 29, 2020.

(b) Shares definitively granted include early grants following the death of the beneficiaries of shares for the respective plan.

If all the performance shares outstanding at December 31, 2020, were definitively granted, they would represent 0.72%[(1)] of the Company's share capital on that date.

Performance shares granted to the 10 employees (other than executive and non-executive directors) receiving the largest number of performance shares granted

	Number of performance shares notified/ definitively granted	Award date	Definitive grant date (end of the vesting period)	Date of transferability (end of the lock-up period
Performance share granted by decision of the Board of Directors at its meeting on March 18, 2020, to the 10 employees of TOTAL SE and its affiliates (other than executive or non-executive directors at the date of the exercises) who purchased or subscribed for the largest number of performance shares[(a)]	227,500	03/18/2020	03/20/2023	03/21/2025
Performance shares definitively granted in fiscal year 2020 to the 10 employees of TOTAL SE and its affiliates (other than executive and non-executive directors on the date of the decision) receiving the largest number of performance shares	121,100	07/26/2017	07/27/2020	07/28/2022

(a) These shares will be definitively granted to their beneficiaries at the end of a three-year vesting period, i.e. on March 20, 2023, subject to three performance conditions being met. The shares that have been definitively granted cannot be disposed of before the end of a two-year lock-up period, i.e. March 21, 2025.

4.4 Additional information about corporate governance

4.4.1 Regulated agreements and undertakings and related-party transactions

Procedure implemented by the Company pursuant to paragraph 2 of Article L. 22-10-12 (formerly L. 225-39) of the French Commercial Code

The French Commercial Code introduced a control procedure of regulated agreements intended to prevent possible conflicts of interest between companies, their executive and non-executive directors or their shareholders with more than a 10% share of the voting rights. The legal framework is defined by Articles L. 225-38 et seq. of the French Commercial Code for limited liability companies. The regulation excludes intragroup agreements with a 100%-owned subsidiary, on the one hand, and ordinary agreements finalized under normal conditions, on the other, from the control procedure in Article L. 225-38 mentioned above.

In application of Article L. 22-10-12 (formerly L. 225-39) of the French Commercial Code, amended by the PACTE Law n°2019-486 of May 22, 2019, at its meeting on February 5, 2020, and after examination by the Governance and Ethics Committee, the Board of Directors approved a procedure intended to specify the methodology and the applicable criteria for the qualification of these agreements and to regularly assess whether the agreements pertaining to ordinary transactions finalized under normal conditions by the Company properly meet these conditions.

The assessment procedure is based primarily on a declarative process. Once a year, every employee with a delegation of power completes and signs a declaration to certify and to confirm that all the agreements they have finalized or renewed in the name of and on the behalf of the Company in the past year, with one of the persons covered by the regulation, or a company, association, foundation or group, of which one of the said persons is a director, or with a company consolidated by global integration that is not 100%-owned by the Company, pertain to ordinary transactions and were finalized under normal conditions. All the declarations are collected and checked by the Audit & Internal Control Division.

Alongside this declarative process, the Audit & Internal Control Division conducts an annual examination of a sample of agreements selected from the entries in the accounts of the elapsed year, and on the basis of the declarations made by the holders of delegated powers, to make sure that the selected agreements actually pertain to ordinary transactions and were finalized under normal conditions.

This examination is made according to criteria defined in the procedure that, on the one hand, qualify an agreement as an ordinary agreement finalized under normal conditions and, on the other, qualify the policies and measures deployed in the Group to oversee the conclusion of agreements. In particular, these measures include the purchasing policy (compulsory calls for tender, whenever certain thresholds are exceeded), the anti-corruption measures, the declaratory measures to prevent conflicts of interest, the transfer pricing tax policy and the invoicing rules applicable to Group operations.

The Audit & Internal Control Division publishes a written report of this examination of their work.

The Audit Committee annually examines the results of the controls carried out and verifies the relevance of the criteria specified in the procedure that are used to qualify agreements as ordinary agreements finalized under normal conditions. It reports to the Board of Directors on their work.

Based on this information, every year, the Board of Directors checks that the agreements on current operations finalized under normal conditions actually meet these conditions. The directors who are directly or indirectly involved in one or more of these agreements do not take part in their assessment.

In fiscal year 2020, on the basis of declarations received by the Audit & Internal Control Division, it was able to confirm that all agreements entered into or renewed by signatories during the past fiscal year concerned ordinary transactions or were entered into under normal terms, or were duly authorized by the Company's Board of Directors prior to being entered into or renewed.

Furthermore, the review of selected agreements confirmed that these concerned ordinary transactions entered into under normal terms.

The implementation of the internal annual assessment procedure for agreements concerning ordinary transactions entered into under normal terms adopted by the Board of Directors on February 5, 2020, did not result in the identification of any regulated agreements.

Regulated agreements and undertakings

The special report of the statutory auditors of TOTAL SE on regulated agreements and undertakings referred to in Article L. 225-38 et seq. of the French Commercial Code for fiscal year 2020 is provided in point 4.5 of this chapter.

In addition, to TOTAL's knowledge, there exists no agreement, other than the agreements related to its ordinary course of business and signed under normal conditions, engaged, directly or through an intermediary, between, on the one hand, any director or shareholder holding more than 10% of TOTAL SE's voting rights and, on the other hand, a company controlled by TOTAL SE within the meaning of Article L. 233-3 of the French Commercial Code.

Related-party transactions

Details of related-party transactions as specified by the regulations adopted under EC regulation 1606/2002, entered into by the Group companies during fiscal years 2018, 2019 or 2020, are provided in Note 8 of the notes to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

These transactions primarily concern equity affiliates and non-consolidated companies.

4.4.2 Delegations of authority and powers granted to the Board of Directors with respect to share capital increases and authorization for share cancellation

Table compiled in accordance with Article L. 22-10-10 3° (formerly L. 225-37-4) of the French Commercial Code summarizing the use of delegations of authority and powers granted to the Board of Directors with respect to share capital increases as of December 31, 2020

Type		Cap on par value, or number of shares or expressed as % of share capital	Use in 2020 by value or number of shares	Available balance as of 12/31/2020 by value or number of shares	Date of delegation of authority or authorization by the Extraordinary Shareholders' Meeting	Expiry date and term of authorization granted to the Board of
Maximum cap for the issuance of securities granting immediate or future rights to share capital	Securities representing debt securities giving rights to a portion of share capital	€10bn in securities	–	€10bn	May 29, 2020 (15th, 16th, 17th and 19th resolutions)	July 29, 2022 26 months
	Share capital par value	An overall cap of €2.5bn (i.e., a maximum of 1,000 million shares issued with a preemptive subscription right), from which can be deducted:	18 million shares	€2.46bn (i.e. 982 million shares)	May 29, 2020 (15th resolution)	July 29, 2022 26 months
		1/ a specific cap of €650 million, i.e. a maximum of 260 million shares for issuances without a preferential subscription right (with potential use of an extension clause), including in compensation with securities contributed within the scope of a public exchange offer, provided that they meet the requirements of Article L. 22-10-54 of the French Commercial Code, from which can be deducted:	–	€650 million	May 29, 2020 (16th and 18th resolutions)	July 29, 2022 26 months
		1a/ a sub-cap of €650 million with a view to issuing, through an offer as set forth in Article L. 411-2-1 of the French Monetary and Financial Code, shares and securities resulting in a share capital increase, without a shareholders' preemptive subscription right	–	€650 million	May 29, 2020 (17th and 18th resolutions)	July 29, 2022 26 months
		1b/ a sub-cap of €650 million through in-kind contributions when the provisions of Article L. 22-10-54 of the French Commercial Code are not applicable	–	€650 million	May 29, 2020 (19th resolution)	July 29, 2022 26 months
		2/ a specific cap of 1.5% of the share capital on the date of the Board[c] decision for share capital increases reserved for employees participating in a Company savings plan	18 million shares[b]	21.8 million shares	May 29, 2020 (20th resolution)	July 29, 2022 26 months
Stock options granted to Group employees and to executive directors		0.75% of share capital on the date of the Board decision to grant options	–	19.9 million shares	May 29, 2020 (21st resolution)	July 29, 2023 38 months
Performance shares granted to Group employees and to executive directors		1% of share capital on the date of the Board decision to grant the shares	6.7 million shares[c]	13.3 million shares	June 1, 2018 (19th resolution)	August 1, 2021 38 months

(a) Based on share capital as of December 31, 2020, divided into 2,653,124,025 shares.

(b) The meeting of the Board of Directors of September 16, 2020, decided to proceed with a share capital increase in 2021 with a cap of 18,000,000 shares (subscription to the shares under this operation is planned for the second quarter of 2021, subject to the decision of the Chairman and Chief Executive Officer). As a result, the available balance under this authorization amounts to 21,796,860 shares as of December 31, 2020.

(c) The number of shares that may be granted under the 19th resolution of the EGM held on June 1, 2018, may not exceed 1% of the share capital on the date of the Board of Directors' decision. The Board of Directors decided to grant (i) on March 13, 2019, 6,447,069 shares, (ii) on May 29, 2019, 5,932 shares in respect of the matching contribution as part of the capital increase reserved for employees carried out in 2019, (iii) on March 18, 2020, 6,727,352 shares and (iv) on May 29, 2020, 1,380 shares in respect of the deferred matching contribution within the framework of the capital increase reserved for employees on June 11, 2020. Thus, the number of shares likely to be granted as of December 31, 2020, is 13,349,507 shares. In addition, the shares granted pursuant to the presence and performance conditions to the Executive Directors under the 19th resolution of the EGM held on June 1, 2018, may not exceed 0.01% of the capital existing on the date of the Board meeting that decided on the grant. Taking into account (i) the 72,000 existing shares granted subject to presence and performance conditions to the Chairman and Chief Executive Officer by the Board of Directors on March 13, 2019, and (ii) the 72,000 existing shares granted subject to presence and performance conditions to the Chairman and Chief Executive Officer by the Board of Directors on March 18, 2020, the remaining number of shares that may be granted to executive directors stands at 121,312 shares.

Authorization to cancel shares of the Company

Pursuant to the terms of the 13th resolution of the Shareholders' Meeting held on May 26, 2017, the Board of Directors is authorized to cancel shares of the Company up to a maximum of 10% of the share capital of the Company existing as of the date of the operation within a 24-month period. This authorization is effective until the Shareholders' Meeting held to approve the financial statements for the year ending December 31, 2021.

On December 11, 2019, the Board of Directors, pursuant to this authorization, canceled 65,109,435 shares representing 2.44% of the share capital on that date.

The Board of Directors did not cancel any shares in fiscal year ending on December 31, 2020.

On February 8, 2021, the Board of Directors decided to reduce its share capital by canceling 23,284,409 treasury shares. As of February 8, 2021, the Company's share capital amounted to €6,574,599,040.00 divided into 2,629,839,616 shares.

Based on the share capital as of February 8, 2021, the Company could, after taking into account the shares canceled on December 11, 2019, and February 8, 2021, cancel 174,590,117 additional shares, before reaching the cancellation threshold of 10% of share capital canceled over a 24-month period.

4.4.3 Provisions of the Articles of Association governing shareholders' participation in Shareholders' Meetings

The Company's Articles of Association amended as a result of the conversion of TOTAL S.A. into a Societas Europaea or SE were approved by the Annual Shareholders' Meeting of May 29, 2020. The statutory provisions of TOTAL SE presented below are those resulting from the Articles of Association of TOTAL SE.

4.4.3.1 Calling of shareholders to Shareholders' Meetings

Shareholders' Meetings are convened and conducted under the conditions provided for by law.

The Board of Directors, the statutory auditor or a court-appointed representative can ask for a meeting to be convened, as well as one or more shareholders together holding at least 10% of the share capital.

The Ordinary Shareholders' Meeting is convened to take any decisions that do not modify the Company's Articles of Association. It is held at least once a year within six months of the closing date of each fiscal year to approve the financial statements of that year. It may only deliberate, at its first meeting, if the shareholders present, represented or participating by remote voting hold at least one fifth of the shares that confer voting rights. No quorum is required at its second meeting. In accordance with regulation (EC) 2157/2001 on the Statute for a European company (SE), the Ordinary Shareholders' Meeting rules by a majority of votes cast by the shareholders present or represented by proxy. The votes cast do not include those attached to shares in which the shareholder did not take part in the vote, abstained, or returned a blank or invalid vote.

Only the Extraordinary Shareholders' Meeting is authorized to modify the Articles of Association. It may not, however, increase shareholders' commitments. It may only deliberate, at its first meeting, if the shareholders present, represented or participating by remote voting hold at least one quarter, and, at the second meeting, one fifth of the shares that confer voting rights. In accordance with regulation (EC) 2157/2001 on the Statute for a European company (SE), the Extraordinary Shareholders' Meeting rules by a majority of two thirds of votes cast by the shareholders present or represented by proxy. The votes cast do not include those attached to shares in which the shareholder did not take part in the vote, abstained, or returned a blank or invalid vote.

One or more shareholders holding a certain percentage of the Company's share capital (calculated using a decreasing scale based on the share capital) may ask for items or draft resolutions to be added to the agenda of a Shareholders' Meeting under the terms and conditions and within the deadlines set forth by the French Commercial Code. Requests to add items or draft resolutions to the agenda must be sent no later than 20 days after the publication of the notice of meeting that the Company must publish in the French official journal of legal notices (*Bulletin des annonces légales obligatoires*, BALO). Any request to add an item to the agenda must be justified. Any request to add a draft resolution must be accompanied by the draft resolution text and brief summary of the grounds for this request. Requests made by shareholders must be accompanied by a proof of their share ownership as well as their ownership of the portion of capital as required by the regulations. Review of the item or draft resolution filed pursuant to regulatory conditions is subject to those making the request providing a new attestation justifying the shares being recorded in a book-entry form in the same accounts on the second business day preceding the date of the meeting.

The Central Social and Economic Committee (formerly the Central Works Council) may also request the addition of draft resolutions to the meeting agendas under the terms and conditions and within the deadlines set by the French Labor Code. In particular, requests to add draft resolutions must be sent within 10 business days following the date on which the notice of meeting was published.

4.4.3.2 Admission of shareholders to Shareholders' Meetings

Participation in any form in Shareholders' Meetings is subject to registration of the shares, either in the registered account maintained by the Company (or its securities agent) or recorded in bearer form in a securities account maintained by a financial intermediary. Proof of this registration is obtained under a certificate of participation (*attestation de participation*) delivered to the shareholder. Registration of the shares must be effective no later than midnight (Paris time) on the second business day preceding the date of the Shareholders' Meeting. If the shares are sold or transferred prior to this record date, the certificate of participation will be canceled, and the votes sent by mail and proxies sent to the Company will be canceled accordingly. If shares are sold or transferred after this record date, the certificate of participation will remain valid and votes cast or proxies granted will be taken into account.

4.4.4 Information regarding factors likely to have an impact in the event of a public takeover or exchange offer

In accordance with Article L. 22-10-11 (formerly L. 225-37-5) of the French Commercial Code, information relating to factors likely to have an impact in the event of a public offering is provided below.

– **Structure of the share capital**
  The structure of the Company's share capital as well as the interests that the Company is aware of pursuant to Articles L. 233-7 and L. 233-12 of the French Commercial Code are presented in points 6.4.1 to 6.4.3 in chapter 6.

- **Restrictions on the exercise of voting rights and transfers of shares provided in the Articles of Association – Clauses of the agreements of which the Company has been informed in accordance with Article L. 233-11 of the French Commercial Code**
  The provisions of the Articles of Association relating to shareholders' voting rights are mentioned in point 7.2.4 of chapter 7. The Company has not been informed of any clauses as specified in paragraph 2 of Article L. 22-10-10 (formerly L. 225-37-4) of the French Commercial Code.

- **Holders of securities conferring special control rights**
  Article 18 of the Articles of Association stipulates that double voting rights are granted to all the registered shares held in the name of the same shareholder for at least two years. Subject to this condition, there are no securities conferring special control rights as specified in paragraph 4 of Article L. 22-10-11 (formerly L. 225-37-5) of the French Commercial Code.

- **Control mechanisms provided for in an employee shareholding system**
  The rules relating to the exercise of voting rights within the Company collective investment funds are presented in point 6.4.2 of chapter 6.

- **Shareholder agreements of which the Company is aware and that could restrict share transfers and the exercise of voting rights**
  The Company is not aware of any agreements between shareholders as specified in paragraph 6 of Article L. 22-10-11 (formerly L. 225-37-5) of the French Commercial Code which could result in restrictions on the transfer of shares and exercise of the voting rights of the Company.

- **Rules applicable to the appointment and replacement of members of the Company's Board of Directors and amendment of the Articles of Association**
  No provision of the Articles of Association or agreement made between the Company and a third party contains a specific provision relating to the appointment and/or replacement of the Company's directors that is likely to have an impact in the event of a public offering.

- **Powers of the Board of Directors in the event of a public offering**
  The delegations of authority or authorizations granted by the Shareholders' Meeting that are currently in effect limit the powers of the Board of Directors during public offering on the Company's shares.

- **Agreements to which the Company is party and which are amended or terminated in the event of a change of control of the Company – Agreements providing for the payment of compensation to members of the Board of Directors or employees in the event of their resignation or dismissal without real and serious grounds or if their employment were to be terminated as a result of a public offering**
  Although a number of agreements made by the Company contain a change in control clause, the Company believes that there are no agreements provided for in paragraph 9 of Article L. 22-10-11 (formerly L. 225-37-5) of the French Commercial Code. The Company also believes that there are no agreements provided for in paragraph 10 of Article L. 22-10-11 (formerly L. 225-37-5) of the French Commercial Code. For commitments made for the Chairman and Chief Executive Officer in the event of a forced departure owing to a change of control or strategy, refer to point 4.3.2 of this chapter.

4.4.5 Statutory auditors

4.4.5.1 Auditor's term of offices

Main statutory auditors

ERNST & YOUNG Audit

1/2, place des Saisons, 92400 Courbevoie – Paris-La Défense, Cedex 1

Appointed: May 14, 2004
Appointment renewed on May 24, 2016, for a six-fiscal year term

Laurent Vitse, Céline Eydieu-Boutté

KPMG S.A.

Tour EQHO, 2 avenue Gambetta, CS 60055, 92066 Paris-La Défense Cedex

Appointed: May 13, 1998
Appointment renewed on May 24, 2016, for a six-fiscal year term

Jacques-François Lethu, Éric Jacquet

Alternate auditors

Cabinet Auditex

1/2, place des Saisons, 92400 Courbevoie – Paris-La Défense, Cedex 1

Appointed: May 21, 2010
Appointment renewed on May 24, 2016, for a six-fiscal year term

KPMG Audit IS

Tour EQHO, 2 avenue Gambetta, CS 60055, 92066 Paris-La Défense Cedex

Appointed: May 24, 2016, for a six-fiscal year term

French law provides that the statutory and alternate auditors are appointed for renewable six-fiscal year terms. The terms of office of the statutory auditors and of the alternate auditors will expire at the end of the Shareholders' Meeting convened in 2022 to approve the financial statements for fiscal year 2021.

4.4.5.2 Fees received by the statutory auditors (including members of their networks)

	ERNST & YOUNG Audit				KPMG S.A.			
	Amount in $m (excluding VAT)		%		Amount in $m (excluding VAT)		%	
	2020	2019	2020	2019	2020	2019	2020	2019
Audit								
Statutory auditors, certification, examination of the parent company and consolidated accounts	27.2	28.9	77.5	74.4	23.3	22.1	78.3	81.6
TOTAL SE	4.1	3.5	11.7	9.0	4.9	3.9	16.5	14.5
Fully consolidated subsidiaries	23.1	25.4	65.8	65.4	18.4	18.2	61.8	67.1
Services other than statutory audit – Audit-related services	3.0	5.5	8.5	14.1	3.3	2.9	10.9	10.6
TOTAL SE	0.6	2.1	1.7	5.4	0.9	0.7	2.9	2.5
Fully consolidated subsidiaries	2.4	3.4	6.8	8.7	2.4	2.2	8.0	8.1
SUBTOTAL	**30.2**	**34.4**	**86.1**	**88.5**	**26.6**	**25.0**	**89.2**	**92.2**
Other services provided by the networks to fully consolidated subsidiaries								
Legal, tax, labor law	4.2	4.0	12.0	10.3	2.0	1.9	6.8	7.0
Other	0.7	0.5	2.0	1.2	1.2	0.2	4.0	0.8
SUBTOTAL	**4.9**	**4.5**	**14.0**	**11.5**	**3.2**	**2.1**	**10.8**	**7.8**
TOTAL	**35.1**	**38.9**	**100**	**100**	**29.8**	**27.1**	**100**	**100**

4.5 Statutory auditors' report on related party agreements

General Meeting of Shareholders held to approve the financial statements for the year ended December 31, 2020.

To the Annual General Meeting of TOTAL SE,

As Statutory Auditors of your Company, we hereby present our report on related party agreements.

It is our responsibility to inform you, on the basis of the information provided to us, of the terms and conditions, the purpose, and the benefits to the Company of the agreements of which we were informed or became aware of during our engagement. It is not our role to determine whether they are beneficial or appropriate or to ascertain whether any other agreements exist. It is your responsibility, in accordance with Article R. 225-31 of the French Commercial Code (*Code de commerce*), to assess the merit of these agreements with a view to approving them.

In addition, it is our responsibility to inform you, where appropriate, in accordance with Article R. 225-31 of the French Commercial Code, of the agreements already approved at the General Meeting of Shareholders.

We performed the procedures that we deemed necessary in accordance with the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) applicable to this engagement. Our work entailed verifying that the information provided is consistent with the documents from which it was derived.

Agreements submitted for approval at the general meeting of shareholders

We hereby inform you that, to our knowledge, no agreements authorized and signed during the period are to be submitted for approval at the General Meeting of Shareholders in accordance with the provisions of Article L. 225-38 of the French Commercial Code.

Agreements already approved at the general meeting of shareholders

Agreement already approved in prior years which were applicable during the period

We have been informed of the performance, during the period, of the following agreement, already approved at the General Meeting of Shareholders held on May 29, 2019 (5th resolution), addressed in the statutory auditors' report on related party agreements dated March 13, 2019.

With the not-for-profit organization Alliance pour l'Education – United Way (United Way-L'Alliance (UWA) formerly)

Director concerned

Mr Patrick Pouyanné, Chairman and Chief Executive Officer of TOTAL SE and Chairman of the not-for-profit organization Alliance pour l'Education – United Way, formerly United Way-L'Alliance, having accepted the latter position as Chief Executive Officer of TOTAL SE.

Nature, purpose, terms and conditions

As a means of supporting the not-for-profit organization Alliance pour l'Education – United Way, TOTAL SE has provided free office space since October 31, 2018 in the Tour Michelet, which it owns and occupies. Providing such office space is classified as corporate patronage through a contribution in kind and as such it is eligible under the tax and legal regime set out in Article 238 bis of the French Tax Code.

TOTAL SE and UWA agreed to sign an "Agreement on the provision of free office space" (the TSA/UWA Agreement) to formally document their agreement.

Under the TSA/UWA Agreement, TOTAL SE has agreed to provide UWA with free office space of 179 sq. m. in the Tour Michelet, along with associated infrastructure and services (including mail, photocopy and printer services, access to the company's cantine with admission charges and cleaning services). The agreement provides for retroactive implementation from the effective date of October 31, 2018 until termination on December 31, 2019.

In addition, upon expiry of the Agreement's first term and if not terminated, the Agreement will be tacitly renewed for a one-year period. The Parties will be able to terminate the Agreement by registered post with acknowledgement of receipt, on condition that they inform the other party at least three months before the planned termination date.

The Board of Directors has approved the Agreement on the grounds that it is fully in line with TOTAL SE's policy on Corporate Social Responsibility and with its corporate patronage operations.

Paris La Défense, March 22, 2021

KPMG Audit *A division of KPMG S.A.*		ERNST & YOUNG AUDIT	
Jacques-François Lethu *Partner*	Eric Jacquet *Partner*	Laurent Vitse *Partner*	Céline Eydieu-Boutté *Partner*

5

Non-financial performance

Chapter 5 of this Universal Registration Document constitutes the consolidated statement of non-financial performance as per Articles L. 22-10-36 and L. 225-102-1 of the French Commercial Code and discloses how the Company and the entities included in the scope of consolidation, in accordance with Article L. 233-16 of the French Commercial Code, take into account the social and environmental consequences of their activities, as well as the effects of those activities with regard to respect for human rights and fighting corruption and tax evasion.

Pursuant to the abovementioned Article L. 22-10-36, this statement also includes information about the impact on climate change of the Company's activity and the use of the goods and services that it produces; its societal commitments in order to promote sustainable development and the circular economy; the collective agreements in place within the Company and their impact on the Company's financial performance as well as on employees' working conditions; actions aimed at fighting discrimination and promoting diversity; and the measures taken on behalf of people with disabilities(1).

This statement of non-financial performance was prepared with the assistance of several of the Company's corporate functional divisions, in particular the Finance, Legal, Audit & Internal Control, People & Social Responsibility and Strategy & Climate Divisions. The statement was reviewed by the Audit Committee and was thereafter approved by the Board of Directors.

The data presented in the statement of non-financial performance are provided on a current-scope basis. The reporting scopes and methodology concerning the information in this chapter are presented in point 5.11 of this chapter.

5.1 Our ambition: to be the company of responsible energies

TOTAL is present in more than 130 countries. The nature of its activities and its geographical footprint in complex environments place the Group at the junction of a range of society's concerns relating to people, the environment and business ethics.

The ambition of TOTAL that proposes to its shareholders in 2021 to become TotalEnergies, is to be the company of responsible energies. Its *raison d'être* is to supply to as many people as possible a more affordable, more available and cleaner energy. As a supporting component of society's evolutions, energy is a fundamental resource for economic, social and human development, which currently faces a twofold challenge: satisfying the energy needs of an ever-growing world population while reducing global warming. The Group's *raison d'être* is rooted in that challenge. TOTAL's intention in becoming a broad energy company is to help meet that challenge in a responsible way.

To carry out its mission, the Group draws on values that are shared by all (Safety, Respect for Each Other, Pioneer Spirit, Stand Together and Performance-Minded). These values guide the Group's actions.

TOTAL's Code of Conduct sets forth the principles with which the Group complies in managing its day-to-day operations. It specifies that TOTAL abides by the OECD Guidelines for Multinational Enterprises as well as the principles of the United Nations Global Compact, and that it committed to respecting internationally recognized human rights. It states the Group's commitments and expectations for each of its stakeholders and serves as a reference for employees and any other person working on behalf of the Group. It also describes the procedures in place to allow everyone to express their concern about the implementation of the Code of Conduct.

Identification of the principal challenges

The Group employs a continuous process of identifying and mapping risks in order to develop sector-specific policies that reflect the desired level of control. It manages its activities through internal management systems implemented at the different levels of the company. In doing so, the Group performs regular assessments, following a variety of procedures, of the risks and impacts linked to its activities on the social field, on people's health and safety, on the environment, climate, human rights and business ethics, as well as on its supply chain. The Human Resources division is responsible for identifying risks and challenges related to the workforce. The risks and challenges relating to health, safety and the environment are identified as part of a dynamic process that draws on the Group's expertise and lessons learned, which are included in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations).

In the area of Human rights, TOTAL particularly relies on the U.N. Guiding Principles on Human Rights to identify its salient issues. In conjunction with these risk identification processes, a dialogue based on stakeholder's involvement and participation is implemented in order to develop constructive and transparent relationships with them (refer to point 1.6.5 in chapter 1).

These assessments are generally carried out:
– prior to investment decisions on the Group's industrial projects (evaluation by the Risk Committee of safety and security studies, impact assessments, particularly environmental and societal, and evaluation of consistency with the Group's climate strategy, prior to review by the Executive Committee), acquisitions and divestitures;
– during operations;
– prior to placing new substances on the market (toxicological and ecotoxicological studies, life cycle analyses).

These assessments incorporate the regulatory requirements of the countries where the Group operates and generally accepted professional practices. In addition, internal control systems are structured and regularly adjusted to align with the specific nature of the strategic areas and orientations set by the Board of Directors and General Management.

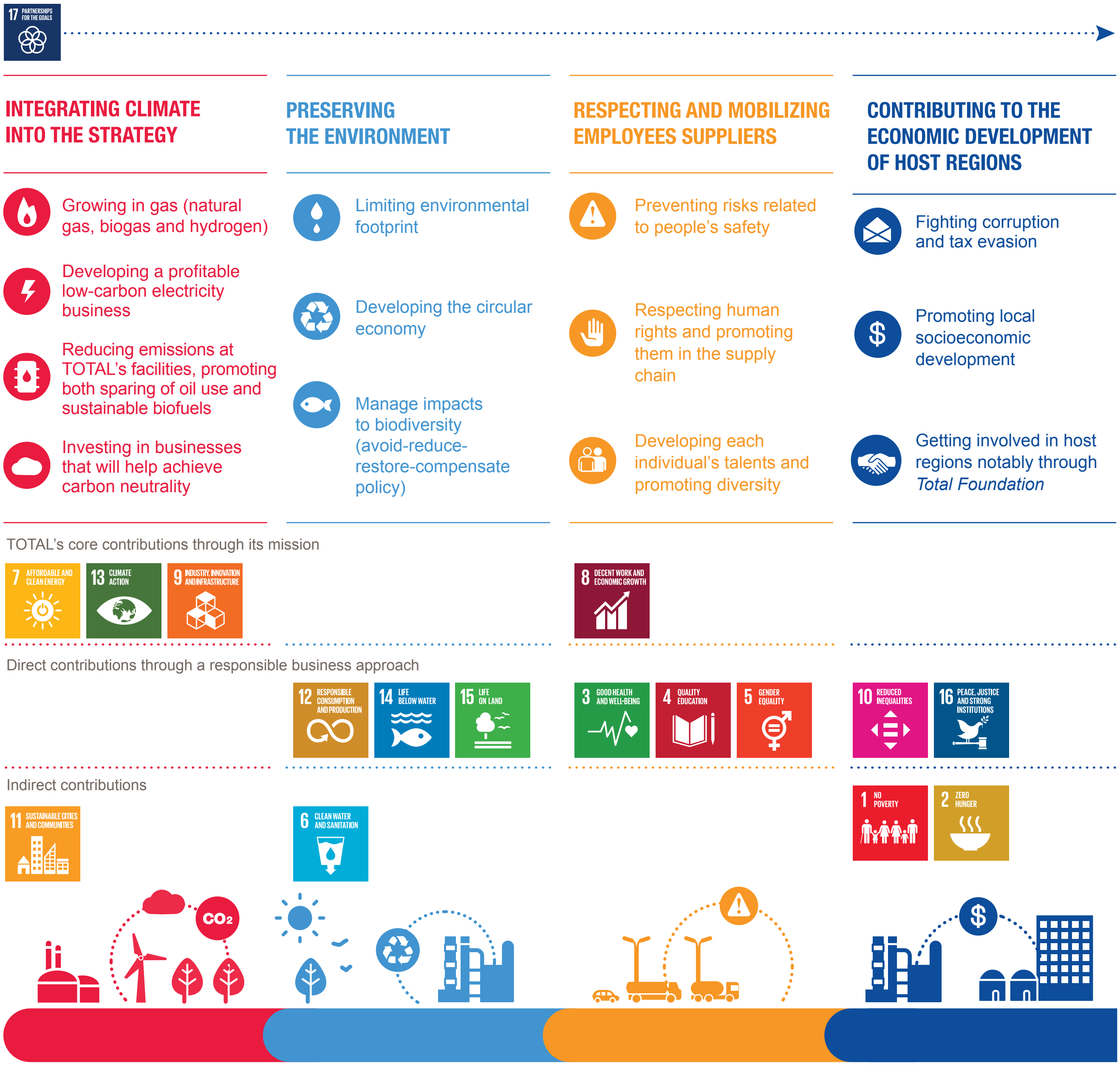
TOTAL has therefore identified the main risks and challenges linked to its activities. As part of its statement of non-financial performance, these are listed in the introduction to the sections relating to social information, health, safety, the environment, climate, human rights, the fight against corruption and tax evasion, societal policy and relations with contractors and suppliers.

A responsible growth approach

TOTAL has structured its sustainability framework for conducting its activities so as to contribute to the achievement of the United Nations Sustainable Development Goals (SDGs), to which TOTAL committed its support in 2016 (refer to point 1.8.2 of chapter 1).

With the intent to focus its efforts on the segments where it is most legitimate as an integrated multi-energy group, TOTAL has identified the SDGs on which it can have the greatest impact, in accordance with its *raison d'être* and its ambition to reach carbon neutrality (net zero emissions) by 2050. TOTAL also intends to conduct its activities with respect for the environment and human rights, while creating value for the regions and communities with which it interacts. The Group has therefore built its sustainability approach on four fields of action:

(1) TOTAL has not made any specific societal commitments to prevent food waste and food poverty or to promote animal welfare and responsible, fair and sustainable food, as these are not significant issues with respect to the nature of the Group's activities.



The Group's contributions to the SDGs are illustrated below in the form of icons and more in detail at sustainable-performance.total.com.

Transparency, a principle of action

The Group believes that transparency is an essential factor in building a trust-based relationship with its stakeholders and enables a path of continuous improvement. Pending the adoption of an international, standardized non-financial reporting framework, TOTAL is making every effort to report its performance on the basis of the various commonly used ESG reporting frameworks. As such, TOTAL refers to the Global Reporting Initiative (GRI) standards and those of the Sustainability Accounting Standards Board (SASB), for which detailed tables of correspondence are available at sustainable-performance.total.com.

TOTAL's reporting includes the World Economic Forum's core indicators(1). It also follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for its climate reporting.

With the willingness to bring to all of its stakeholders the needed performance indicators, TOTAL provides additional information at sustainable-performance.total.com, its website devoted to its sustainability commitments and policies.

TOTAL's sustainability approach is recognized: in 2020, the Group was once again confirmed as a LEAD Company by the United Nations Global Compact for its full commitment to sustainable development.

Global Compact LEAD 2020 PARTICIPANT · ecovadis 2020 · FTSE4Good · CDP · Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA

(1) Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation, white paper, September 2020.

TOTAL has been included continuously on the FTSE4Good index (London Stock Exchange) since 2001 and on the Dow Jones Sustainability World Index (DJSI – New York Stock Exchange) since 2004. TOTAL has been listed on DJSI Europe every year since 2005, except in 2015. For its business entities listed on the EcoVadis platform, in 2020 TOTAL received Platinum status for Total Direct Energie, Gold status for four entities (Total Marketing & Services, Total Raffinage Chimie, Saft Groupe and Greenflex) and Silver status for Total Gas & Power Limited. In 2019, TOTAL received a score of A- on the CDP Climate Change questionnaire and a score of A- on the Water questionnaire.

FOCUS

Consideration of the social and environmental issues of the Tilenga and EACOP projects (Uganda and Tanzania) by the Board of Directors of TOTAL SE with respect to the approval of the Tilenga and EACOP projects (meeting on December 16, 2020).

1. Overview

The project to develop the oil resources at Uganda's Lake Albert has two main components:

- Development of the Tilenga and Kingfisher discoveries, located in Blocks EA1, EA2 and EA3A bordering Lake Albert, which together comprise reserves of more than 1 billion barrels, with a projected production plateau of 230 kb/day;
- Construction of a 1,443-kilometer pipeline (the East African Crude Oil Pipeline) to transport production from the Ugandan blocks to the seaport of Tanga in northern Tanzania, where production will be exported from an export terminal to be built.

This major project, of which the Group's share represents a $5.1 billion investment, is undertaken in a context where environmental and social challenges require special precautions and strong commitment.

2. Upstream project

The licenses for Blocks EA1, EA2 and EA3A in Uganda are held by TOTAL (66.66%, Tilenga operator) and CNOOC (33.33%, Kingfisher operator). After initially acquiring a 33.33% interest in 2012, TOTAL acquired Tullow's remaining 33.33% interest in those blocks in April 2020. Under the agreements, Uganda's national oil company, UNOC, will be awarded a 15% interest in those licenses upon the final investment decision, reducing TOTAL's interest to 56.67% and CNOOC's interest to 28.33%. UNOC will be carried by the other partners during the development phase.

These licenses are governed by production-sharing contracts signed between 2001 and 2004.

Multiple exploration and appraisal campaigns were conducted on these blocks up until 2014. Those campaigns confirmed the discovery of sizable resources, prompting the creation of two development projects: Tilenga, operated by a TOTAL Subsidiary, and Kingfisher, operated by CNOOC.

The Tilenga project includes plans to develop six fields. Those fields, located at shallow depths, contain paraffinic oil; production of that oil will also yield large quantities of water that needs to be reinjected. The development plan includes drilling approximately 400 wells (about 200 producing wells and 200 water injection wells) from 31 pads in order to reach an oil production level of 190 kb/day. Production will be carried via underground lines to a treatment plant, where the fluids (oil, water, gas) will be separated and treated. All of the water produced will be reinjected into the fields; additional water will be collected from Lake Albert (representing less than 0.04% of the daily inflow from the Nile) to replace the oil produced and maintain pressure in the reservoirs. The gas will be used to produce the necessary electricity for the treatment process; surplus electricity will be exported to the pipeline and the Ugandan grid.

One of the six fields being developed as part of the Tilenga project (Jobi Rii, which accounts for 30% of the reserves) is located within Murchison Falls National Park (MFNP), while the other fields are located outside the Park in sparsely populated rural areas that are primarily devoted to agriculture. In view of the sensitivity of the environmental setting, the project adopted specific measures that are described below.

The Kingfisher project, operated by CNOOC, will develop the reserves in Block EA3A. That project, located about 150 kilometers south of Tilenga, involves drilling 31 wells from four pads and constructing a treatment facility with a production plateau of 40 kb/day.

3. Export infrastructure: the EACOP (East African Crude Oil Pipeline) project

The EACOP project for exporting production from Tilenga and Kingfisher includes construction of a 1,443-kilometer underground pipeline between Uganda and the Tanzanian port of Tanga, along with a storage terminal and loading jetty at Tanga. The pipeline includes six pumping stations as well as a heat tracing system for heating the pipeline, since the waxy heavy oil produced at Tilenga must be kept at a temperature of 50°C during transport because of its viscosity.

The pipeline and terminal will be built and operated by a specially formed company, East African Crude Oil Pipeline Company, whose shareholding structure is currently being finalized but will include the upstream development partners (TOTAL 62%, CNOOC 8%, UNOC 15%) and Tanzania's national oil company, TPDC (up to 15%; this is yet to be finalized).

Uganda and Tanzania signed an intergovernmental agreement on the EACOP project in 2017 in which they pledged to cooperate in facilitating the implementation of the project. Further to that intergovernmental agreement, in 2020 EACOP finalized an agreement with each of the two host countries (a Host Government Agreement, or HGA) defining how the project would be carried out in each country. Those agreements address issues such as land property rights, applicable laws and regulations, the local content of investments, protection against the risk of expropriation and EACOP's tax treatment.

Other agreements relating to EACOP (the shareholders' agreement, transportation agreement with upstream producers) are currently being finalized and will be signed prior to the investment decision.

4. Environmental and social challenges connected with the project

An analysis of In-Country Value has been prepared to define the project's impact comprehensively.

Local development

The Tilenga and EACOP projects are among the largest investment projects in the history of Uganda and Tanzania alike, and represent a genuine opportunity to transform both countries economically and socially. Each project has been the subject of a detailed, quantified local content plan that has been submitted to the respective governments.

For the first ten years of production, the Tilenga project will generate annual revenue that will increase the government's budgetary resources by more than 5%. Moreover, the interests held by UNOC and TPDC in each project will spur growth at each of these national oil companies.

In terms of local employment, the Tilenga and EACOP projects expect to create about 11,000 direct local jobs during the construction phase (6,300 in Uganda and 4,700 in Tanzania) and 900 during the operations phase (600 in Uganda and 300 in Tanzania). The projects will also generate a sizable number of indirect jobs, estimated at 47,000 during the construction phase (19,000 in Uganda and 28,000 in Tanzania) and 2,400 during the operations phase (1,400 in Uganda and 1,000 in Tanzania).

The two projects will also develop local skills by providing 2.1 million hours of training in Uganda and Tanzania.

In addition, they will make a significant contribution to local economic growth in Uganda and Tanzania. The volume of business awarded to local businesses is estimated at $1.7 billion during the construction phase of the projects and $100 million/year during the operations phase.

In addition to that economic boost, the two countries will benefit from TOTAL's local implementation of standards and best practices developed over many years in safety (road safety awareness programs; adoption of strict rules on health, safety and the environment in all contracts), ethics (anti-corruption provisions in all TOTAL contracts) and human rights (TOTAL has conducted training on human rights principles for all of its own personnel as well as contractors' employees involved in land acquisitions).

Land acquisitions

The Tilenga and EACOP projects require a land acquisition program. That program includes the relocation of 723 households residing within the project boundaries (194 for Tilenga and 529 for EACOP). In addition to those relocations, about 18,800 stakeholders, land owners and users will be affected by the land acquisition program, which has been prepared and will be implemented in accordance with World Bank (IFC) standards.

The principal steps in conducting land acquisitions are as follows:

1. A presentation is made to local communities to describe the process for land and crop surveys, compensation, relocation and support for those affected;
2. A cadastral survey of land and structures is conducted, trees and cultivated plants are identified and their value defined (a process that involves both local and central government officials and community leaders) and the cut-off date for those evaluations is determined and communicated;
3. Support strategies are defined, along with livelihood restoration programs for those affected. Resettlement Action Plans (RAPs) are formally prepared and adopted, covering each of the steps described above;
4. Land acquisitions are made and compensation is paid. Owners may choose between monetary compensation, based on a rate schedule approved by each country's land administration office, or compensation in kind, in the form of a new house or new land;
5. Property rights are then transferred to the government, which grants use or lease rights to the projects.

Moreover, an accessible, transparent and equitable grievance mechanism is in place throughout the entire process.

To date, an initial land acquisition phase involving the site of the Tilenga treatment plant has already been carried out. That initial phase affected 622 stakeholders, including 29 primary residents. All of the primary residents opted to be provided with a new house. More than 98% of the non-residents chose monetary compensation, since the rate schedules exceed market rates by about 30% to 50%. For example, the acquisition price for farmland is about $2,500 per hectare.

The preparatory phase for the EACOP project has been completed, but land acquisitions have not yet begun.

At this stage of the project, the primary concern voiced by local communities involves the time lag between appraisal and payment of compensation, given the postponement of the final investment decision for the project.

		TILENGA			EACOP		
		CPF	Other	Subtotal	Uganda	Tanzania	Subtotal
Length	Km	–	–	–	296	1,147	1,443
Area	Ha	318	856	1,174	1,093	4,091	5,184
Project Affected People (PAP)	No.	622	4,901	5,523	3,792	9,514	13,306
Estimated people impacted	No.	3,000	30,000	33,000	25,000	62,000	87,000
Relocation houses	No.	30	175	205	210	389	599
Relocated households	No.	29	165	194	198	331	529

Environment

The Tilenga and EACOP projects are located in an especially sensitive natural environment, particularly for biodiversity. Environmental and social impact assessments were conducted for both projects in accordance with IFC standards and submitted to the authorities for approval[(1)]. Specific measures were taken based on the “avoid, mitigate, offset” approach.

The northern section of the Tilenga project development is located in areas that are especially notable for their biodiversity: Murchison Falls National Park (IUCN Category II site) and the Ramsar-listed Victoria Nile delta. Accordingly, the following measures have been taken:

1/ Environmental impact avoidance measures

- Proactive steps have been taken to limit the project’s overall footprint within Murchison Falls National Park. Although the production licenses span 9% of the Park, the Group decided to develop only one license as part of the Tilenga project, encompassing only 0.9% of the Park’s area. Moreover, the temporary and permanent facilities associated with the project will occupy only 0.04% of Park land (1.5 km^2 out of a total of 3,900);
- The number of well pads in the Park has been limited to ten;
- No treatment plants are located within the Park;
- There are no permanent facilities in the Ramsar area;
- There are no gas flares in the Park.

2/ Mitigation measures:

- Oil and water injection pipelines are underground;
- Horizontal directional drilling pipeline has been installed for the Nile crossing (in a Ramsar area);
- No night work is conducted in the Park other than drilling operations;
- The drilling equipment is governed by strict specifications regarding noise and visual impact;
- All waste is removed from the site for processing;
- A traffic management plan aiming to reduce the number of vehicles and minimize disruption to tourist activities in the Park.

3/ Offsetting measures:

As part of the pledge to have a net biodiversity gain, in accordance with the Group’s biodiversity policy, an action plan for, among other things, enhancing the protection of Murchison Falls National Park (including support for a larger number of park rangers), preserving the wetlands in the Victoria Nile delta, protecting savanna regions and rehabilitating forests bordering Lake Albert to the east, has been defined. That action plan will be implemented under the supervision of an independent body.

For the EACOP project, since the pipeline runs underground for its entire route, the environmental impact will primarily involve the construction phase. The pipeline’s path was designed to avoid environmentally sensitive areas as much as possible and runs primarily through farmland. At points, however, it does cross forest reserves and natural habitats for protected species. A biodiversity management and conservation plan will be implemented in those areas. Particular attention has also been given to river crossings, and horizontal drilling is being used for the most sensitive crossings. As with Tilenga, TOTAL is committed to having a net biodiversity gain for the EACOP project.

Moreover, the Group plans to carry out a flagship project for protected species (including support for the reintroduction of the black rhinoceros in Uganda).

Greenhouse gas emissions

The Tilenga project’s greenhouse gas emissions derive primarily from combustion of the associated gas, which will supply the necessary energy for both the treatment process and the EACOP pumping stations in Uganda. Those emissions are estimated at 0.6 million tons of carbon dioxide equivalent (CO_2e) per year at the production plateau, equivalent to an intensity of 10 kilograms of CO_2e per barrel. The facilities have been designed to reduce greenhouse gases in multiple ways: no flaring during routine operations, full electrification of all 31 well pads, extraction of liquefied petroleum gas (LPG) from the gas used as fuel, installation of heat recovery systems at the gas turbines, and solarization of the oil processing facility.

With the EACOP project, greenhouse gas emissions come primarily from the energy used for pumping and for heating the oil pipeline in Tanzania. Those emissions are estimated at 0.2 million tons of CO_2e per year at the production plateau, equivalent to an intensity of 3 kilograms of CO_2e per barrel. The installations’ design also incorporates several features for reducing greenhouse gases: thermal insulation for the pipeline, electrical pumping stations in Uganda, And installation of a hybrid power generation system in Tanzania that combines internal combustion engines with solar energy with battery storage.

The combined intensity for the Tilenga, Kingfisher and EACOP projects during the production plateau – 13 kilograms of CO_2/barrel – compares favorably with the average intensity for E&P as a whole (20 kilograms of CO_2e/barrel in 2019). From that perspective, the Group’s capital allocation to these projects is consistent with the Climate Ambition the Group outlined in May 2020.

	Tilenga	EACOP	Total
Annual emissions (Mt CO_2e/year)	0.6	0.2	0.8
Intensity (kg CO_2e/barrel)	10	3	13

Relations with NGOs

In 2013 the Tilenga and EACOP projects appointed an independent Biodiversity and Livelihood Advisory Committee, whose members are independent experts from various national and international organizations (WCS, Wetlands International, CIRAD...). The committee

(1) The Tilenga impact assessment was approved by the government in April 2019. The Tanzanian portion of the EACOP impact assessment was approved in November 2019 and the Ugandan portion in December 2020.

aims to ensure that project activities are conducted in accordance with social and environmental best practices.

In addition, in 2020 a dialogue was initiated with representatives from the International Union for Conservation of Nature (IUCN), and included the project's impact on primate habitats and corresponding mitigation measures.

The Tilenga and EACOP projects have been closely scrutinized by several NGOs, particularly since 2019, with special attention for the land acquisition procedures and the projects' impact on biodiversity. In September 2020, the International Federation for Human Rights (FIDH) and Oxfam published reports evaluating the impact of the two projects. Following constructive discussions with these two NGOs, TOTAL agreed to take on board a certain number of the recommendations made by Oxfam:

- Publish the human rights impact assessment for the EACOP project (it was published in November 2020) and monitor the mitigation measures described in the assessment;
- Provide greater transparency and improved access to information, and communicate with Oxfam on the implementation of the land acquisition program and the mechanisms created for responding to grievances and their actual deployment;
- Improve communication and access to information for those affected by the projects;
- Work on women's rights and their protection;
- Improve and expand procedures for ensuring that vulnerable persons affected by the project give their free prior consent after being duly informed;
- Maintain a dialogue with government officials to protect and uphold the rights of all stakeholders (those affected by the project, civil society organizations, human rights defenders, journalists) so they can be involved, inform and operate freely.

In October 2019, Friends of the Earth France, Survie and four Ugandan NGOs filed a lawsuit against TOTAL SE in the Tribunal judiciaire of Nanterre, France, arguing that the Group had not met its legal obligations to publish and implement its Vigilance Plan, since the plan did not contain specific measures related to the Tilenga and EACOP projects. In a ruling issued on January 30, 2020, the Nanterre court declared that it lacked jurisdiction and referred the case to the Nanterre Commercial Court. That finding was confirmed by the court of appeal in Versailles on December 10, 2020.

Conclusion of the Board of Directors

The development of oil resources in Lake Albert in Uganda in terms of reserves and value creation, as well as an opportunity for industrial and human development, access to energy, and budgetary revenues for the two countries concerned. It is compatible with the Group's Climate ambition announced in May 2020. Given the sensitivity of the environmental and human context, TOTAL has designed the project and its implementation in accordance with the highest standards, particularly in terms of biodiversity protection and land acquisition.

After considering the project's environmental and social challenges, the Board of Directors unanimously approves the investments for the Tilenga and EACOP projects. The Board of Directors recommends the publication of all studies and reports from independent third parties relating to the project, as well as the action plans implemented by the Group.

5.2 Business model

The business model implemented by the Company and all of the entities included in the scope of consolidation in accordance with Article L. 233-16 of the French Commercial Code is set forth in the integrated report (refer to point 1.1.3 of chapter 1) and in the business overview (points 2.1 to 2.5 of chapter 2).

5.3 Social challenges

TOTAL set itself the ambition of being the company of responsible energies. Insofar as a company is first and foremost a people-driven adventure, this ambition depends primarily on the men and women who work at TOTAL, both now and in the future. Thus, TOTAL wants also to be a company that looks after its workforce, especially by offering employees opportunities to develop and thrive professionally.

TOTAL has identified its main risks and challenges concerning human resources development:

- attracting and retaining talent based on the key skills sought by the Group, while abiding by the principle of non-discrimination and equal opportunity;
- maintaining employees' long-term employability by helping them acquire skills in order to keep up with changing careers and technology;
- ensuring a high level of commitment based on respect for each other and improved quality of life at work.

In 2019, the Group's Executive Committee launched *One Total, Better Together*, a key component of the corporate plan that spearheads the Group's people-focused ambitions, designed to ensure that each employee's development reflects the Group's business goals and lives up to the employee's expectations. *One Total, Better Together* is based on three main ambitions that are broken down into several workstreams involving all of the Group's subsidiaries[1].

Our employees' growth, personal development and engagement are central to the company's performance, making them a core Total focus.

Patrick Pouyanné, Chairman and Chief Executive Officer

One Total, Better Together aims to attract and develop talent all over the world, promote a management style that can make the most of knowledge and expertise of the Group and pass on its values, and make the Company a good place to work together.

(1) Excluding Hutchinson and SunPower.

To address its social challenges, TOTAL relies on the Corporate Human Resources division, part of the People & Social Responsibility hub, whose director serves on the Executive Committee. In particular, Corporate Human Resources is tasked with defining the Group's human resources strategy and policies consistent with business concerns and the *One Total* company project. It coordinates the promotion and rollout of new policies to support the various human resources departments in the Group's business segments, guided by actual conditions in the field.

5.3.1 Attracting and retaining talent

Attracting and retaining the talent the Group needs is a key factor in carrying out the company project. To succeed in that task, the Group carefully manages its hires and departures, provides individualized support for its employees, maintains a responsible employee compensation policy and works to expand employee shareholding.

5.3.1.1 Responsible management of the Group's workforce

Group employees

As of December 31, 2020, the Group had 105,476 employees belonging to 317 employing companies located in 96 countries. At year-end 2020, the countries with the most employees were, in descending order, France, Poland, Mexico, the United States, Germany, Belgium and China. The tables below present the breakdown of employees by business segment, region, type of employment contract and age bracket, as well as a breakdown of managers or the equivalent (≥ 300 Hay points[1]). The breakdown by gender and nationality is given in point 5.3.3.1 of this chapter.

Group registered headcount as of December 31	2020	2019	2018
Total number of employees	**105,476**	**107,776**	**104,460**
Breakdown by business segment			
Integrated Gas, Renewables & Power segment	9.1%	13.7%	11.6%
Exploration & Production segment	12.1%	12.3%	13.2%
Refining & Chemicals segment	50.2%	47.7%	48.7%
Refining & Chemicals	49.5%	47.0%	48.1%
Trading & Shipping	0.7%	0.7%	0.6%
Marketing & Services segment	26.0%	23.5%	24.0%
Corporate	2.6%	2.8%	2.5%
Breakdown by region			
Europe	62.8%	61.5%	63.2%
France	34.0%	34.1%	34.9%
Rest of Europe	28.8%	27.4%	28.3%
Africa	9.6%	9.4%	9.4%
North America	6.8%	6.9%	6.7%
Latin America	11.3%	12.4%	11.8%
Asia-Pacific	6.7%	9.0%	8.0%
Middle East	2.8%	0.8%	0.9%
Breakdown by type of employment contract[1]			
Permanent (CDI)	91.9%	91.6%	91.5%
Fixed-term (CDD)	8.1%	8.4%	8.5%
Breakdown by age bracket			
< 30 years	17.5%	19.1%	18.4%
30 to 49 years	56.6%	55.9%	56.7%
> 49 years	25.9%	25.0%	24.9%

Managers or the equivalent as of December 31	2020	2019	2018
Total number of managers	**31,118**	**30,669**	**30,340**

(1) The Hay method is a reference methodology used for job classification and evaluation.
(1) The types of contract are defined in point 5.11.4 of this chapter.

The table below shows the breakdown of Group employees present[1] by business segment.

Group employees present by business segment as of December 31	2020	2019	2018
Integrated Gas, Renewables & Power segment	9,455	14,696	12,011
Exploration & Production segment	11,991	12,295	12,801
Refining & Chemicals segment	51,801	50,314	49,883
Refining & Chemicals	51,065	49,596	49,231
Trading & Shipping	736	718	652
Marketing & Services segment	27,008	24,858	24,630
Corporate	2,623	2,876	2,512

Changes in the Group's headcount

The number of employees fell by 2.1% (2,300 employees) between 2019 to 2020. This decrease is mainly due to the adequate management of recruitments. In 2020, 9,354 employees were hired on a permanent contract within the consolidated scope, a decrease of 36% compared to 2019. Indeed, in view of the global economic crisis in 2020, TOTAL chose to capitalize on its existing strengths in order to weather the storm. To maintain cost discipline — a pillar of its efforts to respond to the crisis — the Group largely narrowed its hiring; industries that are driving the Group's transformation, such as new energies and digital technology, keeping more to secure TOTAL's future. In particular, TOTAL hires experienced candidates for positions requiring key skills, offering them long-term career prospects within the Group.

The variations in the breakdown by region and by business segment are mainly due to changes in the consolidated scope with the exit of some SunPower subsidiaries (more than 5,000 employees mainly in Mexico and Asia-Pacific) and the entry of a Marketing & Services subsidiary in Saudi Arabia and a German subsidiary in Refining & Chemicals, representing more than 3,500 employees.

As of December 31	2020	2019	2018
Total number hired on permanent contracts (CDI)	**9,354**	**14,606**	**13,506**
Women	41.2%	41.2%	39.5%
Men	58.8%	58.8%	60.5%
French	13.1%	14.2%	15.1%
Other nationalities	86.9%	85.8%	84.9%
Breakdown by region			
France	14.1%	15.0%	15.8%
Rest of Europe	11.0%	15.6%	21.8%
Africa	4.7%	4.2%	4.2%
North America	16.3%	9.0%	10.7%
Latin America	41.9%	45.0%	36.7%
Asia-Pacific	8.4%	10.8%	10.4%
Middle East	3.6%	0.4%	0.4%

In 2020, the consolidated Group companies hired 8,657 employees on fixed-term contracts, compared to 12,768 in 2019. This decrease is mainly identified at Argedis (-65%), which represented 53% of recruitments on fixed-term contracts in 2019 and whose seasonal business (service stations) was impacted by the COVID-19 pandemic.

As of December 31	2020	2019	2018
Total number of departures[(a)]	**11,773**	**13,050**	**12,458**
Deaths	137	89	110
Dismissals	2,888	3,571	3,165
Resignations	5,517	8,012	8,259
Contract termination by mutual agreement[(b)]	3,231	1,378	924

(a) Excluding retirements and transfers.
(b) Including *"ruptures conventionnelles"* in France.

The departure rate is down slightly in 2020 due to a marked decrease of dismissal, which was in part offset by an increase in the number of voluntary departures at Hutchinson in the context of the economic crisis linked to the COVID-19 pandemic. The voluntary departure rate stands at 8.3% in 2020 compared to 8.7% in 2019.

As of December 31	2020	2019	2018
Total departures[(a)]/ total employees	**11.2%**	**12.1%**	**11.9%**
Women	3.9%	4.9%	4.5%
Men	7.3%	7.2%	7.4%
Breakdown by region			
France	8.4%	10.3%	9.8%
Rest of Europe	29.5%	23.3%	26.2%
Africa	4.2%	4.5%	4.5%
North America	12.9%	9.7%	9.9%
Latin America	34.6%	40.2%	35.1%
Asia-Pacific	7.1%	11.4%	13.9%
Middle East	3.3%	0.6%	0.6%

(a) Excluding retirements and transfers.

5.3.1.2 A responsible compensation policy

The Group's compensation policy applies to all companies in which TOTAL SE holds the majority of voting rights. That policy has several aims: to ensure external competitiveness and internal fairness, reinforce the link to individual performance, increase employee share ownership and implement the Group's corporate social responsibility commitments.

A large majority of employees are covered by laws that guarantee a minimum wage, and, whenever that is not the case, the Group's policy ensures that compensation is above the local minimum wage. Regular benchmarking is used to assess compensation based on the external market and the entity's competitive environment. Each entity's positioning relative to its reference market is assessed by the human resources division within each business segment, which monitors evolutions in payroll, turnover and consistency with the market.

Fair treatment is ensured within the Group through the widespread use of weighting for management positions (JL ≥ 10)[2] via the Hay method, which is used to assign a salary range to each job level. Performance reviews for Group employees, covering actual versus targeted results, skills assessment and overall job performance, are conducted during an annual individual review and formally issued in accordance with the same principles and guidelines across the entire organization.

(1) Employees present as defined in point 5.11.4 of this chapter.
(2) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (*cadre débutant*) (≥ 300 Hay points).

The compensation structure for the Group's employees is based on the following components, depending on the country:
- **a base salary**, which is subject to individual and/or general salary-raise campaigns each year. The merit-based salary-raise campaigns are intended to compensate employees' individual performance according to the targets set during the annual individual review, including at least one HSE (Health, Safety, Environment) target; and
- **an individual variable compensation** starting at a certain level of responsibility. This is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2020, 87.4% of the Group's entities (WHRS scope) included HSE criteria in the variable compensation.

Supplemental collective variable compensation programs are implemented in some countries, such as France, via incentives and profit sharing that also incorporate HSE criteria. In France, under the agreement signed for 2018-2020 applicable to the oil and petrochemicals sector(1) (encompassing about 17,600 employees in 2020), the amount available for employee profit-sharing is determined on the basis of:
- financial parameters (the Group's return on equity as an absolute value and compared to four peers(2));
- the attainment of safety targets (injury rate and accidental deaths in the oil and petrochemicals sector in France);
- criteria assessed for the entity to which the employees belong, relating to employee commitment to priority areas identified by the Action! program, which is mainly led by Total's corporate foundation (*Fondation d'entreprise*) in France;
- criteria relating to the performance of the entity in question (production, sales volumes, gross margins, operating costs, etc.).

The Group provides **pension and employee benefit programs** (health and death) that meet the needs of the subsidiaries as well as the Group's standards, designed to ensure that each employee can:
- in case of illness, receive coverage that is at least equal to the median amount for the national industrial market;
- participate in a savings or supplementary retirement plan;
- arrange for the protection of family members in the event of the employee's death, via insurance that provides for the payment of a benefit recommended to equal two years' gross salary.

These programs, which are regularly reviewed and, if necessary, adjusted, are administered by the subsidiaries and supplement any programs provided under local law.

5.3.1.3 A proactive policy to increase employee shareholding and employee savings

Employee shareholding, one of the cornerstones of the Group's human resources policy, is offered through three main programs: the grant of performance shares, share capital increases reserved for employees, and employee savings. In this way, TOTAL hopes to encourage employee shareholding, strengthen employees' sense of belonging to the Group and give them a stake in the Group's performance by allowing them to reap benefits from their commitment.

Each year since 2005, TOTAL has granted performance shares to many of its employees (approximately 10,000 each year since 2009). Those shares are granted definitively only upon the fulfillment of performance conditions assessed at the end of a vesting period that was extended to three years in 2013 (refer to point 4.3.4 of chapter 4). Under the 2020 plan approved by the Board of Directors in March 2020, the total volume of performance shares granted increased by 5% over 2019. More than 40% of 2020 plan beneficiaries had not received performance shares the previous year. More than 11,000 employees participated in this plan, over 97% of whom are not executives.

TOTAL also invites employees of companies in which it holds more than 50% of voting rights, and that subscribe to the Shareholder Group Savings Plan (PEG-A) created in 1999 for this purpose, to subscribe to share capital increases reserved for employees. Share capital increases reserved for employees take place annually. As a result, more than 60% of the Group's employees are TOTAL shareholders. Depending on the employees' location, these campaigns are completed either through Company Savings Plans(3) (FCPE) or by subscribing Total shares or American Depositary Receipts (ADRs) in the United States.

Pursuant to the authorization given by the Annual Shareholders' Meeting on May 29, 2020, the Board of Directors decided, at its meeting on September 16, 2020, to proceed with a share capital increase reserved for employees to be carried out in 2021 with a 20% discount. This campaign will involve approximately 100 countries. Employees would receive a matching contribution of five free shares for the first five shares subscribed. The shares subscribed would give holders current dividend rights. The previous capital increase reserved for employees was conducted in June 2020, after an internal survey conducted in March 2020 among a representative sample of nearly 10,000 TOTAL employees found that 60% of respondents were in favor of maintaining the capital increase program, despite the crisis and the extreme volatility of the financial markets. Over 45,500 employees in 97 countries took part in this share capital increase, which resulted in the subscription of 12,952,925 shares at a price of €26.20 per share.

Employee savings are also encouraged via the TOTAL Group Savings Plan (PEGT) and the Supplemental Company Savings Plan (PEC), both open to employees of the Group's French companies that have subscribed to the plans under the agreements signed in 2002 and 2004, as amended. Those plans allow investments in a wide range of mutual funds, including the Total Actionnariat France fund that is invested in Total shares.

A Collective Retirement Savings Plan (PERCO) is open to employees of the Group's French companies covered by the 2004 Group agreement on provisions for retirement savings. Other saving plans and PERCOs are open in some Group companies in France covered by specific agreements. Group employees can make discretionary contributions as part of those various plans, which their employer may supplement under certain conditions through a matching contribution. The Group's companies in France made gross matching contributions totaling €70.7 million in 2020.

(1) Covers Total E&P France and the entities covered by the socle social commun scope, as defined in point 5.11 of this chapter).
(2) ExxonMobil, Royal Dutch Shell, BP and Chevron.
(3) Total Actionnariat France, Total France Capital+, Total Actionnariat International Capitalisation, Total Intl Capital.

5.3.2 Maintaining long-term employability in the workforce

The Group's international reach creates a rich multicultural environment and a diverse choice of professional fields. Maintaining employees' long-term employability is another key factor in ensuring the success of the company project. In order to manage that risk, the Group has decided to invest in employee development through personalized support and a customized training policy designed with two objectives in mind: make it easier for employees to acquire new skills to stay abreast of changing careers and technology, and help maintain each employee's long-term employability.

With those goals in mind, the Group launched the *One Total, Better Together* project in a bid to develop each employee's talents. Since 2019, more than 400 talent developers have been trained and are actively assisting employees in their professional development by offering personalized support. Employee professional development is at the heart of the Group's performance. The Group offers a global, transparent system for posting internal job openings (covering 90% of positions), so every employee has the opportunity to take charge of his or her professional development.

In 2020, TOTAL announced the launch of its *One Tech* project, designed to address the twofold challenge posed by evolving energy markets and climate change. *One Tech* involves consolidating and enhancing the Group's technical and engineering skills within a single entity, with the aim of tackling the challenge of climate change and building TOTAL's research & development of the future. *One Tech* project is both structuring the organization to support these new businesses and managing current and future talent, to develop skills needed to reach Net Zero more effectively and become more innovative.

The technical and business know-how of employees and their ability to manage large projects underpin the Group's operational excellence and are essential assets for the Group's development. TOTAL therefore offers ongoing, customized training programs aimed at enhancing employees' skills and employability. These training courses reflect a commitment to skills enhancement and career support, including for employees moving between business segments and/or geographical regions.

The Group's training policy is structured around five major areas:
- sharing TOTAL's basic corporate values, particularly with respect to HSE, ethics, leadership, innovation and digital technology;
- supporting the development of existing activities and creating new ones in order to achieve the Group's ambitions;
- strengthening key skills in all business areas to maintain a high level of operating performance in the workforce;
- promoting employees' integration and career development through training designed to teach employees about the Group, management skills and personal development;
- supporting the policy of mobility and diversity within the Group through language and intercultural training.

When employees start a new position, they receive an individual training plan that identifies their training needs for the next three years, so they can gain the resources they need to be successful in their new job and upgrade their skills. The Group's training catalog offers more than 3,400 training content (onsite and remote training) covering all of the fields.

In addition, the Group runs a training program for managers that allows them to develop their skills from the moment they take up a management position and throughout their subsequent career. The program revolves around a common core of learning and is an integral part of each key stage of the manager's career, designed to support managers in their role as manager-coaches.

Every employee is supported by his or her manager in their day to day professional development, particularly during the Annual Individual Reviews (AIRs), which provide an opportunity to review the past year and discuss the employee's career plans and skills. In 2020, the finalization of the year-end AIRs was postponed within some Hutchinson subsidiaries due to the health context. Excluding Hutchinson, the rate of employees who had an AIR in 2020 reached 95.6% (97.5% for managers and 94.1% for non-managers).

% of employees who had an AIR during the year	**2020 WHRS**	**2019 WHRS**	**2018 WHRS**
All employees	87.4%	92.0%	91.3%
Managers (JL ≥ 10)[1]	95.1%	94.2%	91.7%
Non-managers (JL < 10)	84.0%	91.1%	91.1%

The digitalization process already underway accelerated during the COVID-19 pandemic, to allow the continuation of the Group employees skills development in this context. In particular, the Group established a series of virtual classes offering technical presentations (HSE, general operations, refining processes, petrochemicals and other technical disciplines), led by in-house instructors.

Despite the health context, the Group's training effort remained strong in 2020, 84.6% of employees have attended at least one training course during the year, compared to 88.2% in 2019. When possible, the on-site training sessions have been adapted to a dedicated remote format, shorter by nature, in order to be maintained. The average number of training days per employee stood at 2.4 compared to 3.1 in 2019, thanks to the doubling of the remote training days compared to 2019. Moreover, despite the reduction in the on-site training offer over the year, 60% of employees were able to attend at least one on-site training, compared to 77% in 2019. These elements resulted in training expenses which represented around €104 million in 2020, compared to €163 million in 2019.

	2020 WHRS	**2019 WHRS**	**2018 WHRS**
Average training cost per employee (€ thousands)	1.1	1.8	1.9

After each training session, participants receive a satisfaction survey designed to assess the quality of the training and its results in the light of the stated objectives. Sixty-four percent[2] of employees say they have adequate opportunities to attend training to enhance their skills.

(1) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (*cadre débutant*) (≥ 300 Hay points).
(2) Results from the most recent internal survey (Total Survey), conducted in 2019 among 83,000 employees in 126 countries.

Average number of training days/year per employee[(a)] *(excluding on-the-job training)*	2020 WHRS	2019 WHRS	2018 WHRS
Onsite training	1.6	2.7	2.8
Remote training	0.8	0.4	0.5
Group Average	**2.4**	**3.1**	**3.3**
Women	2.2	2.6	2.3[(b)]
Men	2.5	3.4	3.0[(b)]

Average number of training days/year per employee[(a)] *(onsite and remote training, excluding on-the-job training)*	2020 WHRS	2019 WHRS	2018 WHRS
By segment			
Integrated Gas, Renewables & Power segment	1.4	1.7	1.9
Exploration & Production segment	3.9	5.5	5.6
Refining & Chemicals segment	2.2	2.8	2.6
Refining & Chemicals	2.2	2.8	2.6
Trading & Shipping	1.6	1.8	1.7
Marketing & Services segment	2.3	3.2	3.4
Corporate	3.8	3.7	5.8
By region			
France	2.2	3,0	3.2
Rest of Europe	1.7	2.2	2.2
Africa	2.6	5.1	4.8
North America	3.8	3.8	4.0
Latin America	3.3	3.8	3.5
Asia-Pacific	3.5	3.1	4.2
Middle East	0.9	1.9	5.7

Breakdown by type of training *(onsite and remote training, excluding on-the-job training)*	2020 WHRS	2019 WHRS	2018 WHRS
Technical	30%	31%	35%[(b)]
Health, Safety, Environment, Quality (HSEQ)	25%	26%	29%[(b)]
Language	10%	9%	7%[(b)]
Support function technical training	15%	16%	
Management	7%	7%	
Personal development	4%	4%	29%[(b)]
Sales	2%	3%	
Cross-functional training	7%	4%	

(a) This number is calculated using the number of training hours, where 7.6 hours equal one day.
(b) Information is only available for onsite training in 2018.

TOTAL maintains a technological training center, Oléum, that combines technological expertise with more than 30 specialized, certified instructors and full-scale technical complexes for instructional purposes. The center operates on two sites in France (Dunkerque and La Mède), offering trainees a full-scale Seveso environment and providing technical career training in operations, maintenance, inspection, safety and other fields. Certified as a corporate Apprentice Training Center (CFA) via Total Learning Solutions, Oléum trains apprentices both for the Group and outside the Group. The Center also offers internationally recognized qualifications, such as the Basic Offshore Safety Induction and Emergency Training program, approved by the Offshore Petroleum Industry Training Organization, and training in wind power that is certified by the Global Wind Organization. In addition, Oléum issues professional qualification certificates and technical accreditation in areas such as electricity, explosion hazards (ATEX standard), transportation of hazardous materials (CSTMD), S3C and more. Oléum welcomes trainees from all the Group's segments worldwide as well as from its partners and external customers.

5.3.3 Ensuring a high level of engagement based on respect for each other and enhancements to workplace quality of life

To ensure a high level of engagement from its employees, the Group promotes human resource development based on respect for each other and enhancements to quality of life on the job. TOTAL takes action in a variety of ways to fulfill that goal. Beyond its efforts in the realm of the workplace and employee relations, TOTAL is intent on promoting diversity and equal opportunity. It aims to prohibit all discrimination related to origin, gender, sexual orientation or identity, disability, age or affiliation with a political, labor or religious organization, or membership in a minority group.

5.3.3.1 Promoting equal treatment of employees and banning discrimination

Through its activities, diversity is integral to the Group's identity and key to its success. The Group has long been committed to promoting equal opportunity and diversity, and strives to promote an environment that allows every employee to express and develop his or her potential.

The diversity of its employees and management is crucial to the Group's competitiveness, appeal, acceptability and capacity for innovation. TOTAL aims to develop its employees' skills and careers while prohibiting any discrimination related to origin, gender, sexual orientation or identity, disability, age or affiliation with a political, labor or religious organization, or membership in a minority group.

This policy is supported at the highest levels and promoted by the Diversity Council, which is chaired by a member of the Group's Executive Committee. The Diversity Council is also charged with making specific recommendations on issues identified each year by the Executive Committee.

TOTAL's recruitment teams receive training on non-discrimination. An internal guide entitled "Eliminating Discrimination from the Recruitment Process" is widely distributed. Initiatives aimed at raising employee and manager awareness of diversity concerns are conducted on a regular basis.

Each entity is responsible for creating an appropriate work environment, to ensure that all employees enjoy the same career opportunities and every entity benefits from a wide range of skillsets and practices.

The findings from the internal Total Survey, conducted every two years, in which employees are asked about their perceptions of diversity, show progress within the Group[1]: 80% of employees believe the Group encourages diversity in its workforce and 87% feel their entity shows respect for workforce diversity (up two points since 2017).

The Group has long-standing policies and practices for promoting equal opportunity and diversity. TOTAL has been a corporate forerunner in the matter of diversity. It has prioritized two key components of diversity, gender balance and international diversity, with the aim of offering women and men of all nationalities the same career opportunities up to the highest levels of management. The Group's 2020 year-end targets for gender balance and international diversity among its senior executives, management committees and upper management were mostly met. New targets have been set for 2025 to maintain the momentum.

In addition to gender balance and international diversity, disability forms an integral part of the Group's diversity policy. Initially deployed and coordinated in France, the disability policy was introduced worldwide in October 2018 through the signing of the International Labor Organization (ILO) Global Business and Disability Network Charter.

In 2018 TOTAL renewed its commitment to diversity, equal opportunity and economic and social performance by signing the new Diversity Charter introduced by the French organization *Les Entreprises pour la Cité*, thereby reaffirming its desire to be a responsible employer.

Gender equality in the workplace

TOTAL is committed to upholding and promoting the principle of gender equality in the workplace and ensuring it is properly applied. Gender equality is fostered Group-wide through a global policy of gender diversity, quantitative targets set by the Group's executive management, human resources procedures that take gender concerns into consideration, agreements aimed at promoting a better work-life balance and actions to raise awareness and train the workforce.

TOTAL's commitment to workplace gender equality begins during the recruitment process and continues throughout an employee's career. It guarantees equal treatment for men and women when identifying high-potential employees and appointing senior executives.

In order to ensure a better gender balance in its senior management, the Group had set targets for improvement by year-end 2020 in which women comprise:
- more than 20% of Management Committee members in the business segments and large functional divisions: 27% were women in 2020;
- 25% of senior executives: 25.7% were women in 2020, compared to approximately 5% in 2004;
- more than 20% of Management Committee members at headquarters and in subsidiaries: 23.5% were women in 2020;
- 18% of senior managers: 18.2% were women in 2020, compared to about 8% in 2004.

In order to maintain that momentum, new targets have been set for 2025 for the Group's highest executive bodies, with women comprising:
- 30% of Executive Committee members;
- 30% of the G70[2].

The Group has set the same target for its other governing bodies and leadership positions, with women comprising:
- 30% of Management Committee members in the business segments and large functional divisions;
- 30% of senior executives;
- 30% of Management Committee members at headquarters and in the subsidiaries;
- 30% of senior managers.

Moreover, TOTAL develops talent pools and regularly organizes campaigns to identify high-potential employees across the Group. At year-end 2020, women made up 33% of high-potential employees (versus 15% in 2004) and 32.6% of high-potential Group employees (versus 24% in 2014).

The Group manages skills mobility with a particular focus on attracting more women to technical and business careers (as of December 31, 2020, 21.9% of women were among managers on permanent contracts in technical or sales positions)[3].

Within TOTAL SE, TOTAL demonstrated its commitment in 2016 with the addition of the President, People & Social Responsibility to the eight-person Executive Committee, followed by that of the President, Strategy & Innovation in 2019. Of the 10% of management positions with the greatest responsibility at TOTAL SE, women fill 17%[4]. At Group level, which is the most relevant parameter in view of TOTAL's activities, that percentage stands at 22.8%[5].

TOTAL aims to recruit women in proportions that reflect, at a minimum, the percentage of women graduates at schools and universities in its business sectors. The Group is attentive to the need to promote the same proportion of men and women within the overall group of people eligible for the promotion under consideration. The new mobility process established as part of the *One Total, Better Together* initiative provides for greater transparency and offers new prospects for career growth for both men and women in the Group's various businesses.

To encourage young women to opt for careers in technical fields, TOTAL has partnered with France's *Elles Bougent* (Women on the Move) organization since 2011 and served as its honorary chairman in 2015. Some 132 female engineers regularly meet with high-school girls to talk about careers in science. Throughout the Group, female engineers and technicians from all backgrounds are encouraged to serve as role models for female high school and university students so as to illustrate women's contributions to the fields of science and technology.

The Group also promotes diversity by working to change mindsets, and regularly holds events for managers and employees designed to train, inform and raise awareness. This includes internal courses such as *Young Female Talents and How to Market Yourself*.

Through its mentoring activities and development workshops, the TWICE (Total Women's Initiative for Communication and Exchange) network also helps to expand the gender diversity policy. Its goal is to help women advance within the Group, particularly into management roles, and assist them in their career development. Established in 2006, it is currently active in France and abroad (with 50 local networks) and boasts nearly 4,000 members. A mentoring program operates in France and internationally to help women gain insight into key phases of their career. In 2020, senior executives represent 11.6% of the mentors. More than 2,000 women have taken part in the program since 2010. In 2018, TWICE launched the TWICE@Digital initiative to encourage networking among women working in digital technology at TOTAL and, more broadly, help women become more digital-savvy, so they can learn about the changes underway and the impact of those changes on their work.

(1) Results from the most recent internal survey (Total Survey), conducted in 2019 among 83,000 employees in 126 countries.
(2) Senior executives with the most important responsibilities.
(3) Technical and sales functions, excluding support functions (e.g., human resources, legal affairs, purchasing, etc.).
(4) TOTAL SE, the Group's parent company, has more than 5,000 employees (full-time-equivalent employees present on December 31 of each fiscal year for the period in question).
(5) Percentage calculated on the basis of 99,322 employees.

The Group has signed international charters and agreements and joined initiatives on the subject of diversity to demonstrate its commitment at the highest levels of decision making.

In 2010, for example, TOTAL signed the "Women's Empowerment Principles: Equality Means Business" as set out in the United Nations Global Compact, and the Group regularly shows its commitment to equal opportunity and gender equality in the workplace by signing agreements that address diversity and other topics.

In 2016, TOTAL, along with 20 other oil and gas companies, pledged action at the World Economic Forum by signing "Closing the Gender Gap – A Call to Action." This joint declaration is based on seven guiding principles (leadership; aspiration and goal setting; the Science, Technology, Engineering and Mathematics (STEM) pipeline; clear responsibility; recruitment, retention and promotion policies; inclusive corporate culture; and work environment and work-life balance) and two decisive objectives: more diverse recruitment, and greater access among women to technical and management roles.

% of women	2020	2019	2018
Among permanent contract hires	41.2%	41.2%	39.5%
Among manager hires (JL ≥ 10)[(1)]	35.6%	35.5%	31.9%
Among all employees	34.8%	35.8%	35.1%
Among employees with permanent contracts (CDI)	33.8%	34.7%	33.9%
Among managers (JL ≥ 10)	29.3%	28.5%	27.7%
Among first levels of managers[(a)]	31.0%	30.6%	29.8%
Among middle management	25.6%	24.8%	23.6%
Among senior management	18.2%	17.4%	15.2%
Among senior executives	25.7%	23.0%	21.6%

(a) Defined on the basis of job levels for junior manager.

% of men	2020	2019	2018
Among all employees	65.2%	64.2%	64.9%
Among employees with permanent contracts (CDI)	66.2%	65.3%	66.1%
Among permanent contract hires	58.8%	58.8%	60.5%

With regard to compensation, TOTAL has been adopting specific measures to prevent and compensate for discriminatory wage differentials since 2010. Regular audits are conducted during salary-raise campaigns to ensure equal pay among men and women holding positions with the same level of responsibility.

Since 2019, consistent with the French Act of September 5, 2018, on the freedom to choose one's professional future, the Group has published an index in France for its three units of economic and employee interest (UESs) on wage differentials and the steps taken to eliminate them. That index, based on a score of 100, reflects five indicators: wage differentials, pay raise differentials excluding promotions, promotion rate differentials, percentage of female employees who received a pay raise in the year they returned from maternity leave, number of employees of the under-represented gender among the ten employees who received the highest compensation.

Index[(a)]	2019-2020	2018-2019	2017-2018
Upstream/Global Services/ Holding UES	91/100	90/100	85/100
Refining/Petrochemicals UES	94/100	94/100	83/100
Marketing & Services UES	87/100	87/100	86/100

(a) Reference period N-1/N: from September 30, N-1 to September 30, N.

These results have been published at sustainable-performance.total.com.

In France, an agreement on equal opportunity in the workplace was negotiated in June 2019 with employee representatives for the entities of the *socle social commun* scope. Specifically, the new agreement extends paternity leave to three consecutive calendar weeks, relaxes the eligibility criteria for permanent or occasional remote working and establishes a right to coaching for women returning from maternity leave.

Making TOTAL's management more international

With nearly 160 nationalities represented in its workforce, TOTAL can boast of broad cultural diversity and believes it is important to promote that diversity at all levels of the company. Non-French nationals comprised 86.9% of the Group's new hires and 57.7% of manager hires in 2020.

The Group set targets for improvement by year-end 2020 in which:
- non-French nationals comprise 40% of senior executives: 36.3% were non-French nationals in 2020, compared to approximately 19% in 2004;
- local managers make up 50% to 75% of Management Committee members in subsidiaries (57.9% of committee members were local managers in 2020);
- non-French nationals comprise 39% of senior managers (32% were non-French nationals in 2020).

New targets have been set for 2025 to maintain that momentum:
- 45% of senior executives are non-French nationals;
- local managers make up 55% to 75% of Management Committee members in subsidiaries;
- 40% of senior managers are non-French nationals.

In addition, non-French employees account for 46% of high-potential employees and 37.2% of high-potential Group employees.

Several measures have been adopted to create a more international management pool, including career paths designed to create more international careers, expatriate assignments for employees of all nationalities (more than 3,000 employees representing approximately 100 nationalities are posted in more than 100 countries), and orientation and personal development training organized by large regional hubs such as Houston, Johannesburg and Singapore.

(1) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (*cadre débutant*) (≥ 300 Hay points).

% of employees of non-French nationality	2020	2019	2018
Among permanent contract hires	86.9%	85.8%	84.9%
Among manager hires (JL ≥ 10)[(1)]	57.7%	55.0%	58.9%
Among all employees	67.1%	67.2%	66.2%
Among managers (JL ≥ 10)	56.1%	56.1%	56.6%
Among senior executives	36.3%	34.1%	32.1%

% of employees of French nationality	2020	2019	2018
Among all employees	32.9%	32.8%	33.8%
Among permanent contract hires	13.1%	14.2%	15.1%

Measures to promote hiring and integration of people with disabilities

The Group's diversity policy includes specific measures to promote the integration and retention of people with disabilities. TOTAL's Mission Handicap structure, housed within the Diversity & Skills division of Corporate Human Resources, is responsible for leading the disability policy with help from disability coordinators within the business segments and a network of liaisons in each entity.

In **France**, TOTAL has given concrete proof of its commitment to hiring people with disabilities for more than 20 years by signing agreements with employee representatives.

TOTAL promotes employment for people with disabilities both directly, through its own hires, and indirectly through its purchases from the sheltered employment sector as part of its responsible procurement policy. The Group acts on various fronts simultaneously:
– internally, through efforts to integrate people with disabilities into the workforce, professional training, support and job retention, communication, awareness-raising actions and sessions organized for managers and the entire workforce as well as mandatory training for human resources personnel. In addition, Management Committee members are required to attend awareness-raising sessions: in 2020, every Management Committee for regional Refining & Chemicals sites attended the training.
– externally, through information and communications campaigns aimed at students, collaborations with recruitment agencies, participation in specialized forums, partnerships with schools and universities. For example, in 2019 Mission Handicap signed a partnership agreement with Companieros, a nonprofit, to fund instructional courses for students at France's major universities. Dozens of management students from the Université de Technologie de Compiègne, Ecole Centrale de Lyon and the École Polytechnique received the "Handimanagers" label. In 2020 the Group set up a new initiative, the Duo Café, to organize get-togethers between students at the Group's target schools and alumni working at TOTAL, to help the students learn more about the Group's businesses.

A new agreement was negotiated with the employee representatives and signed unanimously in 2019. That agreement, now extended for the first time to the *socle social commun* scope excluding expatriates, replaces the three existing UES agreements, which contained different measures. The new agreement harmonizes the measures implemented for employees with disabilities across France (nearly 14,000 people) and was approved by DIRECCTE (the regional French government agency dealing with private enterprise, competition, consumer affairs, labor and employment) for a period of four years (2019–2022). It is based on three major priorities:
– recruitment, integration and professional support throughout the employee's career;
– job retention, the adaptation of workstations and measures to compensate for the employee's disability;
– the development of agreements and partnerships with the sheltered and supported employment sector (ESAT et EA).

In 2019 and 2020, 20 permanent contract hires were made, out of the 40 envisaged in the agreement, supplemented by a proactive recruiting policy for work/study programs, internships, permanent and fixed-term contracts and temporary employment. The new agreement aims to reach the statutory employment rate of 6% of employees with disabilities by year-end 2022; the Group's employment rate of people with disabilities in France (direct and indirect employment) was 5.20% in 2019, an increase from the previous year.

The four disability coordinator positions in the Group's various business segments and the special recruiter position provided for under the 2019 agreement have been filled. Those employees are now actively applying the Group's disability policy in the field, while helping to coordinate the network of disability liaisons from each site. During the COVID-19 pandemic, with its resulting lockdown measures and broader reliance on remote working, numerous workstation adaptations were made in the homes of people with disabilities to facilitate their retention in employment. As those employees gradually returned to work after the lockdown periods, the disability liaisons offered support by providing a number of customized resources, such as transparent "inclusive" masks for the hearing-impaired to allow them to read lips.

The Disability agreement signed in 2019 also lets employees voice their support for organizations that work on behalf of people with disabilities before a special committee made up of Mission Handicap members and employee representatives. A special annual budget is allocated for the duration of the agreement. In 2020, funds were allocated to study some 50 projects promoted by disability support organizations.

In 2020, for the second consecutive year, TOTAL partnered with the *Trophées Femmes en Entreprise Adaptée* (Women in Disability-Inclusive Companies Awards) hosted by the Handiréseau organization, a U.N. Women initiative, to pay tribute to the exemplary professional careers of women with disabilities.

In addition, TOTAL supports the Association Total Solidarité Handicap (ATSH), an organization formed in 1975 by TOTAL employees who have children with disabilities. ATSH provides psychological and financial support to current and retired employees of the Group and their dependents in France who are affected by disability. It currently has over 327 members.

Internationally, the Group's actions to support employees with disabilities have taken on new dimension since the end of 2018: the Group aims to go beyond the legal requirements in all of its host countries. That ambition is reflected in the signing of the International Labour Organization (ILO) Global Business and Disability Network Charter in October 2018. To date, 40 subsidiaries have voluntarily signed on to the policy and set goals for the next two years on the basis of the five principles identified as priorities by the Group: respect and promotion of rights, non-discriminatory policies and practices, accessibility, job retention, and confidentiality. Signing the ILO's Global Business and Disability Network Charter has generated new momentum, reflected in tangible form by ongoing discussions of best practices among the subsidiaries and wider access to resources for raising awareness.

To mark the International Day of Persons with Disabilities on December 3, 2020, 40 committed subsidiaries came together as part of a digital event to gather feedback on actions taken since 2018, encourage the sharing of best practices, energize the network of disability liaisons worldwide and identify action plans for 2021 and 2022. A kit for raising employee awareness was distributed to the disability liaisons in each subsidiary to help them train the local workforce.

In January 2020, TOTAL joined The Valuable 500, a global initiative calling on multinational firms to show inclusiveness for people with disabilities and promote efforts to unlock their potential as an explicit component of each company's agenda.

(1) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (*cadre débutant*) (≥ 300 Hay points).

A commitment to help young people enter the workforce

TOTAL is committed to helping young people find a trade and enhance their employability. In the belief that the issue must be tackled as early as possible in the educational system to ensure maximum impact, the Group has taken targeted measures, tailored to the specific conditions in each country.

During periods of crisis, young people may find that the obstacles to entering the workforce are higher than ever. During 2020 the Group pledged to maintain entirely its commitment to helping this age group get onto the career ladder.

In France, TOTAL aims to open 50% of its internships for last year middle students from disadvantaged neighborhoods. This program, first implemented in the Greater Paris region in 2018, was extended throughout France in 2019. During the 2019-2020 school year, TOTAL welcomed 181 students from disadvantaged neighborhoods. In September 2020, TOTAL expanded the internship program by offering remote learning formats, in a bid to host as many young people as possible.

In 2019, TOTAL reaffirmed its commitment to hire work-study students in France at a rate of 5% of the total workforce annually. The Group has adopted metrics that reflect the Group's priority commitments with regard to diversity, disability and job opportunities among disadvantaged youths, to monitor the population of work-study students more closely. As of December 31, 2020, the Group employed in France 1,616 work-study students; of those, within the *socle social commun* scope, 38 people with disabilities. Through its recent partnership with Mozaïk RH – a leading force in helping talented young people from diverse backgrounds find their footing in the workplace, thanks to its *DiversifiezVosTalents* platform – the Group will be able to step up its commitment to disadvantaged young people and improve its monitoring in that area.

In Africa, the Young Graduate Program run by Marketing & Services offers graduates under the age of 26 an 18-month program for acquiring career skills. The program is divided into two phases: work experience at the subsidiary in the participant's home country, followed by an assignment abroad. Since the program was launched in 2014, over 450 young people have taken the opportunity to improve their employability. The pandemic delayed further progress this year, so the Young Graduate program has deferred its goal of reaching 500 young participants until 2021.

Volontariat International en Entreprise (VIE) is an international program that offers graduates aged between 18 and 28, from France or other European Economic Area member states, a career opportunity abroad of up to 24 months; moreover, the program gives French businesses an opportunity to export their know-how internationally. The Group has taken part in the program since 2002; a total of 2,007 recent university graduates have taken part.

The Group's international scholarship programs help to promote French higher education worldwide. In all, 1,500 scholars have received grants since 2004, and in 2020 TOTAL provided financial support to 193 students from 15 countries. As part of a partnership signed in June 2019 with the Agency for French Education Abroad and the French Ministry for Europe and Foreign Affairs, TOTAL has agreed to fund five new Excellence-Major scholarships for a five-year period. These programs likewise reflect the Group's commitment to educating young people and helping them join the workforce.

Further measures to combat discrimination

TOTAL signed the LGBT (lesbian, gay, bisexual and transgender) commitment charter in 2014. Drafted by an organization called L'Autre Cercle, the charter provides a framework for combating workplace discrimination in France based on an individual's sexual orientation or gender identity.

To provide clear answers to questions employees may have about matters relating to religion at work, and to encourage tolerance for the beliefs of others within a framework of respect for differences, the Group has developed *The Practical Guide to Dealing with Religious Questions Within the Total Group*. The guide, which has been available on the Group's intranet site since March 2017, offers keys to understanding different beliefs so that employees can more readily acknowledge those beliefs in their day-to-day activities. Initially published in French and in English, the guide has since been translated into eight other languages. It is routinely provided to participants at training sessions on human rights conducted within the Group. It is also distributed on Business Ethics Day, which is marked each year on December 10 in all of the Group's entities.

In addition, in December 2020, the Group launched a lecture series on religion that is set to continue through 2021.

5.3.3.2 Creating programs to address special work scheduling needs

The Group's wide-ranging operations often require specific work arrangements, such as shift schedules[(1)] and rotating schedules[(2)], depending on the segment. Most shift workers are employed in Refining & Chemicals, Marketing & Services and Integrated Gas, Renewables & Power, while rotating workers are mainly in Exploration & Production.

The average work week is determined in accordance with applicable local laws and limits set by International Labour Organization (ILO) conventions. Excluding specific regimes, it is less than 40 hours in most subsidiaries located in Europe, Israel, Mayotte and Qatar. It is 40 hours in most subsidiaries located in Africa, North America and Asia. It is more than 40 hours, without exceeding 48 hours, in subsidiaries located in Latin America (mainly Mexico, Brazil and Dominican Republic), a few countries in Asia (India, Vietnam) and Africa (mainly Tunisia, South Africa, Morocco and Mauritius).

The challenges of work organization are manifold, depending on the regions of the world where the Group operates, and according to the local legislation in force. The Group's entities set up programs designed to meet the specific needs of work organization and ensure, as far as possible, that a work-life balance is promoted.

Over the past few years, regular remote working options have been gradually introduced within the Group. As part of the *One Total, Better Together* project, the Group is encouraging home-based remote working and flexible hours worldwide.

In the COVID-19 pandemic context, Group subsidiaries have turned to remote working wherever possible, going beyond the Group's global guidelines (and instituting 100% remote working in some cases), based on government recommendations. By showing agility in adapting to the exceptional circumstances brought on by the pandemic, the Group has been able to maintain business continuity during government-imposed lockdown periods.

(1) In which employees maintain continuous operations, with relays between teams to keep production going (in two or three eight-hour shifts), e.g., in plants or refineries.
(2) In which employees conduct their work at a location (town or worksite) far from their place of residence and alternate between extended periods of work (at their assigned worksite) and rest periods at home.

	2020 WHRS	2019 WHRS	2018 WHRS
% of companies offering the option of regular remote working	44.9%	29.1%	25.8%
% of employees choosing remote working when given the option	13.3%	7.9%	5.0%

In addition, as of December 31, 2020, 87.4% of companies offer occasional remote working.

Among other programs designed to foster a better work-life balance, employees are also choosing voluntary part-time work.

	2020 WHRS	2019 WHRS	2018 WHRS
% of companies offering voluntary part-time work	55.1%	56.7%	50.0%

France, the Netherlands and Belgium have the largest number of voluntary part-time workers.

In the COVID-19 pandemic context, the Group has strengthened its resources worldwide for preventing psychosocial risks by giving employees access to a support service staffed by psychologists trained in crisis response, who can offer advice tailored to each employee's concerns.

In addition, as part of a global initiative to prevent and manage employee absenteeism, the medical absenteeism rate is one of the indicators monitored as part of the WHRS:

	2020 WHRS	2019 WHRS	2018 WHRS
Absences for medical reasons (as a %)	4.1%	3.4%	3.0%

The change in the rate of medical absenteeism rate is mainly attributable to the pandemic, in particular with the imposed quarantine periods.

5.3.3.3 Promoting workplace dialogue

Workplace dialogue is one of the pillars of the company project. It includes all types of negotiations, consultations or exchanges of information among Group entities, employees and their representatives about economic and workplace issues and concerns relating to company life. The topics addressed in this workplace dialogue may vary according to each subsidiary, but some are shared concerns across the Group such as health and safety, work hours, compensation, training and equal opportunity.

The Group aims to conduct this dialogue at both the local level and at headquarters or centrally, as well as through its participation on company bodies and its signing of agreements.

Among the numerous stakeholders with which TOTAL maintains a regular dialogue, the Group's employees and their representatives have a special position and role, particularly in discussions with management teams. In countries where employee representation is not required by law, Group companies strive to establish such representation. As a result, majority elected employee representatives are present in most of the Group's companies.

	2020 WHRS	2019 WHRS	2018 WHRS
Percentage of employees with labor union representation and/or employee representation	91.7%	88.2%	
Percentage of companies with labor union representation	71.7%	71.7%	
Percentage of companies with employee representation	80.3%	80.3%	80.5%
Percentage of employees covered by a collective bargaining agreement	71.9%	71.2%	71.5%
Number of active agreements signed with employee representatives worldwide	281	312	316
including, in France[(a)]	147	201	190

(a) Some agreements cover several companies at once (e.g., the agreements in the units of economic and employee interest (UESs) and agreements for groups of companies).

Moreover, where local laws provide few protections for freedom of organization and the right to collective bargaining, the subsidiary's management is reminded that it must provide alternatives. These may include allowing employees to designate representatives, organizing regular meetings between those representatives and management, providing meeting rooms where employees can gather and altering work schedules accordingly. Those best practices are reviewed in an e-learning course on human rights in the workplace, offered within the Group since 2019.

In Europe, as part of the Company's transformation into a European company (SE), an agreement was reached on April 15, 2020, with a special negotiating body to create the SE Works Council (known as the Total European Works Council) to replace the former European Works Council, while maintaining continuity in its operations and missions.

The Total European Works Council serves as a forum for providing information and exchanging views about the Group's strategy, its workplace, economic and financial situation, as well as on matters relating to sustainable development, environmental and social responsibility and safety. It is consulted for significant proposed organizational changes concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies. The innovative past programs that allowed improved dialogue with works council members (safety visits to the field, learning expeditions to discuss the Group's strategy directly on site) have been retained in the agreement that established the new Total European Works Council.

Employee dialogue in Europe has remained quite active despite the COVID-19 pandemic. Meetings of the European Works Council and the new Total European Works Council have regularly been held virtually since March 2020. The agreement on the establishment of the new Total European Works Council was signed electronically – a first in Europe. Electronic voting was arranged from the Group's host countries in Europe to allow the election of the members of the Total European Works Council, which was formally established on September 15, 2020. Input from every party to the workplace dialogue in Europe was critical during this period.

Workplace relations at the entities covered by the *socle social commun* scope remained especially active during the COVID-19 pandemic as well, thanks to regular discussions with union representatives at every level. A time-bound agreement on the ability to donate COVID-19 rest days (*jours solidaires*) from accrued time off and other measures in response to the pandemic was signed on May 13, 2020.

In October 2020, as part of its desire to encourage expanded social dialogue, TOTAL took the unique step of enlisting employee representatives to help develop *One Tech*, a Group hub that will centralize 3,300 employees with technical skills and expertise, tasked with focusing on innovation and fast-growing new energies.

The Group's commitment to employee dialogue is also reflected in the international agreements it has signed and mirrors the convictions held by the highest decision-making bodies of the Group. In 2015, the Group signed a four-year global agreement with IndustriALL Global Union(1) to promote of human rights at work, diversity, employee and employee representative participation in social dialogue and the recognition of health and safety in the workplace. TOTAL continues to apply the commitments of this global agreement, pending the outcome of discussions with IndustriALL Global Union to reach a new agreement, the process has been slowed down with the health crises and the lockdown measures in 2020.

In December 2017, TOTAL also joined the worldwide Global Deal initiative, a multiparty partnership that aims to encourage governments, businesses, unions and other organizations to make concrete commitments to promoting employee relations. The Global Deal promotes the idea that effective workplace dialogue can contribute to decent work and quality jobs and, as a consequence, greater equality and inclusive growth, from which workers, companies and civil society benefit. In 2020, TOTAL continued to share best practices with Global Deal members, notably as part of two working groups established in 2019, one focusing on workplace protection and the other on gender equality in the workplace.

As a company that is attentive to its workforce, TOTAL continues to build its *One Total* company project through a participatory approach that invites employee input. One concrete example of that policy came in 2019 with the launch of the *One Total, Better Together* project. Prior to the launch, employees were asked to reflect on the Group's people ambition during workshops and forums and via a collaborative platform that drew thousands of contributions from around the world.

In July 2020, a survey was conducted among a representative sampling of nearly 20,000 employees regarding the new job mobility process – a key component of that people-focused ambition – to obtain some initial feedback on the process a year after its launch. The survey found that 92% of applicants were confident they could find an interesting new position using the process, and more than 70% said it gave them a clearer view of their advancement potential within the Group and helped them take charge of their careers. The survey offered confirmation that employees support the new job mobility process, and also highlighted some potential enhancements that would address the desire for individual guidance in career development.

In addition, every two years, TOTAL carries out an internal survey (Total Survey) among its employees to gather their views and expectations with regard to their work situation and their perceptions of the company, both at the local level and Group-wide. The most recent survey, conducted in 2019 among 83,000 employees in 126 countries, found a 79% commitment rate, with 86% of employees saying they are proud to work for TOTAL.

5.4 Health and safety challenges

TOTAL places safety at the heart of its ambition to be a responsible company. The operational measures and indicators used to manage the Group's activities are based on this fundamental value, in accordance with the strictest standards and with regard to health.

Given their specific nature, the Group's activities involve health and safety risks for the Group's employees, the personnel of the Group's contractors, and residents in the vicinity of industrial sites. Furthermore, certain products marketed by TOTAL may present risks for the health and safety of consumers.

In this context, the Group has therefore identified its main health and safety risks:

- risk of industrial accident;
- risk of workplace accident;
- risk of transport accident;
- risk of damage to health at the workplace;
- risk of damage to the health and safety of consumers.

The risks and challenges relating to people health and safety are identified as part of a dynamic process that draws on the Group's expertise and lessons learned, which are included in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations).

To address its challenges, TOTAL relies on the HSE division, which forms part of the People & Social Responsibility division, whose President is a member of the Executive Committee.

In line with the various businesses of the Group, the HSE division coordinates the promotion and implementation of Group policies to enable the HSE departments of the Group's subsidiaries to prevent or mitigate risks. Indicators are monitored so that the Group's actions in relation to health and safety can be continuously adapted.

TOTAL conducts its operations on the basis of its Safety Health Environment Quality Charter (available at total.com). It forms the common foundation for the Group's management frameworks, and sets out the basic principles applicable to safety, security, health, environment, quality and societal commitment. Group directives and rules define the minimum requirements expected. General specifications, guides and manuals are used to implement these directives and rules. The Group's subsidiaries implement these requirements by means of their own management systems, which take account of specific local specificities and local regulatory requirements. The Group's framework is available to all employees.

The HSE reference framework common to all business segments has been rolled out since 2018 in order to give greater overall consistency to the Group's operations, while continuing to respect the specific characteristics of the various business segments. This reference framework, named One MAESTRO, applies to the Group's subsidiaries and their operated sites as defined in point 5.11 of this chapter (scope of One MAESTRO). It is based on ten fundamental principles: (1) leadership and management commitment, (2) compliance with laws, regulations and Group requirements, (3) risk management, (4) operational accountability, (5) contractors and suppliers, (6) expertise and training, (7) emergency preparedness, (8) learning from events, (9) monitoring, audit and inspection, (10) performance improvement.

In order to evaluate the implementation of this framework, Group subsidiaries operating sites are audited at least every five years. These subsidiaries also undertake self-assessments every two years. The Group's HSE audit protocol is based on the One MAESTRO framework and includes the requirements of the international standards ISO 14001:2015 and ISO 45001:2018. The audit protocol is applied fully during self-assessments and according to a risk-based approach during audits.

(1) An international union federation that represents more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.

Furthermore, the One MAESTRO framework provides that companies holding an interest in assets or activities operated by third parties shall promote the Group HSE requirements and best practices and endeavor to ensure that similar requirements are adopted by the operator. It also provides that the HSE risks relating to these assets or activities are expected to be assessed at least every five years and the manager of the non-operated asset within the Group are expected to be trained in HSE management. Assessing the risks relating to these assets and activities provides the basis for promoting the Group's HSE rules implemented by the asset manager, particularly during board meetings. This can also take place during technical assistance missions or through HSE audits or reviews, when these are provided for by a shareholders' agreement.

Lastly, before any final decision to invest in a construction project or acquire or sell a subsidiary, the proposals presented to the Group's Risk Committee are assessed with regard to health and safety risks.

5.4.1 Preventing the occurrence of major industrial accidents

3 GOOD HEALTH AND WELL-BEING
6 CLEAN WATER AND SANITATION
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

To prevent the occurrence of a major industrial accident such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or damage to property, TOTAL implements suitable risk management policies and measures which apply to the Group's operated activities that are exposed to such risks. The Major Risks division of the Group's HSE division provides support in the application of this policy.

At year-end 2020, in addition to its drilling and pipeline transport operations, the Group had 186 operated sites and operating zones exposed to such risks. These correspond to all activities relating to hydrocarbon production, whether offshore or onshore, as well as Seveso-classified industrial sites (upper and lower tier) and their equivalents outside of the European Union. This number of sites has increased compared to year-end 2019, when 180 sites were listed. The number of these sites is stable for the Refining & Chemicals segment and slightly increasing for the Exploration & Production, Integrated Gas, Renewables & Power, and Marketing & Services segments.

The Group's policy for the management of major industrial accident risks applies from the facilities design stage in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for the analysis of the risks related to the Group's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures and may be technical or organizational in nature. These analyses are updated periodically, at least every five years, or when facilities are modified. Training on major accident risks is organized by the Group at head office and at subsidiary sites for operating staff.

With regard to the design and construction of facilities, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Group's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Group's rules define the management process to be adopted.

With regard to the management of operations and integrity of facilities, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedbacks. For specific works, the preliminary risk analysis may lead to the establishment of a permit to work, the process of which, from preparation through to closure, is defined. The Group's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. These rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings.

In terms of monitoring indicators, the Group reports the number of Tier 1 and Tier 2 loss of containment as defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP). The Group set itself the target of having fewer than 70 Tier 1 and Tier 2 events in 2020. This target was not reached in 2020. The number of Tier 1 and Tier 2 events is higher than in 2019 but significantly lower than in 2018. In addition to the 84 Tier 1 and Tier 2 operational events indicated in the table below, the Group recorded five Tier 1 or Tier 2 events due to sabotage or theft in 2020.

Loss of primary containment[a]	2020	2019	2018
Loss of primary containment (Tier 1)	30	26	30
Loss of primary containment (Tier 2)	54	47	73
Loss of primary containment (Tier 1 and Tier 2)	84	73	103

(a) Tier 1 and Tier 2: indicator of the number of losses of primary containment with more or less significant consequences (fires, explosions, injuries, etc.), as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

The Group did not have any major industrial accidents in 2020. Tier 1 and 2 events had only moderate consequences such as lost time injuries, fires or pollution of limited extent or with no impact.

In order to manage any major industrial accident efficiently, TOTAL has implemented a **global crisis management system** that is based primarily on an on-call system available 24/7, as well as a dedicated crisis management center at head office that makes it possible to manage two simultaneous crises. The framework provides that subsidiaries draw up plans and procedures for interventions in the event of leaks, fires or explosions and to test these at regular intervals. The intervention teams at subsidiaries and at head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. In 2020, in the context of the COVID-19 pandemic and working from home as a result of this situation, the Group confirmed its resilience by testing out procedures and methodologies using remote crisis management exercises. In addition, in order to maintain the Group's training capacity regardless of how the situation developed, training for internal crisis management individuals was maintained and provided remotely. In 2020, 187 individuals have been trained in crisis management in subsidiaries and at head office.

TOTAL also continued to roll out its Incident Management System (IMS) at subsidiaries operating hydrocarbon or gas exploration and production sites within the Exploration & Production and Integrated Gas, Renewables & Power segments. The IMS is a harmonized system for the management of emergency situations. It is described in an IPIECA good practices guide and is being progressively adopted by the majors. At year-end 2020, 385 individuals had been trained or made aware of the IMS.

5.4.2 Preventing occupational accidents

The Group has a policy for preventing occupational accidents that applies to all employees of Group subsidiaries and employees of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework.

The indicators monitored by the Group include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TOTAL has set itself the target of continuously reducing the TRIR indicator and, for 2020, of keeping it below 0.80 for all personnel of the Group and its contractors.

Safety indicators	2020	2019	2018
Millions of hours worked – All Personnel	389	467	456
Number of occupational fatalities – All Personnel	1	4	4
Number of occupational fatalities per hundred million hours worked – All Personnel	0.26	0.86	0.88
TRIR[a]: number of recorded injuries per million hours worked – All Personnel	0.74	0.81	0.91
Group employees	0.63	0.74	0.82
Contractors' employees[b]	0.87	0.87	1.01
LTIR[c]: number of injuries per million hours worked – All Personnel	0.48	0.48	0.59
SIR[d]: average number of days lost per lost time injury – All Personnel	33	34	26
Number of severe injuries (excluding fatalities)[e] – All Personnel	11	19	11

(a) TRIR: Total Recordable Injury Rate.
(b) As defined in point 5.11.4 of this chapter.
(c) LTIR: Lost Time Injury Rate.
(d) SIR: Severity Injury Rate.
(e) Number of injuries resulting in permanent disability or lost time of more than six months.

In 2020, of the 289 lost time injuries reported, 280 relate to accidents at the workplace. 78% of these occurred, in decreasing order of the number accidents, when walking, handling loads or objects, using portable tools or working with powered systems or lifting systems.

The Group's efforts on safety over a period of more than ten years have allowed it to reduce the TRIR by more than 70% between 2010 and 2020. This improvement is due to constant efforts in the field of safety and, in particular:
– the implementation of the HSE frameworks, which are regularly updated and audited;
– the prevention of specific risks such as handling loads (ergonomics), road transport, foot traffic;
– training and general familiarization with safety issues for all levels of management (world safety day, special training for managers);
– HSE communication efforts targeting all Group personnel;
– the introduction of HSE objectives into the compensation policy for Group employees (refer to point 5.3.1.2 of this chapter).

Despite the measures taken as detailed above, a contractor employee sadly lost his life during a disassembly operation on a drilling rig in the Gulf of Mexico in the United States in 2020.

As part of the **policy for preventing** workplace accidents, TOTAL has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Group employees and contractors working on sites operated by the Group. In order to continually move its practices forward, TOTAL also implements a process for analyzing accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event. By way of example, a near miss with a high severity potential is treated as a severe accident, and its analysis is considered essential factor of progress. Depending on its relevance to other Group entities, it will trigger a safety alert and, depending on the circumstances, the circulation of lessons learned and updating of the reference framework. The reporting of anomalies and near misses (approximately 600,000 in 2020) is strongly encouraged and is permanently monitored. The involvement of each employee in identifying anomalies and dangerous situations is an indicator of employees' vigilance in accident prevention and reflects the safety culture within the Group.

The Group's HSE division includes a division of specialists in high-risk operations (work at height, lifting, electricity, excavations, high-pressure cleaning etc.) which consolidates in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for subsidiaries to improve their safety culture upon their request. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors of a work situation and defining appropriate measures. In 2020, a digital platform was created to host these tools, as well as examples of how to apply them, factsheets and information about the fundamental concepts of Organizational and Human Factors.

In addition to its One MAESTRO reference framework, in 2010 the Group introduced "Safety at Work: TOTAL's Twelve Golden Rules". This has been widely circulated within the Group and brings together the fundamental rules which must be scrupulously observed by all personnel, whether employees or the staff of contractors, in all the countries and business segments in which the Group is active. The aim of the Golden Rules is to set out simple, easy-to-remember rules that cover a large number of occupational accidents. The Stop Card system, which was set up in 2015, also enables any employee of the Group or a contractor to intervene if, for example, any of the Golden Rules are not being followed. Between 2019 and 2020, the Group also rolled out the "Our lives first: zero fatal accidents" program, comprising the introduction of joint safety tours with contractors, the incorporation into the permit to work process of a ritual to be performed prior to undertaking work at the Group's operated sites (Safety Green Light), and tools to step up on-site checks and assess compliance with safety rules for eight high-risk activities (working at height, lifting operations, work on process or powered systems, working in confined spaces, hot work, excavation work, manual cleaning using high pressure jets and Industrial cleaning using mobile pump and vacuum truck).

The correct implementation of the One MAESTRO reference framework, and more generally, of all the Group's occupational safety programs, is verified with site visits and **audits**. Contractors' HSE commitment is also monitored by means of a **contractors' qualification and selection process**. The reference framework states that for a contractor to be authorized to carry out high-risk work on a site operated by a Group subsidiary, its HSE management system needs to be certified by a recognized third-party body or be inspected for compliance. Since 2016, for contractors with a high number of hours worked, a Safety Contract Owner can be appointed from among the senior executives of Group segments or members of Executive Committees of Group subsidiaries to initiate high-level dialogue with the contractor's management and increase the level of commitment and visibility on HSE issues.

Preventive actions in the field of health, safety and the environment require all employees to adhere to the Group's HSE policies. To this end, the Group provides **training intended for various groups** (new arrivals, managers, senior executives and directors) in order to establish a broad-based, consistent body of knowledge that is shared by everyone:

- Safety Pass: these safety induction courses were started on January 1, 2018, for new arrivals within the Group. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical first-aid training sessions;
- HSE for Managers is aimed at current or future operational or functional managers within one of the Group's entities. This training program was revised in 2020. Four sessions were held in 2020 under the new format to train around 100 managers;
- Safety Leadership for Executives is intended for the Group's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Two sessions were held in 2020 to train around 40 of the Group's senior executives, representing around 15% of their total number. These sessions also included input from contractors' senior executives to facilitate the sharing of best practices and encourage the convergence of viewpoints on the most important aspects of safety culture.

In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. More than 120 evaluations were carried out in 2020.

In addition to training measures, the HSE division hosts **regular events on HSE-related topics**, with experts and specialists communicating a set of rules and good practices, internal and external, each month. The annual World Day for Safety is another key event. The theme in 2020 was "Our lives first: Joint safety tours with contractors". In addition, TOTAL encourages and promotes its subsidiaries' safety initiatives. Each year, a safety contest is organized and a prize is awarded to the best HSE initiative by a subsidiary.

Finally, safety, as a core value of TOTAL, has been a component of the **Group's employee compensation policy** since 2011 at all levels of the Group (refer to point 5.3.1.2 of this chapter).

In terms of **security**, the Group's policy aims to ensure that the Group's people, property and information assets are protected from malicious intent or acts. To achieve this, TOTAL relies on its Security division, which develops the Group's reference framework, oversees the security situation in the countries in which it operates in order to determine general security measures to be adopted (such as authorization to travel) and provides support for subsidiaries, particularly in the event of a crisis. The Group's security reference framework applies to all subsidiaries it controls. It provides that the security management system for subsidiaries must include the following stages: analysis of the threat, risk assessment, choice of a security posture, implementation of preventive or protective measures, control and reporting and then regular reviews. It must also comply with the requirements of local regulations. The framework requires each subsidiary to develop a security plan, operating procedures and an action plan. Within the framework of developing new activities, the Group's Security department specifies the organization and resources to be deployed in connection with the business segments.

In each country in which TOTAL operates, the Country Chair is responsible for the security of operations in the country. The Country Chair ensures the deployment of measures and resources, with the support of a Country Security Officer and subsidiaries' CEOs. Subsidiaries' management systems and security plans are checked on a regular basis by the Group's Security department or the Country Chair. Familiarization and training programs and a centralized system for reporting security events are organized by the Group's Security department.

5.4.3 Preventing transport accidents

In the field of **road transport**, the Group has for many years adopted a policy intended to reduce the number of accidents by applying standards that are, in some cases, more stringent than certain local regulations. This policy, defined in the One MAESTRO reference framework, applies to all the Group's personnel and contractors. For example, it includes a ban on telephoning while driving, even with a hands-free set, a ban on using motorized two-wheeled vehicles for business travel, mandatory training for drivers, and the definition of strict technical specifications for vehicles. Additional requirements are defined depending on the level of road traffic risks in the country in question and the nature of the activity. Thus, in countries with high road traffic risks, vehicles are equipped with recorders of driving inputs and the conduct of drivers is monitored. Since 2012, a large-scale inspection program of transport contractors has also been rolled out by Marketing & Services, the segment with the most road transportation within the Group, with the delivery of products to service stations and consumers. The program is gradually being extended to other business segments as needed. It calls on independent transport experts who inspect the practices and processes adopted by transport contractors with regard to the recruitment and training of drivers, vehicle inspections and maintenance, route management, and the HSE management system. After inspection, an action plan is adopted. If there is a serious shortcoming or repeated poor results, the transport company may be excluded from the list of approved transport contractors. Furthermore, a training center exist since 2015 in Radès in Tunisia. It offers transport training for employees of subsidiaries and road transport contractors working for the Group that are interested.

To measure the results of its policy, TOTAL has, for many years, been monitoring the number of severe road accidents involving its employees and those of contractors. The 40% reduction in the number of serious injuries between 2016 and 2020 is a testament to the efforts that have been made. In 2020, the number of serious road accidents involving light vehicles decreased significantly compared to 2019. A trend the Group is looking to confirm in 2021.

The projects launched in 2018 on the use of new technologies for the prevention of road accidents were continued in 2019 and 2020. In Marketing & Services, a new action plan has been introduced covering the fields of driver behavior, vehicles and preparation for emergency situations. In particular, the decision was taken to fit more than 2,500 vehicles with fatigue detection systems following conclusive tests performed over a period of several months. The roll-out of these systems is now nearing completion. In addition, the second part of the SafeDriver video campaign was launched in 2019 and is expected to continue until 2022. The subjects chosen for 2019 and 2020 were blind spots, tiredness and driving in difficult situations, as well as distractions when driving.

Number of severe road accidents[a]	2020	2019	2018
Light vehicles and public transport[b]	0	9	7
Heavy goods vehicles[b]	27	24	23

(a) Overturned vehicle or other accident resulting in the injury of an occupant (declared incident).
(b) Vehicles on long-term contract with the Group (> 6 months).

In **maritime and inland waterways transport**, the process and criteria for selecting ships and barges are defined by the Group's vetting. These criteria take into account not only the ship or barge but also the crew, ensuring that the crew has all the qualifications and training required under the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) convention. The vetting also verifies the application of the safety management system defined for ships by the ISM (International Safety Management) Code of the IMO (International Maritime Organization) as well as industry recommendations such as OCIMF (Oil Companies International Marine Forum) and SIGTTO (Society of International Gas Tanker and Terminal Operators) which take into account the human factor to prevent accidents to people on board ships or barges. In addition, TOTAL's chartering contracts require that the crew belong to a recognized trade union affiliated to the ITF (International Transport workers' Federation). The ITF represents the interests of transport workers' unions in bodies that make decisions about jobs, conditions of employment or safety in the transport sector, such as the International Labour Organization (ILO) or the International Maritime Organization (IMO).

With regard to **air transport**, a carrier selection process exists to limit the risks relating to travel by Group and contractor employees, if their journey is organized by TOTAL. This process is based on data provided by recognized international bodies: the International Civil Aviation Organization (ICAO), the IATA Operational Safety Audit (IOSA), the International Association of Oil and Gas Producers (IOGP), and civil aviation authorities recommendations. Airlines that do not have a rating from an international body are assessed by an independent body commissioned by the Group.

5.4.4 Preventing occupational health risks

With regard to the prevention of occupational health risks, the One MAESTRO framework provides that subsidiaries of the Group identify and assess risks at the workplace in the short, medium and long term. To do this, the framework provides application guides for implementation. The analysis of these health risks relates to chemical, physical, biological, ergonomic and psychosocial risks. This results in the roll-out of an action plan. An Industrial Health correspondent at each Group entity is identified and tasked with implementing the policy for identifying and assessing work-related health risks. Measures taken within this framework, included in entities' HSE action plans, can be audited as part of One MAESTRO audits.

In general, **potential exposure to chemical or hazardous products** at a site operated by a Group entity or nearby is one of the most closely monitored risks in view of the potential consequences. New facility construction projects comply with international technical standards from the design stage in order to limit exposure. For production sites operated by a Group entity and subject to this risk, the One MAESTRO reference framework sets out the prevention process in several stages. First, hazardous products such as carcinogenic, mutagenic or toxic to reproduction (CMR) products are listed and their risks identified. Second, potential exposure to levels that may present a risk to the health of personnel, contractors or local residents at the site or nearby are identified and assessed, and prevention or mitigation measures are implemented in order to control the risk. Last, the approach is checked (atmospheric checks, specific medical monitoring, audits etc.) in order to verify its effectiveness and implement improvement measures if necessary. This is also set out formally in a risk assessment file, which is revised regularly by the subsidiary.

In terms of preventing **psychosocial risks** (PSR), TOTAL has launched a global voluntary program that aims to support all employees exposed to such risks, wherever they are in the world. This program, spearheaded by the Group's Human Resources Division, the Group medical coordinator and a representative of each of TOTAL's business segments, has four priorities:

- a minimum level of awareness and training through the distribution of a PSR prevention kit, which has been translated into 11 languages and validated by international experts. This forms the starting point for all training activities;
- a single system for measuring individual stress and a collective assessment of the PSR factors in the working environment. This facilitates the production of action plans;
- a system for listening to and supporting all employees, irrespective of their location. Supervised by international experts and available in more than 50 languages, it provides, as far as possible, care and support to employees in their native language and in accordance with their specific cultural environment;
- regular monitoring of the indicators for enhanced control of the system. The implemented system guarantees anonymity, confidentiality and the security of personal data during the entire period of support.

All Group subsidiaries must ensure that they implement the Group's PSR prevention program or an equivalent local program. At December 31, 2020, 137 PSR points of contact contributed actively within their subsidiary to the implementation of these four priorities.

In terms of **medical monitoring**, the referential framework requires that each Group entity offers all employees a medical checkup at least every two years and sets out a formal medical monitoring procedure taking into account the requirements under local law (frequency, type of examination, etc.) and the level of exposure of its personnel to the various risks. Medical monitoring of employees is conducted at a health department, which may be internal (occupational health departments in France, clinics in five countries in Africa) or external. Furthermore, in view of its activities and exposure, TOTAL has an international medical department that designs, coordinates and supervises operational medical logistics abroad. It is the decision-making level in terms of medical safety of expatriate and national employees. It ensures the organization of aptitude assessments and medical monitoring of employees and their families living abroad, medical support for subsidiaries, audits of medical structures in countries where the Group operates, as well as issuing recommendations and coordinating medical evacuations.

To complement this program, TOTAL has set up an employee health observation committee to monitor the health of a sample of employees in order to identify the emergence of certain illnesses and, if applicable, suggest appropriate preventive measures. The data is gathered anonymously during medical examinations worldwide.

At the corporate level, TOTAL also has a Medical Advisory Committee that meets regularly to discuss key health issues relating to the Group's activities. It decides whether there is a need for additional health protection strategies to be implemented. It consists of external scientific experts and the Group's senior executives and stakeholders concerned by these issues. The theme for 2020 was the COVID-19 pandemic and in particular the measures taken by the Group while managing the crisis.

On a broader level, TOTAL also supports the **promotion of individual and collective health programs** in the countries where it operates, including vaccination campaigns and screening programs for certain diseases (AIDS, cancer, malaria, etc.) for employees, their families and local communities. It also develops employee benefit programs (refer to point 5.3.1.2 in this chapter), and regularly takes action to raise awareness of lifestyle risks (anti-smoking and anti-drinking campaigns, etc.). Every year, in order to share information on progress in the area of Industrial Hygiene, TOTAL holds a technical day of discussions on different subjects with the relevant business segments. In 2020, this event did not take place because of the COVID-19 pandemic.

TOTAL has put in place the following indicators to **monitor the performance** of its program:

Health indicators (WHRS scope)	2020	2019	2018
Percentage of employees with specific occupational risks benefiting from regular medical monitoring	97%	98%	98%[(a)]
Number of occupational illnesses recorded in the year (in accordance with local regulations)	136	128	154

(a) As an exception to the reporting principles described in point 5.11 of this chapter, the 2018 rate does not include a company that did not report its data in time for the 2018 WHRS.

Musculoskeletal disorders, the main cause of occupational illnesses in the Group, represented 53% of all recorded illnesses in 2020, compared to 67% in 2019 for the WHRS scope. The Group assesses ergonomic risks in accordance with a methodology defined above and offers employees training in prevention of musculoskeletal disorders.

In 2020, TOTAL organized itself to cope with the **COVID-19 pandemic**. This health crisis affected all the Group's entities. It differs from other crises in terms of its duration and its scale. It has resulted in significant measures being taken across a broad scope such as the repatriation of certain employees and their families, the introduction of quarantine procedures and the provision of personal protective equipment (face masks, gloves, hand sanitizer etc.).

As the pandemic developed, the countries concerned mobilized their local crisis teams (Singapore on January 24, 2020, China on January 25, 2020, etc.). A coordination unit was set up at the Group's head office on January 27, 2020, and a Group crisis management cell was created on March 10, 2020. As well as maintaining business continuity, this permanent structure was put in charge of:
- advising the Group's Executive Committee;
- ensuring coordination between all Group entities and sharing best practices;
- defining, in accordance with the rules of each country, conditions for effective protection of all employees' health;
- centralizing initially the procurement and distribution of consumables protective equipment;
- carrying out any necessary repatriations;
- devising a travel policy;
- proposing a procedure for gradually returning to the workplace, including screening capacity by means of virus testing and preparation of premises (signage, information panels, temperature readings, cleaning, regulation of restaurants etc.).
- running internal communications and preparing information for employee representatives;
- setting up a psychological support platform;
- carrying out periodic reporting.

On the basis of the Group's recommendations, subsidiaries have rolled out procedures to protect employees' health and business continuity in accordance with local conditions and applicable legislation. On July 1, 2020, the Group crisis management cell was turned into the Group crisis monitoring cell. Under the same conditions as the Group crisis management cell, the Group crisis monitoring cell worked on issues relating to the lifting of and return to lockdown (adoption of measures for working from home, adaptation of industrial site procedures, management of contact cases and vulnerable people, etc.). This structure is still operational and provides an ongoing response to the constraints of the pandemic.

5.4.5 Limiting risks for the health and safety of consumers

Unless certain precautions are taken, some of the petroleum or chemical products marketed by TOTAL pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the lifecycle of these products.

TOTAL has also defined the minimum requirements to be observed in order to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety datasheets that accompany the petroleum and chemical products marketed by the Group (available in at least one of the languages used in the relevant country), as well as product labels, are two key sources of information.

The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Group. The task of these teams is to ensure the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. They therefore draw up the material safety datasheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and ensure REACH registration if necessary. They also monitor scientific and regulatory developments and verify the rapid implementation of new datasheets and updates within Group entities.

Governance of the process is rounded off within the Group's business units or subsidiaries of the Refining & Chemicals and Marketing & Services segments with the designation of a product manager who ensures compliance during the market release of his or her entity's petroleum and chemical products. The networks of product managers are coordinated by the Group's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment.

The safety datasheets for oil and gas produced by the Exploration & Production and Integrated Gas, Renewables & Power subsidiaries are produced by the Marketing & Services expertise center. The compliance of the go-to-market process of these products is ensured by the subsidiary.

Finally, TOTAL has set up an intersegmental working group that works on the harmonization of practices and classifications for the petroleum and chemical products common to the different segments, as well as on the development of good practices.

5.5 Environmental challenges

TOTAL places the environment at the heart of its ambition of being a responsible company. The specificities of the Group's activities incur environmental risks, for which TOTAL has developed a structured management policy.

The Group has therefore identified its main environmental risks:
– risk of accidental pollution;
– environmental risks that would arise in the event of a liquid, gas or solid discharge or unsustainable use of natural resources;
– risk of damage to biodiversity and ecosystems during projects and operations, especially those located in sensitive natural environments;
– environmental risks associated with the production of final waste.

Environmental risks and challenges are identified as part of a dynamic process that draws on the Group's expertise and lessons learned, which are included in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations). To address its risks, TOTAL relies on the HSE division, which forms part of the People & Social Responsibility division, whose President is a member of the Executive Committee.

5.5.1 General policy and environmental targets

In keeping with its Safety Health Environment Quality charter, TOTAL considers respect for the environment to be a priority. All employees, at every level, must do their utmost to protect the environment as they go about their work. TOTAL strives to control its energy consumption, its emissions in natural environments (water, air, soil), its residual waste production, its use of natural resources and its impact on biodiversity. TOTAL takes a constructive approach on this topic that is based on transparency and dialogue when communicating with its stakeholders and third parties.

With this aim, the HSE division manages in an integrated manner the environmental, safety, health and societal challenges related to the Group's operations. It coordinates the implementation of the Group's Health, Safety, Environment and Quality Charter by defining and monitoring the implementation of the One MAESTRO internal reference framework. This reference framework and the corresponding audits are described in point 5.4 of this chapter. The HSE division and the HSE departments within the Group's entities seek to ensure that both applicable local regulations and internal requirements resulting from the One MAESTRO reference framework and the Group's additional commitments are respected. Group steering bodies, led by the HSE division, are tasked with:
– monitoring TOTAL's environmental performance, which is reviewed annually by the HSE Committee and the Group's Audit Committee, for which multi-annual improvement targets are set;
– handling, in conjunction with the business segments, the various environment-related subjects of which they are in charge;
– promoting the internal standards to be applied by the Group's operational entities.

As a general requirement, the One MAESTRO reference framework states that the environmental management systems of the sites operated by the Group that are important for the environment[1] must be ISO14001 certified within two years of start-up of operations or acquisition: 97% of these 79 sites were compliant in 2020. The non-compliant sites are the Lapa site in Brazil, which should be certified in 2021, and the Kaombo Norte site in Angola, whose certification has been postponed to 2021 due to the COVID-19 pandemic. In addition to this requirement,

(1) Production subsidiaries of the Exploration & Production segment, sites producing more than 250,000 tons per year in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas, Renewables and Power segment.

at year-end 2020, a total of 266 sites operated by the Group were ISO14001 certified. In 2020, 12 new sites received ISO14001 certification. Internal requirements also stipulate that all projects submitted to the Group's Risk Committee must be assessed and reviewed for risk and potential impact, particularly environmental, before the final investment decision is made.

The One MAESTRO reference framework also includes specific requirements covering the Group's various environmental risks (refer to points 5.5.2 to 5.5.5 of this chapter).

The Group's environmental progress targets[a]:

- reduce sulfur dioxide (SO_2) emissions into the air by 50% between 2010 and 2020;
- valorize more than 50% of the waste produced by sites operated by the Group;
- maintain the hydrocarbon content of water discharges below 30 mg/l for offshore sites and below 15 mg/l for onshore and coastal sites;
- implement the biodiversity ambition according to the 4 areas presented in point 5.5.4 of this chapter.

(a) For targets relating to climate, refer to point 5.6 of this chapter.

What has been accomplished:

- more than 50% reduction in sulfur dioxide (SO_2) emissions into the air since 2017;
- more than 50% of the waste produced by sites operated by the Group was valorized in 2020;
- 100% of the Group's oil sites have met the quality target for onshore discharges since 2016 and 100% of the Group's oil sites have met the quality target for offshore discharges in 2020;
- six biodiversity action plans deployed or in preparation in 2020;
- no oil and gas exploration or production activity in the area of natural sites listed on the UNESCO World Heritage List;
- no exploration activity in oil fields under sea ice in the Arctic.

TOTAL seeks to ensure that all employees share its environmental protection requirements. Employees receive training in the required skills (refer to point 5.4.2 of this chapter).

TOTAL also raises employee awareness through internal communication campaigns (e.g., in-house magazines, intranet, posters).

5.5.2 Preventing risks of accidental pollution

To prevent accidental risks and, in particular, major spills that could reach the environment, TOTAL implements appropriate risk management policies. Point 5.4.1 of this chapter describes the management measures covering the design and construction of facilities and any changes to existing facilities, as well as operations. It also describes the measures taken to control the integrity of facilities over time.

For its sea and river shipment requirements, TOTAL only charters ships and barges that meet the highest international standards. The Group has an internal policy that lays down the process and criteria by which ships and barges are selected (known as vetting). These criteria are based, in particular, on the regulations, the best practices and recommendations of the OCIMF[1] and, in Europe, on the European Barge Inspection Scheme (EBIS). Tankers and barges are vetted by a single centralized Group entity. The average age of the TOTAL Shipping division's time-chartered fleet is approximately seven years.

The Group's operated marine terminals have completed the consolidation of their physical characteristics in the global database that forms part of the OCIMF's Marine Terminal Information System (MTIS), which will make it easier to assess ships' compatibility with ports of call. Additionally, TOTAL encourages all operated terminals to use the Marine Terminal Management and Self-Assessment (MTMSA), the framework recommended by the industry to terminal operators to ensure continuous improvement in the safety of their operations. A training course on checking safety conditions of the ship/shore interface (SSSCL – Ship Shore Safety Check List) and cargo transfer operations was made a requirement of the One MAESTRO reference framework in October 2020. At year-end 2020, 90% of operated terminals had operators who had already undergone this training.

In order to manage a major accidental spill efficiently, TOTAL has implemented a global crisis management system that is described in point 5.4.1 of this chapter. For the sites operated by the Group exposed to the risk of accidental spills that reach the surface water, this system is supplemented by requirements of the One MAESTRO reference framework. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Group recommendations. The Group companies can call on in-house human and material resources (FOST – Fast Oil Spill Team) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbon spills.

For the oil and gas Exploration & Production activities, since 2014, subsea capping and subsea containment equipment that can be transported by air has been strategically positioned at various points of the world (South Africa, Brazil, Norway and Singapore). This equipment provides access to solutions that are more readily available in the event of oil or gas blowout in deep offshore drilling operations. From these locations, the equipment can benefit TOTAL's operations worldwide. This equipment was developed by a group of nine oil companies, including TOTAL, and is managed by Oil Spill Response Ltd (OSRL), a cooperative dedicated to the response to marine pollution by hydrocarbons. Since 2018, equipment to facilitate shallow water capping operations, Offset Installation Equipment (OIE), has been positioned in Trieste, Italy. Managed by OSRL, it can be transported by air or boat to anywhere in the world as necessary.

TOTAL has also designed and developed its own capping system ("Subsea Emergency Response System") to stop potential blow-out in drilling or production operations as quickly as possible. Since 2015, equipment has been installed in Angola and the Republic of Congo, covering the entire Gulf of Guinea region.

(1) OCIMF (Oil Companies International Marine Forum): An industry forum including the leading international oil companies. This organization manages the Ship Inspection Report (SIRE) Program, which holds and provides access to tanker and river barge inspection reports (BIQ – Barge inspection Questionnaire).

Oil spill preparedness	2020	2019	2018
Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water[a]	119	128	126
Proportion of those sites with an operational oil spill contingency plan	100%	100%	99%
Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities	88%	85%[b]	86%

(a) The variation in the number of sites is due to changes in scope.
(b) The 2019 value was revised in order to account only for impediments following a decision by the authorities

In accordance with industry best practices, TOTAL monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed on a monthly basis and annual statistics are sent to the Group Performance Management Committee. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible.

Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage	2020	2019	2018
Number of spills	50	57	74
Total volume of spills *(thousands of m³)*	1.0	1.2	0.3

Following the rupture of the Île-de-France Pipeline (PLIF) in Autouillet in 2019, remediation works were completed in 2020. The topsoil has been reconstituted using agronomically compatible regional mineral and vegetal soil and sewn with selected seeds in order to restructure the soil and prevent the establishment of invasive species while waiting for crops to regrow following a recovery period of one or two years. In spring 2020, vegetation returned to the streambanks equivalent to that present before the incident. The various areas are subject to regular environmental monitoring in order to check the biological and chemical quality over time.

5.5.3 Limiting the environmental footprint of the Group's sites

TOTAL implements a policy of avoiding, reducing, managing and monitoring the environmental footprint of its operations. As part of this policy, emissions are identified and quantified by environment (water, air and soil) so that appropriate measures can be taken to control them.

Water, air

The Group's operations generate emissions into the atmosphere from combustion plants and the various conversion processes and discharges into wastewater. In addition to complying with applicable legislation, TOTAL has drawn up rules and guidelines that the Group's subsidiaries can use to limit the quantities discharged. TOTAL has set itself targets for reducing sulfur dioxide (SO_2) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites can introduce various reduction systems that include organizational measures (such as using predictive models to control peaks in sulfur dioxide (SO_2) emissions based on weather forecast data and the improvement of combustion process management, etc.) and technical measures (wastewater treatment plants, using low NO_x burners and electrostatic scrubbers, etc.). To date, all refineries wholly owned by the Group have this type of system.

For new facilities developed by the Group, the internal rules require impact assessments to be carried out and, if necessary, actions must be taken to limit the impact of these emissions.

In 2010, SO2 emissions reached 99 kt. TOTAL has set itself the target of not exceeding 49.5 kt by 2020; it has met this target since 2017.

Chronic emissions into the atmosphere	2020	2019	2018
SO_2 emissions *(kt)*	34	39	48
NO_x emissions *(kt)*	64	72	66
NMVOC[a] emissions *(kt)*	69	83	81

(a) Non-methane volatile organic compounds.

SO_2 emissions that are likely to cause acid rain are regularly checked and reduced. The reduction in emissions in 2020 is mainly due to a decrease in activity at refining units relating to shutdowns and to the COVID-19 pandemic.

NO_x emissions mainly concern hydrocarbon exploration and production activities. They are primarily located offshore and far away from the coast and their impact on air quality is therefore considered to be minor.

Discharged water quality	2020	2019	2018
Hydrocarbon content of offshore water discharges *(in mg/l)*	12.8	13.0	14.1
% of sites that meet the target for the quality of offshore discharges *(30 mg/l)*	100%[a]	100%[a]	100%[a]
Hydrocarbon content of onshore water discharges *(in mg/l)*	1.9	1.7	1.8
% of sites that meet the target for the quality of onshore discharges *(15 mg/l)*	100%	100%	100%

(a) Alwynn and Gryphon sites (United Kingdom) excluded, as their produced water discharges only occur during the maintenance periods of the water reinjection system and are subject to a specific regulatory declaration.

Soil

The risks of soil pollution related to TOTAL's operations come mainly from accidental spills (refer to point 5.5.2 of this chapter) and waste storage (refer to point 5.5.5 of this chapter). TOTAL has drawn up a guide that the subsidiaries can use to prevent and contain this pollution. The recommended approach is based on four pillars:

- preventing leaks, by implementing, as far as possible, industry best practices in engineering, operations and transport;
- carrying out maintenance at appropriate frequency to minimize the risk of leaks;
- overall monitoring of the environment to identify any soil and groundwater pollution; and
- managing any pollution from previous activities by means of containment and reduction or elimination operations.

In addition, a Group rule defines the following minimum requirements:

– systematic identification of each site's environmental and health impacts related to possible soil and groundwater contamination;
– assessment of soil and groundwater contamination based on various factors (extent of pollution inside or outside the site's boundaries, nature and concentrations of pollutants, presence of a vector that could allow the pollution to migrate, use of the land and groundwater in and around the site); and
– management of health or environmental impacts identified based on the use of the site.

Lastly, decommissioned facilities operated by the Group (i.e., chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all the precautions taken, be sources of chronic or accidental pollution. In addition to the appropriate management of waste produced by the dismantling and securing of sites, TOTAL has created a policy to evaluate and manage the risks related to soil and groundwater pollution. For the sites at the end of their activity, the management of pollution is determined in accordance with regulatory obligations with an objective of continuing to control the use of the sites while favoring the possibility of redeveloping Group activities (solar, reforestation, etc.) and protecting biodiversity (priority 3 of the biodiversity ambition presented in point 5.5.2 of this chapter). Remediation operations are carried out by specialized entities created by the Group. At year-end 2020, 141 industrial sites that were no longer in operation (excluding service stations) were in the process of remediation.

The Group's provisions for the protection of the environment and site remediation are detailed in Note 12 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

Sustainable use of resources

Fresh water

The Group's activities, mainly those of Refining & Chemicals, and to a lesser extent those of the Exploration & Production and the Integrated Gas, Renewables & Power segments, may potentially have an impact on, as well as be dependent on, water resources, particularly when the activity concerned is located in a water resources sensitive environment.

Fully aware of these challenges, TOTAL implements the following water risk management actions:

– monitor water withdrawals to identify priority sensitive sites and then carry out a risk assessment;
– improve water resources management depending on identified needs, by adapting the priority sites' environmental management system.

In order to identify its facilities exposed to the risk of water stress, TOTAL records the withdrawal and discharge of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI[1] Aqueduct tool. In 2020, the Group's sites withdrew 105 million m^3 of fresh water, with net consumption of 75 million m^3. Half this volume was withdrawn in areas of high or extremely high water stress according to the WRI definition, i.e. areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. According to the CDP Water definition, these withdrawals represent 9.6% of the overall Group's water withdrawals (including brackish water and seawater). For priority sites defined as those located in water stress areas and withdrawing more than 500,000 m^3 per year, TOTAL assesses water resources risk levels using, in particular, the Local Water Tool (LWT) for Oil & Gas from the Global Environmental Management Initiative (GEMI). This tool also helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary.

This risk assessment establishes that the activities of the sites operated by the Group expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TOTAL sites for which the water supply could be cut in order to maintain access to water for priority users. In 2020, TOTAL responded to the CDP Water survey for the 2019 period and was, for the third consecutive year, graded A-. The main indicator used in this reporting is fresh water withdrawal.

Water-related indicator	2020	2019	2018
Fresh water withdrawals excluding cooling water *(million m^3)*	105	115	116
Fresh water consumption *(million m^3)*[(a)]	75	–	–

(a) Indicator disclosed for 2020 with no historical data.

The decrease in the volume of freshwater withdrawals is largely related to a reduction in activity due to the COVID-19 pandemic.

Soil

TOTAL uses the ground surface that it needs to safely conduct its industrial operations.

Worldwide, biofuels used by the Group meet sustainability requirements as per regulations in force. TOTAL produces and markets biofuels partly produced from agricultural raw materials. All the biofuels incorporated by the Group in Europe are certified as sustainable ISCC EU type certification according to a mass balance system required by the European Union. This certification impose criteria for the oils' sustainability and traceability (carbon footprint, non-deforestation, proper land use, respect for human rights). These criteria apply to the entire production and distribution chain for sustainable biofuels and were tightened in 2019 when the Directive on renewable energy in transport was revised. The European Union caps, in particular, the use of agricultural feedstocks in biofuels to limit changes in land use.

In July 2019, TOTAL started up the La Mède biorefinery in France that is expected to produce biofuels that are 60-70% vegetable oils (rape, palm, etc.) and 30-40% waste and residues. TOTAL has selected a limited number of palm oil suppliers and completes its certification compliance with a specific strengthened control system for sustainability and respect for human rights. In September 2020, TOTAL announced a plan to convert its Grandpuits refinery into a zero-crude platform with a biofuel production plant using mainly waste and residues (animal fats and used cooking oil), as well as vegetable oils other than palm oil.

(1) World Resources Institute.

5.5.4 Managing impacts on biodiversity and ecosystems during projects and operations

The planet's rich biodiversity is under threat. TOTAL's inclusion of biodiversity goes back some time, but the current degradation of the environment is a reality that requires us all to make a major change, collectively and individually. For this reason, TOTAL is now stepping up its biodiversity ambition and commitments, and this will contribute to the Group's ambition to be the company of responsible energies.

Patrick Pouyanné, Chairman and Chief Executive Officer, TOTAL.

Aware of the need to protect the nature on which humanity depends, TOTAL ensures that biodiversity is taken into account in all its operations, based on its Health, Safety, Environment and Quality Charter. In 2016, the Group pledged to contribute to the success of the United Nations' Sustainable Development Goals (SDGs), including those relating to biodiversity. In 2018, TOTAL signed up to the Act4Nature initiative promoted by the French Association of Enterprises for the Environment, now Act4Nature international.

In 2020, TOTAL has set itself a new biodiversity ambition to coincide with the preparation of the United Nations' global biodiversity plan, which aims to protect global biodiversity and updates its public commitments in this field (sustainable-performance.total.com). This ambition is based on four core principles: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing sites and sites ceasing their activities, (4) promoting biodiversity. This new Ambition was incorporated in the One MAESTRO framework of the Group.

This ambition is currently being rolled out. An internal and external communications plan has been drawn up and deployed in the Group business segments and R&D. A series of webinars open to all of the Group's HSE personnel has been held in order to raise awareness about the new Ambition. A number of specific meetings to present this Ambition to the Group's external partners have been held and allowed their viewpoints and recommendations to be heard.

An overview of the steps already taken under the four main areas of the new biodiversity Ambition is provided in the table below.

Biodiversity Ambition

1. Voluntary exclusion zones: – the Group has made a commitment to recognize the universal value of UNESCO's world natural heritage sites, by not conducting oil and gas exploration or production activity in these areas.	**What has been accomplished:** – This commitment is respected.
– TOTAL has also made a commitment not to conduct any exploration activity in oil fields under sea ice in the Arctic.	– The Group publishes a list of its licenses in the Arctic on its website sustainable-performance.total.com. In 2020, the Group did not conduct any exploration activity in oil fields under sea ice in the Arctic.
2. New projects: A biodiversity action plan (BAP) is developed for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in a IUCN Protected area I or II or a Ramsar area, the Group commits to implement measures to produce a net positive impact (gain) on biodiversity.	**What has been accomplished:** A biodiversity action plan has been put in place for all operated production sites located in the most sensitive protected areas, corresponding to the IUCN I to IV and Ramsar areas, some of which have a target of a net gain. In 2020, this concerned six projects, two of which are aligned with the performance standards of the World Bank's International Finance Corporation. These are: – The BAP for the existing oil terminal in Djeno (Republic of the Congo), located in a Ramsar area, was developed in 2015 and is continuing to be rolled out. – The BAP for the existing onshore oil terminal in Tempa Rossa (Italy), for which the concession partly overlaps an IUCN II area, was developed in 2019 and is continuing to be rolled out. – The BAP with net gain for the Tilenga project (oil production, Uganda), partly located in an IUCN II area, is 100% complete and implementation is due to begin following the final investment decision. Some measures have already been taken proactively. – The BAP with net gain for the EACOP pipeline project (oil transportation, Tanzania), crossing an IUCN II area is under completion and implementation is due to begin following the final investment decision associated with the decision for the Tilenga project. Some measures have already been taken proactively, such as actions relating to protecting chimpanzees. This BAP has a target of a net gain as it is aligned with the performance standards of the World Bank's International Finance Corporation. – Preparation of the BAP for the existing Eole La Perrière onshore wind farm (Reunion Island, France) has begun as part of the site's redevelopment. – Preparation of the BAP for the existing Helio La Perrière onshore solar field (Reunion Island, France) has begun as part of the site's redevelopment.

3. Existing sites:
A biodiversity action plan will be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant site (Exploration & Production production sites, refineries, petrochemicals sites, gas-fired power stations) which is ISO14001 certified. TOTAL will report on its deployment to the various stakeholders. When a site stops its operations, TOTAL is also committing to considering the development of a dedicated area rich in biodiversity (e.g. rare species habitats, biodiversity sanctuaries, etc.) as one of the options for its rehabilitation.

What has been accomplished: Planning of the program is under way, particularly with regard to the preparation of the 14 biodiversity diagnostics exercises expected in 2022.

Concerning the creation of biodiversity-rich zones (habitats for rare species, biodiversity sanctuaries etc.) as one of the options for restoring sites that have ceased to operate, an initial zone has been created with a reptile habitat on the banks of the river Garonne. Around ten other sites have been identified and will be subject to a similar process.

4. Promotion of biodiversity:
- As part of the Total Foundation's Climate, Coastal and Oceans program, TOTAL wish to support biodiversity-related awareness programs, youth education and research actions.
- TOTAL also commits to sharing biodiversity data collected as part of environmental studies on Group projects with the scientific community and the general public.

What has been accomplished: Total Foundation supports the IUCN's Blue Natural Capital Financing Facility (BNCFF) general interest initiative. The aim of the BNCFF initiative is to improve coastal conservation projects in order to achieve environmental, social and economic benefits.

In order to continue sharing its biodiversity data and tools with the scientific community, the Group has joined the international Global Biodiversity Information Facility (GBIF). The first input data concerns the Group's projects in Angola and Guyane Maritime. The data published by TOTAL has been downloaded more than 400 times, with a total of 84,000 single data views, and in mid-2020 this data was already cited in three scientific publications. TOTAL is the first major to join GBIF.

In addition, Oxford University in the United Kingdom (Long Term Ecology Laboratory), TOTAL and Equinor launched a collaboration program in 2018 with the aim of developing a tool for screening of marine biodiversity sensitivities. The tool has now been finalized and is available online for industry, the public sector and NGOs[1].

Lastly, the Group has a number of R&D programs relating to biodiversity. These include the development with UNEP WCMC[2] of a biodiversity impact indicators methodology that can be consolidated at Group level, the development of an operational catalogue for nature-based solutions, work on mapping areas vulnerable to climate change and opportunities offered by the Group's sites in terms of ecological corridors.

5.5.5 Promoting the circular economy

Between 2017 and 2020, TOTAL rolled out a range of actions that includes targets for progress in various areas:
- valorizing more than 50% of the waste produced by sites operated by the Group;
- incorporating a criterion dedicated to the circular economy into the company's purchasing.

Additionally, TOTAL has set itself the target of:
- producing 30% of its polymers from recycled materials by 2030.

What has been accomplished:
- more than 50% of the waste produced by sites operated by the Group subsidiaries was valorized in 2020;
- production of 20,000 tons of recycled polypropylene per year and, further to the conclusive industrial-scale tests, creation and marketing of around 15 grades of polyethylene, polypropylene and polystyrene compounds containing up to 50% of recycled materials.

With regard to food waste and food poverty, TOTAL's activities pertaining to food distribution are minor and are therefore not directly affected by these issues.

Waste prevention and management

Regarding waste in particular, a Group rule lays down a number of minimum waste management requirements, which limit the potential risks associated with the improper management of waste. Waste management is carried out in four basic stages: waste identification (technical and regulatory); waste storage (soil protection and discharge management); waste traceability, from production through to disposal (e.g., notes, logs, statements); and waste treatment, with technical and regulatory knowledge of the relevant processes, under the site's responsibility.

The Group's companies are focused on controlling the processing of waste produced by all operated sites, at every stage of their operations. This approach is based on the following four principles, listed in decreasing order of priority:
- reducing waste at source by designing products and processes that generate as little waste as possible, as well as minimizing the quantity of waste produced by the Group's operations;
- reusing products for a similar purpose in order to prevent them from becoming waste;
- recycling residual waste;
- valorizing non-recycled products wherever possible.

(1) LEFT Marine (Local Ecological Footprint Tool).
(2) World Conservation and Monitoring Center of the United Nations Environment Program (UNEP).

In 2020, active sites operated by Group subsidiaries generated 501 kt of waste, including 198 kt of hazardous waste. TOTAL's target is to reuse more than 50% of the waste produced by these sites. This target was achieved in 2020:

Group waste overview[(a)]	2020	2019	2018
Non-hazardous waste *(kt)*	303	375	379
Valorized non-hazardous waste[(b)] *(kt)*	190	240	219
Hazardous waste *(kt)*	198	288	194
Valorized hazardous waste[(b)] *(kt)*	107	190	110

Waste treatment processes[(a)]	2020	2019[(d)]	2018
Valorization (recycling, material and energy recovery)[(b)]	59%	65%	57%[(c)]
Landfill	12%	15%	18%
Other (incineration without valorization, biotreatment without valorization etc.)	29%	20%	25%

(a) Excluding drilling cuttings, excluding sites that have ceased operations and are in the process of being remediated.
(b) Valorization includes recycling, material recovery and energy recovery.
(c) Valorization rates for 2018 exclude excavated soil within the scope of the Port Arthur Ethan Cracker project. This was exceptional non-hazardous waste associated with the construction of a new facility that was used as soil cover in a landfill. Refer to point 5.11 of this chapter for the scope of reporting.
(d) The tonnages of waste from 10 Hutchinson sites were estimated in 2019 based on their 2018 reporting. Waste from those 10 sites represented around 1% of the Group's total tonnage in 2018.

The decrease in the valorization rate in 2020 is mainly due to the drop in activity of the Refining & Chemicals segment linked to the COVID-19 pandemic and the end of soil remediation works of the Île-de-France pipeline.

Since 2015, all the Refining & Chemicals segment's plastic production sites worldwide have taken part in the Operation CleanSweep® program. Operation CleanSweep® is an international program that aims to avoid losses of plastic pellets during handling operations by the players in the plastics industry, to prevent their reaching the aquatic environment (zero pellet loss). Since 2015, the program has been deployed at all polymer sites in the Refining & Chemicals segment.

Additionally, TOTAL is a founding member of the Alliance to End Plastic Waste, launched in 2019 and consisting of 80 companies in the plastics and consumer goods value chain. The Alliance's objective is to finance, to the extent of $1.5 billion over five years, the development of solutions for the reduction and processing (reuse, recycling and recovery) of used plastics in the environment, particularly in the oceans. To date, 17 partnerships have already been established.

Developing polymers from recycled plastics

TOTAL has made a strong commitment to plastics recycling and aims to produce 30% of its polymers from recycled materials by 2030. To this end, the Group has launched a number of projects and partnerships, including specifically in 2020:

- in May 2020, TOTAL signed an agreement with PureCycle Technologies to develop a strategic partnership in plastics recycling. Under this agreement, TOTAL has made a commitment to buy some of the production of the future PureCycle Technologies plant in the United States and assess the opportunity to jointly develop a new plant in Europe;
- in September 2020, TOTAL decided to convert its Grandpuits refinery into a zero-crude platform. By 2024, thanks to investment of over €500 million, it is planned that the platform focuses on new industrial activities including bioplastics production and plastics recycling. The bioplastics plant will be built by TOTAL Corbion PLA, a joint venture equally owned by TOTAL and Corbion. It will be the first European plant producing PLA, a recycled and 100% biodegradable plastic. The plastics recycling plant will be built with Plastic Energy and will be 60% owned by TOTAL and 40% by Plastic Energy. It will be the first chemicals recycling plant in France. Based on innovative recycling technology, the plant will be able to convert plastic waste by means of a pyrolysis process which melts plastic into a liquid called Tacoil. The Tacoil will be used as a feedstock for making polymers with the same qualities as virgin polymers. These will be suitable for food contact, a particularly sought-after criterion for food packaging companies. With processing capacity of 15,000 tons of plastic waste per year, it is due to be commissioned in 2023 and will help to achieve the target set by TOTAL for 2030.

Furthermore, in order to improve the properties and therefore the use of recycled plastics, TOTAL is already working on all types of plastics recycling:

- in the field of mechanical recycling, in 2019 TOTAL acquired Synova, France's leading producer of high-performance recycled polypropylene for the automotive industry. At the same time, TOTAL announced its decision to double Synova's production capacity to about 40,000 tons of recycled polypropylene per year by 2021;
- in December 2019, TOTAL joined forces with Citeo, an environmental organization involved in packaging, plastic recycling technology provider Recycling Technologies, Nestlé and Mars, world leaders in the food industry, to develop an innovative chemicals recycling industry in France. This unique consortium is examining the technical and economic feasibility of recycling complex plastic waste, such as small and soft packaging, or multi-layer packaging. Today, these products are considered to be non-recyclable and are incinerated or disposed of on landfill sites;
- TOTAL produces circular compounds that contain at least 50% of recycled materials and possess the same properties as virgin polymers. More than 15 grades of polyethylene, polypropylene and polystyrene compounds containing up to 50% of recycled materials are already marketed.

Lastly, the Group is working on diversifying its supply sources, in particular those that are bio-based. TOTAL is one of the world leaders in bioplastics. Total Corbion PLA owns a plant in Thailand with capacity of 75,000 tons per year of PLA, which began operations in 2019.

5.6 Climate change-related challenges (as per TCFD recommendations)

TOTAL supports the objectives of the Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and eradicating poverty, and which aims to hold the increase in the planet's average temperature to well below 2°C above pre-industrial levels. To achieve these targets, the world's energy systems need to be transformed. This dual challenge consisting of providing more energy for all with less carbon emissions concerns the society as a whole, with governments, investors, companies and consumers all playing an important role.

In tackling the climate challenge, TOTAL, that proposes to its shareholders in 2021 to become TotalEnergies, has set itself the ambition of being the company of responsible energies. TOTAL's aim is to provide energy that is more available, more affordable, cleaner and accessible to as many people as possible. In this context, the Group's ambition is to reach carbon neutrality (net zero emissions) by 2050 together with society for all its operations.

5.6.1 Governance

TCFD correspondence table

Theme	Recommended TCFD disclosures
Governance Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities. b) Describe management's role in assessing and managing climate-related risks and opportunities.

In order to make an effective contribution to the climate change issue, TOTAL relies on an organization and structured governance.

In support of the Group's governance bodies, the Strategy and Climate division shapes the Group's approach to climate change while working with the strategic and operational divisions of the Group's business segments. By defining and monitoring indicators, progress can be measured and the Group's actions can be adjusted (details of the indicators used are provided in point 5.6.4 of this chapter).

Oversight by the Board of Directors

TOTAL's Board of Directors endeavors to promote value creation by the Company in the long term by taking into consideration the social and environmental challenges of its business activities. It determines the Group's strategic objectives and regularly reviews – in connection with these strategic objectives – opportunities and risks such as financial, legal, operating, social and environmental risks, as well as the measures taken as a result. It therefore ensures that climate-related issues are incorporated into the Group's strategy and in the investment projects which are submitted to it. It examines climate change risks and opportunities during the annual strategic outlook review of the Group's business segments. It reviews the Group's performance each year.

At its meeting on May 4, 2020, the Board of Directors approved the Group's new Climate ambition to get to net zero carbon emissions by 2050 together with society, and determined the relevant steps and targets for reducing the Group's greenhouse gas emissions (GHG). These targets were supplemented in September 2020 with TOTAL's announcement of absolute targets for cutting Scope 3 emissions[1], with the aim of reducing Scope 3 emissions in Europe by 30% by 2030 compared to 2015, in absolute terms, and a commitment to reduce the level of Scope 3 emissions worldwide by 2030 relative to 2015, despite growth in energy demand from its customers during the decade to come.

To carry out its work, the Board of Directors relies on its Strategy & CSR Committee, whose rules of procedure were changed in September 2017, and again in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Group's strategy. In this regard, the Strategy & CSR Committee meton October 28 and October 29, 2020, to review current climate issues as well as their consequences for the Company's strategy. On this occasion, the Board of Directors engaged in a dialogue with Mrs. Christiana Figueres, the executive secretary of the United Nations Framework Convention on Climate Change (UNFCCC) between 2010 and 2016 and co-founder of the Global Optimism organization.

Furthermore, the Board of Directors decided in 2019 to change the criteria for the determination of the variable portion of the Chairman and Chief Executive Officer's compensation, primarily by applying a quantifiable criterion related to the evolution of GHG emissions (Scopes 1 & 2) on operated oil & gas facilities (refer to point 4.3.2 of chapter 4). This criterion adds to those introduced in 2016 to take better account of the achievements of Corporate Social Responsibility (CSR) and HSE targets of the Group. CSR performance is assessed by considering the extent to which climate issues are included in the Group's strategy, the Group's reputation in the domain of CSR as well as the policy concerning all aspects of diversity. Variable compensation paid to the Group's senior executives (around 300 people at year-end 2020) includes a criterion relating to the target of reducing greenhouse gas emissions (Scopes 1 & 2) and, since 2020, this target has also been included in the criteria for awarding performance shares to all employees of the Group. At its meeting on March 17, 2021, the Board of Directors decided to introduce a new criterion to grant performance shares related to the evolution of GHG emissions related to the use by customers of energy products sold for end use (Scope 3) in Europe.

(1) Indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3).

Role of management

TOTAL's Chairman and Chief Executive Officer, in compliance with the long-term strategic direction set by the Board of Directors, implements the strategy of the Group while making sure climate change challenges are taken into account. In particular, he relies on the President, Group Strategy-Innovation, who is a member of the Executive Committee, to whom the Senior Vice President Strategy & Climate, and his Vice President Climate report. The Vice President Climate chairs the Climate-Energy steering Committee, which mainly includes representatives of Strategy and HSE management from the various business segments. The mission of this Committee consists of structuring the Group's approach to the climate, and in particular to:

– propose targets for reducing greenhouse gas emissions for the Group's operations;
– propose a strategy to reduce the carbon intensity of the energy products used by the Group's customers;
– monitor existing or emerging CO_2 markets; and
– drive new technology initiatives, in particular with industrial partners, to reduce CO_2 emissions (energy efficiency, CO_2 capture and storage, for example).

5.6.2 Strategy

TCFD correspondence table

Theme	Recommended TCFD disclosures
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Identification of climate-related risks and opportunities

The risks and opportunities related to climate change are analyzed according to different timescales: short term (two years), medium term (until 2030) and long term (beyond 2030).

The identification and the impact of climate-related risks form an integral part of TOTAL's global risk management processes. In particular, they cover the risks related to transition including those due to regulatory changes, such as the introduction of carbon taxes, as well as the physical risks due to the effects of climate change. The impact of these risks is analyzed for the Group's assets and for investment projects (refer to point 3.1.2 of chapter 3).

To achieve carbon neutrality, the energy mix will need to change and in view of this, climate change also provides TOTAL with opportunities. In the coming decades, demand for electricity will grow faster than the global demand for energy(1), and the contribution of renewables and gas to the production of electricity will therefore play an essential role in the fight against climate change. Electricity alone will not be sufficient to meet all needs, particularly those connected to transport. Gas and sustainable biofuels will be attractive and credible alternatives to conventional fuels and the Group intends to develop them. Controlling methane emissions and reducing Scopes 1 & 2 emissions will be essential in natural gas production; the latter could also be accompanied by increasing use of biogas and hydrogen.

Helping customers improve their energy efficiency also offers opportunities and forms part of a trend that will be accelerated by digital technology. TOTAL intends to innovate in order to provide them with new product and service offers that will support their energy options and their usages. The Group aims to develop this approach for industrial and mobility applications.

In addition, ecosystems, and forests in particular, store carbon naturally. Consequently, their conservation and the restoration of their role as carbon sinks are crucially important in the fight against global warming. TOTAL therefore wants to develop its activities related to natural carbon sinks.

Finally, certain sectors, such as cement and steel, could struggle to reduce their GHG emissions. They will therefore require carbon capture, utilization and storage technology (CCUS). Consequently, the Group intends to step up the development of CCUS.

Impact of climate-related risks and opportunities

The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, therefore, TOTAL has factored this development into its strategy and set itself the ambition to achieve carbon neutrality (net zero emissions) by 2050 from its production to the use of the energy products sold to its customers (Scopes 1, 2, 3), together with society.

TOTAL actively supports policies in favor of carbon neutrality, including carbon pricing, and mobilizes its resources not only to achieve its own ambitions but also to support countries and its customers in achieving carbon neutrality as well. TOTAL is committed to working alongside its customers to provide for the decarbonization of energy consumption offering an energy mix with an increasingly lower carbon intensity.

To accompany this development and achieve its carbon neutrality ambition (net zero emissions) in 2050 or sooner, for all its worldwide activities, TOTAL acts based on three main axes and commits to targets by 2030 for each of them:

– Achieve in 2050 or sooner carbon neutrality (net zero emissions) for TOTAL's worldwide operated activities (Scopes 1 & 2) with interim targets to reduce GHG emissions (Scopes 1 & 2) of its operated oil & gas facilities from 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e by 2025 (a 15% decrease), then for 2030, to reduce by at least 40% compared to 2015 the net emissions(2) (Scopes 1 & 2) for the oil & gas operated activities;
– Achieve carbon neutrality (net zero emissions) worldwide for indirect GHG emissions related to the use by its customers of energy products sold for end use (Scope 3) in 2050 or sooner. This axis requires for TOTAL working actively with its customers, since this means they will reduce their direct emissions (Scopes 1 & 2) that correspond to TOTAL's indirect Scope 3 emissions and that they are also targeting carbon neutrality. TOTAL has set itself targets for 2030

(1) IEA, World Energy Outlook 2020.
(2) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.

that the average carbon intensity of energy products used worldwide by TOTAL customers is reduced by more than 20% compared to 2015 and that the level of the worldwide emissions of Scope 3 related to the use by its customers of energy products sold for end use is lower in absolute terms compared to the level of 2015, despite the growth in its energy production in the coming decade. TOTAL is the only major actor to date to have undertaken such a commitment.

– Achieve carbon neutrality (net zero emissions) in Europe[1] from the production to the use by its customers of energy products sold for end use in 2050 or sooner (Scopes 1, 2, 3). Given that, for the Company, Europe currently accounts for about 60% of TOTAL's indirect GHG emissions related to the use by its customers of energy products sold by the Group for end use (Scope 3) and that Europe has set ambitious targets for 2030 towards carbon neutrality, TOTAL wants to actively contribute to this ambition for Europe. The Group has set the interim target of cutting indirect Scope 3 emissions related to the use by customers of the energy products sold for end use, in Europe by at least 30% by 2030, in absolute terms, compared to 2015, which represents a major step to being carbon neutral in 2050. This 30% reduction target is extended to all the Scopes 1, 2, 3 emissions in Europe.

To structure its approach, the Group is focusing on four levers: acting on emissions, acting on products, acting on customer demand and developing carbon sinks.

1) Acting on emissions

Cutting GHG emissions generated by TOTAL's operations (Scopes 1 & 2) is the first step towards carbon neutrality (net zero emissions). TOTAL has set an interim target of reducing Scope 1 and 2 emissions from its operated Oil & Gas facilities from 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e by 2025 (15% reduction). For 2030, the target is to reduce by at least 40% the net emissions[2] compared to 2015 (Scopes 1 & 2) for its oil & gas operated activities. TOTAL is aiming to reduce its direct emissions by improving energy efficiency, eliminating routine flaring, electrifying its processes and continuing efforts to reduce methane emissions from oil and gas production. In 2019, a dedicated task force of different skills in the Group was set up to help the business segments reduce GHG emissions. More than 500 initiatives for acting on these emissions were identified in 2020.

Improving the energy efficiency of the facilities is an essential part of this effort. Since 2013, TOTAL has used a Group Energy Efficiency Index (GEEI) to assess its performance in this area. It consists of a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business. The Group's target is to improve the energy efficiency of its operated facilities by an average of 1% per year while operating conditions become more complex. The Group's energy efficiency improved by 10% between 2010 and 2020. The Refining & Chemicals segment, which accounts for 66% of the Group's energy consumption, has a dedicated investment of $450 billion to this between 2018 and 2025.

TOTAL also uses appropriate architectures and equipment and introduces technological innovations. For example, at the Gonfreville-l'Orcher complex in France, TOTAL has equipped its steam cracking furnaces with 170 wireless sensors to optimize their operation and has installed 30 temperature sensors on buildings to track the efficiency of the air conditioning system. At year-end of 2020, 50% of sites using more than 50,000 toe/y[3] (around 30 sites) had adopted an auditable energy management system, such as ISO 50001 on energy management[4].

Reducing routine flaring has been a long-standing Group target, and new projects are designed without it. TOTAL is committed to ending routine flaring at its operated facilities by 2030. Since 2010, routing flaring has been reduced by more than 90%.

To preserve the advantage of gas over coal in terms of GHG emissions from electricity generation, it is necessary to strictly reduce the methane emissions associated with the production and transportation of gas. The Group has cut its methane emissions by nearly 50% since 2010. In 2020, methane emissions in relation to Hydrocarbons Upstream activities were at 0.15% of commercial gas produced for oil and gas facilities operated by the Group[5] and less than 0.1% for gas facilities. The Group's target is to maintain this intensity below 0.2% and 0.1%.

TOTAL has been a member since 2014 of the United Nations Environment Program's Oil & Gas Methane Partnership (OGMP) between governments, industrial companies, non-government organization Environmental Defense Fund and the European Commission, for the improvement of tools to measure and control methane emissions. In 2020, TOTAL signed up to a new phase of this partnership defining a more ambitious reporting framework extended to the entire gas value chain and non-operated scope. TOTAL also took several actions as part of the Oil & Gas Climate Initiative and signed the guiding principles on the reduction of methane emissions on the gas value chain[6].

2) Acting on products

The Group intends to gradually reduce the average carbon footprint of its energy product mix and, to do this, change this mix to ensure that gas and renewable energies figure more prominently.

Natural gas, biogas and hydrogen: allies of the energy transition

To respond responsibly to the strong rise in demand for electricity, TOTAL is continuing its growth in the gas sector, which produces half the CO_2 emissions of coal for power generation[7]. Gas is also a supplement that is essential to cope with the intermittent supply of renewables and seasonal fluctuations in demand.

The Group has continued its efforts to grow along the entire gas chain, from production to the end customer, particularly in LNG. TOTAL acquired Engie's LNG assets in 2018 and those of Anadarko in Mozambique in 2019, and has launched some major LNG projects, such as Ichthys in Australia (2018) and Cameron in the United States (2019). In addition, the Group has proceeded with or benefited from the launch of major developments, like the Arctic LNG 2 project (in Russia) in 2019 and the Energía Costa Azul LNG export project (in Mexico) in 2020 (refer to point 2.3 of chapter 2). TOTAL is the LNG world's second-ranking[8] player with a volume sold of more than 38 Mt in 2020, and it aims to increase its sales to 50 Mt per year by 2025.

(1) Europe refers to the European Union, Norway, the United Kingdom and Switzerland.
(2) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.
(3) Combined-cycle natural gas power plants are power generation facilities whose gas consumption is optimized for maximum efficiency. These installations benefit from efficient energy management and do not require the implementation of a specific energy management system.
(4) The ISO 50001 standard accompanies the implementation in companies of an energy management system that allows a better use of energy.
(5) Refer to the OGCI methodology for methane intensity calculation.
(6) Guiding Principles on Reducing Methane Emissions across the Natural Gas Value Chain".
(7) Sources: International Reference Center for the Life Cycle of Products, Processes and Services; Life cycle assessment of greenhouse gas emissions associated with natural gas and coal in different geographical contexts, October 2016, and "Review of Life Cycle Analysis of gas and coal supply and power generation from GHG and Air Quality Perspective" Imperial College London, 2017.
(8) Second largest private firm. Source: WoodMackenzie: TOTAL LNG Corporate Report 2020 published in November 2020.

In 2018, the Group also entered a partnership with the Adani group, India's largest private conglomerate in energy and gas infrastructures, in order to contribute to the development of the natural gas market. This agreement notably concerns the development of the Dhamra LNG regasification terminal in east India. This partnership, which was extended since then, illustrates the Group's intention to help countries that produce the greatest part of their electricity from coal to diversify their energy mix.

The growth of natural gas is expected to see a steady increase in the proportion of green gas in the existing infrastructure network, such as biogas and hydrogen, to reduce greenhouse gas emissions from the gas value chain. To step up the development of its operations, TOTAL created a Biogas business unit and a Hydrogen business unit in 2020. The Group's target is to produce 4 to 6 TWh of biomethane per year between now and 2030 and supply 10% of the energy requirement of its gas power plants in Europe by 2030. In January 2021, TOTAL announced the acquisition of Fonroche Biogaz, French market leader in biogas production. Fonroche Biogaz designs, builds and operates methanation units in France and owns an installed gross production capacity of nearly 500 GWh of biogas. In December 2020, TOTAL signed a Memorandum of Understanding with Clean Energy Fuels Corp. to establish a $100 million 50/50 joint venture to develop renewable gas production projects in the United States.

TOTAL also has an ambition to become a hydrogen producer and distributor. In January 2021, the Group and Engie signed a cooperation agreement to design, build and operate the Masshylia project, the biggest renewable hydrogen production site in France, located in the heart of TOTAL's La Mède biorefinery.

The 40 MW electrolyzer powered by solar farms is expected to produce 5 tons of green hydrogen a day, meeting the needs of the La Mède biorefinery's biofuels production process, and preventing 15,000 tons of CO_2 emissions a year. The Group is continuing to roll out hydrogen stations under the H2 Mobility Germany joint venture, with more than 90 stations in 2020.

Electricity: building a world leader

TOTAL is continuing its integrated expansion across the electricity value chain, from power generation – from renewables or natural gas – to storage and sale to end-customers. Since 2015, TOTAL has allocated more than 10% of its investment to renewables and electricity[(1)], representing $1.5 billion per year, and it plans to increase this to more than 20% a year between 2021 and 2025. In 2018, the Group made strategic acquisitions, including Direct Énergie and its subsidiary Quadran, respectively renamed Total Direct Énergie and Total Quadran, thereby stepping up its presence in renewables (wind, solar, hydropower and biogas). In 2020, TOTAL acquired EDP's residential power operations in Spain and created a solar power distribution joint venture with Adani Green Energy Limited (AGEL) in India. In January 2021, TOTAL announced the acquisition of a 20% stake in AGEL, thereby strengthening TOTAL's strategic alliance with the Adani group in the Indian market and the Group's positioning in renewable energies.

The Group confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030. At year-end 2020, gross production installed capacity of renewable electricity totaled 7 GW, compared with 3 GW at year-end 2019 and less than 1 GW at year-end 2017. This growth is the result of accelerated projects in 2020, with more than 5 GW of wind power projects in France, the United Kingdom and South Korea, more than 2 GW of solar power assets in operation in India, more than 5 GW of solar power projects in Spain and a giant 0.8 GW solar farm in Qatar. In addition, the Group aims to be carbon neutral (net zero emissions) in all electricity purchasing for operated facilities in Europe by 2025. The electricity needs of these sites are covered by renewable electricity produced by TOTAL.

In 2020, the Group acquired two combined cycle natural gas power plants in Spain representing total capacity of 0.85 GW, and currently has natural gas electricity generation capacity of 3.6 GW. Refer to point 2.1 of chapter 2 for further information on these acquisitions.

TOTAL is aiming for net electricity production of 50 TWh from natural gas and renewables by 2025. As an electricity supplier, the Group served 5.6 million customers in 2020 and aims to distribute 80 TWh of electricity to more than 9 million customers by 2025.

Decarbonizing and saving liquid energies

Technological advances and the shift in usage to lower carbon energies may cause demand for oil to stabilize and then decline over the next decade, as illustrated in the International Energy Agency (IEA)'s Sustainable Development Scenario and TOTAL's Rupture scenario. The Group is changing its mix to reflect this trend. Oil products accounted for 66% of sales in 2015, 55% in 2019, and could decline to 35% in 2030. By 2050, this share could shrink to 20%, with a quarter of that from biofuels, helping TOTAL reduce the carbon intensity of the products it sells by 60%.

However, significant investments are still expected to be needed in the years ahead to meet demand for oil, given the natural decline in field output. The Group is focusing on the most resilient oil projects, meaning those with the lowest breakeven point. In order to ensure the viability of its projects and its long-term strategy in the light of climate change challenges, the Group has integrated, into the financial evaluation of its investments presented to the Executive Committee, a long-term oil and gas price scenario consistent with the Paris Agreement targets, using a price trajectory converging with the IEA's SDS scenario[(2)] and factoring in a long-term CO_2 price of $40 per ton and a sensitivity analysis of $100 per ton of CO_2 as from 2030.

TOTAL is also reducing the average carbon content of its lineup thanks to biofuels. To comply with European Union standards, biofuels must emit less than 50% the CO_2 equivalent generated by equivalent fossil fuels across their lifecycle[(3)]. For more than twenty years, TOTAL has been a pioneer in biofuels and aims to become a major force in this market, with sales growth of more than 10% a year by 2030. To make that ambition a reality, TOTAL seeks to develop synergies with existing assets, such as its La Mède refinery, which was converted into a biorefinery in 2019. The oils processed at La Mède, which has annual hydrotreated vegetable oil (HVO) production capacity of 0.5 Mt, are certified sustainable[(4)] according to European Union criteria. TOTAL has also set up a specific organization on top of this certification by selecting a limited number of responsible partners, with a requirement to join the RSPO (Round table on Sustainable Palm Oil[(5)]), the signing by these suppliers of the Group's Fundamental Principles of Purchasing (refer to point 5.10 of this chapter) and specific, more stringent checks of sustainability and respect for human rights. In September 2020, the Group announced a project to convert the Grandpuits refinery into a zero-crude complex including a biofuel production plant, which is expected to be commissioned in 2024.

(1) Including gas for power generation.
(2) IEA, World Energy Outlook 2020.
(3) European Directive RED, Renewable Energy Directive.
(4) The sustainability of the oils processed at the La Mède biorefinery is guaranteed by an ISCC (International Sustainability & Carbon Certification) type certificate of sustainability recognized by the European Union.
(5) International initiative created in 2004 with the aim of promoting the production and use of sustainable palm oil.

In 2020, TOTAL incorporated 2.2 Mt of sustainable biofuels[1] in Europe, of a global volume distributed by the Group of 3 Mt.

For more than ten years, TOTAL's R&D teams have developed technologies that have broadened the range of usable resources, while also meeting the need for sustainability. The BioTFuel consortium, for example, is working on the development of lignocellulose (plant waste).

3) Acting on demand

TOTAL wants to make carbon neutrality (net zero emissions) an ambition shared with its customers. To shape demand, it is guiding its customers towards lower-carbon energy solutions and reducing its offering of products with competitive low carbon alternatives. TOTAL has made a commitment to stop selling fuel oil intended for electricity generation by 2025.

In the area of electric vehicles, the Group has made a commitment to come up with integrated solutions, from energy supply to a complete charging service. TOTAL addresses the needs of individuals (BtC) as well as businesses (BtB) and public authorities (BtG). In September 2020, TOTAL and Groupe PSA (now Stellantis N.V.) announced the creation of a joint venture called Automotive Cells Company (ACC) to develop and produce high performance electric vehicle batteries.

In 2018, TOTAL acquired G2Mobility, renamed TOTAL EV Charge, a French leader in smart charging solutions. In 2020, the Group obtained a concession for 20,000 charge points in the city of Amsterdam, acquired London's largest charging network for electric vehicles, with over 1,600 charge points installed, and will operate the public network of 2,300 charge points in Paris for a period of ten years. As of the end of 2020, TOTAL operated more than 18,000 charge points on business premises, on the roadside and within public and private facilities such as car parks, hotels and shopping centers. The Group aims to operate 150,000 charge points in Europe by 2025. TOTAL has also launched a range of fluids for electric and hybrid vehicles.

Natural gas for vehicles, distributed in the form of compressed natural gas (CNG) or liquefied natural gas (LNG), offers an alternative to electricity for reducing transportation-related CO_2 emissions, particularly when it includes biogas. In Europe, the 2017 acquisition of Netherlands-based PitPoint allowed TOTAL to accelerate its rollout, particularly for trucks and transporters. In North America, TOTAL in 2018 acquired a 25% stake in Clean Energy Fuels Corp.[2], one of the leading providers of gas fuel for HGVs.

In shipping, the Group has signed a contract with CMA-CGM, the first shipping company to equip its transcontinental container ships with LNG-powered engines. In November 2020, the first LNG bunkering was carried out, the largest refueling operation in the world using LNG as a marine fuel. In addition, in June 2020, TOTAL joined the Getting to Zero coalition to support the decarbonization of the shipping industry. The aim of this coalition is to contribute to the target set by the International Maritime Organization of reducing greenhouse gas emissions in shipping by at least 50% by 2050 relative to 2008.

In 2020, the Group also joined the Coalition for the energy of the future, which aims to step up the development of energy sources and technologies to address the challenges of sustainable mobility within the transport and logistics industry.

Through the Total Ecosolutions program, the Group is developing innovative products and services that perform above market standards on the environmental front. At year-end 2020, 86 products and solutions bore the Total Ecosolutions label. The CO_2e emissions avoided throughout the lifecycle by the use of Total Ecosolutions products and solutions, compared to the use of benchmark products on the market for an equivalent level of service, are measured annually based on sales volumes. This represented 2.1 Mt CO_2e in 2020.

4) Developing carbon sinks

The preservation and restoration of natural carbon sinks (forests, wetlands, etc.) and carbon capture and storage (CCS) will be key for the planet to achieving carbon neutrality (net zero emissions).

TOTAL has launched a new activity based, on preserving and restoring the capacity of ecosystems to act as carbon sinks. This activity is owned by a business unit created in 2019 and dedicated to investments in natural carbon sinks, composed of experts in the environment, forestry and agronomy, with an annual investment budget of $100 million from 2020 onwards, and the goal of creating a sustainable capacity of sequestration of at least 5 Mt CO_2e per year by 2030.

Several agroforestry projects in Australia, South America and Africa are soon to be launched or are in the process of being negotiated with partners. These projects, located in both tropical and temperate regions, systematically include the value chains for local farm and forest production, in cooperation with local communities, to reduce the causes of deforestation and changing land use at source.

Furthermore, CCS will be essential for several industries, especially those that emit massive amounts of CO_2 due to the nature of their business (cement, steel, refining etc.). TOTAL has earmarked up to 10% of its R&D budget for this. Several projects have represented significant advances including the Northern Lights project in Norway, in which the Group is involved alongside Equinor and Shell and the final investment decision for which was made in 2020. This project, for which initial investment of the partners totaled more than €600 million, is expected to have a global storage capacity of up to 1.5 Mt CO_2 per year.

TOTAL stepped up its R&D program in 2019 by entering partnerships with the National Carbon Capture Center in the United States and IFPEN in France. The Group has also launched a development study for a major pilot industrial scale project in Dunkerque, a project to produce methanol from CO_2 and hydrogen in Germany, with the start-up Sunfire, and a feasibility study of an industrial system to capture and reuse the CO_2 produced by the LafargeHolcim cement works in the United States[3].

Sector initiatives and international framework

TOTAL is committed to various sector initiatives on the main challenges raised by climate change. Indeed, tackling climate change requires cooperation between all actors, from both public and private sectors.

In terms of carbon pricing, in 2014, TOTAL joined the U.N. Global Compact's Paying for Carbon and Caring for Climate call, which encourages companies to consider a CO_2 price internally and publicly support the importance of such a price via regulation mechanisms suited to the local context. In particular, TOTAL advocates the emergence of a balanced, progressive international agreement that prevents the distortion

(1) Physical volume of biofuels in equivalent ethanol and esters according to the rules defined by the European RED Directive, excluding volumes sold to third parties by Trading.
(2) Company listed on the NASDAQ, 24.84% interest on December 31, 2020.
(3) Svante Inc., LafargeHolcim, Oxy Low Carbon Ventures LLC and TOTAL.

of competition between industries or regions of the world. Drawing attention to future constraints on GHG emissions is crucial to changing the energy mix. TOTAL is therefore encouraging the setting of a worldwide price for each ton of carbon emitted, while ensuring fair treatment of "sectors exposed to carbon leakage" (as defined by the EU). In addition, TOTAL is working with the World Bank as part of the Carbon Pricing Leadership Coalition (CPLC). In June 2017, TOTAL became a founding member of the Climate Leadership Council, an initiative that calls for the introduction of a "carbon dividend", with a redistribution mechanism to the US population.

In terms of sector initiatives, in 2014, TOTAL was actively involved in launching and developing the Oil & Gas Climate Initiative (OGCI), a global industry partnership. At year-end 2020, this initiative involved 12 major international energy players. Its purpose is to develop solutions for a sustainable low emissions future. Launched in 2017, the OGCI Climate Investments fund, which has access to over $1 billion over ten years, invests in technology that significantly cuts emissions. Examples of investments include a large-scale industrial CO_2 capture and storage project (Net Zero Teesside Project), methane emission detection and measurement services by satellite (GHGSat), by aircraft (Kairos Aerospace) and by drone (SeekOps Inc.) and a technology that incorporates CO_2 as a feedstock in the production of polyols used in polyurethanes, which are plastics that have multiple uses (Econic Technologies).

The Group also plays a role in various international initiatives that involve the private and the public sectors to bring about (non-exhaustive list):

– the end of routine flaring of gas associated with oil production within the World Bank's Zero Routine Flaring by 2030 initiative;
– greater transparency, while taking into account the recommendations of the G20 Financial Stability Board on climate, and of the Task Force on Climate-related Financial Disclosures (TCFD); and
– the development of new state-of-the-art energy companies, since 2017, within the Breakthrough Energy Coalition (BEC), a group of investors created by Bill Gates in 2015, and since 2016 within the Breakthrough Energy Ventures, a $1 billion fund created in 2016 by the BEC.

The list of trade associations of which TOTAL is a member and the lobbying Ethics Charter that governs these memberships are published on the total.com website. The Group cooperates with these associations mainly on technical and scientific matters, but certain associations sometimes take public stances on climate change. TOTAL assesses the main trade associations to which it belongs in order to check that they are in line with the Group's stance on the climate. This alignment is reviewed according to six key points: their scientific position, the Paris Agreement, carbon pricing, the role of natural gas, the development of renewables and the development of CCS. Following the reviews in 2019 and 2020, TOTAL decided not to renew its membership of the American Petroleum Institute, the American Fuel & Petrochemical Manufacturers and the Canadian Association of Petroleum Producers.

TOTAL also actively participates in the debate on climate issues, thanks especially to its long-term partnerships with university chairs, such as the Climate Economics Chair at Paris-Dauphine University, the climate change research program of Massachusetts Institute of Technology (MIT)[1], and Toulouse School of Economics. TOTAL offers training and makes presentations at several universities, thereby taking part in the debate.

Resilience of the organization's strategy

Regulations designed to gradually limit fossil fuel use may, depending on the GHG emission limits and time horizons set, negatively and significantly affect the development of projects, as well as the economic value of certain of the Group's assets.

As part of the annual preparation of its long-term plan, TOTAL makes long-term energy demand forecasts (oil, gas and electricity). In September 2020, the Group presented the update of its Total Energy Outlook, available on total.com. TOTAL performs sensitivity tests to assess the ability of its asset portfolio to withstand an increase in the price per ton of CO_2. In 2020, these tests show that a long-term CO_2 price of $40/t[2] applied worldwide would have an estimated negative impact of around 6% on the discounted present value of the Group's assets (upstream and downstream). In addition, the average reserve life of the Group's proved and probable reserves is 18 years and the discounted value of proved and probable reserves beyond 18 years is estimated at 15% of the discounted value of the Group's upstream assets.

In keeping with its aim to reach carbon neutrality (net zero emissions) by 2050, TOTAL has reviewed its oil assets that can be qualified as "stranded", meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects concerned are the Fort Hills and Surmont oil sands projects. TOTAL has decided to take into account only proved reserves for impairment testing on these two assets – contrary to general practice which considers proved and probable reserves. In addition, TOTAL has announced that it will not approve any new projects to increase capacity on the Canadian oil sands assets.

(1) The Joint Program on the Science and Policy of Global Change.
(2) $40/t as from 2021, or the current price in a given country if it is higher than $40/t.

5.6.3 Risk management

TCFD correspondence table

Theme	Recommended TCFD disclosures
Risk management Disclose how the organization identifies, assesses, and manages climate-related risks.	a) Describe the organization's processes for identifying and assessing climate related risks. b) Describe the organization's processes for managing climate-related risks. c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Processes to identify and assess risks related to climate change

Climate-related risks form part of the risks that are analyzed by the Group Risk Management Committee. This committee relies on risk-mapping work. In addition, the Risk Committee (CORISK) assesses investment projects, risks and corresponding climate-related issues before they are presented to the Executive Committee. Each material investment project, including in the exploration, acquisition and development of oil and gas resources as well as other energy sources and technologies, is assessed for consistency with the goals of the Paris Agreement, using the following criteria:

- The economics of the project are analyzed in a hydrocarbon price scenario compatible with the goals of the Paris Agreement (Brent at $50/b according to the IEA SDS scenario and Henry Hub at $2.5/Mbtu), also considering a CO_2 price of $40/t(1). A sensitivity analysis is performed with a CO_2 price of $100/t as of 2030.
- For oil and gas projects, the GHG emissions intensity (Scopes 1 & 2) of sanctioned projects is compared, depending on their nature, to the average GHG emissions intensity of the assets of upstream production or those of various downstream units (LNG plants, refining, petrochemicals). The objective is for new investments to contribute to reducing the Company's average GHG emissions intensity (Scopes 1 & 2) in their category.
- For projects related to other energies and technologies (biofuels, bigas, CCS, etc.), GHG emission reductions are assessed for their contribution to the Group's emissions reduction.

In 2020, 8 significant investments (Absheron – Azerbaidjan, Mero-3 – Brazil, Tilenga/EACOP – Ouganda, Grandpuits – France, Port Arthur condensate splitter – United States, Energia Costa Azul – Mexico, Northern Lights – Norway, Fonroche Biogaz – France) were evaluated according to these criteria:

- the sanctioned projects have a profitability above the internally defined threshold, in a scenario compatible with the goals of the Paris Agreement, with the exception of the Northern Lights project, which in its initial phase requires a carbon price above $100/t CO_2, its profitability being satisfactory in the subsequent expansion phases that will allow for larger volumes to be stored for low marginal investments.
- The GHG emissions intensity (Scopes 1 & 2) of upstream and downstream oil and gas projects is below the average intensity for their category, with some Upstream projects having an emissions intensity that increases over time as production declines, which will require additional emissions control measures.

Processes to manage risks related to climate change

In its decision-making process, the risks and associated climate issues are assessed prior to the presentation of the projects to the Executive Committee. If the level of risk requires it, they are subject to mitigation measures. TOTAL, in accordance with its Safety Health Environment Quality Charter, is committed in particular to managing its energy consumption and develops processes to improve its energy performance and that of its customers.

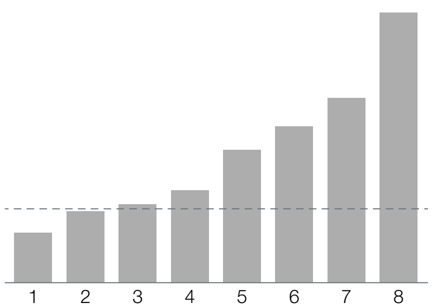
The Group also assesses the vulnerability of its facilities to climate hazards so that the consequences do not affect the integrity of the facilities, or the safety of people. More generally, natural hazards (climate-related risks as well as seismic, tsunami, soil strength and other risks) are taken into account in the construction of industrial facilities, which are designed to withstand both normal and extreme conditions. The Group carries out an assessment of the possible repercussions of climate change on its projects. These analyses include a review by type of risk (e.g., sea level, storms, temperature, permafrost) and take into account the lifespan of the projects and their capacity to gradually adapt. These internal studies have not identified any facilities that cannot withstand the consequences of climate change known today.

Integration of climate-related risks into global risk management

The risks related to climate issues are fully integrated in TOTAL's global risk management processes.

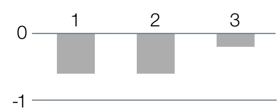
The Audit Committee takes part in the annual review of the results of the climate and environmental reporting process. In addition, these results are audited by an independent third party.

TRI *(%)*

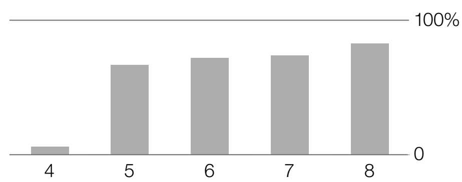


Impacts on GHG emissions

Projects new energies
Emission reductions *($MtCO_2/y$)*



Oil & gas projects
Emission intensities *(% vs. category average)*



(1) $40/t as from 2021, or the current price in a given country if it is higher than $40/t.

5.6.4 Targets and metrics to measure climate-related risks and opportunities

TCFD correspondence table

Theme	Recommended TCFD disclosures
Metrics & targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

In order to support its ambition of carbon neutrality (zero net emission) at a global scale (Scopes 1, 2, 3), TOTAL has set targets and introduced a number of indicators to steer its performance.

Targets	Facts
2030 targets for oil & gas operations worldwide (Scopes 1 & 2)	
– Reduce GHG emissions (Scopes 1 & 2) on the Group's operated oil & gas facilities of 46 Mt CO_2e in 2015 to less than **40 Mt CO_2e** by 2025 (a 15% decrease). By 2030, the target is a reduction of at least 40% of the net emissions(1) compared to 2015 for its operated oil & gas activities	– A GHG emission reduction (Scopes 1 & 2) of the operated oil & gas facilities from 46 Mt CO_2e to **35.8 Mt CO_2e** (39 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020 –
– Reduce routine flaring(2) by **80%** on operated facilities between 2010 and 2020 in order to eliminate it by 2030	– More than **90%** reduction in routine flaring between 2010 and 2020
– Improve by an average of **1%** per year the energy efficiency of the Group's operated facilities since 2010	– **10%** improvement in energy efficiency between 2010 and 2020
– Maintain the intensity of methane emissions for Upstream hydrocarbons activities below **0.2%** of commercial gas produced at all operated oil and gas facilities, and below **0.1%** of commercial gas produced on operated gas facilities	– Methane intensity for Upstream hydrocarbons activities of **0.15%** of commercial gas produced for operated oil and gas facilities in 2020, and of less than **0.1%** for operated gas facilities
– Maintain the intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities under **20 kg CO_2e/boe**	– An intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities of **18 kg CO_2e/boe** in 2020
2030 worldwide targets (Scope 3)	
– Reduce the average carbon intensity of the energy products used by customers worldwide by more than **20%** between 2015, the date of the Paris Agreement, and 2030 (Scopes 1, 2, 3) – Achieve in 2030, a level of worldwide emissions (Scope 3)(3) lower in absolute terms than in 2015	– A decrease of the carbon intensity of **10%** (8% excluding COVID-19 effect) between 2015 and 2020
2030 Europe target (Scopes 1, 2, 3)	
– Reduce by at least 30% by 2030 the indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3)(4) in Europe(5) in absolute terms, compared to 2015. This 30% reduction target is extended to all the Scopes 1, 2, 3 emissions in Europe	– A reduction of indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3) in Europe from 256 Mt CO_2e to **190 Mt CO_2e** (215 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020 – A decrease in GHG emissions (Scopes 1, 2, 3) in Europe of **24%** (12% excluding COVID-19 effect) between 2015 and 2020

(1) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.
(2) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(3) Indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3).
(4) The volumes taken into account include liquid products sold by Marketing & Services and Refining bulk sales (oil products, biofuels), sales of LNG from shares of production of TOTAL, as well as commercial sales of natural gas by iGRP.
(5) Europe refers to the European Union, Norway, the United Kingdom and Switzerland.

It should be noted that decrease in the Group's GHG emissions (Scopes 1, 2, 3) in 2020 is partly related to the impact of the COVID-19 pandemic on the TOTAL's activities, hence the mentioned evaluation of the decrease excluding the COVID-19 effect.

Indicators related to climate change[a]

GHG emissions

		2020	2019	2018	2015
SCOPE 1 OPERATED					
Direct GHG emissions at operated sites	Mt CO_2e	**36 (*38***)**	**41**	**40**	**42**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	21 (*22**)	24	24	22
BREAKDOWN BY SEGMENT					
Upstream hydrocarbons activities[I]	Mt CO_2e	16	18	18	19
Integrated Gas, Renewables & Power, excluding upstream gas operations	Mt CO_2e	3	3	2	–
Refining & Chemicals[II]	Mt CO_2e	17	20	21	22
Marketing & Services[III]	Mt CO_2e	<1	<1	<1	<1
BREAKDOWN BY GHG TYPE					
CO_2	Mt CO_2e	34	39	38	39
CH_4	Mt CO_2e	2	2	2	2
N_2O	Mt CO_2e	<1	<1	<1	<1
SCOPE 2 OPERATED[IV]					
Indirect emissions from energy use at operated sites	Mt CO_2e	**3 (*3***)**	**4**	**4**	**4**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	2 (*2**)	2	2	2
SCOPES 1 & 2 FROM OPERATED OIL & GAS FACILITIES[(I)+(II)+(III)+(IV)]	Mt CO_2e	**35.8 (39*)**	**41.5**	**42**	**46**
SCOPE 1 EQUITY SHARE					
Direct GHG emissions based on equity share	Mt CO_2e	52	55	54	50
SCOPE 3[b]					
Other indirect GHG emissions related to the use by customers of energy products sold for end use	Mt CO_2e	**350 (*400***)**	**410**	**400**	**410**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	190 (*215**)	232	231	256

Methane emissions

		2020	2019	2018	2015
Methane emissions from Group operated activities	kt CH_4	64	68	79	94
Intensity of methane emissions from operated oil and gas facilities for Upstream hydrocarbons activities	%	0.15	0.16	0.19	0.23
Intensity of methane emissions from operated gas facilities for Upstream hydrocarbons activities	%	<0.1	<0.1	<0.1	<0.1

Carbon intensity indicators

		2020	2019	2018	2015
Carbon intensity of energy products used by the Group's customers (71 gCO_2e/MJ in 2015)	Base 100 in 2015	**90 (92*)**	**94**	**95**	**100[c]**
Intensity of GHG emissions (Scopes 1 & 2) at operated facilities for Upstream hydrocarbons activities	kg CO_2e / boe	18	19	20	21

Other indicators

		2020	2019	2018	2015
Net primary energy consumption (operated scope)	TWh	147	160	143[d]	153
Group energy efficiency indicator (GEEI)	Base 100 in 2010	90.2[e]	88.0	88.4	90.8
Flared gas (Upstream hydrocarbons activities operated scope) (including safety flaring, routine flaring and non-routine flaring)	Mm³/d	4.2	5.7	6.5	7.2
Of which routine flaring	Mm³/d	0.6	0.9	1.1	2.3[f]

* Valuation of these indicators excluding the COVID-19 effect.
(a) Refer to point 5.11 of this chapter for the scope of reporting.
(b) The Group usually follows the oil industry reporting guidelines published by IPIECA which are conform to the GHG Protocol methodologies. In this document, only item 11 of scope 3 (use of sold products), which is the most significant, is reported. Emissions for this item are calculated based on sales of finished products for which the next stage is end use, in other words, combustion of the products to obtain energy. A stoichiometric emission factor is applied to these sales (oxidation of molecules to carbon dioxide) to obtain an emission volume.
(c) Indicator developed in 2018, with 2015 as the baseline year.
(d) Excluding primary energy consumption of Direct Énergie gas power plants.
(e) The change in this indicator between 2019 and 2020 can be explained by a lower refinery utilization.
(f) Volumes estimated upon historical data.

These data as well as the related risks are also reported to the CDP[1] once a year, and TOTAL's response to the CDP Climate Change questionnaire is posted on the Group's website (sustainable-performance.total.com). For its 2020 reporting on 2019 activities, the Group received an A-.

Carbon intensity indicator of the products used by its customers

TOTAL wishes to fully address the issue regarding the emissions of energy products used by the Group's customers and reports all of the emissions associated with these products in the form of a carbon intensity indicator.

This indicator measures the average GHG emissions of these products throughout their lifecycle, from production to end use by the Group's customers per energy unit.

This indicator takes into account:

- as the numerator:
  - the emissions connected to the production and conversion of energy products used by the customers on the basis of the Group's average emission rates;
  - the emissions connected to the use of energy products used by the customers. For each product, stoichiometric emission factors[2] are applied to these sales to obtain an emission volume. Non-fuel use products (bitumen, lubricants, plastics, etc.) are not taken into account;
  - negative emissions stored thanks to CCS and natural carbon sinks.
- as the denominator: the quantity of energy sold, given that electricity is put on an equal footing with fossil fuels taking account of average load factors and efficiency rates.

5.6.5 TCFD correspondence table

In June 2017, the TCFD[3] of the G20's Financial Stability Board published its final recommendations on information pertaining to climate to be released by companies. These recommendations include additional details for certain sectors, such as energy. TOTAL publicly announced its support for the TCFD and its recommendations and has implemented them since its 2017 annual report.

TOTAL continued discussions by taking part in the Oil & Gas Preparer Forum, which published, in July 2018, the best practices on the disclosure of climate-related information and on the implementation of TCFD recommendations by the four companies that are members of the Forum[4].

In 2019, TOTAL also took part in the first Task Force set up by the EFRAG (European Financial Reporting Advisory Group) Reporting Lab on Climate-related disclosures, which aims to identify the best practices in this area. This Task Force published the results of its work in February 2020.

Themes	Recommended TCFD disclosures	Source of information in TOTAL's reporting
Governance		
Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities.	URD 2020 – 5.6.1 CR p. 8 CDP C1.1
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	URD 2020 – 5.6.1 CR p. 1-7 CDP C1.2
Strategy		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	URD 2020 – 5.6.2 CDP C2
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	URD 2020 – 5.6.2 CDP C3.1
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	URD 2020 – 5.6.2 CR p. 10-17
Risk management		
Disclose how the organization identifies, assesses, and manages climate-related risks	a) Describe the organization's processes for identifying and assessing climate-related risks.	URD 2020 – 5.6.3 CDP C2.1, C2.2
	b) Describe the organization's processes for managing climate-related risks.	URD 2020 – 5.6.3 CDP C2.2
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	URD 2020 – 5.6.3 CDP C3.1
Metrics & targets		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	URD 2020 – 5.6.4 CR p. 56 CDP C6, C10
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	URD 2020 – 5.6.4 CR p. 56 CDP C6, C10
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	URD 2020 – 5.6.4 CR p. 10-24, CDP C4.1, C4.2

Legend: CR = TOTAL 2020 Climate Report. CDP = TOTAL's 2020 response to the CDP Climate Change questionnaire (available on total.com).

(1) The CDP is a non-profit organization that offers environmental reporting services for investors, enterprises, city authorities, States and regional authorities.
(2) The emission factors used are taken from a technical note from the CDP: Guidance methodology for estimation of Scope 3 category 11 emissions for oil and gas companies.
(3) Task Force on Climate-related Financial Disclosures.
(4) Eni, Equinor, Shell and TOTAL, with the support of the WBCSD (World Business Council for Sustainable Development).

5.7 Actions to respect human rights

The main challenges associated with the effects of the Group's activities in terms of respect for human rights have been identified using the methodology set out in the United Nations Guiding Principles on business and human rights (UNGP) Reporting Framework relating to the "salient issues", that is to say, the human rights at risk of the most severe negative impact through the Company's activities or business relationships.

This analysis has led the Group to identify six salient risks subdivided across three key areas:

- **human rights in the workplace** of TOTAL's employees as well as of the employees of its suppliers and other business partners:
  - forced labor and child labor;
  - discrimination;
  - just and favorable conditions of work and safety.
- **human rights and local communities**:
  - access to land;
  - the right to health and an adequate standard of living.
- respect for **human rights in security-related activities**:
  - the risk of misuse of force.

Strong commitments

TOTAL's human rights approach is based on strong and formalized commitments. It is supported by a dedicated organization, and embedded in an awareness-raising and training program, as well as evaluation and follow-up mechanisms aiming at measuring the effectiveness of the Group's actions.

TOTAL is committed in particular to respecting internationally recognized human rights and standards, wherever the Group operates, in particular the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

Since 2016, the Group has published a Human Rights Briefing Paper, which is updated regularly, in accordance with the recommendations of the United Nations Guiding Principles Reporting Framework. In 2016, TOTAL was the first company in the oil and gas industry to do this. The 2016 and 2018 publications are available on sustainable-performance.total.com.

A dedicated organization

At regular intervals, a human rights roadmap is presented to the Executive Committee to support the ongoing efforts to implement the Code of Conduct and respect human rights. The 2019–2020 roadmap was presented to the Executive Committee in April 2019. The roadmap for 2021-2022 is built with the various business segments and Group entities concerned. The Human Rights Steering Committee monitors the implementation of this roadmap. The committee is chaired by the Group's Senior Vice President for Civil Society Engagement and includes representatives of each business segment and of the main functional divisions that have a role related to human rights. It meets four times a year and coordinates the actions taken internally and externally by the various Group entities.

The Group's Human Rights Department coordinates the analysis of the Group's human rights risks, supports operational teams and supervises the actions to promote respect for human rights, in close collaboration with the Ethics Committee and in accordance with the Group's Code of Conduct.

The Ethics Committee is an independent structure where representatives of all TOTAL's business segments sit. Its key role is one of listening and support. Both employees and external people can refer matters to the Ethics Committee by sending an email to ethics@total.com. The Committee ensures the confidentiality of the complaints, which can only be lifted with the agreement of the complainant.

The Human Rights Department and the Ethics Committee rely on the network of more than 100 Ethics officers across the countries in which the Group operates. They are in charge of promoting the values set out in the Code of Conduct among employees working at subsidiaries and ensuring that the Group's commitments are correctly implemented at a local level.

Awareness raising and training

In order to disseminate the Group's commitments, TOTAL raises its employees' awareness via internal communication channels such as intranet sites or through events such as Business Ethics Day, which is held each year at headquarters and in all Group subsidiaries. In 2020, Business Ethics Day was held on December 10, on International Human Rights Day. "Speak Up" was the theme for this year, as in 2019, continuing to reinforce the culture of dialogue within the Group. A one-hour live chat accessible to all employees worldwide was held with the Chairman and Chief Executive Officer. In 2020, in order to prevent the potential consequences of the COVID-19 pandemic on the most vulnerable people, the Human Rights Department focused its contribution on combating all forms of discrimination in the workplace, in particular towards the most vulnerable people (e.g. practical case study kits sent to Group subsidiaries in order to prepare the Business Ethics Day, drawing attention to the situation of migrant workers and employees with more fragile health).

In addition to the Code of Conduct, the Group published a Human Rights Guide available to its employees and the stakeholders. This guide aims to raise the Group's employees' awareness of issues relating to human rights in its activities and provides guidance as to the appropriate behavior to adopt in their activities and relationships with stakeholders. The Group also has a practical guide to dealing with religious questions. These guides are available on the dedicated human rights intranet site and are distributed at the various training courses and during the Business Ethics Day.

In 2020, a Group Human Rights training plan was put together to encourage understanding of human rights and promote the development of a culture of respecting human rights within the Group and managing the associated risks. This training plan has been rolled out as a priority among categories of employees who are most exposed to human rights risks and people with the most influence in this regard. As part of the implementation of this plan, two pilot training sessions were organized remotely due to the pandemic: the first with the management committee and community engagement teams at the subsidiary in Uganda, and the second with the management team for the EACOP project in Tanzania. Other specific training programs tailored to issues encountered on the ground were held throughout 2020, in particular:

For all employees:

- An e-learning module on human rights in the workplace with a focus on respecting the ILO's core conventions has been accessible to all Group employees since 2019 in all countries in which the Group operates. It is available so far in five languages. More than 20,000 of the Group's management-level employees (job level 10 or higher) have taken this module at year-end 2020;
- An initial session to raise awareness about management of religious issues in the workplace organized in partnership with Convenvicia Conseil, a consulting organization specializing in religious issues, was attended by around 50 employees online as part of a cycle of conferences on non-discrimination introduced within the Group. This cycle will be continued in 2021.

For target groups:

- Annual training in ethics and human rights for newly appointed senior executives (20 participants in 2020);
- A session to raise awareness about crisis communications and management in relation to human rights, organized in partnership with the NGO SHIFT, with 13 participants (senior executives and others) representing functions that are regularly involved in managing crises at headquarters (Communications, Public Affairs, Legal and Civil Society Engagement);
- A training session provided by Vérité for Trading and Saft Groupe purchasing teams on human rights risks and reasonable diligence in the raw materials supply chains;
- In the context of the Mozambique LNG project, a campaign to raise awareness about respecting human rights and the Code of Conduct was rolled out at the Afungi site in Cabo Delgado, Mozambique, during the Business Ethics Day celebrations on December 10, held on International Human Rights Day. Two sessions in Portuguese and English were held for all employees at the site and for those at the offices of the subsidiary in Maputo.

Assessments

The practices of the Group's entities with regards to ethics and human rights are assessed on a regular basis. These assessments are conducted by independent third parties and qualified experts.

British company GoodCorporation has assessed more than 140 entities since 2002 with regard to the principles and values enshrined in the Group's Code of Conduct. In 2020, two **ethics and human rights assessments** were carried out at two sites representing a total of 3,100 employees (Madagascar and Pau in France). The number of assessments was limited compared to previous years due to the COVID-19 pandemic.

Entities are identified according to several criteria, including the level of risk of human rights violations in each country, the number of alerts received the previous year and the date of the subsidiary's last assessment. These assessments help identify subsidiaries' best practices, allow them to be shared within the Group and identify areas for improvement. Knowledge and appropriation of the Code of Conduct are tested and reinforced by ethics and human rights awareness-raising sessions. Employees are encouraged to voice their ethical concerns in a confidential manner and report behaviors potentially contrary to the Code of Conduct. These assessments confirmed that the Code of Conduct has been taken on board by Group employees.

Action plans implemented following the assessments carried out in 2019 at subsidiaries in Brazil, Cameroon, Egypt and Nigeria were also followed up in 2020 in accordance with the practice of ethics and human rights assessments being followed up within 12 months in order to ensure that action plans are implemented.

As regards suppliers, Total Global Procurement (TGP) is responsible for rolling out a supplier qualification process (described in point 5.10 of this chapter), which includes an ethics and human rights dimension. At the same time, the Group has set up a supplier assessment process by a third party based on criteria relating to observance of human rights.

Standalone human rights impact assessments may also be conducted in addition to the environmental and societal impact assessments in high-risk areas or conflict zones with the support of independent experts. In 2020, a human rights impact study for the Mozambique LNG project in Mozambique was carried out by LKL International Consulting and Triple R Alliance, which specialize in human rights impact studies and the implementation of UNGPs within companies. In addition, the conclusions of the human rights impact assessment relating to the EACOP oil pipeline project in Uganda and Tanzania conducted in 2018 have been made public.

Other non-profit partner organizations, such as the CDA Collaborative Learning Projects, also contribute to the evaluation of the societal impact of the Group's activities or projects on nearby local communities, notably by interviewing local communities. CDA's reports are available on its website. As the COVID-19 pandemic severely impacted work on the ground, the assessments planned in 2020 are expected to be carried out in 2021, should the health context allow.

5.7.1 Respect of human rights in the workplace

The prohibition of forced and child labor, non-discrimination, just and favorable conditions of work, as well as safety, all form part of the principles set out in the Code of Conduct and are developed in TOTAL's Human Rights Guide and in the Human Rights Briefing Paper.

TOTAL's commitment to human rights in the workplace is demonstrated, in particular, by the signature of various agreements, as the one concluded in 2015 with IndustriALL Global Union(1) for four years, which covers the promotion of human rights in the workplace, diversity and parenthood, working conditions, health, the participation of employees and their representatives in social dialogue and the recognition of health and safety at work as absolute priorities in the Group's activities and global supply chain. The launch of the "human rights in the workplace" e-learning course also forms part of this approach to raise employee awareness about upholding these rights and the Group's zero tolerance policy concerning forced labor and child labor.

The respect of human rights has guided the Group's efforts during the COVID-19 pandemic and is reflected by the adoption of a number of measures aiming to protect the health and safety of all employees in general and the most vulnerable in particular (refer to point 5.4.4 of this chapter).

In its activities

TOTAL cares about the working conditions of its employees which are governed by the Group's Human Resources policy (refer to point 5.3 of this chapter).

Safety is one of the Group's core values. Over the last few years, the Group has continued to develop occupational health and safety standards focusing on the right to live and fair and secure working conditions (refer to point 5.4 of this chapter).

TOTAL is strongly committed to promoting diversity and endeavors to combat all forms of discrimination (origin, gender, sexual orientation, disability, age, membership of a political party, union or a religious organization, etc.) (refer to point 5.3 of this chapter, in particular for the targets set by the Group in terms of gender diversity and internationalization).

For many years, TOTAL has developed a non-discrimination policy with regard to people with disabilities that focuses on issues related to integration into working life. This policy has resulted in dedicated hiring policies and practices and the promotion of diversity and the advantages it offers for the Group. These issues are coordinated for the entire Group through a "Disability Program" within the Group's Human resources department (refer to point 5.3.3.1 of this chapter).

The Group signed the LGBT (Lesbian, Gay, Bisexual and Transgender) Charter created by French association "L'Autre Cercle" in 2014. This provides a framework to combat workplace discrimination based on sexual orientation and gender identity in France.

In 2017, TOTAL published a Practical guide to dealing with religious questions within the Group in order to provide practical solutions to the questions raised by the Group's employees and managers worldwide. This continues to serve as a reference. It draws on the experiences of the business segments in various countries and encourages dialogue, respect and listening as a way to find solutions suited to the local context. Many internal and external experts helped draft this document, including representatives of various religious communities. The guide is available in 10 languages and on the intranet site. The guide is also distributed at training courses.

In addition to the Group's reporting and internal control system, the working conditions of TOTAL's employees are assessed by GoodCorporation, an independent third party.

The Group also conducts a consultation every two years with all employees worldwide (Total Survey) to obtain a better measurement of their perception of working conditions and thereby take their ideas and suggestions into account. This consultation tool allows for what employees want to be better reflected in human resources policies and thereby contribute to the Group's willingness to assert TOTAL as a good company to work for. The next survey is expected to be carried out in 2021.

In the Group's supply chain

The Fundamental Principles of Purchasing (FPP) set out the commitments expected from suppliers in various domains, including human rights in the workplace and safety. A Group directive reaffirms the obligation to annex the FPP or to transpose them in the selection process as well as in the contracts concluded with suppliers of goods or services. These were updated in 2020, in order to reinforce the respect of human rights, among other things.

The prevention of risks relating to working conditions, especially forced and child labor in the supply chain, is a major area of concern and one of the Group's commitments. The supplier selection methodology was therefore strengthened in 2018 to take better account of the risks of human rights violations. In addition, the partnership formed in 2016 between TOTAL and a third-party service provider to assess suppliers' practices in terms of fundamental rights in the workplace remains in effect (refer to point 5.10 of this chapter).

Finally, the working conditions of the employees of Group-branded service station dealers are also assessed by GoodCorporation. Between 2016 and 2017, a baseline study on a group of 22 subsidiaries in the Marketing & Services segment across different continents was also conducted. On the basis of the recommendations identified to improve service station managers' awareness of the Group's Code of Conduct principles and of the fundamental Conventions of the ILO, Marketing & Services has adapted its online training in relation to human rights in the workplace and observance of the ILO's core conventions to managers' specific needs in particular.

In 2020, Marketing & Services has continued to implement clauses related to respect human rights in contracts with service station managers when renewing and negotiating contracts and particularly for contracts concerning Africa.

(1) International union federation representing more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.

5.7.2 Respect for human rights of local communities

TOTAL's operational activities may have impacts on the human rights of local communities, in particular when TOTAL obtains temporary or permanent access to their land for projects that may involve the relocation of places of residence and/or economic activities and the resettlement of these populations. In addition, noise and dust emissions and other potential impacts may also have consequences for the livelihood of neighboring communities. Consequently, the access to land of local communities and their right to health and an adequate standard of living are two salient issues for TOTAL.

In accordance with internationally recognized human rights standards, TOTAL requires the Group entities to maintain a regular dialogue with their stakeholders and make sure that their activities either have no negative consequences on local communities or, if these cannot be avoided, that they limit, mitigate and remedy them. The solutions proposed in response to the expectations of local communities are coordinated by the societal teams that work in close collaboration with the Human rights department and the legal, safety and environmental teams. In the framework of its activities, TOTAL promotes dialogue and exchanges with human rights defenders, defined by the United Nations Declaration on human rights defenders of 1998 as "Everyone has the right, individually and in association with others, to promote and to strive for the protection and realization of human rights and fundamental freedoms at the national and international levels."

In 2020, the Group decided to reinforce the network of people in charge of monitoring human rights issues by creating the role of human rights coordinator and the role of security advisor in charge of relations with local communities within the Mozambique LNG project.

The Group's approach to this topic is described in point 5.9 of this chapter.

5.7.3 Respect for human rights in security-related activities

In certain situations, intervention by government security forces or private security providers may be necessary to protect TOTAL staff and assets. In order to prevent any misuse of force, TOTAL is committed to implementing the Voluntary Principles on Security and Human Rights (VPSHR) issued by States, NGOs and extractive companies.

TOTAL has been a member of this initiative since 2012. Within this framework, the Group publishes an annual report setting out the challenges, lessons learned and good practices in relation to security and human rights and, if applicable, reports any incidents associated with the Group's activities. This report is available on the VPSHR Initiative website and at sustainable-performance.total.com.

A new Group rule became effective in 2019 to define the Group's requirements for implementing the VPSHR. This rule is accompanied by a VPSHR guide published in late 2020, which aims to provide practical advice for operating entities. In 2020, self-assessment and risk analysis tools deployed within entities located in countries identified as being most at risk, were updated and made available on a digital platform in order to enhance monitoring and make results more traceable.

When government security forces are deployed to ensure the protection of the Group's staff and assets, an ongoing dialogue is maintained with the representatives of national or regional authorities in order to raise their awareness of the need to respect the VPSHR and encourage them to sign memorandums of understanding that comply with these principles.

The Group promotes these principles and the VPSHR requirements to the private security companies it hires in connection with its activities. These companies incorporate them, for example, through the training provided to security staff on the VPSHR.

TOTAL regularly organizes training sessions and awareness-raising activities for its employees on the risk of misuse of force and, more specifically, on the VPSHR. In view of the security situation in Mozambique and the Group's development projects in the country, the Mozambique LNG Project – with the support of the VPSHR coordination team within the Group Security division and the Human Rights department – held 22 training sessions in 2020 focusing on VPSHR at the Afungi site in the Cabo Delgado region in partnership with an independent third party (Watchman) specializing in training and raising the awareness of military personnel on observing VPSHR. The aim was to better equip the military and police forces deployed within the framework of the Mozambique LNG project, with respect for human rights, to protect sites in accordance with VPSHR and the requirements set out in the Memorandum of Understanding (MOU) signed in July 2020 to reduce the risk as a result of their activities. This training was taken by 539 participants from the Joint Task Force (JTF) that guards the Group's facilities and 42 members of private security forces. In addition, 22 Military Liaison Officers (MLOs) and 12 commanding officers from the JTF underwent specific training for future trainers.

Specific work to raise awareness about VPSHR and their deployment within entities considered most at risk was also carried out in 2020 within the Marketing & Services segment (e.g. service stations with armed security guards).

The Group's Security division also organized three online training sessions on the updated version of VPSHR tools. This training was provided to 55 Country Security Officers, who support Country Chairs in their role of being responsible for the Group's security at country level and who are the representatives of the Group Security division in charge, among other things, of implementing the VPSHR.

5.8 Fighting corruption and tax evasion

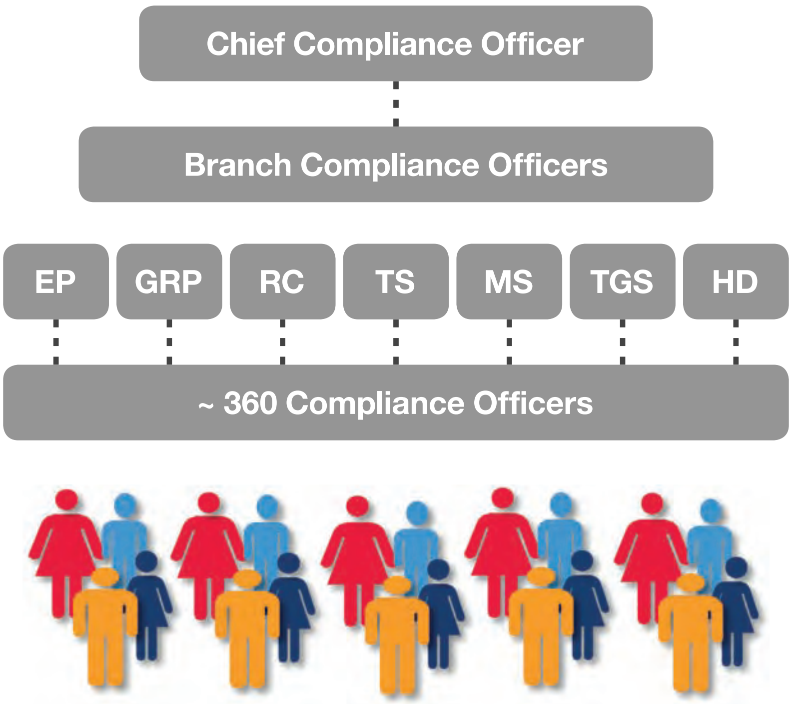
5.8.1 Fighting corruption

TOTAL is a major player in the energy sector where public authorities regularly play a role and where the amounts invested may be very high. In addition, the Group is present in more than 130 countries, some of which have a high perceived level of corruption according to the index drawn up by Transparency International. Aware that it is highly exposed to the risk of corruption, TOTAL applies a principle of zero tolerance.

To prevent risks of corruption, TOTAL has implemented a robust, regularly updated anti-corruption compliance program that has been rolled out throughout the Group. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Group's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Group to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party.

The commitment of the entire Group and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013.

This program is drawn up by a dedicated organization acting at the Group and business segment levels, namely the Compliance and Legal Risk Management Department, headed by the Chief Compliance Officer, and the Branch Compliance Officers. They coordinate a network of more than 360 Compliance Officers in charge of rolling out and running the program at the subsidiary level. This structured organization lies in close proximity to operational activities while having its own dedicated reporting line.



TOTAL's anti-corruption compliance program is based primarily on the following seven pillars: management commitment or "tone at the top", risk assessment, adoption of internal standards, awareness raising and training of employees, feedback of information, including the whistleblowing system, mechanisms for assessing and monitoring implementation of the program, and imposition of disciplinary sanctions in the event of misconduct.

5.8.1.1 Management commitment

The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Group's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. The sixth Business Ethics Day in December 2020 was dedicated, like the previous year, to the theme of "Speak-Up". A live chat with the Chairman and Chief Executive Officer, as well as compliance, ethics and human rights managers, allowed employees to ask questions, particularly concerning reporting any potential breaches of the Code of Conduct.

The commitment of the management bodies is also expressed externally by TOTAL joining anti-corruption initiatives and supporting collaborative and multipartite approaches. TOTAL joined the Partnering Against Corruption Initiative (PACI)(1) in 2016, thereby adhering to the PACI Principles for Countering Corruption. TOTAL's Chairman and Chief Executive Officer became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TOTAL is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)(2) since its launch in 2002.

5.8.1.2 Risk assessment

To regularly adapt the compliance program to the risks to which TOTAL is exposed, these must first be identified and assessed. In addition to the Group's risk mapping, which includes the risk of corruption, specific corruption risk mapping is produced on the basis of a methodology formalized in a rule adopted in early 2020. This rule provides for two-tier mapping: that of entities coordinated by the Compliance Officer and that of business segments coordinated by the Branch Compliance Officers. At the business segment level, the assessment needs to examine the main types of risk (purchasing, sales, conflicts of interest, gifts and hospitality, human resources, representatives dealing with public officials, mergers and acquisitions, joint-ventures, donations and sponsoring, and influence peddling). This two-tier analysis is aimed at establishing action plans that are appropriate to the risks identified and the realities on the ground. In addition, particularly when assessing corruption risks, employees are provided with tools that help them identify the risk of corruption, e.g. the Typological guide of corruption risks.

Measures are taken to manage the risks identified and specific rules are regularly adopted and incorporated into the Group's reference framework.

5.8.1.3 Internal standards

As an essential element of the Group reference framework, the Code of Conduct sets out the behavior to be adopted, in particular with regard to the question of integrity. It prohibits corruption, including influence peddling, and advocates zero tolerance in this area.

The Code of Conduct is complemented by a regularly updated set of anti-corruption standards. The Anti-Corruption Compliance Directive, which was updated in 2016, recalls the main principles and organizes the roll-out of the anti-corruption program. It deals, among others, with commitment, training and awareness raising, accounting and bookkeeping, the assessment system and whistleblowing mechanisms. This directive is complemented by rules that deal with more specific subjects in order to prevent the various risks identified.

In January 2020, the Group adopted a single rule to standardize the anti-corruption due diligence processes, to be performed before entering into business relations with third parties (suppliers, representatives dealing with public officials, agents with a commercial activity, beneficiaries of donations, contributions or sponsorship, counterparties in corporate transactions, etc.). In addition, an IT supplier qualification tool, which incorporates the due diligence process, has been gradually deployed since 2019. Due diligence involves collecting information, identifying any risks of corruption and taking the appropriate mitigation measures. This process is performed by the relevant business persons with support from their Compliance Officer, who may call on the Branch Compliance Officer if necessary.

In early 2020, a rule was also adopted to deal with the recording and accounting of expenses covered by the anti-corruption compliance rules.

Other standards deal with high-risk areas, such as gifts and hospitality, which have to be registered and approved by the line manager above given thresholds; conflicts of interest, which must be reported to the line manager and addressed; anti-corruption measures implemented within joint-ventures; and human resources-related processes such as recruitment.

5.8.1.4 Awareness raising and training

Awareness raising actions are carried out toward all employees. The Group's intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled Prevention and fight against corruption. Poster campaigns communicating the key messages in the risk areas are held on a regular basis; a campaign on the "Speak-Up" theme among other things, was held before the Business Ethics Day. An initial anti-corruption e-learning course was rolled out in 2011 and a more in-depth e-learning module in 2015. This module is accessible to all employees and mandatory for the targeted personal (almost 43,000 employees) and new hires. At year-end 2020, season one of the anti-corruption e-learning course had been followed by approximately 41,000 people and season two by approximately 39,000 people.

More targeted training courses are also provided for the functions viewed as highly exposed (such as procurement and human resources), whether by the corporate or segment Compliance teams or by the Compliance Officers in the subsidiaries. Several online and face-to-face training sessions are held every year for the Compliance Officers. In 2020, despite the health crisis, these sessions continued and were held remotely.

5.8.1.5 Feedback of information

The feedback of information is ensured primarily through an annual reporting process. This is performed by the Compliance Officers, reviewed by their Branch Compliance Officer and sent to the Chief Compliance Officer. This reporting helps to monitor the roll-out and implementation of the anti-corruption program, through quantitative indicators on key elements of the program, such as the number of training courses or due diligences performed.

The consolidated data resulting from this reporting, which reflects the results of the implemented policies, is presented once a year to the Executive Committee and the Board of Directors via the Governance and Ethics Committee. This presentation provides an opportunity to report the results of the actions undertaken at the very highest level and to review the roadmap aligned with the identified areas of improvement.

In addition, TOTAL takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication and a rule was adopted in late 2020 to formalize the procedure for collecting integrity alerts (corruption, fraud and influence peddling); it reminds the various existing alert channels: employees, depending on the option they feel is most appropriate, can contact any manager, human resources, the Compliance Officers or Ethics Officers, or the Group Ethics Committee. Both employees and third parties can refer to this Committee by writing to ethics@total.com. The Group will not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality.

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

5.8.1.6 Assessment and monitoring

The anti-corruption program is monitored at the first level by business persons, as well as their line managers and the Compliance Officers who are in charge of ensuring the day-to-day implementation of the rules. At the second level, controls are performed by the Compliance function, in particular through assessment missions (referred to as compliance reviews) that are undertaken by a dedicated team within the Group's Compliance and Legal Risk Management Department. In addition, the Group's Audit and Internal Control Division performs an annual off-site inspection to verify the quality of the reporting performed by the Compliance Officers, as well as missions to check the self-assessment by the entities subject to the Sarbanes-Oxley regulations of their internal control framework. At the third level, Group Audit also helps monitor the anti-corruption program through audits called "assurance audits" performed according to a framework that includes compliance topics.

This system is described in full in a guide on control of implementation of the anti-corruption program published in late 2020, which also requires the adoption of an "Anti-Corruption Control Plan" within each business segment.

5.8.1.7 Disciplinary action

In line with the principle of zero tolerance and in application of the Code of Conduct and the Anti-Corruption Directive, any infringement of the anti-corruption standards must give rise to disciplinary action, up to dismissal. The Group's resolve in this matter is recalled in communication media intended for employees as well as on the intranet. This resolve, which results from management commitment, contributes, with the other pillars described above, to the robustness of the anti-corruption compliance program.

5.8.2 Fighting tax evasion

With a presence in more than 130 countries through 1,118 consolidated entities, TOTAL carries out its operations in a constantly changing environment and is subject to an increasingly complex set of tax regulations, which may be in conflict when combined or subject to varying interpretations, thus giving rise to potential tax risk.

In this context, TOTAL has developed a responsible tax approach based on clear principles of action and rigorous governance rules as set out in its tax policy statement, which was released in 2014 and is available to the public at sustainable-performance.total.com.

Tax policy:
Tax payments of TOTAL represent a substantial part of our Group's economic contribution to the countries in which we operate.

TOTAL is mindful of its responsibility and is committed to paying its fair share of taxes to the host countries of its operations, in compliance with applicable laws and conventions and in accordance with our Code of Conduct.

Our intercompany transactions are thus based on arm's length terms and our tax strategy is aligned with our business strategy. The formation of affiliates worldwide is driven by business operations, as well as regulatory constraints and JV requirements. It is the Group's long-term commitment not to create affiliates in countries generally acknowledged as tax havens and to repatriate or liquidate existing affiliates, where feasible.

Our tax policy's prime focus is certainty and sustainability in the long term. We believe that the expected short-term tax benefit derived from artificial or aggressive tax planning will often be outweighed by the reputational and future tax litigation risks inherent in such schemes.

The Group takes a responsible approach to the management and control of taxation issues, relying on well-documented and controlled processes to manage risk and ensure compliance with tax disclosure and filing obligations.

The management of tax risks is fully integrated in the Group's global risk management process. As part of this process, the Group VP Tax regularly reports to the Audit Committee and the Group Risk Committee on TOTAL's global tax position, risk monitoring and associated improvement actions.

We engage with a broad range of stakeholders, and especially with tax authorities, in a timely, transparent and professional manner which is the basis of a constructive and long-term relationship.

As a permanent member of the Extractive Industries Transparency Initiative (EITI) since its creation in 2002, TOTAL fully supports initiatives for greater transparency and accountability. We encourage governments to ensure that the tax reporting obligations they will impose upon multinational groups are consistent, coordinated and proportionate.

TOTAL publishes in its Universal Registration Document an annual report covering the payments made by the Group's extractive affiliates to governments[(1)] and the full list of its consolidated entities, along with their countries of incorporation and of operations.

(1) Refer to point 9.3 of chapter 9.

Since 2017, TOTAL has also filed country-by-country reporting with the French tax authorities. For the first time, in February 2021, after an analysis of the transactions carried out by the Group's French and European entities since July 2018, TOTAL finalized its review and filed its cross-border arrangements disclosure obligations falling within the scope of application of Directive DAC 6 aiming at fighting tax evasion. No aggressive tax schemes have been identified.

In 2019, in accordance with its tax policy, TOTAL entered into the Tax Partnership with the French authorities, upon inception of the program, thus pursuing greater transparency, dialogue and trust. In May 2019, TOTAL also endorsed the Responsible Tax Principles developed by the B Team, a non-profit organization bringing together business leaders and representatives of civil society with the aim of promoting a sustainable form of economic and social development.

In 2020, consolidated current income taxes amounted to $2,450 million. The effective tax rate of the Group, computed out of the adjusted net operating income, was 27.8% in 2020.

5.9 Value creation for host regions

In line with its ambition to be the company of responsible energies and based on the values and principles formally set out in its Code of Conduct and Safety Health Environment Quality Charter, TOTAL strives to be an agent of positive change for society, and to contribute to its development through its societal actions.

At a national level, the Group's activities generate value for the countries where it operates, and TOTAL intends to contribute to the development of economic opportunities for its host regions and communities. At a local level, the Group's activities can be a source of opportunities for the people, but may also have an impact on the living conditions of local communities and residents. Furthermore, in order to address society's global challenges, the Group is committed to the public interest.

Within this context, the Group has identified its main risks and opportunities with regards to creating and sharing value:
– fostering the economic development of the host regions;
– managing societal challenges related to the Group's activities;
– engaging in citizenship initiatives.

5.9.1 Fostering the economic development of host regions

Recruiting local people and supporting the development and creation of local businesses

In addition to contributing directly to job creation in the countries where the Group operates (refer to point 5.3 of this chapter), the Group is committed to recruiting local people and subcontractors, if its operational imperatives so permit.

Each of the Group's major industrial projects with high potential local content is part of an industrial strategy that aims to maximize the impact on the host country measured in terms of new jobs and local value creation. This strategy is based on analysis of all local industrial and human capacities available as well as those still to be developed. This forms the basis for the establishment of a specific action plan comprising training initiatives defined with the aim of ensuring a possible transfer of skills to the rest of the economy, and business development initiatives defined and implemented with the involvement of project suppliers, such as incentives to create local partnerships, transfers of technology and expertise and the creation of business training centers.

For Egina in Nigeria, a large project operated by the Group, the production of which began in December 2018, the implementation of this strategy of developing local content has entailed:
– the development of local industrial capacity made concrete by the production of 60,000 tons of equipment and the assembly of 75% of wellheads locally;
– the delivery of 560,000 hours of training;
– 24 million working hours by Nigerian citizens representing 77% of project hours.

This approach is also being rolled out in full across projects currently being developed by the Group: Tilenga in Uganda, EACOP (East African Crude Oil Pipeline) in Uganda and Tanzania, and Mozambique LNG.

Supporting the reindustrialization of the Group's platforms

TOTAL implements a specific approach to support the conversion of its industrial sites through two additional projects carried out at the same time:
– a project for the future is carried out by the segment concerned, taking into account analysis of market developments. The objective is to adapt industrial facilities in order to make the Group's industrial sites competitive over the long term and respond to the challenges of the energy and ecological transition;
– a Voluntary Agreement for Economic and Social Development (CVDES) is implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change.

In this way, TOTAL restates its responsibility towards the employment basins in which the Group operates as well as its commitment to maintain a strong and lasting industrial presence.

On the Carling industrial platform (France), following the shutdown of the second steam cracker in 2015, TOTAL led a project for the future without any job losses and in keeping with its contractual commitments to its customers and partner companies. The CVDES relating to Carling's site was ended in 2018 with a final commitment of €12 million in grants from TOTAL for four industrial projects representing €125 million of investment and 143 jobs planned. Total Développement Régional (TDR) also committed to support these industrial projects until the effective start-up of the production units. The Metabolic Explorer unit is currently under construction and is expected to begin operation in the first half of 2021, while construction of the AFYREN unit began in late 2020.

The reconversion of the La Mède refinery (France), entailing an initial investment of more than €275 million, is underway with the first French biorefinery and an Adblue[1] production unit is expected to begin operation in July 2019. The site also has an 8 MW solar farm, which was commissioned in 2018, and a training center, OLEUM, which started up in 2017. This project has been carried out without any lay-offs. The CVDES signed for La Mède for 2016-2019 was extended to 2020. TDR is supporting the subcontractors and putting the Group's commitments into action. From 2018 to 2020, TDR also financially supported nine industrial projects and one industrial demonstrator to create 389 new jobs.

On the Lacq platform (France), a TDR unit, hosted by Sobegi, the platform's controller, researches and examines third-party industrial projects that could join the platform in partnership with the Nouvelle-Aquitaine region, the Pau-Béarn Chamber of Commerce and Industry (CCI), the Chemparc public interest group, the Lacq-Orthez district authority and Sobegi. The installation in the Lacq region of an industrial project for biogas production led by the company Fonroche Biogaz[2]

(1) Fuel additive intended for road transport and designed to lower nitrogen oxide (NO_x) emissions.
(2) On January 11, 2021, TOTAL announced the acquisition of Fonroche Biogaz.

was confirmed in late 2018. In August 2020, the installation close to the Induslacq platform of a green chemicals project by Alpha Chitin was decided in order to optimize its industrial base thanks to utilities and services that are already available.

On the Grandpuits platform (France), TDR also plans to support the project to convert the site into a "zero-crude" platform as announced in September 2020 and representing an investment of €500 million.

More generally, TDR supports SMEs in France by proposing various measures that contribute to creating and securing jobs in the long term, such as financial support for the creation, development or takeover of SMEs in the form of zero-interest loans, support for setting up industrial projects with parties involved in local development and public authorities, or support for exports and international development. Between 2018 and 2020, loans were granted to more than 460 SME projects, amounting to a total of more than 27 million euros, and more than 10,500 jobs were supported.

In the context of the COVID-19 pandemic and since the start of the lockdown, TDR decided to suspend, for the second quarter of 2020, repayment of the principal amount of loans granted to beneficiaries of the scheme requesting to do so, and, more generally, opted to provide personalized support for borrowers in collaboration with its partners. In addition, some beneficiaries of the scheme have been able to launch new production lines to cope with the crisis, such as serological tests, divider screens, hand hygiene products and masks.

5.9.2 Managing societal challenges related to the Group's activities

5.9.2.1 Operational societal approach

The Group factors in societal challenges when conducting its operations through its One MAESTRO reference framework (refer to point 5.4 of this chapter) and focuses in particular on managing relationships with stakeholders and local impacts. Guides, manuals, video tutorials and a community of practices, available online for all Group entities, helps them to implement their operational societal approach, which is adapted to the specific local requirements of the regions and communities. The Group's framework defines a structured process, the main stages of which are:

- the analysis of the challenges and local societal context;
- the development of a societal strategy integrated with operations; and
- implementing and monitoring societal actions and projects.

Analysis of the challenges and the societal context

An assessment of the societal risks and challenges is one of the criteria for making investment, acquisition and divestment decisions concerning projects presented to the Group's Risk Committee. When a new industrial site is developed, a societal baseline study must be conducted in advance to identify any potentially affected stakeholders, describe the local context and assess the main socio-economic and cultural challenges in the impacted area. This is supplemented by societal impact assessments that measure and analyze actual and potential impacts, positive and negative, direct, indirect or cumulative, in the short, medium and long term of the project. In 2020, 50 of these studies were launched or carried out in the Integrated Gas, Renewables & Power segment and 13 in Exploration & Production.

The Group's One MAESTRO reference framework also requires a regular assessment, at least every five years, of the context and societal risks for each subsidiary. This assessment takes account of the sensitivity of the socioeconomic environment and the severity of the societal impact, including on human rights, related to the subsidiary's activities. Risks are identified primarily on the basis of mapping and consultation with stakeholders such as authorities, neighboring communities, economic operators and civil society. In 2020, the innovative new SIMBA mobile app for the ongoing recording and tracking of the opinions, concerns and expectations of stakeholders was developed, with an initial rollout in Mozambique. The app helps to identify and understand the local context and facilitates ongoing analysis. It will be rolled out gradually in 2021 primarily at a number of Refining & Chemicals sites.

Development of a societal strategy integrated into operations

Every subsidiary pays close attention to local issues by defining short-term and long-term societal targets and its priority fields of action that take account of:

- the need to remain within the regulatory and contractual framework, as well as meeting the applicable international standards;
- the analysis of the challenges and the societal context;
- the Group's ambitions and voluntary commitments with regard to civil society.

These targets are built into a structured operational action plan, based on three pillars:

- dialogue and involvement of local stakeholders;
- avoiding, reducing and compensate for the societal impacts of the Group's activities;
- developing initiatives to create a positive impact on neighboring local communities.

To structure this approach, TOTAL uses the internal Stakeholder Relationship Management (SRM+) introduced in 2006, which allows subsidiaries to define their societal strategy and associated action plans.

Implementing and monitoring societal actions and projects

The societal teams reporting to the HSE division and their local correspondents lend their expertise to the operational subsidiaries to implement the One MAESTRO framework. Societal aspects are included within the scope of the One MAESTRO audits that produce recommendations to reinforce control of operations. Moreover, the subsidiaries must conduct an annual self-assessment of their societal initiative and an annual internal report to list the societal actions taken locally.

In addition to factoring a societal module into the HSE for Managers training program (refer to point 5.4.1 of this chapter), remote training modules have been developed for personnel of subsidiaries in charge of societal issues. In 2020, a digital platform named Societal Academy was created to make the necessary educational resources accessible to all subsidiaries, such as rules, guides, training materials, lessons learned and best practices. Webinars attended by more than 200 participants were organized in October 2020 for the launch of the societal reporting campaign.

5.9.2.2 Local stakeholder engagement

TOTAL sets up dialogue procedures based on the consultation and involvement of stakeholders in order to develop constructive and transparent relations with them. The One MAESTRO framework provides that subsidiaries are expected to establish a structured and regular dialogue process with their stakeholders to inform and listen to them and take their concerns and expectations into account, cooperate and report on actions to avoid, reduce or offset the negative effects, measure their satisfaction and identify means of improving. TOTAL acknowledges the specificities of the rights of indigenous and tribal peoples (as referred to in International Labour Organization Convention No. 169) and has developed a framework which defines principles to be followed with these communities. It encourages the use of experts in order to identify and understand these peoples' expectations and specificities, consult them and contribute to their socio-economic development. This initiative is also consistent with the United Nations Guiding Principles on Business and Human Rights.

In the Refining & Chemicals segment, refineries and petrochemical sites put consultation with stakeholders at the heart of their ongoing improvement strategy and are all ISO 14001 certified. Local structures for dialogue have been set up, such as Community Advisory Panels in the United States and specific local committees for certain European platforms (Feyzin neighbors' conference and Donges residential committee). The Marketing & Services segment has developed stakeholder engagement tools which are adapted to the diversity of its businesses (oil terminals, filling sites, lubricant plants, road transport and service stations) which can be easily adapted in a wide variety of contexts and regions such as, for example, Reunion Island or Lebanon in 2020. For Exploration & Production projects, dialogue is initiated from the exploration phase, even when TOTAL does not have permanent teams on site. Each subsidiary or project develops an engagement plan with stakeholders describing a process for transparent dialogue, as well as the timetable and means of ensuring its implementation. In South Africa, Total EP South Africa (TEPSA) has conducted a number of public consultations within the framework of its future seismic and drilling surveys involving stakeholders and fishing communities. Specific meetings have been organized with civil society, local authorities and fishing associations in order to ensure that these parties are involved in the impact assessment process to address fears and concerns relating to the subsidiary's activities. Issues relating to managing the impact of future exploration programs have been discussed with local NGOs during various meetings. Furthermore, the subsidiary has launched an information and communication campaign on its activities via various media such as radio, a webinar and public posters. In order to facilitate dialogue and allow easy access for vulnerable communities, a dedicated hotline and free access to the TEPSA project site have been set up. A network of Community Liaison Officers (CLOs) has been rolled out on the ground at certain subsidiaries and projects to provide information and consult with neighboring communities, authorities and other local members of civil society, with a particular focus on vulnerable groups. CLOs are employed by TOTAL and come from the local communities. They speak the local languages, understand the local way of life and play a decisive role in establishing a good relationship between TOTAL and its local stakeholders.

5.9.2.3 Managing the societal impacts of the Group's activities

Avoid, reduce and compensate

Following the analysis of the challenges and the societal context, various actions have been taken by subsidiaries to minimize the impacts. For example, in 2020:

Impacts for local communities on access to land, maritime space and resources

In Mozambique, the identification of impacts related to land and livelihoods has led to a multi-year action plan for local populations: construction of housing, programs to develop agricultural and fishing activities, and relocation of burial sites. In Myanmar, the offshore pre-project baseline study detailed the issues relating to fisheries. It quantifies the potential impact on the entire fishing value chain for each village by category of fishermen and by type of fish caught and processed in the region.

Impacts on cultural and religious practices and heritage

In Uganda, with respect to the Tilenga project, consultations have been held with stakeholders concerning culture and religion. These have allowed the identification and relocation of individual graves and community cultural sites with the collaboration of traditional religious leaders.

Handling grievances from neighboring communities

The One MAESTRO reference framework provides that the Group's operating entities are expected to implement grievance handling procedures aligned with the United Nations Guiding Principles on Business and Human Rights. These provide residents and local communities with a preferential and easily accessible channel to voice their concerns and grievances and involve them in finding a solution. At every stage of the asset lifecycle, from developing a project to cessation of activity and divestment, the Group intends to provide swift and appropriate responses to people or organizations that have been adversely affected. As part of a continuous improvement process, analysis of all grievances received helps to improve operations. An internal methodological guide was published in 2020 setting out details of the process with practical tools drawing on international recommendations (International Petroleum Industry Environmental Conservation Association (IPIECA), International Council on Mining and Metals (ICMM), International Finance Corporation (IFC)). Grievance management forms part of the Group's societal reporting and is one its key performance indicators. At year-end 2020, 100% of entities in the Exploration & Production (E&P), Refining & Chemicals (R&C) and Marketing & Services (M&S) segments of the One MAESTRO rollout scope with an operational activity in 2020 (refer to point 5.11.4 of this chapter) had implemented or improved their grievance handling system.

In 2020, in order to make progress in this area, an Exploration & Production working group made up of societal experts from head office and subsidiaries identified best practices. A total of 13 entities received help in developing their grievance handling procedure, bringing the percentage of Exploration & Production operating entities with a mechanism of this kind at year-end 2020 to 100%. Residents are involved via resident dialogue bodies in finding solutions to control the impacts of the Group's activities. In Marketing & Services, operating subsidiaries have been made aware and given help with setting up a grievance handling process separate from business grievances.

Societal indicator	2020	2019	2018
Percentage of E&P, R&C and M&S segments' operating subsidiaries in the One MAESTRO rollout scope with an operational activity which have a grievance mechanism in place	99%	47%	40%

Grievances received by the Group's subsidiaries in connection with the societal impact of their activities correspond to the following: access to land and habitat, economic losses/loss of livelihood, dangers for the environment and health, employment and value chain, road safety/ logistics and transportation, adverse impact on culture and heritage, security and social conduct, quality of local dialogue and management of economic development projects.

5.9.2.4 Developing socio-economic initiatives in favor of local communities

First and foremost, the local projects address the issues of development and solidarity identified thanks to consultations with local communities, and favor cooperation and skills development.

Providing access to basic needs (access to energy, water, health, etc.)

In connection with the Group's willingness to make energy accessible to as many people as possible, the Integrated Gas, Renewables & Power segment developed a range of solar solutions to provide access to distributed energy in 38 countries in 2020. At year-end 2020, a total of 3.8 million solar lamps and kits had been sold, helping to improve the everyday lives of 17 million people. The Group's aim is to equip 25 million people by 2025.

In France, Total Marketing France (TMF) is pursuing its action to fight fuel poverty, by helping low-income households to make their homes more energy efficient within the framework of a number of national programs and initiatives: *Habiter Mieux avec l'Anah*, (a social and private housing support), Ecorce program (€101.2 million in 2020). The commitment to combat fuel poverty also concerns mobility via a program to provide help with transportation for people looking for jobs in partnership with WIMOOV.

The Group's subsidiaries have taken action to address the health crisis and launched many community initiatives to help during the COVID-19 pandemic for a cumulative amount of €70 million. These include:

– In France, Total Marketing France supported care workers by distributing 1,540,500 fuel cards to more than 8,000 hospitals and retirement homes.
– In Mozambique, as part of a memorandum of understanding with the Cabo Delgado province, Total E&P Mozambique Area 1 (TEPMA1) allowed the creation of a 22-bed isolation ward for COVID-19 patients at the Pemba district hospital. In addition, a five-year health, nutrition and hygiene program has been developed with its partner Pathfinder to help teenagers, children, women and migrants in the Palma district and the city of Mocimboa da Praia.
– In Bolivia, Total E&P Bolivie launched a COVID-19 pandemic support plan to help 1,651 Guaraní families from 14 local communities. These indigenous populations are particularly vulnerable owing to their isolation and lack of medical infrastructure. The plan has three main focuses: prevention, equipment and infrastructure.

In addition, the *Total Foundation* program launched initiatives during the COVID-19 pandemic (refer also to point 5.9.3.3 of this chapter).

Contributing to the development of local communities

In France, Total Quadran proposes a number of projects eligible for participatory financing of electricity production sites through platforms labelled "Green Growth" in order to enable local citizens to benefit from additional income linked to the sale of electricity. In 2020, 17 projects representing a production capacity of 90 MWc have thus been co-financed by citizens. Four of them allowed the entry of local authorities into the capital. Throughout France, 1,200 local contributors contributed €6 million to the financing of these projects.

In Mozambique, TEPMA1 has launched *Catalisa*, a five-year program with its technical partner TechnoServe and the authorities of the Cabo Delgado province in the districts of Pemba, Palma, Montepuez, Chiure and Ancuabe. The aim is to support the province's economic development with the education and vocational training of young people, as well as agro-industrial development (poultry and horticulture). At year-end 2020, the program had helped 175 farmers (including 76 women) to improve their productivity and meet local needs by creating 297 jobs. In addition, 500 young people took part in the development program and 15 new graduates received financial support to start their own business.

In Papua New Guinea, Total E&P PNG Limited involved local stakeholders in implementing long-term socioeconomic projects. As a result of baseline studies and impact assessments concerning human rights, emphasis has been placed on improving living conditions for women within communities. In partnership with all stakeholders (Gulf province, ministry of community development, local businesses, foundations, international development agencies, community representatives, the local health committee, local women's cooperative etc.) projects to support health, education and local economic development have been launched.

In Argentina, Total Austral has been working for ten years with local goat farmers on a sustainable rural development program in cooperation with consulting firm Halkis. Its aim is to provide technical and professional advice for farmers in partnership with local agencies. A total of 22 production development plans have been launched in 2020 despite the COVID-19 pandemic thanks to audio and video equipment.

5.9.3 Engaging in citizenship initiatives: the Total Foundation program

In addition to the solutions proposed by TOTAL in response to the direct expectations of the people related to its operations, the Group wants to contribute to local actions in the countries where it operates by addressing global societal challenges.

5.9.3.1 The Total Foundation program

Being present in over 130 countries, TOTAL has witnessed the escalation in inequality and social and environmental challenges, which affect young people in particular. Since 2017, the Total Foundation program covers the citizenship initiatives conducted every day worldwide by TOTAL, its subsidiaries and its corporate foundation. Its aim is to contribute to the vitality of the host communities and regions in which the Group is based by giving 12- to 25-year-olds the means to determine their own future.

The Total Foundation program favors collective action and aims to involve all members of the local region, including charities and the public and private sector. This joint approach based on local needs also allows the testing and rolling out of new solidarity models.

In addition to financial backing, the program's partners receive general help to develop and achieve their goals, thanks in particular to skills-based sponsorship. Since 2018, the Action! program has allowed TOTAL employees to spend up to three workdays a year on general interest projects. At the end of 2020, the program had been rolled out in 63 countries, and more than 9,300 projects have been carried out since it was launched.

5.9.3.2 Four areas of action

The Total Foundation program is based on four societal challenges, in line with the Group's history, values and businesses.

Youth education and inclusion

Unemployment and job insecurity are affecting more and more young people all over the world. The first area of the Total Foundation program aims to empower socially at-risk young people, by means of support and guidance, training, particularly in industry, and integration into the workplace.

In this context, and by way of example, in 2020, L'INDUSTREET, the campus for the industry of tomorrow, opened its doors in Stains in the Paris region. This new industry training center provides free training and offers innovative teaching to young people who are interested in new jobs in industry. Over time, it plans to provide places for 400 young people between 18 and 25 each year. In 2020, the Total Foundation also launched its first call for partners and selected eight new charities in France in order to broaden its reach, focusing primarily on mobility issues for young people getting qualifications, language skills as a means of joining society and the world of work, and support for young people coming out of the child welfare system. Total Foundation has also contributed to the launch of an experimental and collaborative training project in Senegal to address two issues: youth unemployment and the automation requirements of local industry.

Road safety

Road accidents are the leading cause of death among young people worldwide. The second priority of the Total Foundation Program is to ensure safer transportation in order to contribute to the global target of cutting the number of deaths and injuries on the road by 50% between now and 2030. Its actions include educating young people by means of local awareness, training and advocacy efforts, as well as participation in and support for the initiatives of international organizations.

In 2020, the Total Foundation continued with to roll out the VIA program to educate young people in road safety, mobility and citizenship in France, India, Kenya, Myanmar and Romania. It partnered with NGO Yours to support the Global Youth Coalition for Road Safety following its support for the World Youth Assembly for Road Safety in February 2020 in Stockholm. Total Foundation has also stepped up its efforts in Africa with two new partnerships: with NGO Amend, which works with motorcycle taxis, and with NGO Global Alliance, to increase the capabilities of African NGOs involved in road safety.

Climate, coastal areas and oceans

Global warming is a major issue. The third priority of the Total Foundation program is climate and the environment. Since 2018, it has been dedicated to protecting sensitive ecosystems, especially forests, by means of measures to encourage natural carbon storage. During 2020, this priority was refocused on measures relating to coastal areas and oceans in order to distinguish it from the activities of the Nature Based Solutions business unit created in 2019 to invest in natural carbon storage projects.

Coastal areas and oceans pose major environmental and climate challenges and are the link between the Group's various activities. Attention has therefore been redirected towards protecting coastal and ocean ecosystems, the development of knowledge sharing about the interactions between climate, coastal areas and oceans involving applied research experts, young people and the general public, and lastly to allow young people to discover coastal areas (field trips, training in careers at sea).

Within this framework, in 2020, the Total Foundation continued the partnership initiated in 2018 with the Office National des Forêts, supporting a reforestation program in the dune forests on the Aquitaine coast. The Total Foundation has also continued its support for the Tour du Valat research institute, mainly through a program to protect wetlands, as well as its support for the Conservatoire du Littoral coastal protection agency, primarily with a project to rewild the Métro dune in Landes, and a national exhibition on the French coastline titled "*Rivages en mouvement* (Shores in motion)".

Cultural dialogue and heritage

Inequalities in access to culture reinforce social and regional divides. The fourth priority of the Total Foundation aims to promote a sense of togetherness through culture and heritage, encouraging access for young people to cultural and artistic education, supporting contemporary creation by young people and protecting and passing on our heritage.

Within this framework, in 2020, the Total Foundation supported 12 restoration projects providing employment for young people in France through its partnership with the Fondation du Patrimoine. In artistic and cultural education, 2020 saw the signing of eight new partnerships allowing the emancipation and integration into civil society of young people. Lastly, the Total Foundation sponsored Africa 2020 in order to highlight the creative vitality of Africa and its young people (project postponed to 2020-2021 owing to the health crisis).

5.9.3.3 Taking action during the COVID-19 pandemic

As part of its efforts during the COVID-19 pandemic, the Group rapidly took action by ensuring business continuity and launching a number of community initiatives. In France, TOTAL provided care workers at hospitals and care homes with fuel vouchers worth €50 million. All over the world, subsidiaries launched a number of initiatives such as fuel donations, food donations and healthcare kits, as well as producing hand sanitizer and visors.

In addition, the Total Foundation decided to allocate €5 million to fighting the COVID-19 pandemic, focusing on three main areas:

- medical research (especially support for the Institut Pasteur);
- emergency health aid (providing medical equipment for health workers and partnership with the French Red Cross in Africa);
- help for the most vulnerable people (donations of essential products and initiatives to counter isolation among the sick and elderly using digital technology).

Employees also had the opportunity to donate the equivalent amount of some of their paid leave, topped up by the Group, to partner charities such as the Institut Pasteur, French Red Cross and Emmaüs via Break Poverty.

The Total Foundation also guaranteed support for its partner charities to help them get through the crisis and continue to operate, in particular to ensure the continuity of teaching to young people (in France, for example, support for eight national education academies and the Break Poverty charity to provide computers for around 5,500 young people).

5.10 Contractors and suppliers

8 DECENT WORK AND ECONOMIC GROWTH
16 PEACE, JUSTICE AND STRONG INSTITUTIONS

TOTAL's activities generate hundreds of thousands of direct and indirect jobs worldwide. Present in more than 130 countries, the Group works with a network of over 100,000 suppliers of goods and services. In 2020, the Group's purchases of goods and services (excluding petroleum products and vessel chartering by Trading & Shipping) represented approximately $23 billion worldwide. The allocation of expenditures at Group level is approximately 29% for goods (products, materials, etc.) and 71% for services (such as consulting services, materials supply operations, transportation, etc.).

Through their activities, the Group's subcontractors and suppliers may face the same risks that the Group encounters in its own activities, including societal and environmental risks. The most prominent risks relate mainly to human rights in the workplace (forced labor, child labor, discrimination, decent working conditions), health, security and safety, corruption, conflicts of interest, fraud and the environment.

TOTAL's success as a responsible company is played out all along its value chain, and the Group is convinced of the importance of working with suppliers that respect human rights and take care of their employees. The Group expects its suppliers to adhere to the Fundamental Principles of Purchasing set out in its own Code of Conduct. To that end, the Group has chosen to have management of its supplier relations coordinated by a dedicated cross-functional entity, Total Global Procurement, which is specifically tasked with providing Purchasing services and assisting the Group's entities and sites[1]. That approach is supplemented by employee training programs and actions to raise awareness among the Group's customers and suppliers. Its success is also based on TOTAL's involvement in international initiatives and collaborative programs specific to the energy sector that promote the emergence of best practices.

5.10.1 The Group's responsible procurement policy

8 DECENT WORK AND ECONOMIC GROWTH
16 PEACE, JUSTICE AND STRONG INSTITUTIONS

The Group ensures that contractual conditions are negotiated in an equitable manner with its suppliers. The Code of Conduct restates that requirement and the three essential principles that guide TOTAL's relations with its suppliers: dialogue, professionalism and compliance with commitments.

These principles are also set out in the Fundamental Principles of Purchasing, introduced in 2010, which outline the commitments to which TOTAL expects its employees and suppliers to adhere in the following areas: respect for human rights at work; the protection of health, security and safety; preservation of the environment; prevention of corruption and conflicts of interest and efforts to combat fraud; compliance with antitrust law; and the promotion of economic and social development. These principles uphold the fundamental principles defined in the United Nations Universal Declaration of Human Rights, the fundamental conventions of the International Labour Organization, the United Nations Global Compact and the OECD Guidelines for Multinational Enterprises.

In early 2020, as part of its policy of continuous improvement, Total Global Procurement finalized an update to the CSR risk mapping associated with the Group's procurement for each category of goods and services. This risk mapping examined CSR risks relating to human rights and fundamental freedom (working conditions and the right to organize, discrimination, health and safety, child labor, forced labor and modern slavery) as well as risks relating to the environment (depletion of natural resources; loss of biodiversity; climate change and greenhouse gases; waste and end-of-life management; air, water and soil pollution). This mapping is the result of methodological work carried out with support from AFNOR (the French standards association) during the second half of 2019, involving internal CSR experts and buyers. A Responsible Procurement roadmap defines TOTAL's guidelines for upholding respect for human rights in the supply chain, the environment and economic development. The Responsible Procurement Committee is tasked with monitoring the implementation of the Group's Responsible Procurement roadmap. It meets at least once a year and includes representatives from the Management Committee of Total Global Procurement, the Ethics Committee and the Civil Society Engagement, HSE and Legal divisions.

(1) Excluding notably Hutchinson, Saft Groupe, Total Quadran, Total Direct Energie, Greenflex and SunPower.

Actions to educate and raise awareness among employees

TOTAL has set up a number of channels of communication to raise awareness of risks and concerns related to its supply chain among its buyers. Training modules explaining the Group's ethical commitments and the Fundamental Principles of Purchasing have been developed for and made available to Group procurement officers. In 2020, 40 buyers attended training and/or awareness-raising sessions on respect for human rights and working conditions at supplier sites, and 99 received training on anti-corruption rules.

The Group provides its buyers with communications materials designed to help them discuss the Fundamental Principles of Purchasing with suppliers. In June 2019, a Total Global Procurement workshop was attended by 239 buyers and procurement support personnel and included a section on responsible purchasing. Following the update of the CSR risk mapping for the Group's procurement, workshops were held in 2020 to raise awareness of buyers on the risks associated to human rights and environment in the supply chain.

With respect to the development of best practices in business relations, since 2013 TOTAL has consistently trained its employees in mediation as an alternative method of dispute resolution. In addition, an email address (mediation.fournisseurs@total.com) is available on the TOTAL website to allow the Group's suppliers to contact the special internal mediator, who is tasked with facilitating relations between the Group and its French and international suppliers. The general purchasing terms and conditions also mention the possibility of recourse to mediation.

5.10.2 Application of the Group's policy to the supply chain

TOTAL expects its suppliers to:
- adhere to the Fundamental Principles of Purchasing and ensure compliance with those principles in their activities;
- agree to be audited in accordance with those principles;
- remain attentive to the day-to-day working conditions of their employees and their suppliers' employees;
- ensure that their own suppliers and subcontractors adhere to those Fundamental Principles of Purchasing;
- refer to the Group Ethics Committee in case of doubt.

The rules set out in those Principles must be included or transposed into the agreements concluded with suppliers. To that end, those Principles are available for consultation by all suppliers in both French and English on TOTAL's website (under "Suppliers").

The supplier qualification process

The harmonization of the supplier qualification process led to the publication of an internal reference guide in 2018, and an IT qualification tool has been gradually deployed since 2019. In all, 12,000 pilot suppliers at subsidiaries have been integrated to this tool, and Total Global Procurement integrated more than 3,500 of those suppliers into the qualification tool in 2020. That deployment process was delayed by the COVID-19 pandemic in 2020.

The tool is used to automate and document the supplier qualification process, which has four steps:
1. confirmation by the technical expert of the value of launching the qualification process;
2. a preliminary risk analysis to determine whether an in-depth analysis is needed for each criterion (HSE; anti-corruption; societal, financial and technical responsibility);
3. determination of the qualification status;
4. monitoring and renewal of qualification. Qualifications are valid for three years.

The supplier assessment process

At the same time, the Group has set up a supplier assessment process to identify and prevent the risk of severe violations of human rights and fundamental freedom, human health and safety. Since 2016, the Group has conducted audits of working conditions at supplier sites. A targeted audit plan is defined each year and includes suppliers suggested by subsidiaries in countries with an identified risk of human rights violations. Those audits measure respect for human rights in the workplace, including child labor, forced labor, discrimination, freedom of association and the right to collective bargaining, working conditions (overtime, days off) and workplace health and safety. Approximately 100 audits of at-risk suppliers are conducted each year. In 2020, 79 audits were conducted in the context of the COVID-19 pandemic. The Group plans to audit, by 2024, 100% of its strategic suppliers and 100% of its suppliers identified as being at risk as per the risk mapping identification process.

Moreover, TOTAL, BP, Equinor and Shell are continuing their efforts to develop a common collaborative platform to assess respect for human rights by their suppliers. The platform went live in September 2020, and the initial test audits have been conducted. Together, the partner companies are pursuing the goal of promoting improvement in working conditions across the supply chain of the companies involved. That initiative is designed to address the aim of United Nations SDG 8: "Decent work and economic growth".

Finally, pursuant to Rule 13p-1 of the U.S. Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, since 2014, TOTAL has filed to the US Stock Exchange Commission (SEC) an annual document relating to "conflict minerals"[(1)] sourced from the Democratic Republic of the Congo or an adjoining country. The document indicates whether, during the preceding calendar year, any such minerals were necessary to the functionality or production of a product manufactured by TOTAL SE or one of its consolidated entities (or contracted to be manufactured). The objective of this regulation is to prevent the direct or indirect funding of armed groups in central Africa. For more information, refer to TOTAL's most recent publication, available at sustainable-performance.total.com or sec.gov.

(1) Rule 13p-1 defines "conflict minerals" (irrespective of their geographical origin) as columbite-tantalite (coltan), cassiterite, gold and wolframite as well as their derivatives, which are limited to tantalum, tin and tungsten.

Actions to raise awareness among suppliers

TOTAL's supplier qualification process includes a section on routine anti-corruption compliance that is carefully administered by TGP and the Group's other purchasing entities. In addition, actions are taken during meetings with suppliers to raise awareness of corruption prevention and human rights, particularly during the Suppliers Day event that brings the Group's strategic suppliers together every two years. During Suppliers Day in 2019, the Fundamental Principles of Purchasing and the Group's new Code of Conduct were distributed to all participants. Particular emphasis was given to responsible procurement and the Group's principle of zero tolerance of corruption.

Each year (except in 2020 as a result of the COVID-19 pandemic), the International Procurement Office (TOTAL ITO in Shanghai, China) holds a compliance day. During that event, one of TOTAL's qualified suppliers is invited to share the actions that it has taken regarding anti-corruption compliance, the concrete problems it has encountered and how it deals with them. Special attention has been given to the issue of respect for human rights, which was also on the agenda of the Suppliers Day event organized by the IPO in Shanghai in December 2019.

5.10.3 Actions taken by the Group to promote responsible purchasing

Since 2010 TOTAL has been a signatory to the Responsible Supplier Relations Charter from France's Ministry of the Economy and Finance, which is designed to create a more sustainable and balanced relationship between customers and suppliers.

Since 2018 TOTAL has been a member of the Action Platform on Decent Work in Global Supply Chains organized by the United Nations Global Compact, and in that capacity it takes part in various workshops that aim to help the Global Compact member companies make progress in that area. In December 2018, the Group pledged to pursue its efforts with regard to decent work and respect for human rights in its supply chain by signing six commitments contained in the United Nations Global Compact. In October 2019, TOTAL welcomed participants at its offices for the Action Platform's fourth and final roundtable meeting. The first phase of the Action Platform yielded a Decent Work Toolkit for Sustainable Procurement. In 2020, the platform focused its efforts on helping lift workers out of poverty.

TOTAL is a member of the IPIECA Supply Chain Working Group. Building on the workshops held since 2015, TOTAL has continued to participate in the Operationalization of the U.N. Guiding Principles programs organized by IPIECA, aimed at both oil and gas companies and engineering, procurement and construction (EPC) contractors.

TOTAL is also committed to driving local economic development both in France and abroad. In April 2019, TOTAL launched the Total Pool PME program to help ten of the Group's small and medium-sized suppliers grow their business. Those ten companies enjoy the opportunity to network with other major companies free of charge for one year, receiving support and guidance for their executives and assistance in ramping up their international growth through Total Développement Régional. The program has proved so successful that it has now been established on a permanent basis. Twelve new SMEs received support through the program in 2020. In September 2020, TOTAL was awarded the CSR Prize at the Trophées Décision Achats awards in recognition of the initiative.

Lastly, the Group focuses special attention on the sheltered employment sector for disabled workers. In France, the Group's purchases from that sector represent about €3 billion in 2020. TOTAL is a member of the Pas@Pas organization and provides its buyers with an online directory that can be used to identify potential suppliers and service providers in the sheltered employment sector by region and category. A number of meetings have been organized in liaison with Mission Handicap, the Group's disabilities office, to familiarize the relevant buyers in Total Global Procurement with the Group's commitments and teach them how to use the online directory.

5.10.4 Payment terms

The payment terms of invoices from suppliers and customers of TOTAL SE as of December 31, 2020, pursuant to the provisions of Article D. 441-4 of the French Commercial Code, are as follows, these tables are established within the boundaries of the parent company, and not the Group and therefore include invoices issued and received between TOTAL SE and its subsidiaries.

In particular, outstanding customers invoices due at closing date, issued to consolidated companies of the Group represent in the table below:

– 9,137 invoices, i.e. 87% of invoices due.
– €463 million (including tax) i.e. 92% of the total value (including tax) of invoices due.

The balance is mainly made up of invoices issued to non-consolidated Group subsidiaries.

As of December 31, 2020: *(M€)*	**SUPPLIERS** Invoices received and outstanding at the closing date of the previous fiscal year						**CUSTOMERS** Invoices issued and outstanding at the closing date of the previous fiscal year					
	0 days (pro visional)	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days or more**	**Total (1 day or more)**	**0 days (pro visional)**	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days or more**	**Total (1 day or more)**
(A) Late payment brackets												
Number of invoices involved	810					516	378					10,501
Total value of invoices involved (including tax)	25	0	1	1	8	10	77	29	125	52	298	504[(a)]
Percentage of the total value of purchases for the fiscal year (including tax)	1%	0%	0%	0%	0%	0%						
Percentage of sales for the fiscal year (including tax)							2.2%	0.8%	3.6%	1.5%	8.5%	14.4%
(B) Invoices excluded from (A) relating to disputed or unrecorded liabilities and receivables												
Number of invoices excluded	None						None					
Total value of invoices excluded	None						None					
(C) Reference payment terms used (contractual or legal – Article L. 441-6 or Article L. 443-1 of the French Commercial Code)												
Payment terms used for late payment penalties	Legal payment terms						Legal payment terms					

(a) Customers invoices outstanding at the closing date of the previous fiscal year relate for the most part to Group customers.

5.11 Reporting scopes and methodology

5.11.1 Frameworks

The Group's reporting is based:

– for workforce indicators, on a practical handbook on the Group's workforce reporting protocol and methodology;
– for safety indicators, on a company rule on event and statistical reporting;
– for environmental and climate change-related indicators, on a company rule, together with segment-specific instructions;
– for societal reporting, on company instructions.

These documents are available to all companies of the Group and can be consulted at corporate headquarters, in the relevant divisions.

5.11.2 Scopes

Workforce reporting is based on two surveys: the Global Workforce Analysis and the complementary Worldwide Human Resources Survey. Two centralized tools (Sogreat and HR4U) are used to aid in those surveys.

The Global Workforce Analysis is conducted once a year, on December 31, in all the controlled, consolidated Group companies (refer to Note 18 to the Consolidated Financial Statements, point 8.7 of chapter 8) having employees, i.e., 317 companies in 96 countries as of December 31, 2020. The survey mainly covers worldwide workforces, hiring under permanent and fixed-term contracts (non-French equivalents of *contrats à durée déterminée* or *indéterminée*) and employee turnover at the global level. It offers a breakdown of the workforce by gender, professional category (managers and other employees and non-French equivalents), age and nationality.

The Worldwide Human Resources Survey (WHRS) is an annual survey that comprises 235 workforce indicators, including the health indicators described in point 5.4. The indicators are selected in cooperation with the relevant liaisons and cover major components of the Group Human Resources policy, such as mobility, talent development, training, work conditions, workplace dialogue, deployment of the Code of Conduct, human rights, health, compensation, retirement benefits and insurance. The survey covers a representative sample of the consolidated scope. The data published in this document is extracted from the most recent survey, carried out in December 2020 and January 2021; 127 companies in 52 countries, representing 88.1% of the consolidated Group workforce (92,896 employees) responded on each topic. For the health indicators, responses were collected across a broader scope of 143 companies in 52 countries, representing 89.6% of the consolidated Group workforce.

The *Socle social commun* scope covers the following 17 companies in France: TOTAL SE, Elf Exploration Production, Total Marketing Services, Total Marketing France, Total Additifs et Carburants Spéciaux, Total Lubrifiants, Total Fluides, Total Raffinage Chimie, Total Petrochemicals France, Total Raffinage France, Total Global Information Technology Services, Total Global Financial Services, Total Global Procurement, Total Global Human Resources Services, Total Learning Solutions, Total Facilities Management Services and Total Consulting.

Reporting on environmental and climate change-related indicators covers all activities, sites and industrial assets in which TOTAL SE, or one of the companies it controls exclusively, is the operator, i.e., it either operates or contractually manages the operations ("operated domain"). Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions(1). The Group subsidiaries that are not fully consolidated because they are not material from a financial standpoint are consolidated in the reporting on environmental indicators.

Greenhouse gas (GHG) emissions "based on the Group's equity interest" are also published for the "equity interest domain." This scope, which is different from the "operated domain," includes all the assets in which the consolidated subsidiaries have a financial interest or rights to production. This scope includes the entire statutory scope of the consolidated non-financial performance statement and the emissions of subsidiaries consolidated by equity method or not consolidated because not material from a financial standpoint.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds (refer to the section entitled "Consolidation method").

Reporting on safety indicators covers employees of subsidiaries controlled exclusively by the Group, employees of contractors working on sites, assets or activities operated by those subsidiaries and employees of transportation companies under long-term contracts. Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions(2). The subsidiaries operated by the Group that are not fully consolidated because they are not material from a financial standpoint are consolidated in the reporting on safety indicators.

Reporting on societal indicators covers the subsidiaries of the E&P, R&C and M&S segments that are part of the One MAESTRO scope of deployment (refer to point 5.11.4 of this chapter) with an operational activity, i.e. excluding the commercial offices of M&S, the trading activities of R&C and the E&P subsidiaries that had no exploration or production operations in 2020. Compared to the scope of financial consolidation, this corresponds to fully consolidated companies of the E&P, R&C and M&S segments, with some exceptions(3). It also includes subsidiaries of E&P, R&C and M&S segments corresponding to that scope that are not fully consolidated because they are not material from a financial standpoint are consolidated in the reporting on societal indicators.

Reporting on the Voluntary Principles on Security and Human Rights (VPSHR) covers the Group entities and subsidiaries that are particularly exposed to the disproportionate use of force. An annual campaign is used to send auto-diagnosis and risk assessment tools to these entities. This internal process has been in place since 2016. The results obtained are consolidated by the Corporate Security Division. The 2020 campaign specifically targeted 38 countries and the response rate was 89%.

Consolidation method

For the scopes defined above, the workforce, safety and societal indicators are fully consolidated.

For the "operated domain" scope, the environmental indicators are fully consolidated. For the "equity interest domain" scope, greenhouse gas emissions are consolidated based on the Group's equity interest in the assets or its share of production for oil and gas production assets. For non-operated assets, TOTAL relies on information provided by its partner operators. In cases where this information is not available, estimates are made based on past data or budget data or by analogy with similar assets.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds. These thresholds were calibrated in order to report 99% of greenhouse gas emissions and 95% of the Group's other emissions observed or modeled based on data related to fiscal year 2019. In addition, no site accounting for more than 2% of an indicator excludes this indicator from its reporting.

Changes in scope of consolidation

Workforce indicators are calculated on the basis of the consolidated scope of the Group as of December 31, 2020. This workforce data is presented on the basis of the operational business segments identified in the 2020 Consolidated Financial Statements.

For environmental and climate change-related indicators, acquisitions are recognized as of the acquisition date whenever possible, or otherwise January 1 of the current year or as of the following year. A few subsidiaries acquired in 2020 will be included in the reporting published in 2022 on fiscal year 2021(4). Any facility sold before December 31 is excluded from the Group's reporting scope for the current year.

Regarding safety indicators, acquisitions are recognized in the same year as soon as possible or on January 1 of the following year, with a few exceptions(5). A few subsidiaries acquired in 2020 will be included in the reporting published in 2022 on fiscal year 2021(6). All facilities sold are recognized up to the date of the sale.

Regarding societal indicators, subsidiaries of E&P, R&C and M&S segments are recognized as soon as possible and within no more than 36 months of the acquisition.

(1) As an exception, the scope of reporting on environmental and climate change-related indicators does not include Naphtachimie (R&C), BASF TOTAL Petrochemicals (R&C), Appryl (R&C), which are controlled jointly, and approximately 80 jointly-controlled assets operated by third parties in Exploration & Production.
(2) As an exception, the scope of reporting on safety indicators does not include exclusively controlled companies Midé Technology Corporation (R&C), Hutchinson Speyer PFW (R&C), Hutchinson PFW UK Machining (R&C), Hutchinson PFW Izmir (R&C), TOTAL EV charge (M&S) ; jointly controlled companies Naphtachimie (R&C), BASF TOTAL Petrochemicals (R&C) and Appryl (R&C) ; and approximately 80 jointly-controlled assets operated by third parties in Exploration & Production.
(3) As an exception, the scope of reporting for societal indicators of E&P, R&C and M&S does not include the commercial offices of M&S, the trading activities of R&C, the E&P subsidiaries not having had any exploration or production operations in 2020, the subsidiaries not applying One MAESTRO in these segments, i.e. Polyblend (R&C), Synova (R&C), Sobegi (R&C), Hutchinson (R&C) and the Zeeland Refinery (R&C) as well as the consolidated companies over which the Group does not have exclusive control, i.e. Naphtachimie (R&C), BASF TOTAL Petrochemicals (R&C), Appryl (R&C), and approximately 80 jointly controlled assets operated by third parties in E&P.
(4) Subsidiaries acquired in 2020 not included in the reporting on environmental and climate change-related indicators are PSR (M&S), Lubrilog (M&S) and the iGRP subsidiaries acquired or established in 2020, except the gas-fired power plants (Casteljon in Spain and Carlaing in France) for which ISO 14001 certificates and greenhouse gases emitted from the date of acquisition have been included in the Group's 2020 reporting.
(5) Subsidiaries acquired in 2018 and 2019 not included in the reporting on safety indicators are Midé Technology Corporation (R&C), Hutchinson Speyer PFW (R&C), PFW UK Machining (R&C), PFW Hutchinson Izmir (R&C) and TOTAL EV charge (M&S).
(6) Subsidiaries acquired in 2020 not included in the reporting on safety indicators are Lubrilog (M&S) and the iGRP gas-fired power plants (Casteljon in Spain and Carlaing in France).

5.11.3 Principles adopted

Indicator selection and relevance

The data published in the Registration Document is intended to inform stakeholders about the Group's annual results in social and environmental responsibility. The environmental indicators include the Group's performance indicators with reference made, to a large extent, to the IPIECA reporting guidelines, updated in 2020.

Methodological specificities

The methodology may be adjusted, in particular in light of the diversity of the Group's activities, the integration of newly acquired entities, lack of regulations or standardized international definitions, practical procedures for collecting data, or changes in methods.

Restatement of previous years' published data is limited to changes in methodology.

Consolidation and internal control

The workforce, environmental and climate change-related, societal and health and safety data is consolidated and checked by each operational unit and business segment before being checked at Group level. Data pertaining to certain specific indicators is calculated directly by the business segments. These processes undergo regular internal audits.

External verification

The external verification (Article R. 225-105-2 of the French Commercial Code) is performed at the Group and business levels, as well as in a sample of operational entities in and outside France, selected each year on the basis of their relative contribution to the Group, previous years' results and a risk analysis. The auditors' independence is defined by regulations and the profession's Rules of Professional Conduct and/or an impartiality committee.

5.11.4 Details of certain indicators

Workforce definitions and indicators

Outside of France, "management staff" refers to any employee whose job level is the equivalent of 300 or more Hay points. Permanent contracts correspond to *contrats à durée indéterminée (CDI)* and fixed-term contracts to *contrats à durée déterminée (CDD),* according to the terminology used in the Group's workforce reporting.

Employees present: employees present are employees on the payroll of the consolidated scope, less employees who are not present, i.e., persons who are under suspended contract (sabbatical, business development leave, etc.), absent on long-term sick leave (more than six months), assigned to a company outside the Group, etc.

Safety definitions and indicators

TRIR (Total Recordable Injury Rate): number of recorded injuries per million hours worked.

LTIR (Lost Time Injury Rate): number of lost-time injuries per million hours worked.

SIR (Severity Injury Rate): average number of days lost per lost-time injury.

Employees of contractors: any employee of a contractor working at a site that is part of the safety reporting scope or assigned by a transportation company under a long-term contract.

Tier 1 and Tier 2: indicator of the number of loss of primary containment events with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards.

Near miss: sudden event which, under slightly different circumstances, could have resulted in an accident. Near misses have a potential but no actual severity.

Incidents and near misses are assessed in terms of actual or potential severity based on a scale that consists of six levels. Events with an actual or potential severity level of four or more are considered serious.

Environmental or climate change-related definitions and indicators

Upstream oil and gas activities: the Group's upstream oil and gas activities include the oil and gas exploration and production activities conducted by the Exploration & Production and Integrated Gas, Renewables & Power segments. They do not include facilities for power generation from renewable sources or natural gas, such as combined-cycle natural gas power plants.

Non-routine flaring: flaring other than routine flaring and safety flaring occurring primarily during occasional and intermittent events.

Routine flaring: flaring during normal production operations conducted in the absence of sufficient facilities or adequate geological conditions for the reinjection, on-site utilization or commercialization of the gas produced (as defined by the working group of the Global Gas Flaring Reduction program as part of the World Bank's Zero Routine Flaring initiative). Routine flaring does not include safety flaring.

Safety flaring: flaring to ensure the safe performance of operations conducted at the production site (emergency shutdown, safety-related testing, etc.).

Water consumption: volume of water (fresh, brackish or sea water) taken that is not discharged into the environment or to a third party.

Waste: all waste is counted, with the exception of drilling debris, mining cuttings and polluted soil at inactive sites, which are counted separately.

Hydrocarbon spills with an environmental impact: spills with a volume greater than 1 barrel (≈159 liters) are counted. These are accidental spills of which at least part of the volume spilled reaches the natural environment (including non-waterproof ground). Spills resulting from sabotage or malicious acts are excluded. Spills that do not affect the environment are also excluded.

Fresh water: water with salinity below 2 g/l.

GEEI (Group Energy Efficiency Index): a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business reduced to base 100 in 2010 and consolidated with a weighting based on each business's net primary energy consumption. The scope of the indicator relates to the "operated domain" of the Group's upstream oil and gas activities and the Refining & Chemicals segment, with the exception of Hutchinson. It does not include facilities for power generation from renewable sources or natural gas, such as combined-cycle natural gas power plants.

GHG: the six greenhouse gases in the Kyoto protocol, namely CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, with their respective GWP (Global Warming Potential) as described in the 2007 IPCC report. HFCs, PFCs and SF_6 are virtually absent from the Group's emissions or are considered as non-material, and are therefore no longer counted as of 2018.

GHG based on the Group's equity interest: greenhouse gases emitted by the sites and activities that are part of the Group's "equity interest domain" (refer to point 5.11.2, "Scopes"). They are calculated on a pro rata basis according to the Group's share in the entity or the production (in the case of Group upstream oil and gas activities).

Scope 1 GHG emissions: direct emissions of greenhouse gases from sites or activities that are included in the scope of reporting for climate change-related indicators. Sites with GHG emissions and activities of less than 30 kt CO_2e/year are excluded.

Scope 2 GHG emissions: indirect emissions attributable to brought-in energy (electricity, heat, steam), excluding purchased industrial gases (H_2).

Scope 3 GHG emissions: other indirect emissions. The Group usually follows the oil & gas industry reporting guidelines published by IPIECA, which comply with the GHG Protocol methodologies. In this Universal Registration Document, only item 11 of Scope 3 (use of sold products), which is the most significant, is reported. Emissions for this item are calculated based on sales of finished products for which the next stage is end use, i.e., combustion of the products to obtain energy. A stoichiometric emission (oxidation of molecules to carbon dioxide) factor is applied to these sales to obtain an emission volume.

Carbon intensity: this indicator measures the average GHG emissions of energy products used by the Group's customers, from production in TOTAL facilities to end use by customers. This indicator takes into account:

- for the numerator:
  - emissions connected to the production and conversion of energy products used by the customers on the basis of the Group's average emission rates,
  - emissions connected to the use of sold products. For each product, stoichiometric emission factors[1] are applied to these sales to obtain an emission volume. Non-fuel use products (bitumen, lubricants, plastics, etc.) are not taken into account;
  - negative emissions stored through the use of CCUS and natural carbon sinks;
- for the denominator: the quantity of energy sold, with electricity placed on an equal footing to fossil fuels, taking into account the average capacity factor and average efficiency ratio.

Intensity of CO_2e emissions: Scopes 1 & 2 GHG emissions from the facilities operated by the Group for its upstream hydrocarbon activities (kg) divided by the Group's operated hydrocarbon production in barrels of oil equivalent (boe).

Intensity of methane emissions: the volume of methane emissions divided by the volume of commercial gas produced, from all facilities operated by the Group (oil and/or gas) for its upstream hydrocarbon activities. Gas facilities are facilities for which the sum of exported gas production and fuel gas (in boe) represents more than 50% of the operated production (exports + fuel gas).

Operated oil & gas facilities: facilities operated by the Group as part of its Upstream oil and gas activities as well as in its Refining & Chemicals and Marketing & Services segments. They do not include facilities for power generation from renewable sources or natural gas, such as combined-cycle natural gas power plants.

Oil spill preparedness:

- an oil spill scenario is deemed "important" when its consequences are at a minimum on a small scale and have a limited impact on the environment (approximately several hundred meters of shores impacted or several tons of hydrocarbons involved);
- an oil spill preparedness plan is deemed operational if it describes the alert mechanisms, if it is based on pollution scenarios that stem from risk analyses and if it describes mitigation strategies that are adapted to each scenario; if it defines the technical and organizational resources, internal and external, to be deployed; and lastly if it indicates the items to be addressed in order to begin monitoring the environmental impact of the pollution;
- Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities: are included for this indicator sites that have performed an exercise during the year on the basis of one of the scenarios identified in the oil spill preparedness plan up to the equipment deployment stage as well as sites that have been prevented from carrying out an exercise by a competent authority (e.g. administration, port authority, local fire brigade).

Other definition

- **One MAESTRO** (Management and Expectations Standards Toward Robust Operations): the Group's operational Health, Safety, Environment and Societal reference framework. This reference framework applies to the subsidiaries controlled exclusively by TOTAL with the following exceptions: subsidiaries acquired in 2020 and subsidiaries covered by an audited reference framework of their own, i.e. Hutchinson (R&C), Zeeland Refinery (R&C), Polyblend (R&C), Sobegi (R&C), Synova (R&C), Saft Groupe (iGRP), TEP Barnett (iGRP), SunPower (iGRP) and subsidiaries acquired or established by the iGRP segment within the past three years (the latter subsidiaries are in the process of being rolled out).

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(1) The emission factors used are taken from a technical note from the CDP: *Guidance methodology for estimation of scope 3 category 11 emissions for oil and gas companies.*

5.12 Independent third party's report

Independent third party's report on consolidated non-financial statement presented in the management report

This is a free translation into English of the original report issued in the French language and it is provided solely for the convenience of English speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the General Assembly,

In our quality as an independent verifier, accredited by the COFRAC under the number n° 3-1681 (scope of accreditation available on the website www.cofrac.fr), and as a member of the network of one of the statutory auditors of your Entity (hereafter "entity"), we present our report on the consolidated non-financial statement established for the year ended on the 31 12 2020 (hereafter referred to as the "Statement"), included in the management report pursuant to the requirements of articles L. 225 102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code de commerce*).

The entity's responsibility

The Board of Directors is responsible for preparing the Statement, including a presentation of the business model, a description of the principal non-financial risks, a presentation of the policies implemented considering those risks and the outcomes of said policies, including key performance indicators.

The Statement has been prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), the main elements of which are presented in the Statement in chapter 5.11.

Independence and quality control

Our independence is defined by the requirements of article L. 822-11-3 of the French Commercial Code and the French Code of Ethics (*Code de déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with applicable legal and regulatory requirements, the ethical requirements and French professional guidance.

Responsibility of the independent third party

On the basis of our work, our responsibility is to provide a report expressing a limited assurance conclusion on:
- the compliance of the Statement with the requirements of article R. 225-105 of the French Commercial Code;
- the fairness of the information provided in accordance with article R. 225 105 I, 3° and II of the French Commercial Code, i.e., the outcomes, including key performance indicators, and the measures implemented considering the principal risks (hereinafter the "Information").

However, it is not our responsibility to comment on the entity's compliance with other applicable legal and regulatory requirements, in particular the French duty of care law and anti-corruption and tax avoidance legislation nor on the compliance of products and services with the applicable regulations.

Nature and scope of the work

The work described below was performed in accordance with the provisions of articles A. 225-1 et seq. of the French Commercial Code, as well as with the professional guidance of the French Institute of Statutory Auditors ("CNCC") applicable to such engagements and with ISAE 3000[(1)]:
- we obtained an understanding of all the consolidated entities' activities and the description of the principal risks associated;
- we assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, where appropriate;
- we verified that the Statement includes each category of social and environmental information set out in article L. 225 102 1 III of the French Commercial Code as well as information set out in the second paragraph of article L. 22-10-36 regarding compliance with human rights and anti-corruption and tax avoidance legislation;
- we verified that the Statement provides the information required under article R. 225-105 II of the French Commercial Code, where relevant with respect to the principal risks, and includes, where applicable, an explanation for the absence of the information required under article L. 225-102-1 III, paragraph 2 of the French Commercial Code;
- we verified that the Statement presents the business model and a description of principal risks associated with the consolidated entities' activities, including where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the principal risks;
- we referred to documentary sources and conducted interviews to:
  - assess the process used to identify and confirm the principal risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the principal risks and the policies presented; and
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important presented in Appendix 1. Concerning certain risks (anti-corruption and tax avoidance), our work was carried out on the consolidating entity, for the others risks, our work was carried out on the consolidating entity and on a selection of entities : Total E&P Angola, Total E&P Danmark A/S, Total Direct Energie S.A. (Marchienne-au-Pont site), Greenflex S.A.S., Argedis, Paulstra S.N.C. (Châteaudun site), Total Petrochemicals & Refining USA (Port Arthur Refinery and Carville (COS-MAR) site), Total South Africa (PTY) Limited;

(1) ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.

- we verified that the Statement covers the scope of consolidation, i.e. all the consolidated entities in accordance with article L. 233-16 of the French Commercial Code;
- we obtained an understanding of internal control and risk management procedures the entity has put in place and assessed the data collection process to ensure the completeness and fairness of the Information;
- for the key performance indicators and other quantitative outcomes that we considered to be the most important presented in Appendix 1, we implemented:
  - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data;
  - tests of details, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities and covers between 7% and 21% of the consolidated data relating to the key performance indicators and outcomes selected for these tests (7% of total workforce, 21% of direct operated GHG emissions (scope 1), 13% of freshwater withdrawals, 14% of waste);
- we assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.

We believe that the work carried out, based on our professional judgement, is sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our verification work mobilized the skills of ten people and took place between September 2020 and March 2021 on a total duration of intervention of about thirty weeks.

We conducted interviews with around twenty persons responsible for the preparation of the Statement including in particular the divisions HSE, Strategy & Climate, Legal Affairs, Finance, Human Resources, Civil Society Engagement, Support & Purchasing Performance.

Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the consolidated non-financial statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.

Paris-La Défense, the 17 March 2021

French original signed by:

Independent third party
EY & Associés

Jean-François Bélorgey
Partner

Christophe Schmeitzky
Partner, Sustainable Development

Appendix 1: The most important information

Social Information and information linked to health and safety

Quantitative Information (including key performance indicators)	Qualitative Information (actions or results)
Social – Total number of employees – Total number of employees hired on permanent contracts – Total number of departures per category – Percentage of the Group's entities including HSE criteria in the variable compensation – Average number of training days/year per employee (onsite training) – Average number of training days/year per employee (remote training) – Average number of training days/year per employee, per segment and per geographical areas – Breakdown per type of training – Percentage of women among permanent contract recruitment, among management recruitment, among total employees, among managers, among senior executives – Percentage of employees of non-French nationality among permanent contract recruitment, among management recruitment, among total employees, among managers, among senior executives – Percentage of companies offering the option of regular remote working – Percentage of employees choosing remote working when given the option – Absences for medical reasons – Percentage of companies with labor union representation and/or employee representation – Percentage of employees covered by a collective bargaining agreement – Number of active agreements signed with employee representatives worldwide and in France	**Social** – Employment (attractiveness, retention) – Organization of work (organization, absenteeism) – Compensation (policy) – Social relations (social dialogue, collective agreements) – Training (policy) – Equal treatment (promotion of diversity, fight against discrimination, insertion of people with disabilities)
Health & Safety – Loss of primary containment Tier 1 and Tier 2 – Millions of hours worked – Number of occupational fatalities – Number of occupational fatalities per hundred million hours worked – TRIR (number of recorded injuries per million hours worked) – LTIR (number of lost time injuries per million hours worked) – SIR (average number of days lost per lost time injury) – Number of severe injuries (excluding fatalities) – Number of severe road accidents – Number of occupational illnesses recorded in the year – Percentage of employees with specific occupational risks benefiting from regular medical monitoring	**Health & Safety** – Health and safety (prevention actions)

Environmental Information and information linked to climate change

Quantitative Information (including key performance indicators)	Qualitative Information (actions or results)
Environment – Number of operated sites important for the environment ISO 14001 certified – Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water – Proportion of those sites with an operational oil spill contingency plan – Proportion of those sites that have performed an one oil spill response exercise or whose exercise was prevented following a decision by the authorities – Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage (number and volume) – SO_2 emissions – NO_x emissions – Hydrocarbon content of offshore water discharges – Percentage of sites that meet the target for the quality of offshore discharges – Hydrocarbon content of onshore water discharges – Percentage of sites that meet the target for the quality of onshore discharges – Fresh water withdrawals excluding cooling water – Quantity of non-hazardous and hazardous waste treated – Quantity of non-hazardous and hazardous waste valorized – Percentage of waste processed per treatment process (valorization, landfill, other) **Climate** – Direct GHG emissions at operated sites (scope 1) – Direct GHG emissions based on equity share (scope 1) – Indirect GHG emissions from energy use at operated sites (scope 2) – GHG emissions (scopes 1 & 2) from operated oil & gas facilities – Other indirect emissions – Use by customers of products sold for end use (scope 3) – Flared gas (hydrocarbons Upstream activities, operated scope) – Routine flaring – Carbon intensity of energy products used by the Group's customers – Intensity of GHG emissions (Scopes 1 & 2) at operated sites for hydrocarbons Upstream activities – Methane emissions from Group operated activities – Intensity of methane emissions from operated oil and gas facilities for hydrocarbon Upstream activities – Net primary energy consumption (operated scope) – Group energy efficiency indicator	– The results of the environmental policy – Climate change (significant emission sources due to activity, reduction objectives, adaptation measures) – Measures undertaken not to harm biodiversity – Pollution prevention measures – Circular economy (raw material, energy, waste management, food waste) – Water management

Societal Information

Quantitative Information (including key performance indicators)	Qualitative Information (actions or results)
– Percentage of E&P, R&C and M&S segments' operating subsidiaries in the One MAESTRO rollout scope with an operational activity which have a grievance mechanism in place	– Local impact (employment, development, local residents, dialogue...) – Subcontracting: subcontracting and suppliers (environmental and social issues) – Human rights: actions in favor of human rights, in particular respect for fundamental ILO Conventions – Corruption: plans implemented to prevent corruption – Tax avoidance: plans implemented to prevent tax avoidance

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TOTAL and its shareholders

6.1 Listing details

6.1.1 Listing

Stock exchanges and markets

- Paris (Euronext Paris);
- Brussels (Euronext Brussels);
- London (London Stock Exchange); and
- New York (New York Stock Exchange or NYSE).

Codes

ISIN	FR0000120271
Reuters	TOTF.PA
Bloomberg	FP FP
Ticker (Euronext)	FP
LEI	529900S21EQ1BO4ESM68

Inclusion and weight in the main stock indices as of December 31, 2020

Index	Weighting in the index	Ranking in the index
CAC 40	7.02%	3
Euro Stoxx 50	3.70%	5
Stoxx Europe 50	2.51%	11

Sources : Euronext, Stoxx and Bloomberg.

Inclusion in the ESG (Environment, Social and Governance) indices

DJSI World, DJSI Europe and FTSE4Good.

Market capitalization as of December 31, 2020[(1)]

Market	Market capitalization	Closing price
Euronext	€93.7 B	€35.30
NYSE	$111.2 B	$41.91

Market capitalization on Euronext Paris and in the eurozone as of December 31, 2020[(2)]

TOTAL SE is the fourth-largest market capitalization on the Euronext Paris regulated market and is the tenth-largest capitalization among the companies that make up the Euro Stoxx 50.

Percentage of free float

As of December 31, 2020, the free float factor determined by Euronext Paris for calculating TOTAL SE's weight in the CAC 40 was 95%. The free float factor determined by Stoxx for calculating TOTAL SE's weight in the Euro Stoxx 50 was 100%[(3)].

Par value

€2.50.

Debt credit rating (long-term/outlook/short-term)

As of December 31	2020	2019
Standard & Poor's	A+/Negative/A-1	A+/Positive/A-1
Moody's	Aa3/Negative/P-1	Aa3/Stable/P-1

On February 18, 2021, Standard & Poor's revised the long-term rating of TOTAL SE from A+ to A, with a stable outlook. The short-term debt rating remains unchanged at A-1.

On March 24, 2021, Moody's revised the long-term rating of TOTAL SE from Aa3 to A1, with a stable outlook. The short-term debt rating remains unchanged at P-1.

(1) Based on a share capital divided into 2,653,124,025 shares as of December 31, 2020.
(2) Source: Bloomberg for the market capitalizations in the eurozone other than TOTAL SE.
(3) Based on the last quarterly calculation available as of the end of December 2020.

6.1.2 Share performance

6.1.2.1 Change in share prices between January 1 and December 31, 2020

The change in Total's share price in 2020, compared with that of the share prices of its main peers listed in Europe and the United States, is shown in the following tables:

In Europe

(% calculated on the basis of the closing price in local currency)

Total (euro)	**-28.3%**
Royal Dutch Shell A (euro)	-44.1%
Royal Dutch Shell B (pound sterling)	-43.8%
BP (pound sterling)	-46.0%
ENI (euro)	-38.3%

Source : Bloomberg.

In the United States (American Depositary Receipts prices for European companies)

(% calculated on the basis of the closing price in US$)

Total	**-24.2%**
ExxonMobil	-40.9%
Chevron	-29.9%
Royal Dutch Shell A	-40.4%
Royal Dutch Shell B	-44.0%
BP	-45.6%
ENI	-33.5%

Source : Bloomberg.

6.1.2.2 Shareholder's annual return

€1,000 invested in Total shares by an individual residing in France, assuming that the dividends are reinvested in Total shares, would have generated the following returns as of December 31, 2020 (excluding tax and social withholding):

	Shareholder's annual return		Value as of December 31, 2020, of €1,000 invested	
Investment term	**Total**	**CAC 40[b]**	**Total**	**CAC 40**
1 year	-22.55%	-4.95%	775	951
5 years	2.40%	6.87%	1,126	1,394
10 years	4.57%	7.38%	1,563	2,039
15 years	2.76%[a]	4.61%	1,505	1,967

(a) Total's share prices, used for the calculation of the annual returns, take into account the adjustment made by Euronext Paris in 2006 following the detachment of Arkema's share allocation rights.

(b) CAC 40 prices taken into account to calculate the annual returns include all dividends distributed by the companies that are in the index.

Sources: Euronext Paris, Bloomberg.

6.1.2.3 Market information summary

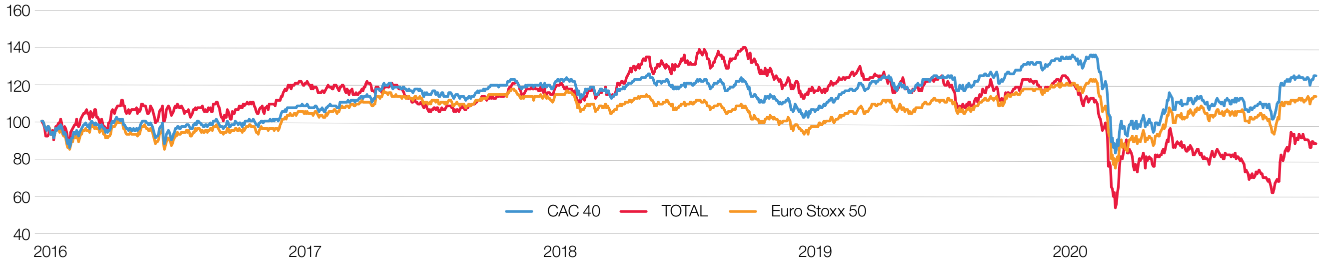
Total's share price over the 2016 – 2020 period *(€)*	**2016**	**2017**	**2018**	**2019**	**2020**
Highest (during trading session)	48.89	49.50	56.82	52.27	50.93
Lowest (during trading session)	35.21	42.23	43.09	42.65	21.12
Last price of the year (closing)	48.72	46.05	46.18	49.20	35.30
Average of the last 30 trading sessions (closing)	46.22	47.00	47.96	48.32	36.34
Trading volume (average per session)					
Euronext Paris[a]	6,508,817	5,380,909	6,199,835	5,549,490	8,420,407
NYSE[b]	2,109,802	1,667,928	1,855,274	1,770,853	2,965,225

(a) Number of Total shares traded.

(b) Number of American Depositary Receipts ("ADR") traded.

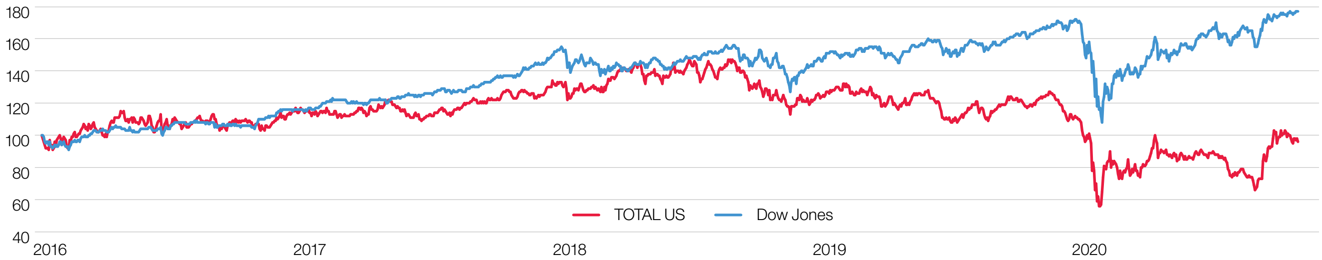
Sources: Euronext Paris, NYSE.

Change in Total share price at closing on Euronext Paris (2016-2020)



Base 100 as of 01/01/2016.
Sources: Euronext Paris, Bloomberg.

Change in Total ADR price at closing on NYSE (2016-2020)



Base 100 as of 01/01/2016.
Sources: NYSE, Bloomberg.

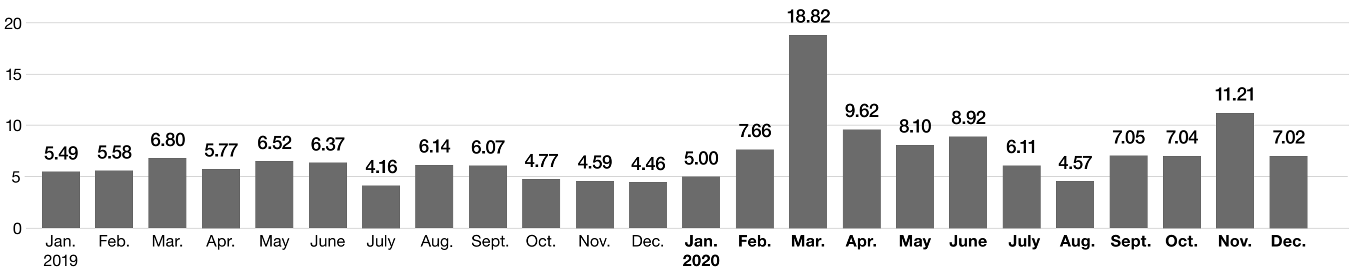
Change in Total share price at closing on Euronext Paris (2019-2020)

(in €)

Source : Euronext Paris.

Average number of Total shares traded on Euronext Paris (2019-2020)

(in millions of shares)



Source : Euronext Paris.

6.1.2.4 Arkema spin-off

Within the framework of the spin-off of Arkema's chemical activities from the Group's other chemical activities, the Annual Shareholders' Meeting of the Company on May 12, 2006, approved the Company's contribution to Arkema, under the regulation governing spin-offs, of all its interests in the businesses within Arkema's scope, as well as the allocation for each Total share (prior to share division by four) of an allotment right for Arkema shares, with 10 allotment rights entitling the holder to one Arkema share. Additionally, since May 18, 2006, Arkema's shares have been traded on Euronext Paris.

In accordance with the provisions of the notice prior to the sale of unclaimed shares (*"Avis préalable à la mise en vente de titres non réclamés"*) published on August 3, 2006, in the French newspaper *Les Échos*, Arkema shares corresponding to allotment rights for fractional shares which were unclaimed as of August 3, 2008, were sold on Euronext Paris at an average price of €32.5721 per share. BNP Paribas Securities Services paid an indemnity to the financial intermediaries on remittance of corresponding allotment rights for Arkema shares.

The unclaimed amounts are held by BNP Paribas Securities Services where the holders are still able to claim them for a period of 30 years after the payment of the indemnity. Past this time limit, the amounts will permanently become the property of the French State.

6.2 Dividend

6.2.1 Shareholder return policy

At its meeting of September 23, 2019, the Board of Directors reviewed the outlook for the Group through 2025 and noted the Group's ability to maintain a sustainable pre-dividend breakeven below $30/b and a solid financial position with a gearing objective below 20% (excluding lease commitments). The Board of Directors noted that the Group delivering on its strategy for sustainable and profitable growth in oil and gas activities, as well as investing in growing energy markets, notably LNG and low-carbon electricity, provided stronger visibility on the future of the Group, reflected by a projected increase in cash flow of more than $5 billion by 2025 with a price of $60/b, equal to an average increase of around $1 billion per year. Consequently, the Board of Directors decided to accelerate dividend growth, with guidance of increasing the dividend by 5 to 6% per year so as to reflect the anticipated growth of cash flows in an environment at $60/b.

At its meeting on May 4, 2020, in light of the economic crisis created by the COVID-19 pandemic but also considering the Group's solid fundamentals, the Board of Directors decided to maintain the balance of the dividend for fiscal year 2019 as announced on February 5, 2020 while proposing to the Shareholders' Meeting on May 29, 2020 that the balance of the dividend for fiscal year 2019 be paid in shares. It was also decided to suspend the dividend growth policy for 2020 and thus set the first interim dividend for fiscal year 2020 at €0.66 per share, at the same level as the first interim dividend payment for fiscal year 2019. At its meeting on July 29, 2020, the Board of Directors maintains the second interim dividend for 2020 at €0.66 per share and reaffirms its sustainability in a $40/b Brent environment. On October 29, 2020, it confirmed the third interim dividend payment maintained at €0.66 per share and reaffirmed its sustainability in a context of $40/b, particularly in view of the results of the third quarter. Finally, at its meeting on February 8, 2021, the Board confirmed its policy of supporting the dividend through economic cycles and proposed the distribution of a final dividend for 2020 of €0.66 per share, the same amount as for the previous three quarters, setting the dividend for 2020 at €2.64 per share.

Furthermore, on February 7, 2018, the Board of Directors decided within the framework of the policy of paying returns to shareholders that the Group would buy back, for the purpose of canceling all shares issued pursuant to the scrip dividend payment, with no discount as well as the Company's shares in an amount of up to $5 billion over the period from 2018 to 2020 in an environment at $60/b. At year-end 2019, the Group bought back shares for a total amount of $3.2 billion within the framework of the share buybacks announced in February 2018 which may amount up to $5 billion over the 2018-2020 period.

In respect of fiscal year 2020, the Group announced share buybacks in an amount of $2 billion in an environment at $60/b. Having bought back shares in an amount of $0.55 billion in the first quarter of 2020, it announced the suspension of share buybacks by the Company on March 23, 2020, against the backdrop of the COVID-19 pandemic and an oil price of around $30/b.

6.2.2 Dividend payment policy

On October 28, 2010, TOTAL SE's Board of Directors adopted a policy based on quarterly dividend payments starting in fiscal year 2011.

The decision of TOTAL SE's subsidiaries to declare dividends is made by their relevant Shareholders' Meetings and is subject to the provisions of applicable local laws and regulations. As of December 31, 2020, there is no restriction under such provisions that would materially restrict the distribution to TOTAL SE of the dividends declared by those subsidiaries.

Dividends for the fiscal year 2020

On February 8, 2021, the Board of Directors, after approving the financial statements for the fiscal year 2020, decided to propose to the Shareholders' Meeting on May 28, 2021 the distribution of a €2.64 dividend per share for the fiscal year 2020.

Subject to the Shareholders' decision of May 28, 2021, considering the first three interim dividends already decided by the Board of Directors, the final dividend for the fiscal year 2020 will be €0.66 per share.

2020 dividend	First interim	Second interim	Third interim	Final
Amount	€0.66	€0.66	€0.66	€0.66
Set date	May 4, 2020	July 29, 2020	October 29, 2020	May 28, 2021
Ex-dividend date	September 25, 2020	January 4, 2021	March 25, 2021	June 24, 2021
Payment date	October 2, 2020	January 11, 2021	April 1, 2021	July 1, 2021

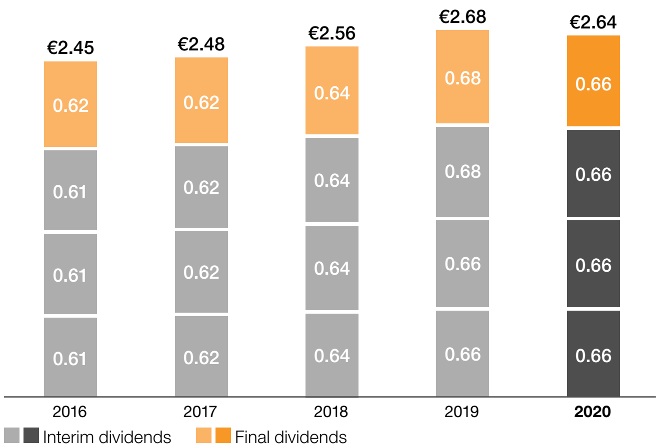
Dividends for the fiscal year 2021

Subject to the applicable legislative and regulatory provisions, as well as the pending approval by the Board of Directors and by the Shareholders' Meeting to be held on May 28, 2021, the ex-date calendar for the interim and final dividends for fiscal year 2021 is expected to be as follows:

	Ex-dividend date
First interim	September 21, 2021
Second interim	January 3, 2022
Third interim	March 22, 2022
Final	June 21, 2022

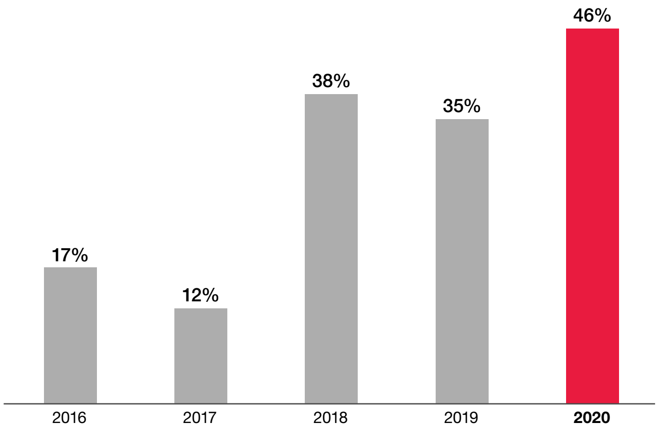
The provisional ex-dividend dates above relate to the shares admitted for trading on Euronext Paris.

Dividends for the last five fiscal years[(1)]



The rate of return to shareholders is calculated on the basis of the amount of dividends paid in cash during the year plus the amount of Total share buybacks carried out by the Company during the year (for the purpose of canceling shares issued in connection with the payment of the dividend in shares or under its share buyback program), as a percentage of cash flow from operating activities[(2)] for the year in question.

The rate of return to shareholders for the fiscal year 2020 was 46%[(3)]. Changes in the rate of return to shareholders over the past five fiscal years are as follows:



6.2.3 Dividend payment

Société Générale Securities Services manages the payment of the dividend, which is made through financial intermediaries using the Euroclear France direct payment system.

JP Morgan Chase Bank N.A. (383 Madison Avenue, Floor 11, New York, 10179, USA) manages the payment of dividends to holders of Total ADR.

Dividend payment on stock certificates

TOTAL issued stock certificates (*certificats représentatifs d'actions*, CR Actions) in Belgium as part of the public exchange offer for Total Petrochemicals & Refining SA/NV (formerly Petrofina) shares.

The CR Actions is a stock certificate provided for by French rules, issued by Euroclear France, intended to circulate exclusively outside of France, and which may not be held by French residents. Since January 1, 2018, in compliance with Belgian law, CR Actions may only be issued in the form of a dematerialized certificate. CR Actions issued before this date are freely convertible from a physical certificate into a dematerialized certification in the form of a security registered on a custody account.

In addition, ING Belgique is the bank handling the payment of all coupons detached from outstanding CR Actions. No fees are applicable to the payment of coupons detached from CR Actions, except for any income or withholding taxes; the payment may be received on request at the following bank branches:
- ING Belgique, avenue Marnix 24, 1000 Brussels, Belgium;
- BNP Paribas Fortis, avenue des Arts 45, 1040 Brussels, Belgium; and
- KBC BANK N.V., avenue du Port 2, 1080 Brussels, Belgium.

(1) Subject to approval at the Annual Shareholders' Meeting on May 28, 2021. Since January 1, 2018, dividends received by individuals having their tax residence in France are subject to a 30% flat rate on gross amount (i.e., 12.8% for income tax and 17.2% for social security contributions). However, with respect to income tax, taxpayers can opt for the taxation of their dividend income at the progressive scale with a 40% rebate.
(2) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective in 2020).
(3) Based on the amount of dividends paid in cash plus buybacks of Total shares carried out by the Company during 2020 amounting to $7.24 billion and to an operating cash flow before working capital changes of $15.70 billion in 2020.

6.2.4 Coupons

Fiscal year	Ex-dividend date	Payment date	Date of expiration	Type of coupon	Amount (€)
2014	09/23/2014	09/26/2014	09/26/2019	Interim dividend	0.61
	12/15/2014	12/17/2014	12/17/2019	Interim dividend	0.61
	03/23/2015	03/25/2015	03/25/2020	Interim dividend	0.61
	06/08/2015	07/01/2015	07/01/2020	Final dividend	0.61
2015	09/28/2015	10/21/2015	10/21/2020	Interim dividend	0.61
	12/21/2015	01/14/2016	01/14/2021	Interim dividend	0.61
	03/21/2016	04/12/2016	04/12/2021	Interim dividend	0.61
	06/06/2016	06/23/2016	06/23/2021	Final dividend	0.61
2016	09/27/2016	10/14/2016	10/14/2021	Interim dividend	0.61
	12/21/2016	01/12/2017	01/12/2022	Interim dividend	0.61
	03/20/2017	04/06/2017	04/06/2022	Interim dividend	0.61
	06/05/2017	06/22/2017	06/22/2022	Final dividend	0.62
2017	09/25/2017	10/12/2017	10/12/2022	Interim dividend	0.62
	12/19/2017	01/11/2018	01/11/2023	Interim dividend	0.62
	03/19/2018	04/09/2018	04/09/2023	Interim dividend	0.62
	06/11/2018	06/28/2018	06/28/2023	Final dividend	0.62
2018	09/25/2018	10/12/2018	10/12/2023	Interim dividend	0.64
	12/18/2018	01/10/2019	01/10/2024	Interim dividend	0.64
	03/19/2019	04/05/2019	04/05/2024	Interim dividend	0.64
	06/11/2019	06/13/2019	06/13/2024	Final dividend	0.64
2019	09/27/2019	10/01/2019	10/01/2024	Interim dividend	0.66
	01/06/2020	01/08/2020	01/08/2025	Interim dividend	0.66
	03/30/2020	04/01/2020	04/01/2025	Interim dividend	0.68
	06/29/2020	07/01/2020	07/01/2025	Final dividend	0.68
2020[(a)]	09/25/2020	10/02/2020	10/02/2025	Interim dividend	0.66
	01/04/2021	01/11/2021	01/11/2026	Interim dividend	0.66
	03/25/2021	04/01/2021	04/01/2026	Interim dividend	0.66
	06/24/2021	07/01/2021	07/01/2026	Final dividend	0.66

(a) A resolution is submitted to the Shareholders' Meeting on May 28, 2021, to pay a dividend of €0.66 per share for fiscal year 2020, exclusively in cash.

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6.3 Share buybacks

The Shareholders' Meeting on May 29, 2020, after considering the report from the Board of Directors, authorized the Board of Directors, with the possibility to sub-delegate such authority under the terms provided for by French law, pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code (formerly L. 225-209), of Regulation (EU) No. 596/2014 of April 16, 2014, on market abuse and of the General Regulation (*règlement général*) of the French Financial Markets Authority (*Autorité des marchés financiers*), to buy or sell shares of the Company within the framework of a share buyback program. The number of shares acquired may not exceed 10% of the share capital. The maximum purchase price was set at €80 per share. This authorization was granted for a period of 18 months and replaced the previous authorization granted by the Shareholders' Meeting on May 29, 2019.

6.3.1 Share buybacks and cancellations in 2020

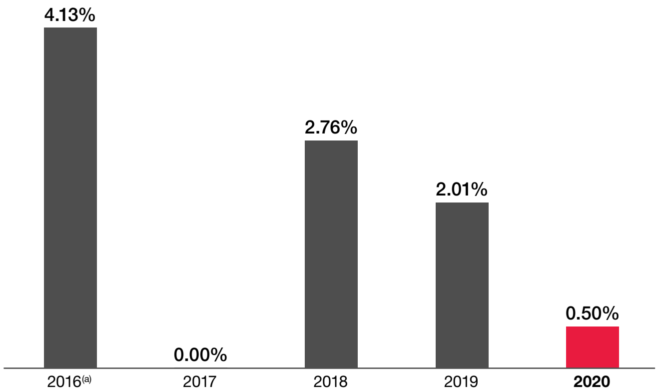
In 2020, TOTAL SE bought back 13,236,044 Total shares on the market, i.e. 0.50% of the share capital as of December 31, 2020.

12,233,265 Total shares were bought back in order to cancel them in an amount of $0.55 billion(1), within the framework of the share buybacks announced in February 2018 which may amount up to $5 billion over the 2018-2020 period.

In addition, 1,002,779 Total shares were bought back in order to cover the performance share plans approved by the Board of Directors.

TOTAL SE did not cancel any shares in the fiscal year 2020.

Percentage of share capital bought back



(a) Buyback of treasury shares off-market in order to cancel them immediately after.

6.3.2 Board of Directors' report on share buybacks and sales

6.3.2.1 Share buybacks during fiscal year 2020

Following the Board of Directors' decision on February 7, 2018, and pursuant to the authorization granted by the Shareholders' Meeting on May 29, 2019, the Company bought back 12,233,265 Total shares during fiscal year 2020, i.e. 0.46% of the share capital as of December 31, 2020, in order to cancel them. These shares were bought for a total of €502 million, at an average unit price of €41.07, equivalent to $0.55 billion at the average exchange rate for the first half of 2020, within the framework of the share buybacks announced in February 2018 which may amount up to $5 billion over the 2018-2020 period.

In addition, also pursuant to the above-mentioned authorization, the Company bought back, in 2020, a total of 1,002,779 Total shares for a total of€49.5 million, at an average unit price of €49.38, in order to cover the performance share plans approved by the Board of Directors.

6.3.2.2 Cancellation of Company shares during fiscal years 2018 to 2020

The Board of Directors, pursuant to the authorization granted by the Extraordinary Shareholders' Meeting on May 26, 2017, in the thirteenth resolution to reduce, on one or more occasions, the Company's share capital by canceling shares within the limits permitted by law, in accordance with the provisions of Articles L. 22-10-62 (formerly L. 225-209) and L. 225-213 of the French Commercial Code, canceled the following Total shares:

			Buybacks carried out regarding the		
Fiscal year	Board of Directors' decision date	Number of shares bought back and canceled	Cancelation of the dilution(a)	Shareholder return policy(b)	Percentage of share capital canceled(c)
2020			n/a(d)		
2019	December 11, 2019	65,109,435 shares bought back between October 29, 2018 and September 9, 2019	34,860,133 shares issued as payment for the 1st, 2nd and 3rd 2018 interim dividends	30,249,302 shares	2.44%
2018	December 12, 2018	44,590,699 shares bought back between February 9 and October 11, 2018	28,445,840 shares issued as payment for the 2nd and 3rd interim dividends as well as for the final 2017 dividend	16,144,859 shares	1.66%

(a) Cancellation of the dilution related to the shares issued, without discount, for the scrip dividend.
(b) Within the framework of the $5 billion share buyback program over the 2018-2020 period. On March 23, 2020, in the context of the COVID-19 pandemic and the fall in the oil prices, TOTAL SE announced the suspension of its buyback program. The Company had previously announced a $2 billion share buyback target for 2020 in a $60/b environment and has bought back $0.55 billion.
(c) Percentage of the share capital that the canceled shares represented on the operations' date.
(d) TOTAL SE did not cancel any shares in the fiscal year 2020.

(1) €502 million at the average exchange rate for the first half of 2020.

6.3.2.3 Transfer of shares during fiscal year 2020

4,317,575 Total shares were transferred during fiscal year 2020 following the final award of Total shares under performance share plans decided by the Board of Directors.

6.3.2.4 Shares held in the name of the Company and its subsidiaries as of December 31, 2020

As of December 31, 2020, the Company held 24,392,703 treasury shares representing 0.92% of TOTAL SE's share capital on that same date, including:

– 23,284,409 to be canceled; and
– 1,108,294 to cover the performance share plans.

In accordance with French law, these shares are deprived of voting rights and do not entitle holders to dividends.

In addition, for shares bought back in order to be allocated to Company or Group employees in line with the objectives referred to in Regulation (EU) No. 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse, it should be noted that, when such shares are held to cover share purchase option plans that have expired or performance shares that have not been granted by the end of the vesting period, they may be held under the conditions applicable to the holding by the Company of its own shares and used in accordance with the purposes specified for the buybacks by the Company of its own shares.

6.3.2.5 Reallocation for other purposes during fiscal year 2020

Treasury shares held by the Company were not, during fiscal year 2020, reallocated for purposes other than those initially planned when purchased.

6.3.2.6 Conditions for the share buybacks and use of derivative instruments

The Company did not use any derivative instruments as part of the share buyback programs authorized by the Shareholders' Meetings on May 29, 2019 and May 29, 2020. There was no open purchase or sale position as of December 31, 2020.

Transactions completed by the Company involving its treasury shares from January 1 to December 31, 2020

	Cumulative gross movements	
	Purchases	Sales/Transfers
Number of shares	13,236,044	4,317,575[a]
Average transaction price[b] *(€)*	41.70	–
Amount of transactions *(€)*	551,900,941.08[c]	–

(a) Corresponding to final award of Total shares under the performance share plans.
(b) Including brokerage fees (excluding tax).
(c) Including €115,307.16 of brokerage fees (excluding tax).

Treasury shares as of December 31, 2020

Percentage of share capital held by TOTAL SE	0.92%
Number of shares held in portfolio	24,392,703[a]
Nominal value of the portfolio *(€m)*	61.0[b]
Book value of the portfolio *(€m)*	1,094.7
Market value of the portfolio *(€m)*	861.1[c]

(a) Including 1,055,446 shares held to cover the performance share plans and 52,848 shares to be awarded under new share purchase option plans or new performance share plans.
(b) Based on a Total share par value of €2.50.
(c) Based on Total closing share price of €35.30 on Euronext Paris on December 31, 2020.

6.3.3 Share buyback program

Given the crisis created by the COVID-19 pandemic, the Board of Directors has decided that in 2021 priority will be given to reducing the Group's debt and that the share buybacks for the purpose of reducing the share capital by canceling shares will only be considered when the Group's gearing ratio (excluding lease commitments) is below 20%.

Under these conditions, the share buyback program will essentially be used to buy back shares to be allocated in the context of the performance share grant plans and the employer's contribution to the capital increases reserved for employees.

6.3.3.1 Description of the share buyback program under Article 241-1 *et seq.* of the General Regulation of the French Financial Markets Authority

The objectives of the share buyback program are as follows:

– reduce the Company's capital through the cancellation of shares;
– honor the Company's obligations related to securities convertible or exchangeable into Company shares;
– honor the Company's obligations related to stock option programs or other share grants to the Company's executive directors or to employees of the Company or Group subsidiaries; and
– stimulate the secondary market or the liquidity of the Total share under a liquidity agreement.

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6.3.3.2 Legal framework

Implementation of this share buyback program, which is covered by Articles L. 22-10-62 (formerly L. 225-209) et seq. L. 225-213 of the French Commercial Code, Article 241-1 et seq. of the General Regulation of the AMF) and the provisions of Regulation (EU) No. 596/2014 on market abuse, is subject to approval by the TOTAL SE Shareholders' Meeting on May 28, 2021, under the fourth resolution that reads as follows:

"Upon presentation of the report by the Board of Directors and information appearing in the description of the program prepared pursuant to Articles 241-1 *et seq.* of the General Regulation (*règlement général*) of the French Financial Markets Authority (*Autorité des marchés financiers*), and voting under the conditions of *quorum* and majority required for Ordinary Shareholders' Meetings, the shareholders hereby authorize the Board of Directors, with the possibility to sub-delegate such authority under the terms provided for by French law, pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code and of Regulation (EU) No. 596/2014 of April 16, 2014, on market abuse and of the General Regulation of the AMF, to buy or sell shares of the Company within the framework of a share buyback program.

The purchase, sale or transfer of such shares may be transacted by any means on regulated markets, multilateral trading facilities or over the counter, including the purchase or sale by block trades, in accordance with the regulations of the relevant market regulatory authorities. Such transactions may include the use of any financial derivative instrument traded on regulated markets and implementing option strategies.

These transactions may be carried out at any time, in accordance with the applicable rules and regulations at the date of the operations under consideration, except during any public offering periods applying to the Company's share capital.

The maximum purchase price is set at €80 per share.

In the case of a share capital increase by incorporation of reserves and free share grants or in the case of a stock-split or a reverse-stock-split, this maximum price shall be adjusted by applying the ratio of the number of shares outstanding before the transaction to the number of shares outstanding after the transaction.

Pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code, the maximum number of shares that may be bought back under this authorization may not exceed 10% of the total number of shares composing the capital as of the date on which this authorization is used. This limit of 10% is applicable to the share capital of the Company which may be adjusted from time to time as a result of transactions after the date of the present meeting. Purchases made by the Company may under no circumstances result in the Company holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

As of February 8, 2021, out of the 2,629,839,616 shares outstanding, the Company held 1,101,894 shares directly. Under these circumstances, the maximum number of shares that the Company could buy back is 261,882,067 shares and the maximum amount that the Company may spend to acquire such shares is €20,950,565,360 (excluding acquisition fees).

The purpose of this share buyback program is to reduce the number of outstanding shares of the Company or to allow it to fulfill its engagements in connection with:
– convertible or exchangeable securities that may give holders rights to receive shares of the Company upon conversion or exchange; and/or
– share purchase option plans, employee shareholding plans, Company Savings Plans or other share allocation programs for executive directors or employees of the Company or Group companies.

The purpose of buybacks may also be the implementation of the market practice accepted by the French Financial Markets Authority (*Autorité des marchés financiers*), i.e., support the secondary market or the liquidity of Total shares by an investment services provider by means of a liquidity agreement compliant with the deontology charter recognized by the French Financial Markets Authority (*Autorité des marchés financiers*).

This program may also be used by the Company to trade in its own shares, either on or off the market, for any other purpose that is authorized under the applicable law or any other permitted market practice that may be authorized at the date of the operations under consideration. In case of transactions other than the above-mentioned intended purposes, the Company will inform its shareholders in a press release.

According to the intended purposes, the treasury shares that are acquired by the Company through this program may, in particular, be:
– canceled, up to the legal limit of 10% of the total number of shares composing the capital on the date of the operation, per each 24-month period;
– granted for no consideration to the employees and to the executive directors of the Company or of other companies of the Group;
– delivered to the beneficiaries of the Company's shares purchase options having exercised such options;
– sold to employees, either directly or through the intermediary of Company savings funds;
– delivered to the holders of securities that grant such rights to receive such shares, either through redemption, conversion, exchange, presentation of a warrant or in any other manner; and
– used in any other way consistent with the purposes stated in this resolution.

While they are bought back and held by the Company, such shares will be deprived of voting rights and dividend rights.

This authorization is granted for an 18-month period from the date of this Meeting. It renders ineffective, up to the unused portion, any previous authorization having the same purpose.

The Board of Directors is hereby granted full authority, with the right to sub-delegate such authority, to undertake all actions authorized by this resolution."

6.3.3.3 Conditions

Maximum share capital to be purchased and maximum funds allocated to the transaction

The maximum number of shares that may be purchased under the authorization provided by the Shareholders' Meeting on May 28, 2021, may not exceed 10% of the total number of shares composing the capital, with this limit applying to an amount of the Company's share capital that will be adjusted, if necessary, to include transactions affecting the share capital subsequent to this meeting. Purchases made by the Company may under no circumstances result in the Company holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

Before any share cancellation under the authorization granted by the Shareholders' Meeting on May 28, 2021, based on the number of shares outstanding as of February 8, 2021[(1)] and given the 1,101,894 shares held by the Company as of February 8, 2021, representing 0.04% of the share capital, the maximum number of shares that may be purchased would be 261,882,067, representing a theoretical maximum investment of €20,950,565,360 (excluding acquisition fees) based on the maximum purchase price of €80.

Conditions for buybacks

Such shares may be bought back by any means on regulated markets, multilateral trading facilities or over the counter, including through the purchase or sale of blocks of shares, under the conditions authorized by the relevant market regulatory authorities. These means include the use of any financial derivative instrument traded on a regulated market or over the counter and the implementation of option strategies, with the Company taking measures, however, to avoid increasing the volatility of its stock. The portion of the program carried out through the purchase of blocks of shares will not be subject to quota allocation, up to the limit set by this resolution. These transactions may be carried out at any time, in accordance with the applicable rules and regulations, except during any public offering periods applying to the Company's share capital.

Duration and schedule of the share buyback program

In accordance with the fourth resolution, submitted to the Shareholders' Meeting on May 28, 2021, the share buyback program may be implemented over an 18-month period following the date of this meeting, i.e., until November 28, 2022.

Transactions carried out under the previous program

Transactions carried out under the previous program are listed in the special report of the Board of Directors on share buybacks (refer to point 6.3.2 of this chapter).

6.4 Shareholders

6.4.1 Major shareholders

6.4.1.1 Changes in major shareholders' holdings

TOTAL SE's major shareholders[(2)] as of December 31, 2020, 2019 and 2018 were as follows:

	2020			2019		2018	
As of December 31	% of share capital	% of voting rights	% of theoretical voting rights[(a)]	% of share capital	% of voting rights	% of share capital	% of voting rights
BlackRock, Inc.[(b)]	5.9	5.0	5.0	6.3	5.4	6.1	5.3
Employee shareholders[(c)]	6.4	10.7	10.6	5.3	9.0	4.8	8.4
of which FCPE Total Actionnariat France	*4.0*	*7.0*	*6.9*	*3.5*	*6.4*	*3.4*	*6.2*
Other shareholders	87.7	84.3	84.4	88.4	85.6	89.1	86.3
of which holders of ADRs[(d)]	*7.1*	*6.7*	*6.7*	*8.2*	*7.8*	*8.1*	*7.7*

(a) Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares to which voting rights are attached, including treasury shares that are deprived of voting rights.
(b) Information taken from Schedule 13G/A filed by BlackRock, Inc. ("BlackRock") with the SEC on February 1, 2021, in which BlackRock declared a holding of 155,333,940 Total shares as of December 31, 2020 (i.e., 5.9% of the Company's share capital). BlackRock stated that it has the exclusive right to dispose of its holding and of 139,093,459 voting rights (i.e., 5.0% of the Company's voting rights). In addition, BlackRock stated that it does not have any joint voting rights or joint right to dispose of these shares.
(c) On the basis of the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and, since 2020, article 11 par. 6 of the Articles of Association of the Company. Amundi, the holding company of Amundi Asset Management, which in turn manages the Total Actionnariat France collective investment fund (see below), filed a Schedule 13G/A with the SEC on February 16, 2021, declaring a holding of 235,346,504 Total shares as of December 31, 2020 (i.e., 8.9% of the Company's share capital). Amundi stated that it does not have any exclusive voting rights or exclusive right to dispose of these shares and that it has joint voting rights on 85,329,933 of these shares (i.e., 3.1% of the Company's voting rights) and a joint right to dispose of all of these shares.
(d) Including all of the American Depositary Shares represented by ADR admitted to trading on the NYSE.

(1) 2,629,839,616 shares.
(2) Major shareholders are defined herein as shareholders whose interest exceeds 5% of the share capital or voting rights.

The percentage of the holdings of the major shareholders was calculated based on the below data:

As of December 31	2020	2019	2018
Number of shares composing the share capital	2,653,124,025	2,601,881,075	2,640,602,007
Number of voting rights attached to the shares	2,784,218,957	2,747,986,237	2,766,134,802
Number of theoretical voting rights	2,808,611,660[a]	2,763,460,471[b]	2,798,608,083[c]

(a) Exercisable at the Shareholders' Meeting taking into account 24,392,703 voting rights attached to the 24,392,703 Total shares held by TOTAL SE that are deprived of voting rights.
(b) Exercisable at the Shareholders' Meeting as of December 31, 2019.
(c) Exercisable at the Shareholders' Meeting as of December 31, 2018.

6.4.1.2 Holdings above the legal thresholds

In accordance with Article L. 233-13 of the French Commercial Code, to TOTAL's knowledge, two identified shareholders held 5% or more of TOTAL's share capital or voting rights at year-end 2020:

– the Total Actionnariat France collective investment fund held, as of December 31, 2020, 4.0% of the share capital representing 7.0% of the voting rights exercisable at Shareholders' Meetings and 6.9% of the theoretical voting rights;
– BlackRock held, as of December 31, 2020, 5.9% of the share capital representing 5.0% of the voting rights exercisable at Shareholders' Meetings and 5.0% of the theoretical voting rights.

6.4.1.3 Legal threshold notifications in fiscal year 2020

AMF notice no.	Date of passing threshold	Group	Number of shares	% of share capital	% of voting rights	Going below/ above threshold of 5% of voting rights	Number of shares composing the share capital	Number of voting rights
220C1451	05/04/2020	BlackRock, Inc.	134,835,539	5.18%	4.91%	Below	2,601,881,075	2,747,291,284
220C1490	05/08/2020	BlackRock, Inc.	137,674,969	5.29%	5.01%	Above	2,601,881,075	2,747,291,284
220C1684	05/27/2020	BlackRock, Inc.	135,748,381	5.22%	4.94%	Below	2,601,899,954	2,747,301,710
220C1731	06/01/2020	BlackRock, Inc.	141,493,380	5.44%	5.15%	Above	2,601,899,954	2,747,301,710
220C3540	09/09/2020	BlackRock, Inc.	139,864,185	5.27%	4.98%	Below	2,653,124,025	2,807,319,689
220C3577	09/10/2020	BlackRock, Inc.	142,274,146	5.36%	5.07%	Above	2,653,124,025	2,807,319,689
220C3633	09/14/2020	BlackRock, Inc.	139,221,193	5.25%	4.96%	Below	2,653,124,025	2,807,319,689
220C3654	09/15/2020	BlackRock, Inc.	141,754,257	5.34%	5.05%	Above	2,653,124,025	2,807,319,689
220C3687	09/16/2020	BlackRock, Inc.	139,752,460	5.27%	4.98%	Below	2,653,124,025	2,807,319,689
220C3750	09/18/2020	BlackRock, Inc.	144,213,712	5.44%	5.14%	Above	2,653,124,025	2,807,319,689
220C3952	09/28/2020	BlackRock, Inc.	137,564,949	5.19%	4.90%	Below	2,653,124,025	2,807,319,689
220C3993	09/29/2020	BlackRock, Inc.	143,009,943	5.39%	5.09%	Above	2,653,124,025	2,807,319,689
220C4337	10/13/2020	BlackRock, Inc.	137,220,392	5.17%	4.89%	Below	2,653,124,025	2,807,336,284
220C4669	10/27/2020	BlackRock, Inc.	141,871,396	5.35%	5.05%	Above	2,653,124,025	2,807,336,284
220C4730	10/29/2020	BlackRock, Inc.	137,027,976	5.16%	4.88%	Below	2,653,124,025	2,807,336,284
220C4966	11/11/2020	BlackRock, Inc.	142,849,768	5.38%	5.09%	Above	2,653,124,025	2,807,336,284
220C5071	11/18/2020	BlackRock, Inc.	138,463,565	5.22%	4.93%	Below	2,653,124,025	2,808,501,904
220C5156	11/24/2020	BlackRock, Inc.	140,798,509	5.31%	5.01%	Above	2,653,124,025	2,808,501,904
220C5188	11/26/2020	BlackRock, Inc.	140,217,855	5.29%	4.99%	Below	2,653,124,025	2,808,501,904
220C5212	11/27/2020	BlackRock, Inc.	140,695,148	5.30%	5.01%	Above	2,653,124,025	2,808,501,904
220C5232	11/30/2020	BlackRock, Inc.	140,324,874	5.29%	4.99%	Below	2,653,124,025	2,808,501,904
220C5269	12/02/2020	BlackRock, Inc.	141,788,962	5.34%	5.05%	Above	2,653,124,025	2,808,501,904
220C5287	12/03/2020	BlackRock, Inc.	139,785,843	5.27%	4.98%	Below	2,653,124,025	2,808,501,904
220C5314	12/04/2020	BlackRock, Inc.	141,226,020	5.32%	5.03%	Above	2,653,124,025	2,808,505,536
220C5554	12/24/2020	BlackRock, Inc.	139,739,752	5.27%	4.98%	Below	2,653,124,025	2,808,505,536
220C5567	12/28/2020	BlackRock, Inc.	142,926,975	5.39%	5.09%	Above	2,653,124,025	2,808,505,536

6.4.1.4 Threshold notifications required by the bylaws

In addition to the legal obligation to inform the Company and the French Financial Markets Authority when the number of shares (or securities similar to shares or voting rights pursuant to Article L. 233-9 of the French Commercial Code) held represents more than 5%, 10%, 15%, 20%, 25%, 30%, one third, 50%, two thirds, 90% or 95% of the share capital or theoretical voting rights, such information being made at the latest on the close of the fourth trading day after the threshold is exceeded (Article L. 233-7 of the French Commercial Code and Article 223-14 of the AMF General Regulation), any individual or legal entity who directly or indirectly comes to hold a percentage of the share capital, voting rights or rights giving future access to the Company's share capital that is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Company, within 15 days of the date on which each of the above thresholds is exceeded, by registered mail with return receipt requested, and indicate the number of shares held.

If not declared, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a Shareholders' Meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Company's share capital or voting rights so request at that Meeting.

Any individual or legal entity is also required to notify the Company in due form and within the time limits stated above when their direct or indirect holdings fall below each of the thresholds mentioned above.

Notifications must be sent to the Senior Vice President of Investor Relations in London (contact details provided in point 6.6.6 of this chapter).

6.4.1.5 Temporary transfer of securities

Pursuant to legal provisions, any legal entity or individual (with the exception of those described in paragraph IV-3 of Article L. 233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than two hundredths of the Company's voting rights pursuant to one or more temporary transfers or similar operations as described in Article L. 22-10-48 (formerly L. 225-126) of the aforementioned Code is required to notify the Company and the AMF of the number of shares temporarily owned no later than the second business day preceding the Shareholders' Meeting at midnight (Paris time).

Notifications must be emailed to the Company at the following address: holding.df-declarationdeparticipation@total.com.

If no notification is sent, any shares acquired under any of the above temporary transfer operations will be deprived of voting rights at the relevant Shareholders' Meeting and at any Shareholders' Meeting that may be held until such shares are transferred again or returned.

6.4.1.6 Shareholders' agreements

TOTAL SE is not aware of any agreements among its shareholders.

6.4.2 Employee shareholding

As of December 31, 2020, based on the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code, the Group's employees held 171,115,446 Total shares, representing 6.4% of the Company's share capital and 10.7% of the voting rights distributed as follows:

FCPE Total Actionnariat France	106,569,955
FCPE Total Actionnariat International Capitalisation	35,444,029
FCPE Total France Capital+	5,264,613
FCPE Total Intl Capital	2,211,371
Shares subscribed by employees in the US	1,348,159
Shares subscribed by employees in Italy, Germany, Spain and Denmark	909,462
Total shares from the exercise of the Company's stock options and held as registered shares within a Company Savings Plan	1,503,502
Total performance shares granted to employees	17,864,355
TOTAL SHARES HELD BY EMPLOYEES	**171,115,446**

The management of each of the collective investment funds (FCPEs) mentioned above is controlled by a dedicated Supervisory Board, two thirds of its members representing holders of fund units and one third representing the Company. In accordance with legal provisions, the employees representing the unitholders are elected from among the unitholder employees as a whole based on the number of units held by each unitholder and, for the exercise of the voting rights attached to the securities issued by the company, after discussion in the presence of the company representatives, the voting operations take place without the latter being present. The Supervisory Board is responsible for reviewing the collective investment fund's management report and annual financial statements, as well as the financial, administrative and accounting management of the fund, exercising voting rights attached to portfolio securities, deciding contributions of securities in case of a public tender offer, deciding mergers, spin-offs or liquidations, and granting its approval prior to changes in the rules and procedures of the collective investment fund in the conditions provided for by the rules and procedures.

These rules and procedures also stipulate a simple majority vote for decisions, except for decisions requiring a qualified majority vote of two thirds plus one related to a change in a fund's rules and procedures, its conversion or disposal.

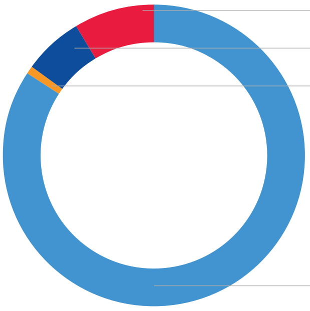
For employees holding shares outside of the employee collective investment funds mentioned in the table above, voting rights are exercised individually.

The information regarding shares held by the administration and management bodies is set forth in point 4.1.6 of chapter 4.

6.4.3 Shareholding structure

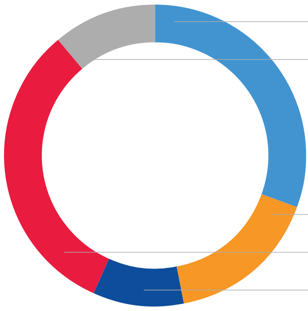
Estimates below are as of December 31, 2020, based on the survey of identifiable holders of bearer shares conducted on that date.

By shareholder type



(a) Based on the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Articles of Association of the Company.

By area



The number of individual and institutional TOTAL SE shareholders is estimated at approximately 550,000.

6.5 Information for foreign shareholders

6.5.1 American holders of ADRs

Information for holders of Total ADRs, representing American Depositary Shares, is provided in TOTAL's annual report on Form 20-F filed with the SEC for the fiscal year ended December 31, 2020.

6.5.2 Non-resident shareholders (other than American shareholders)

The information set forth below is a general overview. Shareholders are invited to consult their own tax advisor to determine the applicable procedures, the effect of tax treaties and, more generally, the tax impacts applicable to their particular situation. Furthermore, the following summary does not address the tax treatment applicable as from July 1, 2019 to temporary transfers of shares and other similar transactions which could, under certain conditions, fall within the scope of the anti-abuse measures set forth in Article 119 bis A of the French Tax Code.

Taxation of dividends

Dividends distributed by TOTAL SE are, in principle, subject to a withholding tax in France at a rate of 28% since January 1, 2020[(1)], when they are paid to non-resident legal entities shareholders and, since January 1, 2018, 12.8% when they are paid to individual shareholders, subject to compliance with certain formalities. Subject to applicable tax treaties, this rate is increased to 75% for income paid outside France in a Non-Cooperative Country or Territory ("NCCT"), as defined by Article 238-0 A of the French Tax Code[(2)].

However, under many tax treaties signed between France and other countries for the avoidance of double taxation ("Tax Treaties") and subject to specific conditions, the withholding tax rate is reduced or withholding tax is not applicable in cases where dividends are paid to a shareholder resident in one of the countries that signed such Tax Treaties (for example, 15% for dividends paid to shareholders residing in Austria, Belgium, Canada, Germany, Indonesia, Ireland, Italy, Luxembourg, the Netherlands, Norway, Singapore, South Africa, Spain, Switzerland, the United Kingdom and the United States; 10% for dividends paid by a French company to a resident of China, India or Japan; no withholding tax for dividends paid to a resident of Qatar or the United Arab Emirates).

Taxation of dividends outside France varies according to each country's local tax legislation. In most countries, the gross amount of dividends is included in the shareholder's taxable income. Based on certain requirements and limitations, the French withholding tax deducted from dividends generally entitles the shareholder to a tax credit to be deducted from the foreign income tax payable by the shareholder.

Excluding exceptions, dividends paid in shares and dividends paid in cash have the same tax treatment.

Taxation of sale of shares

Capital gains on sales of shares realized by shareholders that are tax residents outside France are generally exempt from income tax in France. Two exceptions are provided, without any threshold condition: one for sales of shares where the seller has a permanent establishment or a fixed base in France to which his or her shares are attached, and the other for sales carried out by individuals or organizations residing or established in a NCCT, as defined by Article 238-0 A of the French Tax Code[(3)].

The shareholder may be taxed on the capital gain realized on the sale of shares in his or her country of residence. Shareholders are invited to consult their own tax advisor to obtain confirmation of the applicable tax treatment.

A financial transactions tax ("FTT") applies, except under exceptional circumstances, to purchases of shares of companies listed on a French, European or foreign regulated market, provided that the purchase results in a transfer of ownership and that the securities are issued by a French company whose market capitalization exceeds €1 billion as of December 1 of the year preceding the year of taxation.

The FTT also applies to securities representing shares of stock issued by a company. Transactions carried out on certificates representing shares, such as ADRs or European Depositary Receipts, are therefore subject to this tax.

As of January 1, 2017, the FTT equals 0.3% of the share purchase price. Stamp duties are not applicable to sales of shares subject to the FTT.

(1) Rate reduced to 26.5% as of January 1, 2021 and 25% as of January 1, 2022.
(2) Apart from the countries and territories mentioned in point 2 bis (2°) of the same article.
(3) Apart from the countries and territories mentioned in point 2 bis (2°) of the same article.

6.6 Investor relations

6.6.1 Documents on display

Information and documents regarding TOTAL SE, its bylaws and the Company's Statutory and Consolidated Financial Statements for the year ended December 31, 2020, or previous fiscal years, may be consulted at its registered office pursuant to the legal and regulatory provisions in force, as well as on the Company website total.com.

In addition, the French version of TOTAL SE's Reference Documents or Universal Registration Documents (including the annual financial reports) and midyear financial reports filed with the French Financial Markets Authority (*Autorité des marchés financiers*) for each of the past 10 financial years are available on its website (under Investors/Publications and regulated information). The Group's biannual presentations of its results and outlook, as well as the quarterly financial information, are also available on its website.

Furthermore, in order to meet its obligations related to the listing of its shares in the United States, the Company also files an annual report on Form 20-F, in English, with the SEC. This report is also available on the Company website.

6.6.2 Relationships with institutional investors, financial analysts and individual shareholders

Members of the Group's General Management and Investor Relations regularly meet with institutional investors and financial analysts in the leading financial centers throughout the world.

In 2020, the Group kept up a sustained rate of meetings, mainly held by videoconference owing to the health crisis. More than 1,200 meetings have been organized.

Each year, two main presentations are given to the financial community: one in February following the publication of the results for the previous fiscal year, and one in September to present the Group's outlook and objectives. A series of meetings is held after each of these presentations. In addition, each year the Chief Financial Officer hosts three conference calls to discuss results for the first, second and third quarters of the year. The information presented and broadcast at these events is available on the Company's website.

With a dedicated team, the Group maintains an active dialogue with shareholders in the field of Environment, Social, and Governance (ESG). In this context, the Lead Independent Director also participated in two road shows held in London and Paris and, together with the Chairman and Chief Executive Officer, took part in a meeting with the investor coalition Climate Action 100+ as part of the development of the Group's new Climate Ambition presented in May 2020. In total, more than 200 ESG meetings were organized in France and abroad in 2020.

In addition, the Group has an ISO 9001 certified team dedicated to relationships with individual shareholders. This department, which is ISO 9001 certified, offers a comprehensive communication package, featuring:

- a direct line, email address, and postal address (refer to point 6.6.6 of this chapter);
- documentation and material provided for individual shareholders (e.g., the shareholders' newsletter, e-newsletter, Total Investors mobile app etc.);
- shareholder meetings and investor fairs held in France and worldwide; the Shareholders' Club, which organizes visits to industrial facilities, cultural events sponsored by the TOTAL Foundation and conferences about the Group;
- the Shareholders' e-Advisory Committee, which expresses its views on the communication service as a whole.

The documentation on relationships with individual shareholders is available on the Company's website (total.com, under Investors/Individual shareholders).

This team also organizes the Annual Shareholders' Meeting. In the context of the COVID-19 pandemic, the fight against its spread and in order to protect everyone's health, the Board of Directors has decided to hold the Annual Shareholders' Meeting on May 29, 2020, in an exceptional manner, behind closed doors, i.e., without the physical presence of shareholders and other members and persons entitled to attend.

No admission card was therefore issued and shareholders were invited to exercise their voting rights prior to the Shareholders' Meeting, either by Internet via the secure Votaccess platform, by returning their postal voting form or by giving a proxy. As the Group is particularly committed to preserving this key moment in the expression of shareholder democracy, it has taken care to implement the necessary means to facilitate remote participation by shareholders. Shareholders were able to follow the Meeting in full and live, thanks to its webcast on the total.com website. Shareholders were also able to ask questions online via a dedicated platform accessible on the website total.com three days before the Meeting and in live. More than 500 questions were collected. As every year, the Chairman and Chief Executive Officer spent an hour answering them after the questions had been classified by major themes. The transmission of the Shareholders' Meeting remains accessible by replay on the Company's website.

6.6.3 Registered shareholding

Total shares can be held in bearer form or registered form. In the latter case, shareholders are identified by TOTAL SE, in its capacity as the issuer, or by its agent, which is responsible for keeping the register of shareholders' registered shares. BNP Paribas Securities Services until January 17, 2020 and Société Générale Securities Services since January 20, 2020.

Registered shares

There are two forms of registration:

- administered registered shares: shares are registered with TOTAL through the Company's agent, but the holder's financial intermediary continues to administer them (sales, purchases, coupons, etc.);
- pure registered shares: TOTAL holds and directly administers shares on behalf of the holder through the Company's agent (sales, purchases, coupons, Shareholders' Meeting notices, etc.), so that the shareholder does not need to appoint a financial intermediary.

Main advantages of registered shares

The advantages of registered shares include:

- double voting rights if the shares are held continuously for more than two successive years (refer to point 7.2.4.1 of chapter 7);
- a Nomilia customer relations center available in 6 languages 24/7 by phone on +33 (0)2 51 85 67 89 (local call rate) with access to an advisor from Société Générale Securities Services, from Monday to Friday (business days) from 8.30 a.m. to 6.00 p.m. (Paris time);

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- registration as a recipient of all information published by the Group for its shareholders;
- the ability to join the TOTAL Shareholders' Club by holding at least 50 shares.

The advantages of pure registered shares, in addition to those of administered registered shares, include:
- no custodial fees;
- easier placement of market orders[1] (phone, mail, fax, Internet);
- brokerage fees of 0.19% (before tax) of the gross amount of the trade, with no minimum charge and up to €1,000 per trade;
- the option to view and manage shareholdings online via the Sharinbox site.

To convert Total shares into pure registered shares, shareholders must fill out a form that can be obtained upon request from the Individual Shareholder Relations Department and send it to their financial intermediary.

6.6.4 2021 financial calendar

February 9	Results of the fourth quarter and full year 2020 and Investors' Day
March 25	Ex-dividend date for the 2020 third interim dividend
April 29	Results of the first quarter 2021
May 28	2021 Annual Shareholders' Meeting in Paris
June 24	Ex-dividend date for the 2020 final dividend[a]
July 29	Results of the second quarter and first half 2021
September 21	Ex-dividend date for the 2021 first interim dividend[b]
September 28	Investors' Day (outlook and objectives)
October 28	Results of the third quarter and first nine months of 2021

(a) Subject to approval at the Annual Shareholders' Meeting on May 28, 2021.
(b) Subject to the Board of Directors' decision.

The full calendar including Shareholders' Meetings and investor fairs is available on the Company's website (total.com, under Investors).

6.6.5 2022 financial calendar

January 3	Ex-dividend date for the 2021 second interim dividend[a]
March 22	Ex-dividend date for the 2021 third interim dividend[a]
May 25	2022 Annual Shareholders' Meeting in Paris
June 21	Ex-dividend date for the 2021 final dividend[b]

(a) Subject to the Board of Directors' decision.
(b) Subject to approval at the Annual Shareholders' Meeting on May 28, 2021.

6.6.6 Contacts

Mr Ladislas Paszkiewicz,
Senior Vice President of Investor Relations, TOTAL SE

Total Finance Corporate Services,
10 Upper Bank Street, Canary Wharf
London E14 5BF, United Kingdom
email: ir@total.com
Tel.: +44 (0) 207 7197 962

Mr Robert Hammond,
Director of Investor Relations North America

Total American Services Inc.
1201 Louisiana Street, Suite 1800 Houston,
TX 77002, United States
email: ir.tx@total.com
Tel.: +1 (713) 483-5070

Mr Laurent Toutain,
Head of Individual Shareholder Relations

TOTAL SE Individual Shareholder Relations Department
Tour Coupole 2, place Jean Millier
92078 Paris La Défense Cedex, France
email: actionnaires@total.com

Tel (Monday to Friday from 9:00 a.m. to 12:30 p.m. and from 1:30 p.m. to 5:00 p.m., GMT+1):
- from France: 0800 039 039 (toll-free number from a landline);
- from Belgium: 02 288 3309;
- from the United Kingdom: 020 7719 6084;
- from Germany: 30 2027 7700;
- from other countries: +33 1 47 44 24 02.

(1) Provided the subscriber has signed the market service agreement. Signing this agreement is free of charge.

7

General information

7.1 Share capital

7.1.1 Amount of share capital as of December 31, 2020

As of December 31, 2020, the share capital amounted to €6,632,810,062.50, consisting of 2,653,124,025(1) ordinary shares, with a par value of €2.50 per share. All the shares issued have been fully paid up.

7.1.2 Features of the shares

There is a single category of shares. The shares are registered or in bearer form, at the shareholder's discretion. Double voting rights are granted to registered shares under the conditions set out in point 7.2.4.1 of this chapter.

The shares are in book-entry form and registered in an account.

7.1.3 Potential capital as of December 31, 2020

The potential share capital consists of the existing share capital to which are added the new Total shares that could be issued in the event of (i) the conversion or reimbursement in shares of all the rights giving access to the share capital, or (ii) the exercise of all the share subscription options.

As of December 31, 2020, there were no financial instruments likely to result in the creation of new Total shares.

7.1.4 History of changes in share capital since 2018

Transaction acknowledgment date	Shares created/ (canceled) *(number of shares)*	Type of transaction *(share capital increase/reduction)*	Nominal amount of the transaction *(euros)*	Issue/share premium per share *(euros)*	Share capital after the transaction *(euros)*	Shares composing the capital after the transaction *(number of shares)*
Fiscal year 2018						
January 11, 2018	2,649,308	Increase – Exercise of share subscription options in fiscal year 2017	6,623,270.00	n/a(a)	6,322,474,040.00	2,528,989,616
January 11, 2018	7,087,904	Increase – Payment of the 2017 second interim dividend	17,719,760.00	44.05	6,340,193,800.00	2,536,077,520
March 8, 2018	97,522,593	Increase – Consideration for the contribution of Mærsk Olie og Gas A/S shares	243,806,482.50	40.70	6,584,000,282.50	2,633,600,113
April 9, 2018	15,559,601	Increase – Payment of the 2017 third interim dividend	38,899,002.50	43.20	6,622,899,285.00	2,649,159,714
May 3, 2018	9,354,889	Share capital increase reserved for employees	23,387,222.50	34.70(b)	6,646,286,507.50	2,658,514,603
June 28, 2018	5,798,335	Increase – Payment of the 2017 final dividend	14,495,837.50	49.53	6,660,782,345.00	2,664,312,938
October 12, 2018	18,783,197	Increase – Payment of the 2018 first interim dividend	46,957,992.50	50.45	6,707,740,337.50	2,683,096,135
December 12, 2018	(44,590,699)	Reduction – Cancellation of treasury shares	(111,476,747.50)	n/a	6,596,263,590.00	2,638,505,436

(a) The shares created result from the exercise of share subscription options in fiscal year 2017 under the 2009, 2010 and 2011 share subscription options plans.
(b) Only the 9,174,817 shares subscribed by the employees as part of the share capital increase included an issue premium. The 180,072 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issue premium.

(1) Based on the number of shares composing the share capital, published by the Company in accordance with Article 223-16 of the General Regulation of the French Financial Markets Authority (*Autorité des marchés financiers*).

Transaction acknowledgment date	Shares created/ (canceled) *(number of shares)*	Type of transaction *(share capital increase/reduction)*	Nominal amount of the transaction *(euros)*	Issue/share premium per share *(euros)*	Share capital after the transaction *(euros)*	Shares composing the capital after the transaction *(number of shares)*
Fiscal year 2019						
January 14, 2019	2,096,571	Increase – Exercise of share subscription options in fiscal year 2018	5,241,427.50	n/a[(a)]	6,601,505,017.50	2,640,602,007
January 14, 2019	1,212,767	Increase – Payment of the 2018 second interim dividend	3,031,917.50	45.77	6,604,536,935.00	2,641,814,774
April 8, 2019	14,864,169	Increase – Payment of the 2018 third interim dividend	37,160,422.50	46.80	6,641,697,357.50	2,656,678,943
June 6, 2019	10,047,337	Share capital increase reserved for employees	25,118,342.50	37.60[(b)]	6,666,815,700.00	2,666,726,280
October 29, 2019	264,230	Increase – Exercise of share subscription options in fiscal year 2019	660,575.00	30.50[(c)]	6,667,476,275.00	2,666,990,510
December 11, 2019	(65,109,435)	Reduction – Cancellation of treasury shares	(162,773,587.50)	n/a	6,504,702,687.50	2,601,881,075

(a) The shares created result from the exercise of share subscription options in fiscal year 2018 under the 2010 and 2011 share subscription options plans.
(b) Only the 9,845,111 shares subscribed by the employees as part of the share capital increase included an issue premium. The 202,226 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issue premium.
(c) The shares created result from the exercise of share subscription options in fiscal year 2019 under the 2011 share subscription options plan.

Transaction acknowledgment date	Shares created/ (canceled) *(number of shares)*	Type of transaction *(share capital increase/reduction)*	Nominal amount of the transaction *(euros)*	Issue/share premium per share *(euros)*	Share capital after the transaction *(euros)*	Shares composing the capital after the transaction *(number of shares)*
Fiscal year 2020						
April 27, 2020	18,879	Increase – Deferred contribution pursuant to the 2015 capital increase reserved for employees	47,197.50	n/a[(a)]	6,504,749,885.00	2,601,899,954
June 11, 2020	13,160,383	Share capital increase reserved for employees	32,900,957.50	23.70[(b)]	6,537,650,842.50	2,615,060,337
July 16, 2020	38,063,688	Increase – Payment of the 2019 final dividend	95,159,220.00	26.30	6,632,810,062.50	2,653,124,025

(a) The creation of 18,879 shares as deferred contribution to the 2015 capital increase reserved for employees, in the form of free shares pursuant to Article L. 22-10-59 (formerly L. 225-197-1) of the French Commercial Code, did not include an issue premium.
(b) Only the 12,952,925 shares subscribed by the employees as part of the share capital increase included an issue premium. The 207,458 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issue premium.

On February 8, 2021, the Board of Directors decided to decrease the share capital of TOTAL SE by way of cancellation of 23,284,409 treasury shares. As of February 8, 2021, the share capital of the Company thus amounts to €6,574,599,040 and is divided into 2,629,839,616 shares.

7.2 Articles of Association; other information

The Annual Shareholders' Meeting on May 29, 2020, approved to transform TOTAL S.A. into a European company (*Societas Europaea* or SE). The legal status of a European company is common to all the countries in the European Union and is used by an increasing number of companies in France and in Europe. This status better reflects the economic and social reality of the Group and ensures that its European dimension is fully recognized.

The Company officially became a European company on the date it was registered under its new status in the Nanterre Trade and Companies Register, on July 16, 2020. The process was completed without the creation of a new legal entity and will have no impact on the Company's governance, activities, tax affairs or organization, where it is listed or the location of the head office, which remained in France.

In 2021, a resolution will be submitted to the Shareholders' Meeting on May 28, 2021 to change the Company name to TotalEnergies in order to anchor into the corporate name the transformation of the Company into a broad energy company.

7.2.1 General information concerning the Company

The Company's name is TOTAL SE.

TOTAL SE is a European company governed by French law. The headquarters are located at 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France. It is registered in the Nanterre Trade and Companies Register under No. 542 051 180.

The Company's term was extended for 99 years until March 28, 2119, *i.e.*, it will expire on March 28, 2119, unless dissolved prior to this date or extended.

Fiscal year: from January 1 to December 31 of each year.

LEI (Legal Entity Identifier): 529900S21EQ1BO4ESM68.

EC Registration Number: FR 59 542 051 180.

APE Code (NAF): 111Z until January 7, 2008; 7010Z since January 8, 2008.

The Company's Articles of Association are on file with K.L. Associés, Notaries in Paris.

The telephone number is +33 (0)1 47 44 45 46 and its internet address is total.com.

7.2.2 Corporate purpose

The purpose of the Company, directly and indirectly and in all countries, is:

1. All activities relating to production and distribution of all forms of energy, including electricity from renewables;
2. The search for and extraction of mining deposits, particularly all forms of hydrocarbons, and the production, refining, transportation, processing and trading in said materials as well as their derivatives and by-products;
3. All activities relating to the chemicals sector in all its forms and to the rubber sector;

And in general, all financial, commercial, industrial, securities or real estate transactions, and acquisitions of interests or holdings in any form whatsoever, in any business or company existing or to be created that may relate, directly or indirectly, to the abovementioned purposes or to any similar or related purposes, of such nature as to promote the Company's expansion or its development.

7.2.3 Provisions of the Articles of Association governing the administration and management bodies

7.2.3.1 Election of directors and term of office

Directors are elected by the Shareholders' Meeting, which determines the duration of their term of office not to exceed three years, up to a maximum number of directors authorized by law (currently 18), subject to the legal provisions that allow the term to be extended until the next Ordinary Shareholders' Meeting called to approve the financial statements for the previous fiscal year.

In addition, one director representing the employee shareholders is elected by the Shareholders' Meeting for a three-year term from a list of at least two candidates preselected by the employee shareholders under the conditions provided for by the laws, regulations and Articles of Association in force. However, his or her term shall expire automatically once this Director is no longer an employee or a shareholder. The Board of Directors may meet and conduct valid deliberations until the date his or her replacement is named.

Furthermore, a director representing the employees is designated by the Company's Central Social and Economic Committee. Where the number of directors appointed by the Shareholders' Meeting is greater than eight(1), a second director representing the employees is designated by the Total European Works Council. In accordance with applicable legal provisions, the director elected by the Central Social and Economic Committee must have held an employment contract with the Company or one of its direct or indirect subsidiaries, whose registered office is based in mainland France, for at least two years prior to appointment. By way of derogation, the second director elected by the Total European Works Council must have held an employment contract with the Company or one of its direct or indirect subsidiaries for at least two years prior to appointment. The term of office for a director representing the employees is three years. However, the term of office ends following the Ordinary Shareholders' Meeting called to approve the financial statements for the last fiscal year and held in the year during which the said director's term of office expires.

7.2.3.2 Age limit of directors

On the closing date of each fiscal year, the number of individual directors over the age of 70 may not be greater than one third of the directors in office. If that number is exceeded, the oldest Board member is automatically considered to have resigned. The director serving as permanent representative of a legal entity must be under 70 years old.

7.2.3.3 Age limit of the Chairman of the Board and the Chief Executive Officer

The duties of the Chairman of the Board of Directors automatically cease on his or her 70th birthday at the latest.

To hold this office, the Chief Executive Officer must be under the age of 67. When the age limit is reached during his or her duties, such duties automatically cease, and the Board of Directors elects a new Chief Executive Officer. However, his or her duties as Chief Executive Officer will continue until the date of the Board of Directors' meeting aimed at electing his or her successor. Subject to the age limit specified above, the Chief Executive Officer can always be re-elected.

The age limits specified above are stipulated in the Company's Articles of Association.

7.2.3.4 Minimum interest in the Company held by directors

Each director (other than the director representing the employee shareholders or the directors representing the employees) must own at least 1,000 shares during his or her term of office. If, however, any director ceases to own the required number of shares, they may adjust their position subject to the conditions set by law. The director representing employee shareholders must hold, during his or her term of office, either individually or through a Company Savings Plan (*Fonds Commun de Placement d'Entreprise*, FCPE) governed by Article L. 214-165 of the French Monetary and Financial Code, at least one share or a number of units in said fund equivalent to at least one share. The directors representing the employees are not required to be shareholders.

7.2.3.5 Majority rules for Board meetings

Decisions are adopted by a majority vote of the directors present or represented. In the event of a tie vote, the person chairing the meeting shall cast the deciding vote.

When permitted by applicable regulations, directors participating in the meeting via video conferencing or telecommunications technology as defined by decree shall be deemed present for the calculation of the *quorum* and the majority.

7.2.3.6 Rules of procedure and Committees of the Board of Directors

Refer to point 4.1.2 of chapter 4.

7.2.3.7 Form of management

Management of the Company is assumed either by the Chairman of the Board of Directors (who then holds the title of the Chairman and Chief Executive Officer), or by another person appointed by the Board of Directors with the title of Chief Executive Officer. It is the responsibility of the Board of Directors to choose between these two forms of management under the majority rules described above.

At its meeting on December 16, 2015, the Board of Directors decided to reunify the positions of Chairman and Chief Executive Officer of the Company as of December 19, 2015. Since that date, Mr. Pouyanné has held the position of Chairman and Chief Executive Officer of TOTAL SE. After his term of office as director was renewed for a three-year period at the Shareholders' Meeting on June 1, 2018, the Board of Directors reappointed Mr. Pouyanné as Chairman and Chief Executive Officer for the same period. For additional information on the governance structure, refer to point 4.1.5.1 of chapter 4.

(1) Neither the director representing employee shareholders, elected by the Annual Shareholders' Meeting, nor the director(s) representing employees are taken into consideration when calculating the eight-member threshold, which is assessed on the date on which the employee director(s) is/are elected.

7.2.4 Rights, privileges and restrictions attached to the shares

In addition to the right to vote, each share entitles the holder to a portion of the corporate assets, distributions of profits and liquidation dividend that is proportional to the number of shares issued, subject to the laws and regulations in force, as well as the Articles of Association.

With the exception of double voting rights, no privilege is attached to a specific class of shares or to a specific class of shareholders.

7.2.4.1 Double voting rights

Double voting rights, in relation to the portion of share capital they represent, are granted to all fully paid-up registered shares held continuously in the name of the same shareholder for at least two years[(1)], and to additional registered shares allotted to a shareholder in connection with a share capital increase by capitalization of reserves, profits or premiums on the basis of the existing shares which entitle the shareholder to a double voting right.

7.2.4.2 Limitation of voting rights

Article 18 of the Company's Articles of Association provides that at Shareholders' Meetings, no shareholder may cast, by himself or through his agent, on the basis of the single voting rights attached to the shares he holds directly or indirectly and the shares for which he holds powers, more than 10% of the total number of voting rights attached to the Company's shares. In the case of double voting rights, by himself or through his agent, this limit may be exceeded, taking only the resulting additional voting rights into account, provided that the total voting rights that he exercises do not exceed 20% of the total voting rights associated with the shares in the Company.

Additionally, Article 18 of the Articles of Association also provides that the limitation on voting rights no longer applies, absent any decision of the Shareholders' Meeting, if an individual or a legal entity acting solely or together with one or more individuals or entities acquires at least two thirds of the Company's shares following a public tender offer for all the Company's shares. In that case, the Board of Directors acknowledges that the limitation no longer applies and carries out the necessary procedure to modify the Company's Articles of Association accordingly.

Once acknowledged, the fact that the limitation no longer applies is final and applies to all Shareholders' Meetings following the public tender offer under which the acquisition of at least two thirds of the overall number of shares of the Company was made possible, and not solely to the first meeting following that public tender offer.

Since in such circumstances the limitation no longer applies, such limitation on voting rights cannot prevent or delay any takeover of the Company, except in case of a public tender offer where the bidder does not acquire at least two thirds of the Company's shares.

7.2.4.3 Fractional rights

Whenever it is necessary to own several shares in order to exercise a right, a number of shares less than the number required does not give the owners any right with respect to the Company; in such case, the shareholders are responsible for aggregating the required number of shares.

7.2.4.4 Statutory allocation of profits

The Company may distribute dividends under the conditions provided for by the French Commercial Code and the Company's Articles of Association.

The net profit for the period is equal to the net income minus general expenses and other personnel expenses, all amortization and depreciation of the assets, as well as all provisions for commercial and industrial contingencies. From this profit, minus prior losses, if any, the following items are deducted in the order indicated:

- 5% to constitute the legal reserve fund, until said fund reaches 10% of the share capital;
- the amounts set by the Shareholders' Meeting in order to fund reserves for which it determines the allocation or use; and
- the amounts that the Shareholders' Meeting decides to retain.

The remainder is paid to the shareholders as dividends.

The Board of Directors may pay interim dividends.

The Shareholders' Meeting held to approve the financial statements for the fiscal year may decide to grant shareholders an option, for all or part of the dividend or interim dividends, between payment of the dividend in cash or in shares.

The Shareholders' Meeting may decide at any time, but only based on a proposal by the Board of Directors, to make a full or partial distribution of the amounts in the reserve accounts, either in cash or in Company shares.

Dividends that have not been claimed at the end of a five-year period are forfeited to the French State.

7.2.5 Amending shareholders' rights

Any amendment to the Articles of Association must be approved or authorized by the Shareholders' Meeting voting with the *quorum* and majority required by the laws and regulations governing Extraordinary Shareholders' Meetings.

(1) This term is not interrupted and the right acquired is retained in case of a conversion of bearer to bearer pursuant to intestate or testamentary succession, share of community property between spouses or donation to the spouse or relatives entitled to inherit (Article 18 § 6 of the bylaws).

7.2.6 Shareholders' Meetings

Refer to point 4.4.3 of chapter 4 for the terms and conditions of the notice and admission to Shareholders' Meetings.

7.2.7 Identification of the holders of bearer shares

In accordance with Article 9 of its Articles of Association, TOTAL SE is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant an immediate or future voting right at the Company's Shareholders' Meetings.

Law n° 2019-486 of May 22, 2019 on the growth and transformation of businesses amended Article L. 228-2 of the French Commercial Code to stipulate that this ability to make use of the procedure is a matter of law, and any provision of the Articles of Association to the contrary shall be deemed unwritten.

7.2.8 Thresholds to be declared according to the Articles of Association

Any individual or entity who directly or indirectly acquires a percentage of the share capital, voting rights or rights giving future access to the share capital of the Company that is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Company within 15 days as from the crossing of each threshold, by registered mail with return receipt requested, and declare the number of securities held.

In case the shares above these thresholds are not declared, as specified in the preceding paragraph, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a Shareholders' Meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Company's share capital or voting rights so request at that meeting.

All individuals and entities are also required to notify the Company, in due form and within the time limits stated above, when their direct or indirect holdings fall below each of the thresholds mentioned in the first paragraph.

7.2.9 Changes in the share capital

The Company's share capital may be changed only under the conditions stipulated by the legal and regulatory provisions in force. No provision of the Articles of Association, charter, or internal regulations provide for more stringent conditions than the law governing changes in the Company's share capital.

The French Commercial Code stipulates that shareholders hold, in proportion to their number of shares, a preemptive subscription right to shares issued for cash to increase the share capital. The Extraordinary Shareholders' Meeting can decide, under the conditions provided for by law, to remove this preemptive subscription right.

7.3 Historical financial information and additional information

7.3.1 2020, 2019 and 2018 Consolidated Financial Statements

The Consolidated Financial Statements of TOTAL SE for the years ended December 31, 2020, 2019 and 2018 were prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and as adopted by the European Union.

7.3.2 Statutory financial statements of TOTAL SE

The statutory financial statements of TOTAL SE as parent company for the years ended December 31, 2020, 2019 and 2018 were prepared in accordance with applicable French accounting standards.

7.3.3 Audit of the historical financial information

The Consolidated Financial Statements for the fiscal year 2020 presented in chapter 8 of this Universal Registration Document were certified by the Company's statutory auditors. A translation into English for information purposes only of the statutory auditors' report on the Consolidated Financial Statements is provided in point 8.1 of chapter 8.

The statutory financial statements of TOTAL SE as parent company for the fiscal year 2020 presented in chapter 10 of this Universal Registration Document were also certified by the Company's statutory auditors. A translation into English for information purposes only of the statutory auditors' report on the 2020 parent company financial statements is provided in point 10.1 of chapter 10.

Pursuant to Article 19 of EU 2017/1129 dated June 14, 2017 and to the Commission delegated regulation EU 2019/980, the following are incorporated by reference in this Universal Registration Document:

– The statutory and Consolidated Financial Statements for fiscal year 2019, together with the statutory auditors' reports on the statutory and Consolidated Financial Statements presented on pages 282 and 440 of the French version of the Registration Document for fiscal year 2019 which was filed with the French Financial Markets Authority on March 20, 2020 (and a translation for information purposes only is reproduced on pages 282 and 440 of the English version of such Registration Document); and
– The statutory and Consolidated Financial Statements for fiscal year 2018, together with the statutory auditors' reports on the statutory and Consolidated Financial Statements presented on pages 250 and 398 of the French version of the Registration Document for fiscal year 2018 which was filed with the French Financial Markets Authority on March 20, 2019 (and a translation for information purposes only is reproduced on pages 250 and 398 of the English version of such Registration Document).

7.3.4 Additional information

Financial information other than that contained in chapters 8 or 10 of this Universal Registration Document, in particular ratios, statistical data or other calculated data, which are used to describe the Group or its business performance, is not extracted from the audited financial statements of the issuer. Except where otherwise stated, this additional information is based on internal Company data.

In particular, the supplemental oil and gas information provided in chapter 9 of this Universal Registration Document is not extracted from the audited financial statements of the issuer and was not audited by the Company's statutory auditors. This additional information was prepared by the Company based on information available to it, using its own calculations or estimates and taking into account the U.S. standards to which the Company is subject for this kind of information as a result of the listing of its shares (in the form of ADRs) on the NYSE.

8

Consolidated Financial Statements

8.1 Statutory auditors' report on the Consolidated Financial Statements

To the Annual General Meeting of TOTAL SE,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of TOTAL SE for the year ended December 31, 2020.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2020 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (*Code de commerce*) and the French Code of Ethics (*Code de déontologie*) for statutory auditors for the period from January 1, 2020 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

Justification of Assessments – Key Audit Matters

Due to the global crisis related to the COVID-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, in accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Evaluation of the impairment of non-current assets of exploration and production activities of the Exploration & Production and Integrated Gas, Renewables and Power segments ("E&P and iGRP segments")

Risk identified	Our response
As discussed in Notes 7.1, 7.2, and 3 to the consolidated financial statements as of December 31, 2020, the non-current assets of exploration and production activities of the E&P and iGRP segments are mainly comprised of proved and unproved properties and work in progress of exploration and production activities (83,700 million US dollars), proved mineral interests (6,964 million US dollars), unproved mineral interests (15,510 million US dollars), and a portion of the 23,783 million US dollars balance of investments and loans in equity affiliates. The Group performs impairment tests on these assets as soon as any indication of impairment exists. As described in Note "Major judgments and accounting estimates" and Note 3.D "Asset impairment" to the consolidated financial statements, in 2020, in the context of the health crisis, the Group decided to revise the price assumptions used for its assets impairment tests. In addition, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, the Group has reviewed its oil assets that can be qualified as "stranded", meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. In 2020, asset impairments were recorded for an amount of 8,646 million US dollars in operating income and 8,157 million US dollars in net income, Group share. The testing method is described in Note 3.D to the consolidated financial statements. The Group assesses the recoverable amount of the E&P and iGRP segments' non-current assets of exploration and production activities based on the cash-generating units (CGU) that include all the hydrocarbon sites and industrial assets involved in the production, processing and extraction of hydrocarbons. The recoverable amount is measured for each CGU, taking into account the economic business environment and the Group's operating plans. The primary assumptions used by the Group to measure the recoverable amount include the future price of hydrocarbons, the future operational costs, oil and gas reserves, and the after-tax discount rate. We identified the evaluation of the impairment of the E&P and iGRP segments' non-current assets of exploration and production activities as a key audit matter because management's evaluation of assumptions discussed above involved a high degree of judgment. Specifically, such management's evaluation required the consideration of evidence that corroborates the Group's assumptions and evidence that might contradict the assumptions, such as public industry information.	We obtained an understanding, evaluated the design, and tested the operating effectiveness of certain controls over the Group's processes to address the risks of material misstatement relating to the evaluation of the impairment of the E&P and iGRP segments' non-current assets of exploration and production activities. Our works included testing certain controls over the determination of the primary assumptions, used by management, underlying the recoverable amount, such as the estimates of the future price of hydrocarbons, the future operational costs, oil and gas reserves, and the after-tax discount rate. The procedures we performed on the impairment testing consisted mainly in: – considering whether there was an indication of impairment for these assets, such as a severe decline of production, a new tax law enacted, the impact of new price assumptions, or the Group's new Climate Ambition announced on May 5, 2020; – comparing the primary assumptions to those included in analyses, and to budgets and forecasts approved by the Executive Committee and the Board of Directors; – comparing the hydrocarbon pricing scenarios, used by the Group as prepared by the Strategy and Climate division, to public industry information (International Energy Agency, brokers, and consultants). – analyzing the future operational costs assumptions by calculating ratios over production and comparing them over time or to those of other similar assets; – agreeing oil production profiles to the proved and probable hydrocarbon reserves prepared as part of the Group's internal procedures; – re-calculating, with the assistance of valuation specialists included in our audit teams, the after-tax discount rate used by management, which we compared to the rates calculated by major market financial analysts; – assessing the consistency of the tax rates used by management with the applicable tax schemes and the oil agreements in force; – analyzing the information disclosed in Note 3.D "Asset impairment" to the consolidated financial statements. In particular, we analyzed the Company's sensitivity analysis on operating income and net income to variations of the hydrocarbon pricing scenarios, and compared it to the information disclosed in this Note.

Effect of estimated proved and proved developed hydrocarbon reserves on the depreciation of oil and gas assets of production activities of the Exploration & Production and Integrated Gas, Renewables and Power segments ("E&P and iGRP segments")

Risk identified	Our response
As discussed in the Note "Major judgments and accounting estimates" to the consolidated financial statements, the estimation of proved and proved developed hydrocarbon reserves is used by the Group in the "successful efforts" method to account for its oil and gas activities. Notes 7.1 and 7.2 to the consolidated financial statements outline that under such method, oil and gas assets are depreciated using the unit-of-production method. The unit-of-production method is based on either proved hydrocarbon reserves or proved developed hydrocarbon reserves. Those reserves are estimated by the Group's petroleum engineers in accordance with industry practice and Securities and Exchange Commission (SEC) regulations. As described in Note 7.2 "Property, plant and equipment" to the consolidated financial statements, in the event that, due to the price effect on the hydrocarbon reserves evaluation, the unit-of-production depreciation method does not reflect properly the useful life of the asset, an alternative depreciation method is applied based on the reserves evaluated using the 12-month average price of the previous year. This is the case in 2020 where the unit-of-production depreciation method is applied to all assets in 2020 based on proved hydrocarbon reserves or proved developed hydrocarbon reserves measured using the 12-month average price for 2019. The primary assumptions used by the Group to estimate the proved and proved developed hydrocarbon reserves for purposes of the depreciation of oil and gas assets of production activities of the E&P and iGRP segments for the year ended December 31, 2020 include the following: geoscience and engineering data used to determine deposit quantities; contractual arrangements that determine the Group's share of the reserves; and the price. We identified the effect of estimated proved and proved developed hydrocarbon reserves on the depreciation of oil and gas assets of production activities of the E&P and iGRP segments as a key audit matter because management's evaluation of the Group's aforementioned assumptions involved a high degree of judgment due to the inherent uncertainty and nature of such assumptions.	We obtained an understanding, evaluated the design, and tested the operating effectiveness of certain controls over the Group's processes to address the risks of material misstatement in the depreciation of oil and gas assets of production activities of the E&P and iGRP segments relating to the effect of estimated proved and proved developed hydrocarbon reserves. Our works included testing certain controls over management's determination and evaluation of deposit quantities and the modeling of contractual arrangements that determine the Group's share of proved and proved developed hydrocarbon reserves. The procedures we performed on the estimation of reserves by the Group consisted mainly in: – assessing the qualifications and objectivity of the Group's petroleum engineers responsible for estimating reserves; – analyzing the main changes in proved and proved developed hydrocarbon reserves compared to the prior fiscal year; – comparing the 2020 forecasted production to 2020 actual production; – inspecting evidence from contractual arrangements that determine the Group's share of the proved and proved developed hydrocarbon reserves through the expiration of the contracts; – and evaluating the Group's assessment, where appropriate, of the reasons leading the Group to believe that the renewal of contractual arrangements is reasonably certain; – evaluating the analysis performed by the Group to determine that using the 12-month average price of 2020 to estimate the proved and proved developed hydrocarbon reserves for purposes of the depreciation of oil and gas assets of production activities of the E&P and iGRP segments would not properly reflect the anticipated useful life of these assets; – analyzing the Group's use of the 12-month average price for 2019 by comparing such average price to the Group's average long-term view of prices; – assessing the Group's methodology used to estimate these proved and proved developed hydrocarbon reserves, considering SEC's regulations and the 12-month average price for 2019.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the information relating to the Group given in the Board of Directors' management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement required by Article L. 225-102-1 of the French Commercial Code (*Code de commerce*) is included in the Group's management report, it being specified that, in accordance with the provisions of Article L. 823-10 of this Code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein and this information should be reported by an independent third party.

Report on Other Legal and Regulatory Requirements

Format of presentation of the consolidated financial statements intended to be included in the annual financial report

In accordance with Article 222-3, III of the AMF General Regulation, the Company's management informed us of its decision to postpone the presentation of the consolidated financial statements in compliance with the European single electronic format as defined in the European Delegated Regulation No. 2019/815 of 17 December 2018 to years beginning on or after January 1, 2021. Therefore, this report does not include a conclusion on the compliance with this format of the presentation of the consolidated financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (*Code monétaire et financier*).

Appointment of the Statutory Auditors

We were appointed as statutory auditors of TOTAL SE by the annual general meeting held on May 13, 1998 for KPMG S.A. (replacing CCAS, appointed in 1986, a firm acquired by KPMG S.A. in 1997) and on May 14, 2004 for ERNST & YOUNG Audit.

As at December 31, 2020, KPMG S.A. was in its twenty-third year of total uninterrupted engagement and ERNST & YOUNG Audit in its seventeenth year.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as Management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the consolidated financial statements.
- Assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*code de déontologie*) for statutory auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense, March 17, 2021

French original signed by

KPMG Audit
A Division of KPMG S.A.

ERNST & YOUNG Audit

Jacques-François Lethu
Partner

Eric Jacquet
Partner

Laurent Vitse
Partner

Céline Eydieu-Boutté
Partner

8.2 Consolidated statement of income

TOTAL

For the year ended December 31, *(M$)*[(a)]		2020	2019	2018
Sales	(Notes 3, 4, 5)	**140,685**	**200,316**	**209,363**
Excise taxes	(Notes 3 & 5)	(20,981)	(24,067)	(25,257)
Revenues from sales	(Notes 3 & 5)	119,704	176,249	184,106
Purchases, net of inventory variation	(Note 5)	(77,486)	(116,221)	(125,816)
Other operating expenses	(Note 5)	(25,538)	(27,255)	(27,484)
Exploration costs	(Note 5)	(731)	(785)	(797)
Depreciation, depletion and impairment of tangible assets and mineral interests	(Note 5)	(22,264)	(15,731)	(13,992)
Other income	(Note 6)	2,237	1,163	1,838
Other expense	(Note 6)	(1,506)	(1,192)	(1,273)
Financial interest on debt		(2,147)	(2,333)	(1,933)
Financial income and expense from cash & cash equivalents		37	(19)	(188)
Cost of net debt	(Note 15)	(2,110)	(2,352)	(2,121)
Other financial income	(Note 6)	914	792	1,120
Other financial expense	(Note 6)	(690)	(764)	(685)
Net income (loss) from equity affiliates	(Note 8)	452	3,406	3,170
Income taxes	(Note 11)	(318)	(5,872)	(6,516)
CONSOLIDATED NET INCOME		**(7,336)**	**11,438**	**11,550**
Group share		(7,242)	11,267	11,446
Non-controlling interests		(94)	171	104
Earnings per share ($)		(2.90)	4.20	4.27
Fully-diluted earnings per share ($)		(2.90)	4.17	4.24

(a) Except for per share amounts.

8.3 Consolidated statement of comprehensive income

TOTAL

For the year ended December 31, *(M$)*		2020	2019	2018
CONSOLIDATED NET INCOME		**(7,336)**	**11,438**	**11,550**
Other comprehensive income				
Actuarial gains and losses	(Note 10)	(212)	(192)	(12)
Change in fair value of investments in equity instruments	(Note 8)	533	142	–
Tax effect		65	53	13
Currency translation adjustment generated by the parent company	(Note 9)	7,541	(1,533)	(4,022)
ITEMS NOT POTENTIALLY RECLASSIFIABLE TO PROFIT AND LOSS		**7,927**	**(1,530)**	**(4,021)**
Currency translation adjustment	(Note 9)	(4,645)	740	1,113
Cash flow hedge	(Notes 15 & 16)	(313)	(599)	25
Variation of foreign currency basis spread	(Note 15)	28	1	(80)
Share of other comprehensive income of equity affiliates, net amount	(Note 8)	(1,831)	408	(540)
Other		(8)	(3)	(5)
Tax effect		72	202	14
ITEMS POTENTIALLY RECLASSIFIABLE TO PROFIT AND LOSS		**(6,697)**	**749**	**527**
TOTAL OTHER COMPREHENSIVE INCOME (NET AMOUNT)		**1,230**	**(781)**	**(3,494)**
COMPREHENSIVE INCOME		**(6,106)**	**10,657**	**8,056**
– Group share		*(6,312)*	*10,418*	*8,021*
– Non-controlling interests	(Note 9)	*206*	*239*	*35*

8.4 Consolidated balance sheet

TOTAL

ASSETS

As of December 31, *(M$)*		2020	2019	2018
Non-current assets				
Intangible assets, net	(Notes 4 & 7)	33,528	33,178	28,922
Property, plant and equipment, net	(Notes 4 & 7)	108,335	116,408	113,324
Equity affiliates: investments and loans	(Note 8)	27,976	27,122	23,444
Other investments	(Note 8)	2,007	1,778	1,421
Non-current financial assets	(Note 15)	4,781	912	680
Deferred income taxes	(Note 11)	7,016	6,216	6,663
Other non-current assets	(Note 6)	2,810	2,415	2,509
TOTAL NON-CURRENT ASSETS		**186,453**	**188,029**	**176,963**
Current assets				
Inventories, net	(Note 5)	14,730	17,132	14,880
Accounts receivable, net	(Note 5)	14,068	18,488	17,270
Other current assets	(Note 5)	13,428	17,013	14,724
Current financial assets	(Note 15)	4,630	3,992	3,654
Cash and cash equivalents	(Note 15)	31,268	27,352	27,907
Assets classified as held for sale	(Note 2)	1,555	1,288	1,364
TOTAL CURRENT ASSETS		**79,679**	**85,265**	**79,799**
TOTAL ASSETS		**266,132**	**273,294**	**256,762**

LIABILITIES & SHAREHOLDERS' EQUITY

As of December 31, *(M$)*		2020	2019	2018
Shareholders' equity				
Common shares		8,267	8,123	8,227
Paid-in surplus and retained earnings		107,078	121,170	120,569
Currency translation adjustment		(10,256)	(11,503)	(11,313)
Treasury shares		(1,387)	(1,012)	(1,843)
TOTAL SHAREHOLDERS' EQUITY – GROUP SHARE	(Note 9)	**103,702**	**116,778**	**115,640**
Non-controlling interests		**2,383**	**2,527**	**2,474**
TOTAL SHAREHOLDERS' EQUITY		**106,085**	**119,305**	**118,114**
Non-current liabilities				
Deferred income taxes	(Note 11)	10,326	11,858	11,490
Employee benefits	(Note 10)	3,917	3,501	3,363
Provisions and other non-current liabilities	(Note 12)	20,925	20,613	21,432
Non-current financial debt	(Note 15)	60,203	47,773	40,129
TOTAL NON-CURRENT LIABILITIES		**95,371**	**83,745**	**76,414**
Current liabilities				
Accounts payable		23,574	28,394	26,134
Other creditors and accrued liabilities	(Note 5)	22,465	25,749	22,246
Current borrowings	(Note 15)	17,099	14,819	13,306
Other current financial liabilities	(Note 15)	203	487	478
Liabilities directly associated with the assets classified as held for sale	(Note 2)	1,335	795	70
TOTAL CURRENT LIABILITIES		**64,676**	**70,244**	**62,234**
TOTAL LIABILITIES & SHAREHOLDERS' EQUITY		**266,132**	**273,294**	**256,762**

8.5 Consolidated statement of cash flow

TOTAL

For the year ended December 31, *(M$)*		2020	2019	2018
CASH FLOW FROM OPERATING ACTIVITIES				
Consolidated net income		(7,336)	11,438	11,550
Depreciation, depletion, amortization and impairment	(Note 5.3)	22,861	16,401	14,584
Non-current liabilities, valuation allowances, and deferred taxes	(Note 5.5)	(1,782)	(58)	(887)
(Gains) losses on disposals of assets		(909)	(614)	(930)
Undistributed affiliates' equity earnings		948	(1,083)	(826)
(Increase) decrease in working capital	(Note 5.5)	1,869	(1,718)	769
Other changes, net		(848)	319	443
CASH FLOW FROM OPERATING ACTIVITIES		**14,803**	**24,685**	**24,703**
CASH FLOW USED IN INVESTING ACTIVITIES				
Intangible assets and property, plant and equipment additions	(Note 7)	(10,764)	(11,810)	(17,080)
Acquisitions of subsidiaries, net of cash acquired		(966)	(4,748)	(3,379)
Investments in equity affiliates and other securities		(2,120)	(1,618)	(1,108)
Increase in non-current loans		(1,684)	(1,061)	(618)
Total expenditures		**(15,534)**	**(19,237)**	**(22,185)**
Proceeds from disposals of intangible assets and property, plant and equipment		740	527	3,716
Proceeds from disposals of subsidiaries, net of cash sold		282	158	12
Proceeds from disposals of non-current investments		578	349	1,444
Repayment of non-current loans		855	1,026	2,067
Total divestments		**2,455**	**2,060**	**7,239**
CASH FLOW USED IN INVESTING ACTIVITIES		**(13,079)**	**(17,177)**	**(14,946)**
CASH FLOW FROM FINANCING ACTIVITIES				
Issuance (repayment) of shares:				
– Parent company shareholders		374	452	498
– Treasury shares		(611)	(2,810)	(4,328)
Dividends paid:				
– Parent company shareholders		(6,688)	(6,641)	(4,913)
– Non-controlling interests		(184)	(115)	(97)
Net issuance of perpetual subordinated notes	(Note 9)	331	–	–
Payments on perpetual subordinated notes	(Note 9)	(315)	(371)	(325)
Other transactions with non-controlling interests		(204)	10	(622)
Net issuance (repayment) of non-current debt	(Note 15)	15,800	8,131	649
Increase (decrease) in current borrowings		(6,501)	(5,829)	(3,990)
Increase (decrease) in current financial assets and liabilities		(604)	(536)	(797)
CASH FLOW FROM/(USED IN) FINANCING ACTIVITIES		**1,398**	**(7,709)**	**(13,925)**
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		**3,122**	**(201)**	**(4,168)**
Effect of exchange rates		794	(354)	(1,110)
Cash and cash equivalents at the beginning of the period		27,352	27,907	33,185
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	(Note 15)	**31,268**	**27,352**	**27,907**

8.6 Consolidated statement of changes in shareholders' equity

TOTAL

(M$)	Common shares issued		Paid-in surplus and retained earnings	Currency translation adjustment	Treasury shares		Shareholders' equity – Group share	Non-controlling interests	Total shareholders' equity
	Number	Amount			Number	Amount			
AS OF JANUARY 1, 2018	**2,528,989,616**	**7,882**	**112,040**	**(7,908)**	**(8,376,756)**	**(458)**	**111,556**	**2,481**	**114,037**
Net income 2018	–	–	11,446	–	–	–	11,446	104	11,550
Other comprehensive income	–	–	(20)	(3,405)	–	–	(3,425)	(69)	(3,494)
Comprehensive income	**–**	**–**	**11,426**	**(3,405)**	**–**	**–**	**8,021**	**35**	**8,056**
Dividend	–	–	(7,881)	–	–	–	(7,881)	(97)	(7,978)
Issuance of common shares	156,203,090	476	8,366	–	–	–	8,842	–	8,842
Purchase of treasury shares	–	–	–	–	(72,766,481)	(4,328)	(4,328)	–	(4,328)
Sale of treasury shares[a]	–	–	(240)	–	4,079,257	240	–	–	–
Share-based payments	–	–	294	–	–	–	294	–	294
Share cancellation	(44,590,699)	(131)	(2,572)	–	44,590,699	2,703	–	–	–
Net issuance (repayment) of perpetual subordinated notes	–	–	–	–	–	–	–	–	–
Payments on perpetual subordinated notes	–	–	(315)	–	–	–	(315)	–	(315)
Other operations with non-controlling interests	–	–	(517)	–	–	–	(517)	(99)	(616)
Other items	–	–	(32)	–	–	–	(32)	154	122
AS OF DECEMBER 31, 2018	**2,640,602,007**	**8,227**	**120,569**	**(11,313)**	**(32,473,281)**	**(1,843)**	**115,640**	**2,474**	**118,114**
Net income 2019	–	–	11,267	–	–	–	11,267	171	11,438
Other comprehensive income	–	–	(659)	(190)	–	–	(849)	68	(781)
Comprehensive income	**–**	**–**	**10,608**	**(190)**	**–**	**–**	**10,418**	**239**	**10,657**
Dividend	–	–	(7,730)	–	–	–	(7,730)	(115)	(7,845)
Issuance of common shares	26,388,503	74	1,265	–	–	–	1,339	–	1,339
Purchase of treasury shares	–	–	–	–	(52,389,336)	(2,810)	(2,810)	–	(2,810)
Sale of treasury shares[a]	–	–	(219)	–	4,278,948	219	–	–	–
Share-based payments	–	–	207	–	–	–	207	–	207
Share cancellation	(65,109,435)	(178)	(3,244)	–	65,109,435	3,422	–	–	–
Net issuance (repayment) of perpetual subordinated notes	–	–	(4)	–	–	–	(4)	–	(4)
Payments on perpetual subordinated notes	–	–	(353)	–	–	–	(353)	–	(353)
Other operations with non-controlling interests	–	–	55	–	–	–	55	(42)	13
Other items	–	–	16	–	–	–	16	(29)	(13)
AS OF DECEMBER 31, 2019	**2,601,881,075**	**8,123**	**121,170**	**(11,503)**	**(15,474,234)**	**(1,012)**	**116,778**	**2,527**	**119,305**
Net income 2020	–	–	(7,242)	–	–	–	(7,242)	(94)	(7,336)
Other comprehensive income	–	–	(321)	1,251	–	–	930	300	1,230
Comprehensive income	**–**	**–**	**(7,563)**	**1,251**	**–**	**–**	**(6,312)**	**206**	**(6,106)**
Dividend	–	–	(7,899)	–	–	–	(7,899)	(234)	(8,133)
Issuance of common shares	51,242,950	144	1,470	–	–	–	1,614	–	1,614
Purchase of treasury shares	–	–	–	–	(13,236,044)	(611)	(611)	–	(611)
Sale of treasury shares[a]	–	–	(236)	–	4,317,575	236	–	–	–
Share-based payments	–	–	188	–	–	–	188	–	188
Share cancellation	–	–	–	–	–	–	–	–	–
Net issuance (repayment) of perpetual subordinated notes	–	–	331	–	–	–	331	–	331
Payments on perpetual subordinated notes	–	–	(308)	–	–	–	(308)	–	(308)
Other operations with non-controlling interests	–	–	(61)	(4)	–	–	(65)	(117)	(182)
Other items	–	–	(14)	–	–	–	(14)	1	(13)
AS OF DECEMBER 31, 2020	**2,653,124,025**	**8,267**	**107,078**	**(10,256)**	**(24,392,703)**	**(1,387)**	**103,702**	**2,383**	**106,085**

(a) Treasury shares related to the restricted stock grants.

Changes in equity are detailed in Note 9.

8.7 Notes to the Consolidated Financial Statements

On February 8, 2021, the Board of Directors established and authorized the publication of the Consolidated Financial Statements of TOTAL SE for the year ended December 31, 2020, which will be submitted for approval to the Shareholders' Meeting to be held on May 28, 2021.

Basis of preparation of the consolidated financial statements

The Consolidated Financial Statements of TOTAL SE and its subsidiaries (the Group) are presented in U.S. dollars and have been prepared on the basis of IFRS (International Financial Reporting Standards) as adopted by the European Union and IFRS as issued by the IASB (International Accounting Standard Board) as of December 31, 2020.

The accounting principles applied for the consolidated financial statements at December 31, 2020, were the same as those that were used for the financial statements at December 31, 2019, with the exception of new IFRS standards listed below which had not been early adopted by the Group.

As of January 1st, 2020, the Group early adopted the amendments to IFRS 7 and IFRS 9 relating to the interest rate benchmark reform phase II. In particular, these amendments allow to maintain the hedge accounting qualification of interest rate derivatives.

As part of this transition, the Group set up a working group in order to cover all aspects relating to the IBOR reform and is currently assessing the future impacts of these index changes.

As of December 31, 2020, except for the index change on the remuneration of cash collateral with clearing houses, whose impact is not material, no modification of the IBOR indices was applied on financial instruments used by the Group.

Major judgments and accounting estimates

The preparation of financial statements in accordance with IFRS for the closing as of December 31, 2020 requires the executive management to make estimates, assumptions and judgments that affect the information reported in the Consolidated Financial Statements and the Notes thereto.

These estimates, assumptions and judgments are based on historical experience and other factors believed to be reasonable at the date of preparation of the financial statements. They are reviewed on an on-going basis by management and therefore could be revised as circumstances change or as a result of new information.

Different estimates, assumptions and judgments could significantly affect the information reported, and actual results may differ from the amounts included in the Consolidated Financial Statements and the Notes thereto.

The following summary provides further information about the key estimates, assumptions and judgments that are involved in preparing, the Consolidated Financial Statements and the Notes thereto. It should be read in conjunction with the sections of the Notes mentioned in the summary.

The consolidated financial statements are impacted by the health and oil crises. The Group has taken into account the impact of this environment, particularly on the depreciation and impairment of oil and gas assets (see Note 3.D “Asset impairment” and Note 7.2 “Tangible assets”).

Estimation of hydrocarbon reserves

The estimation of oil and gas reserves is a key factor in the Successful Efforts method used by the Group to account for its oil and gas activities.

The Group’s oil and gas reserves are estimated by the Group’s petroleum engineers in accordance with industry standards and SEC (*U.S. Securities and Exchange Commission*) regulations.

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geosciences and engineering data, can be determined with reasonable certainty to be recoverable (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations), prior to the time at which contracts providing the rights to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

Proved oil and gas reserves are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The Group reassesses its oil and gas reserves at least once a year on all its properties.

The Successful Efforts method and the mineral interests and property, plant and equipment of exploration and production are presented in Note 7 “Intangible and tangible assets”.

Impairment of property, plant and equipment, intangible assets and goodwill

As part of the determination of the recoverable value of assets for impairment (IAS36), the estimates, assumptions and judgments mainly concern hydrocarbon prices scenarios, operating costs, production volumes and oil and gas proved and probable reserves, refining margins and product marketing conditions (mainly petroleum, petrochemical and chemical products as well as renewable industry products). The estimates and assumptions used by the executive management are determined in specialized internal departments in light of economic conditions and external expert analysis. The discount rate is reviewed annually.

In 2020, the Group decided to revise the price assumptions used for its assets impairment tests. Based on these new assumptions, asset impairments were recorded during the period. In line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, the Group has reviewed its oil assets that can be qualified as “stranded”, and therefore has decided to impair its oil sands assets in Canada. These impairments and revised assumptions are presented in Note 3.D “Asset impairment”.

Impairment of assets and the method applied are described in Note 3 “Business segment information”.

Employee benefits

The benefit obligations and plan assets can be subject to significant volatility due in part to changes in market values and actuarial assumptions. These assumptions vary between different pension plans and thus take into account local conditions. They are determined following a formal process involving expertise and Group internal judgments, in financial and actuarial terms, and also in consultation with actuaries and independent experts.

The assumptions for each plan are reviewed annually and adjusted if necessary to reflect changes from the experience and actuarial advice. The discount rate is reviewed quarterly.

Payroll, staff and employee benefits obligations and the method applied are described in Note 10 “Payroll, staff and employee benefits obligations”.

Asset retirement obligations

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

This estimate is based on information available in terms of costs and work program. It is regularly reviewed to take into account the changes in laws and regulations, the estimates of reserves and production, the analysis of site conditions and technologies.

The discount rate is reviewed annually.

Asset retirement obligations and the method used are described in Note 12 “Provisions and other non-current liabilities’.

Income Taxes

A tax liability is recognized when in application of a tax regulation, a future payment is considered probable and can be reasonably estimated. The exercise of judgment is required to assess the impact of new events on the amount of the liability.

Deferred tax assets are recognized in the accounts to the extent that their recovery is considered probable. The amount of these assets is determined after taking into account deferred tax liabilities with comparable maturity, arising from the same entities and tax regimes. It takes into account existing taxable profits and future taxable profits which estimation is inherently uncertain and subject to change over time. The exercise of judgment is required to assess the impact of new events on the value of these assets and including changes in estimates of future taxable profits and the deadlines for their use.

In addition, these tax positions may depend on interpretations of tax laws and regulations in the countries where the Group operates. These interpretations may have uncertain nature. Depending on the circumstances, they are final only after negotiations or resolution of disputes with authorities that can last several years.

Incomes taxes and the accounting methods are described in Note 11 “Income taxes”.

Judgments in case of transactions not addressed by any accounting standard or interpretation

Furthermore, when the accounting treatment of a specific transaction is not addressed by any accounting standard or interpretation, the management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

NOTE 1 General accounting policies

1.1 Accounting policies

A) Principles of consolidation

Entities that are directly controlled by the parent company or indirectly controlled by other consolidated entities are fully consolidated.

Investments in joint ventures are consolidated under the equity method. The Group accounts for joint operations by recognizing its share of assets, liabilities, income and expenses.

Investments in associates, in which the Group has significant influence, are accounted for by the equity method. Significant influence is presumed when the Group holds, directly or indirectly (e.g. through subsidiaries), 20% or more of the voting rights. Companies in which ownership interest is less than 20%, but over which the Company is deemed to exercise significant influence, are also accounted for by the equity method.

All internal balances, transactions and income are eliminated.

B) Business combinations

Business combinations are accounted for using the acquisition method. This method requires the recognition of the acquired identifiable assets and assumed liabilities of the companies acquired by the Group at their fair value.

The purchase accounting of the acquisition is finalized up to a maximum of one year from the acquisition date.

The acquirer shall recognize goodwill at the acquisition date, being the excess of:

– The consideration transferred, the amount of non-controlling interests and, in business combinations achieved in stages, the fair value at the acquisition date of the investment previously held in the acquired company;
– Over the fair value at the acquisition date of acquired identifiable assets and assumed liabilities.

If the consideration transferred is lower than the fair value of acquired identifiable assets and assumed liabilities, an additional analysis is performed on the identification and valuation of the identifiable elements of the assets and the liabilities. After having completed such additional analysis, any negative goodwill is recorded as income.

Non-controlling interests are measured either at their proportionate share in the net assets of the acquired company or at fair value.

In transactions with non-controlling interests, the difference between the price paid (received) and the book value of non-controlling interests acquired (sold) is recognized directly in equity.

C) Foreign currency translation

The presentation currency of the Group's Consolidated Financial Statements is the US dollar. However, the functional currency of the parent company is the euro. The resulting currency translation adjustments are presented on the line "currency translation adjustment generated by the parent company" of the consolidated statement of comprehensive income, within "items not potentially reclassifiable to profit and loss". In the balance sheet, they are recorded in "currency translation adjustment".

The financial statements of subsidiaries are prepared in the currency that most clearly reflects their business environment. This is referred to as their functional currency.

Since 1st July 2018, Argentina is considered to be hyperinflationary. IAS 29 "Financial Reporting in Hyperinflationary Economies" is applicable to entities whose functional currency is the Argentine peso. The functional currency of the Argentine Exploration & Production subsidiary is the US dollar, therefore IAS 29 has no incidence on the Group accounts. Net asset of the other business segments is not significant.

(i) Monetary transactions

Transactions denominated in currencies other than the functional currency of the entity are translated at the exchange rate on the transaction date. At each balance sheet date, monetary assets and liabilities are translated at the closing rate and the resulting exchange differences are recognized in the statement of income.

(ii) Translation of financial statements

Assets and liabilities of entities denominated in currencies other than dollar are translated into dollar on the basis of the exchange rates at the end of the period. The income and cash flow statements are translated using the average exchange rates for the period. Foreign exchange differences resulting from such translations are either recorded in shareholders' equity under "Currency translation adjustments" (for the Group share) or under "Non-controlling interests" (for the share of non-controlling interests) as deemed appropriate.

1.2 Significant accounting policies applicable in the future

The expected impact of the standards or interpretations published respectively by the International Accounting Standards Board (IASB) and the International Financial Reporting Standards Interpretations Committee (IFRS IC) which were not yet in effect at December 31, 2020, is not material.

NOTE 2 Changes in the Group structure

2.1 Main acquisitions and divestments

In 2020, the main changes in the Group structure were as follows:

Integrated Gas, Renewables & Power

- On February 28, 2020, TOTAL finalized the acquisition of a 37.4% interest in Adani Gas Limited, one of the four main distributors of city gas in India. To acquire 37.4% of equity shares of Adani Gas Limited, TOTAL launched a tender offer to public shareholders on October 14, 2019 that ended on January 14, 2020, and then acquired the remaining shares from Adani on February 27 and 28, 2020.
- On December 1, 2020, TOTAL finalized the acquisition from Energías de Portugal of its activity of gas and electricity supply to residential customers in Spain, which represents a portfolio of 2 million customers, as well as two gas-fired combined cycle power plants which represent an electricity generation capacity of nearly 850 megawatts.

Exploration & Production

- On March 31, 2020, TOTAL finalized the sale of its subsidiary Total E&P Deep Offshore Borneo BV which holds an 86.95% interest in Block CA1, located 100 kilometers off the coast of Brunei, to Shell.
- On August 6, 2020, TOTAL closed the sale of UK North Sea non-core assets to NEO Energy.
- In November, 2020, TOTAL finalized the acquisition of 33.3% interest of Tullow's interests in the Uganda Lake Albert development project including the East African Crude Oil Pipeline.

2.2 Major business combinations

ACCOUNTING PRINCIPLES

In accordance with IFRS 3 "Business combinations", TOTAL is assessing the fair value of identifiable acquired assets, liabilities and contingent liabilities on the basis of available information. This assessment will be finalised within 12 months following the acquisition date.

Integrated Gas, Renewables & Power

EDP Comercializadora Espagne

- On December 1, 2020, TOTAL finalized the acquisition from Energías de Portugal of its activity of gas and electricity supply to residential customers in Spain as well as two gas-fired combined cycle power plants. This transaction was recorded for a purchase price of $578 million and a preliminary goodwill of $345 million was recognized in the consolidated financial statements at December 31, 2020.

  In the consolidated financial statements as at December 31, 2020, the fair value of the acquired identifiable assets and of the liabilities assumed amounts to $233 million.

The preliminary purchase price allocation is shown below:

(M$)	At the acquisition date
Goodwill	345
Intangible assets	56
Tangible assets	235
Other assets and liabilities	(58)
Debt net of cash acquired	–
Fair value of consideration	**578**

2.3 Divestment projects

ACCOUNTING PRINCIPLES

Pursuant to IFRS 5 "Non-current assets held for sale and discontinued operations", assets and liabilities of affiliates that are held for sale are presented separately on the face of the balance sheet. Depreciation of assets ceases from the date of classification in "Non-current assets held for sale".

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Exploration & Production

- On July 30, 2020, TOTAL announced that its 58% owned affiliate Total Gabon has signed an agreement with Perenco to divest its interests in seven mature non-operated offshore fields, along with its interests and operatorship in the Cap Lopez oil terminal. The transaction remains subject to approval by the Gabonese authorities.

  As of December 31, 2020, the assets and liabilities have been respectively classified in the consolidated balance sheet as "assets classified as held for sale" for an amount of $391 million and "liabilities classified as held for sale" for an amount of $150 million. These assets mainly include tangible assets.

Refining & Chemicals

- On July 27, 2020, TOTAL signed an agreement to sell the Lindsey refinery and its associated logistic assets, as well as all the related rights and obligations, to the Prax Group.

  As of December 31, 2020, the assets and liabilities have been respectively classified in the consolidated balance sheet as "assets classified as held for sale" for an amount of $154 million and "liabilities classified as held for sale" for an amount of $238 million.

NOTE 3 Business segment information

Description of the business segments

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TOTAL and which is reviewed by the main operational decision-making body of the Group, namely the Executive Committee.

The operational profit and assets are broken down by business segment prior to the consolidation and inter-segment adjustments.

Sales prices between business segments approximate market prices.

The profitable growth in the gas and low carbon electricity integrated value chains is one of the key axes of TOTAL's strategy. In order to give more visibility to these businesses, a new reporting structure for the business segments' financial information has been put in place, effective January 1, 2019.

The organization of the Group's activities is structured around the four followings segments:

- An Exploration & Production segment;
- An Integrated Gas, Renewables & Power segment comprising integrated gas (including LNG) and low carbon electricity businesses. It includes the upstream and midstream LNG activity that was previously reported in the Exploration & Production segment;
- A Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and speciality chemicals. This segment also includes the activities of oil Supply, Trading and marine Shipping;
- A Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products;

In addition, the Corporate segment includes holdings operating and financial activities.

Certain figures for the year 2018 have been restated in order to reflect the new organization.

Definition of the indicators

(i) Operating income (measure used to evaluate operating performance)

Revenue from sales after deducting cost of goods sold and inventory variations, other operating expenses, exploration expenses and depreciation, depletion, and impairment of tangible assets and mineral interests.

Operating income excludes the amortization of intangible assets other than mineral interests, currency translation adjustments and gains or losses on the disposal of assets.

(ii) Net operating income (measure used to evaluate the return on capital employed)

Operating income after taking into account the amortization of intangible assets other than mineral interests, currency translation adjustments, gains or losses on the disposal of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, income from equity affiliates, capitalized interest expenses…), and after income taxes applicable to the above.

The only income and expense not included in net operating income but included in net income Group share are interest expenses related to net financial debt, after applicable income taxes (net cost of net debt) and non-controlling interests.

(iii) Adjusted income

Operating income, net operating income, or net income excluding the effect of adjustment items described below.

(iv) Capital employed

Non-current assets and working capital, at replacement cost, net of deferred income taxes and non-current liabilities.

(v) ROACE (Return on Average Capital Employed)

Ratio of adjusted net operating income to average capital employed between the beginning and the end of the period.

Performance indicators excluding the adjustment items, such as adjusted incomes and ROACE are meant to facilitate the analysis of the financial performance and the comparison of income between periods.

Adjustment items

Adjustment items include:

(i) Special items

Due to their unusual nature or particular significance, certain transactions qualified as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred within prior years or are likely to occur again within the coming years.

(ii) The inventory valuation effect

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its main competitors.

In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost methods.

(iii) Effect of changes in fair value

The effect of changes in fair value presented as adjustment items reflects for certain transactions differences between the internal measure of performance used by TOTAL's executive committee and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

TOTAL, in its trading activities, enters into storage contracts, which future effects are recorded at fair value in the Group's internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TOTAL enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

The adjusted results (adjusted operating income, adjusted net operating income, adjusted net income) are defined as replacement cost results, adjusted for special items and the effect of changes in fair value.

A) Information by business segment

For the year ended December 31, 2020 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	4,973	15,629	56,615	63,451	17	–	140,685
Intersegment sales	18,483	2,003	17,378	357	223	(38,444)	–
Excise taxes	–	–	(2,405)	(18,576)	–	–	(20,981)
REVENUES FROM SALES	**23,456**	**17,632**	**71,588**	**45,232**	**240**	**(38,444)**	**119,704**
Operating expenses	(11,972)	(15,847)	(70,524)	(42,807)	(1,049)	38,444	(103,755)
Depreciation, depletion and impairment of tangible assets and mineral interests	(16,998)	(2,312)	(1,878)	(984)	(92)	–	(22,264)
OPERATING INCOME	**(5,514)**	**(527)**	**(814)**	**1,441**	**(901)**	**–**	**(6,315)**
Net income (loss) from equity affiliates and other items	697	794	(393)	37	272	–	1,407
Tax on net operating income	(208)	71	59	(515)	(67)	–	(660)
NET OPERATING INCOME	**(5,025)**	**338**	**(1,148)**	**963**	**(696)**	**–**	**(5,568)**
Net cost of net debt							(1,768)
Non-controlling interests							94
NET INCOME – GROUP SHARE							**(7,242)**

For the year ended December 31, 2020 *(M$)* (adjustments)[(a)]	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	–	20	–	–	–	–	20
Intersegment sales	–	–	–	–	–	–	–
Excise taxes	–	–	–	–	–	–	–
REVENUES FROM SALES	**–**	**20**	**–**	**–**	**–**	**–**	**20**
Operating expenses	(137)	(423)	(1,552)	(330)	(60)	–	(2,502)
Depreciation, depletion and impairment of tangible assets and mineral interests	(7,693)	(953)	(306)	–	–	–	(8,952)
OPERATING INCOME[(b)]	**(7,830)**	**(1,356)**	**(1,858)**	**(330)**	**(60)**	**–**	**(11,434)**
Net income (loss) from equity affiliates and other items	54	(382)	(677)	(24)	107	–	(922)
Tax on net operating income	388	298	348	93	(145)	–	982
NET OPERATING INCOME[(b)]	**(7,388)**	**(1,440)**	**(2,187)**	**(261)**	**(98)**	**–**	**(11,374)**
Net cost of net debt							(29)
Non-controlling interests							102
NET INCOME – GROUP SHARE							**(11,301)**

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.
(b) Of which inventory valuation effect

On operating income	–	–	(1,244)	(196)	–
On net operating income	–	–	(1,165)	(137)	–

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For the year ended December 31, 2020 *(M$)* (adjusted)	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	4,973	15,609	56,615	63,451	17	–	140,665
Intersegment sales	18,483	2,003	17,378	357	223	(38,444)	–
Excise taxes	–	–	(2,405)	(18,576)	–	–	(20,981)
REVENUES FROM SALES	**23,456**	**17,612**	**71,588**	**45,232**	**240**	**(38,444)**	**119,684**
Operating expenses	(11,835)	(15,424)	(68,972)	(42,477)	(989)	38,444	(101,253)
Depreciation, depletion and impairment of tangible assets and mineral interests	(9,305)	(1,359)	(1,572)	(984)	(92)	–	(13,312)
ADJUSTED OPERATING INCOME	**2,316**	**829**	**1,044**	**1,771**	**(841)**	**–**	**5,119**
Net income (loss) from equity affiliates and other items	643	1,176	284	61	165	–	2,329
Tax on net operating income	(596)	(227)	(289)	(608)	78	–	(1,642)
ADJUSTED NET OPERATING INCOME	**2,363**	**1,778**	**1,039**	**1,224**	**(598)**	**–**	**5,806**
Net cost of net debt							(1,739)
Non-controlling interests							(8)
ADJUSTED NET INCOME – GROUP SHARE							**4,059**

For the year ended December 31, 2020 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	6,782	6,230	1,325	1,052	145	–	15,534
Total divestments	819	1,152	149	158	177	–	2,455
Cash flow from operating activities	9,922	2,129	2,438	2,101	(1,787)	–	14,803
Balance sheet as of December 31, 2020							
Property, plant and equipment, intangible assets, net	89,207	30,704	12,486	8,734	732	–	141,863
Investments & loans in equity affiliates	7,328	16,455	3,638	555	–	–	27,976
Other non-current assets	5,093	3,647	791	1,260	1,042	–	11,833
Working capital	1,968	(1,004)	(264)	(43)	(4,470)	–	(3,813)
Provisions and other non-current liabilities	(24,909)	(4,566)	(4,658)	(1,641)	606	–	(35,168)
Assets and liabilities classified as held for sale	241	375	(83)	–	–	–	533
CAPITAL EMPLOYED (BALANCE SHEET)	**78,928**	**45,611**	**11,910**	**8,865**	**(2,090)**	**–**	**143,224**
Less inventory valuation effect	–	–	(535)	(72)	–	–	(607)
CAPITAL EMPLOYED (BUSINESS SEGMENT INFORMATION)	**78,928**	**45,611**	**11,375**	**8,793**	**(2,090)**	**–**	**142,617**
ROACE as a percentage	**3%**	**4%**	**9%**	**14%**			**4%**

For the year ended December 31, 2019 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	7,261	18,167	87,598	87,280	10	–	200,316
Intersegment sales	31,329	2,825	32,390	659	125	(67,328)	–
Excise taxes	–	–	(3,015)	(21,052)	–	–	(24,067)
REVENUES FROM SALES	**38,590**	**20,992**	**116,973**	**66,887**	**135**	**(67,328)**	**176,249**
Operating expenses	(16,389)	(18,316)	(112,104)	(63,855)	(925)	67,328	(144,261)
Depreciation, depletion and impairment of tangible assets and mineral interests	(11,659)	(1,492)	(1,527)	(980)	(73)	–	(15,731)
OPERATING INCOME	**10,542**	**1,184**	**3,342**	**2,052**	**(863)**	**–**	**16,257**
Net income (loss) from equity affiliates and other items	610	2,330	322	101	42	–	3,405
Tax on net operating income	(4,572)	(741)	(470)	(598)	155	–	(6,226)
NET OPERATING INCOME	**6,580**	**2,773**	**3,194**	**1,555**	**(666)**	**–**	**13,436**
Net cost of net debt							(1,998)
Non-controlling interests							(171)
NET INCOME – GROUP SHARE							**11,267**

For the year ended December 31, 2019 *(M$)* (adjustments)[a]	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	–	(64)	–	–	–	–	(64)
Intersegment sales	–	–	–	–	–	–	–
Excise taxes	–	–	–	–	–	–	–
REVENUES FROM SALES	**–**	**(64)**	**–**	**–**	**–**	**–**	**(64)**
Operating expenses	(145)	(240)	397	(40)	(112)	–	(140)
Depreciation, depletion and impairment of tangible assets and mineral interests	(721)	(156)	(41)	(2)	–	–	(920)
OPERATING INCOME[b]	**(866)**	**(460)**	**356**	**(42)**	**(112)**	**–**	**(1,124)**
Net income (loss) from equity affiliates and other items	(112)	974	(83)	(83)	–	–	696
Tax on net operating income	49	(130)	(82)	27	(73)	–	(209)
NET OPERATING INCOME[b]	**(929)**	**384**	**191**	**(98)**	**(185)**	**–**	**(637)**
Net cost of net debt							(15)
Non-controlling interests							91
NET INCOME – GROUP SHARE							**(561)**

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.
(b) Of which inventory valuation effect

On operating income	–	–	477	(31)	–
On net operating income	–	–	371	(14)	–

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For the year ended December 31, 2019 *(M$)* (adjusted)	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	7,261	18,231	87,598	87,280	10	–	200,380
Intersegment sales	31,329	2,825	32,390	659	125	(67,328)	–
Excise taxes	–	–	(3,015)	(21,052)	–	–	(24,067)
REVENUES FROM SALES	**38,590**	**21,056**	**116,973**	**66,887**	**135**	**(67,328)**	**176,313**
Operating expenses	(16,244)	(18,076)	(112,501)	(63,815)	(813)	67,328	(144,121)
Depreciation, depletion and impairment of tangible assets and mineral interests	(10,938)	(1,336)	(1,486)	(978)	(73)	–	(14,811)
ADJUSTED OPERATING INCOME	**11,408**	**1,644**	**2,986**	**2,094**	**(751)**	**–**	**17,381**
Net income (loss) from equity affiliates and other items	722	1,356	405	184	42	–	2,709
Tax on net operating income	(4,621)	(611)	(388)	(625)	228	–	(6,017)
ADJUSTED NET OPERATING INCOME	**7,509**	**2,389**	**3,003**	**1,653**	**(481)**	**–**	**14,073**
Net cost of net debt							(1,983)
Non-controlling interests							(262)
ADJUSTED NET INCOME – GROUP SHARE							**11,828**

For the year ended December 31, 2019 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	8,992	7,053	1,698	1,374	120	–	19,237
Total divestments	368	1,108	322	249	13	–	2,060
Cash flow from operating activities	16,917	3,461	3,837	2,604	(2,134)	–	24,685
Balance sheet as of December 31, 2019 Property, plant and equipment, intangible assets, net	98,894	29,597	12,196	8,316	583	–	149,586
Investments & loans in equity affiliates	7,631	15,271	3,787	433	–	–	27,122
Other non-current assets	4,484	2,993	744	1,179	1,009	–	10,409
Working capital	2,617	(1,192)	796	178	(3,909)	–	(1,510)
Provisions and other non-current liabilities	(25,208)	(5,488)	(3,898)	(1,531)	153	–	(35,972)
Assets and liabilities classified as held for sale	426	368	–	–	–	–	794
CAPITAL EMPLOYED (BALANCE SHEET)	**88,844**	**41,549**	**13,625**	**8,575**	**(2,164)**	**–**	**150,429**
Less inventory valuation effect	–	–	(1,397)	(204)	–	–	(1,601)
CAPITAL EMPLOYED (BUSINESS SEGMENT INFORMATION)	**88,844**	**41,549**	**12,228**	**8,371**	**(2,164)**	**–**	**148,828**
ROACE AS A PERCENTAGE	**8%**	**6%**	**26%**	**22%**			**10%**

For the year ended December 31, 2018 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	9,889	17,236	92,025	90,206	7	–	209,363
Intersegment sales	30,337	2,198	35,462	979	64	(69,040)	–
Excise taxes	–	–	(3,359)	(21,898)	–	–	(25,257)
REVENUES FROM SALES	**40,226**	**19,434**	**124,128**	**69,287**	**71**	**(69,040)**	**184,106**
Operating expenses	(17,532)	(17,679)	(120,393)	(66,737)	(796)	69,040	(154,097)
Depreciation, depletion and impairment of tangible assets and mineral interests	(10,192)	(1,827)	(1,222)	(709)	(42)	–	(13,992)
OPERATING INCOME	**12,502**	**(72)**	**2,513**	**1,841**	**(767)**	**–**	**16,017**
Net income (loss) from equity affiliates and other items	1,365	1,639	782	307	77	–	4,170
Tax on net operating income	(5,770)	(471)	(445)	(532)	375	–	(6,843)
NET OPERATING INCOME	**8,097**	**1,096**	**2,850**	**1,616**	**(315)**	**–**	**13,344**
Net cost of net debt							(1,794)
Non-controlling interests							(104)
NET INCOME – GROUP SHARE							**11,446**

For the year ended December 31, 2018 *(M$)* (adjustments)[a]	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	–	56	–	–	–	–	56
Intersegment sales	–	–	–	–	–	–	–
Excise taxes	–	–	–	–	–	–	–
REVENUES FROM SALES	**–**	**56**	**–**	**–**	**–**	**–**	**56**
Operating expenses	(199)	(237)	(616)	(45)	(9)	–	(1,106)
Depreciation, depletion and impairment of tangible assets and mineral interests	(707)	(1,065)	(2)	–	–	–	(1,774)
OPERATING INCOME[b]	**(906)**	**(1,246)**	**(618)**	**(45)**	**(9)**	**–**	**(2,824)**
Net income (loss) from equity affiliates and other items	(128)	(247)	(116)	(5)	–	–	(496)
Tax on net operating income	584	170	205	14	–	–	973
NET OPERATING INCOME[b]	**(450)**	**(1,323)**	**(529)**	**(36)**	**(9)**	**–**	**(2,347)**
Net cost of net debt							(67)
Non-controlling interests							301
NET INCOME – GROUP SHARE							**(2,113)**

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.
(b) Of which inventory valuation effect

On operating income	–	–	(589)	(6)	–
On net operating income	–	–	(413)	(5)	–

8

For the year ended December 31, 2018 *(M$)* (adjusted)	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	9,889	17,180	92,025	90,206	7	–	209,307
Intersegment sales	30,337	2,198	35,462	979	64	(69,040)	–
Excise taxes	–	–	(3,359)	(21,898)	–	–	(25,257)
REVENUES FROM SALES	**40,226**	**19,378**	**124,128**	**69,287**	**71**	**(69,040)**	**184,050**
Operating expenses	(17,333)	(17,442)	(119,777)	(66,692)	(787)	69,040	(152,991)
Depreciation, depletion and impairment of tangible assets and mineral interests	(9,485)	(762)	(1,220)	(709)	(42)	–	(12,218)
ADJUSTED OPERATING INCOME	**13,408**	**1,174**	**3,131**	**1,886**	**(758)**	**–**	**18,841**
Net income (loss) from equity affiliates and other items	1,493	1,886	898	312	77	–	4,666
Tax on net operating income	(6,354)	(641)	(650)	(546)	375	–	(7,816)
ADJUSTED NET OPERATING INCOME	**8,547**	**2,419**	**3,379**	**1,652**	**(306)**	**–**	**15,691**
Net cost of net debt							(1,727)
Non-controlling interests							(405)
ADJUSTED NET INCOME – GROUP SHARE							**13,559**

For the year ended December 31, 2018 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	13,789	5,032	1,781	1,458	125	–	22,185
Total divestments	3,674	2,209	919	428	9	–	7,239
Cash flow from operating activities	18,537	596	4,308	2,759	(1,497)	–	24,703
Balance sheet as of December 31, 2018 Property, plant and equipment, intangible assets, net	100,997	24,023	10,493	6,343	390	–	142,246
Investments & loans in equity affiliates	6,754	12,349	3,910	431	–	–	23,444
Other non-current assets	4,780	3,114	663	1,155	881	–	10,593
Working capital	1,911	420	32	194	(4,064)	–	(1,507)
Provisions and other non-current liabilities	(25,042)	(6,288)	(3,615)	(1,465)	125	–	(36,285)
Assets and liabilities classified as held for sale	–	1,128	151	–	–	–	1,279
CAPITAL EMPLOYED (BALANCE SHEET)	**89,400**	**34,746**	**11,634**	**6,658**	**(2,668)**	**–**	**139,770**
Less inventory valuation effect	–	–	(1,035)	(216)	–	–	(1,251)
CAPITAL EMPLOYED (BUSINESS SEGMENT INFORMATION)	**89,400**	**34,746**	**10,599**	**6,442**	**(2,668)**	**–**	**138,519**
ROACE as a percentage	**10%**	**7%**	**31%**	**25%**			**12%**

B) Reconciliation of the information by business segment with Consolidated Financial Statements

The table below presents the impact of adjustment items on the consolidated statement of income:

For the year ended December 31, 2020 *(M$)*	Adjusted	Adjustments[a]	Consolidated statement of income
Sales	**140,665**	**20**	**140,685**
Excise taxes	(20,981)	–	(20,981)
Revenues from sales	119,684	20	119,704
Purchases, net of inventory variation	(75,672)	(1,814)	(77,486)
Other operating expenses	(24,850)	(688)	(25,538)
Exploration costs	(731)	–	(731)
Depreciation, depletion and impairment of tangible assets and mineral interests	(13,312)	(8,952)	(22,264)
Other income	1,405	832	2,237
Other expense	(689)	(817)	(1,506)
Financial interest on debt	(2,140)	(7)	(2,147)
Financial income and expense from cash & cash equivalents	68	(31)	37
Cost of net debt	(2,072)	(38)	(2,110)
Other financial income	914	–	914
Other financial expense	(689)	(1)	(690)
Net income (loss) from equity affiliates	1,388	(936)	452
Income taxes	(1,309)	991	(318)
CONSOLIDATED NET INCOME	**4,067**	**(11,403)**	**(7,336)**
Group share	4,059	(11,301)	(7,242)
Non-controlling interests	8	(102)	(94)

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

For the year ended December 31, 2019 *(M$)*	Adjusted	Adjustments[a]	Consolidated statement of income
Sales	**200,380**	**(64)**	**200,316**
Excise taxes	(24,067)	–	(24,067)
Revenues from sales	176,313	(64)	176,249
Purchases, net of inventory variation	(116,464)	243	(116,221)
Other operating expenses	(26,872)	(383)	(27,255)
Exploration costs	(785)	–	(785)
Depreciation, depletion and impairment of tangible assets and mineral interests	(14,811)	(920)	(15,731)
Other income	876	287	1,163
Other expense	(455)	(737)	(1,192)
Financial interest on debt	(2,318)	(15)	(2,333)
Financial income and expense from cash & cash equivalents	(19)	–	(19)
Cost of net debt	(2,337)	(15)	(2,352)
Other financial income	792	–	792
Other financial expense	(764)	–	(764)
Net income (loss) from equity affiliates	2,260	1,146	3,406
Income taxes	(5,663)	(209)	(5,872)
CONSOLIDATED NET INCOME	**12,090**	**(652)**	**11,438**
Group share	11,828	(561)	11,267
Non-controlling interests	262	(91)	171

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

For the year ended December 31, 2018 *(M$)*	Adjusted	Adjustments[a]	Consolidated statement of income
Sales	**209,307**	**56**	**209,363**
Excise taxes	(25,257)	–	(25,257)
Revenues from sales	184,050	56	184,106
Purchases, net of inventory variation	(125,134)	(682)	(125,816)
Other operating expenses	(27,060)	(424)	(27,484)
Exploration costs	(797)	–	(797)
Depreciation, depletion and impairment of tangible assets and mineral interests	(12,218)	(1,774)	(13,992)
Other income	1,518	320	1,838
Other expense	(448)	(825)	(1,273)
Financial interest on debt	(1,866)	(67)	(1,933)
Financial income and expense from cash & cash equivalents	(188)	–	(188)
Cost of net debt	(2,054)	(67)	(2,121)
Other financial income	1,120	–	1,120
Other financial expense	(685)	–	(685)
Net income (loss) from equity affiliates	3,161	9	3,170
Income taxes	(7,489)	973	(6,516)
CONSOLIDATED NET INCOME	**13,964**	**(2,414)**	**11,550**
Group share	13,559	(2,113)	11,446
Non-controlling interests	405	(301)	104

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

C) Additional information on adjustment items

The main adjustment items for 2020 consist of the "Asset impairment charges" of the non-current assets amounting to $(8,952) million in operating income and $(8,465) million in net income Group share. Impairment testing methodology and asset impairment charges recorded during the year are detailed in the paragraph D of Note 3.

Adjustments to operating income

For the year ended December 31, 2020 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	(1,244)	(196)	–	(1,440)
Effect of changes in fair value	–	20	–	–	–	20
Restructuring charges	(35)	(39)	(30)	–	–	(104)
Asset impairment charges	(7,693)	(953)	(306)	–	–	(8,952)
Other items	(102)	(384)	(278)	(134)	(60)	(958)
TOTAL	**(7,830)**	**(1,356)**	**(1,858)**	**(330)**	**(60)**	**(11,434)**

Adjustments to net income, Group share

For the year ended December 31, 2020 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	(1,160)	(120)	–	(1,280)
Effect of changes in fair value	–	23	–	–	–	23
Restructuring charges	(29)	(43)	(292)	–	–	(364)
Asset impairment charges	(7,328)	(829)	(306)	(2)	–	(8,465)
Gains (losses) on disposals of assets	–	–	–	–	104	104
Other items	–	(566)	(423)	(106)	(224)	(1,319)
TOTAL	**(7,357)**	**(1,415)**	**(2,181)**	**(228)**	**(120)**	**(11,301)**

Adjustments to operating income

For the year ended December 31, 2019 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	477	(31)	–	446
Effect of changes in fair value	–	(19)	–	–	–	(19)
Restructuring charges	–	(4)	–	–	–	(4)
Asset impairment charges	(721)	(156)	(41)	(2)	–	(920)
Other items	(145)	(281)	(80)	(9)	(112)	(627)
TOTAL	**(866)**	**(460)**	**356**	**(42)**	**(112)**	**(1,124)**

Adjustments to net income, Group share

For the year ended December 31, 2019 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	369	(23)	–	346
Effect of changes in fair value	–	(15)	–	–	–	(15)
Restructuring charges	(5)	(31)	(22)	–	–	(58)
Asset impairment charges	(530)	105	(39)	(1)	–	(465)
Gains (losses) on disposals of assets	–	–	–	–	–	–
Other items	(405)	422	(119)	(82)	(185)	(369)
TOTAL	**(940)**	**481**	**189**	**(106)**	**(185)**	**(561)**

Adjustments to operating income

For the year ended December 31, 2018 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	(589)	(6)	–	(595)
Effect of changes in fair value	–	48	–	–	–	48
Restructuring charges	(67)	–	(3)	–	–	(70)
Asset impairment charges	(707)	(1,065)	(2)	–	–	(1,774)
Other items	(132)	(229)	(24)	(39)	(9)	(433)
TOTAL	**(906)**	**(1,246)**	**(618)**	**(45)**	**(9)**	**(2,824)**

Adjustments to net income, Group share

For the year ended December 31, 2018 *(M$)*	Exploration & Production	Integrated Gas, Renewables & Power	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect	–	–	(414)	(6)	–	(420)
Effect of changes in fair value	–	38	–	–	–	38
Restructuring charges	(94)	(10)	(34)	–	–	(138)
Asset impairment charges	(651)	(896)	(48)	–	–	(1,595)
Gains (losses) on disposals of assets	(14)	(2)	–	–	–	(16)
Other items	252	(112)	(34)	(47)	(41)	18
TOTAL	**(507)**	**(982)**	**(530)**	**(53)**	**(41)**	**(2,113)**

D) Asset impairment

ACCOUNTING PRINCIPLES

The recoverable amounts of intangible assets and property, plant and equipment are tested for impairment as soon as any indication of impairment exists. This test is performed at least annually for goodwill.

The recoverable amount is the higher of the fair value (less costs to sell) or the value in use.

Assets are grouped into cash-generating units (or CGUs) and tested. A CGU is a homogeneous set of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets.

The value in use of a CGU is determined by reference to the discounted expected future cash flows of these assets, based upon Management's expectation of future economic and operating conditions. When this value is less than the carrying amount of the CGU, an impairment loss is recorded. This loss is allocated first to goodwill with a corresponding amount in "Other expenses". Any further losses are then allocated to property, plant and mineral interests with a corresponding amount in "Depreciation, depletion and impairment of tangible assets and mineral interests" and to other intangible assets with a corresponding amount in "Other expenses".

Impairment losses recognized in prior periods can be reversed up to the original carrying amount, had the impairment loss not been recognized. Impairment losses recognized on goodwill cannot be reversed.

Investments in associates or joint ventures are tested for impairment whenever indication of impairment exists. If any objective evidence of impairment exists, the carrying amount of the investment is compared with its recoverable amount, being the higher of its fair value less costs to sell and value in use. If the carrying amount exceeds the recoverable amount, an impairment loss is recorded in "Net income (loss) from equity affiliates".

For the financial year 2020, asset impairments were recorded for an amount of $(8,952) million in operating income and $(8,465) million in net income, Group share. These impairments were qualified as adjustment items of the operating income and net income, Group share.

Impairments relate to certain cash-generating units (CGUs) for which indicators of impairment have been identified, due to changes in operating conditions or the economic environment of the activities concerned.

The principles applied are as follows:

- The future cash flows were determined using the assumptions included in the 2021 budget and in the long-term plan of the Group approved by the Group Executive Committee and the Board of Directors. These assumptions, in particular including operational costs, estimation of oil and gas reserves, future volumes produced and marketed, represent the best estimate from the Group management of economic and technical conditions over the remaining life of the assets;
- The Group, notably relying on data on global energy demand from the "World Energy Outlook" issued by the IEA since 2016, and on its own supply assessments, determines oil & gas prices scenarios based on assumptions about the evolution of core indicators of the Upstream activity (demand for oil & gas products in different markets, investment forecasts, decline in production fields, changes in oil & gas reserves and supply by area and by nature of oil & gas products), of the Downstream activity (changes in refining capacity and demand for petroleum products) and by integrating climate challenges.
  These price scenarios, first prepared within the Strategy and Climate Division, are also reviewed with the Group segments which bring their own expertise. They also integrate studies issued by international agencies, banks and independent consultants. They are then approved by the Executive Committee and the Board of directors.
- The IEA 2020 World Energy Outlook anticipates four scenarios among which the STEPS (Stated Policies Scenario) for the short/mid term and the SDS (Sustainable Development Scenario) for the mid/long term are important references for the Group.
- The STEPS takes into account the measures already implemented by countries in the energy area as well as the effects of the policies announced by Governments (including the Nationally Determined Contributions – NDCs – of the Paris Agreement). The SDS takes into account necessary measures to achieve a temperature rise of less than 2°C compared to pre-industrial levels, and the energy-related goals set in the "2030 Agenda for Sustainable Development" adopted in 2015 by the UN members. The Group therefore establishes its long-term price trajectory in line with the IEA's SDS scenario, which is compatible with the Paris Agreement, and foresees oil prices converging towards 50_{2020}$ per barrel by 2040.

The oil and gas price trajectories adopted by the Group are based on the following assumptions:

- Following the deep recession caused by the health crisis in 2020, which strongly impacts the oil demand in 2020 and 2021 before reverting to a pre-crisis level, the oil demand should continue to grow until 2030, in a context of sustained growth in global energy demand, due to population growth and improved living standards, and despite the gradual electrification of transport and efficiency gains in thermal engines.
  The Group thus selected the following profile of the Brent price to determine the recoverable value of CGUs: $40/b in 2021, $50/b in 2022, $60/b in 2023.
  For the longer term, the Group maintains its analysis, that the weakness of investments in the Oil & Gas upstream since 2015, accentuated by the health and economic crisis of 2020, will result by 2025 in insufficient worldwide production capacities and a rebound in prices, that would then reach $70/b and remain stable for the following five years. Beyond 2030, given technological developments, particularly in the transport sector, the Group anticipates oil demand will have reached its peak and Brent prices should tend toward the long-term price of $50/b in 2040, in line with the IEA's SDS scenario.
  The average Brent prices over the period 2020-2050 thus stands at 57_{2020}$/b.
- Natural gas demand would for its part be driven by gas substitution for coal in power generation and by its role as an alternative source to mitigate the intermittent use of renewable energies. The abundant global supply and the growth of liquefied natural gas would, however, limit the potential for higher gas prices.
  In this context, the gas price level selected to determine the recoverable value of CGUs stabilizes from 2025 around 6.3_{2020}$/MBTU for the NBP price (Europe) and 2.7_{2020}$/MBTU for the Henry Hub price (United States).

- The future operational costs were determined by taking into account the existing technologies, the fluctuation of prices for petroleum services in line with market developments and the internal cost reduction programs effectively implemented;
- The future cash flows are estimated over a period consistent with the life of the assets of the CGUs. They are prepared post-tax and take into account specific risks related to the CGUs' assets. They are discounted using a 7% post-tax discount rate, this rate being the weighted-average cost of the Group capital estimated from historical market data. This rate was 7% in 2019 and 2018. The value in use calculated by discounting the above post-tax cash flows using a 7% post-tax discount rate is not materially different from the value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates generally ranged from 7% to 14% in 2020.

The CGUs of the Exploration & Production segment are defined as oil and gas fields or groups of oil and gas fields with industrial assets enabling the production, treatment and evacuation of the oil and gas. For the financial year 2020, impairments of assets were recognized over CGUs of the Exploration & Production segment for an impact of $(2,233) million in operating income and $(1,854) million in net income, Group share. Impairments recognized in 2020 mainly relate to Canadian oil sands assets.

The CGUs of the Integrated Gas, Renewables & Power segment are subsidiaries or groups of subsidiaries organized by activity or geographical area, and by fields or groups of fields for upstream LNG activities. For the financial year 2020, the Group recorded impairments on CGUs in the Integrated Gas, Renewables & Power segment for $(953) million in operating income and $(829) million in net income, Group share. Impairments recognized relate to LNG assets located in Australia.

The CGUs of the Refining & Chemicals segment are defined as legal entities with operational activities for refining and petrochemicals activities. Future cash flows are based on the gross contribution margin (calculated on the basis of net sales after purchases of crude oil and refined products, the effect of inventory valuation and variable costs). The other activities of the segment are global divisions, each division gathering a set of businesses or homogeneous products for strategic, commercial and industrial plans. Future cash flows are determined from the specific margins of these activities, unrelated to the price of oil. For the financial year 2020, the Group recorded impairments on CGUs in the Refining & Chemicals segment for $(306) million in operating income and $(306) million in net income, Group share. Impairments recognized mainly relate to refining CGUs located in France and the United Kingdom.

The CGUs of the Marketing & Services segment are subsidiaries or groups of subsidiaries organized by geographical area. For the financial year 2020, no impairment has been recorded for the CGUs of the Marketing & Services segment in operating income and impairments with a non-material impact have been recorded in net income, Group share.

In addition, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, the Group has reviewed its oil assets that can be qualified as *stranded*, meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects identified in this category are the Canadian oil sands projects of Fort Hills and Surmont.

For impairment calculations, the Group has decided to take into account only proven reserves on these two assets – unlike general practice which considers so-called proven and probable reserves. This leads to an additional exceptional asset impairment of $(5,460) million in operating income and $(5,474) million in net income, Group share.

Overall, asset impairments were recorded for the financial year 2020, for an amount of $(8,952) million in operating income and $(8,465) million in net income, Group share, including $(6,988) million on Canadian oil sands assets alone.

These impairments were qualified as adjustment items of the operating income and net income, Group share.

As for sensitivities of Exploration & Production segment:

- a decrease by one point in the discount rate would have an impact close to zero in operating income and in net income, Group share;
- an increase by one point in the discount rate would have an additional negative impact of approximately $0.4 billion in operating income and in net income, Group share;
- a variation of (10) % of the oil and gas prices over the duration of the plan would have an additional negative impact of approximately $1.9 billion in operating income and $1.6 billion in net income, Group share.

  The most sensitive assets would be the assets already impaired in 2020 or before (impact of approximately $1.1 billion in operating income and $0.9 billion in net income, Group share), notably assets in Canada.

As for sensitivities of upstream LNG activities and CGUs including a material goodwill:

- a decrease by one point in the discount rate would have an impact close to zero in operating income and in net income, Group share;
- an increase by one point in the discount rate would have an additional negative impact of approximately $1.1 billion in operating income and $1.0 billion in net income, Group share;
- a variation of (10) % of the oil and gas prices over the duration of the plan would have an additional negative impact of approximately $1.5 billion in operating income and $1.2 billion in net income, Group share.

  The most sensitive assets would be the assets already impaired in 2020 or before (impact of approximately $1.5 billion in operating income and $1.2 billion in net income, Group share), notably assets in Australia.

For the financial year 2019, the Group recorded impairments in Exploration & Production, Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services segments for an amount of $(920) million in operating income and $(465) million in net income, Group share. These impairments were qualified as adjustments items of the operating income and net income, Group share.

For the financial year 2018, the Group recorded impairments in Exploration & Production, Integrated Gas, Renewables & Power and Refining & Chemicals segments for an amount of $(1,774) million in operating income and $(1,595) million in net income, Group share. These impairments were qualified as adjustment items of the operating income and net income, Group share.

NOTE 4: Segment Information by geographical area

(M$)	France	Rest of Europe	North America	Africa	Rest of the world	Total
For the year ended December 31, 2020						
Non-Group sales	32,748	67,292	13,258	16,011	11,376	140,685
Property, plant and equipment, intangible assets, net	14,555	30,932	11,891	43,087	41,398	141,863
Capital expenditures	2,044	3,165	899	3,816	5,610	15,534
For the year ended December 31, 2019						
Non-Group sales	43,877	99,176	19,946	21,303	16,014	200,316
Property, plant and equipment, intangible assets, net	13,212	28,765	18,916	45,573	43,120	149,586
Capital expenditures	1,979	3,201	1,748	7,663	4,646	19,237
For the year ended December 31, 2018						
Non-Group sales	47,716	99,465	22,243	22,263	17,676	209,363
Property, plant and equipment, intangible assets, net	12,561	25,262	18,903	43,359	42,161	142,246
Capital expenditures	4,502	2,609	2,014	4,838	8,222	22,185

NOTE 5: Main items related to operating activities

Items related to the statement of income

5.1 Net sales

ACCOUNTING PRINCIPLES

IFRS 15 requires identification of the performance obligations for the transfer of goods and services in each contract with customers. Revenue is recognized upon satisfaction of the performance obligations for the amounts that reflect the consideration to which the Group expects to be entitled in exchange for those goods and services.

Sales of goods

Revenues from sales are recognized when the control has been transferred to the buyer and the amount can be reasonably measured. Revenues from sales of crude oil and natural gas are recorded upon transfer of title, according to the terms of the sales contracts.

Revenues from the production of crude oil and natural gas properties, in which the Group has an interest with other producers, are recognized based on actual entitlement volumes sold over the period. Any difference between entitlement volumes and volumes sold, based on the Group net working interest, are recognized in the "Under-lifting" and "Over-lifting" accounts in the balance sheet and in operating expenses in the profit and loss.

Quantities delivered that represent production royalties and taxes, when paid in cash, are included in oil and gas revenues, except for the United States and Canada.

Certain transactions within the trading activities (contracts involving quantities that are purchased from third parties then resold to third parties) are shown at their net value in purchases, net of inventory variation. These transactions relate in particular to crude oil, petroleum products, gas, power and LNG.

Exchanges of crude oil and petroleum products realized within trading activities are shown at their net value in both the statement of income and the balance sheet.

Sales of services

Revenues from services are recognized when the services have been rendered.

Revenues from gas transport are recognized when services are rendered. These revenues are based on the quantities transported and measured according to procedures defined in each service contract.

Shipping revenues and expenses from time-charter activities are recognized on a pro rata basis over a period that commences upon the unloading of the previous voyage and terminates upon the unloading of the current voyage. Shipping revenue recognition starts only when a charter has been agreed to by both the Group and the customer.

Income related to the distribution of electricity and gas is not recognized in revenues in certain countries because the Group acts as an agent in this transaction. In these countries, the Group is not responsible for the delivery and does not set the price of the service, because it can only pass on to the customer the amounts invoiced to it by the distributors.

Excise taxes

Excise taxes are rights or taxes which amount is calculated based on the quantity of oil and gas products put on the market. Excise taxes are determined by the states. They are paid directly to the customs and tax authorities and then invoiced to final customers by being included in the sales price.

The analysis of the criteria set by IFRS 15 led the Group to determine that it was acting as principal in these transactions. Therefore, sales include excise taxes collected by the Group within the course of its oil distribution operations. Excise taxes are deducted from sales in order to obtain the "Revenues from sales" indicator.

5.2 Operating expenses and research and development

ACCOUNTING PRINCIPLES

The Group applies IFRS 6 "Exploration for and Evaluation of Mineral Resources". Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Geological and geophysical costs, including seismic surveys for exploration purposes are expensed as incurred in exploration costs.

Costs of dry wells and wells that have not found proved reserves are charged to expense in exploration costs.

5.2.1 Operating expenses

For the year ended December 31, *(M$)*	2020	2019	2018
Purchases, net of inventory variation[(a)(b)]	(77,486)	(116,221)	(125,816)
Exploration costs	(731)	(785)	(797)
Other operating expenses[(c)]	(25,538)	(27,255)	(27,484)
of which non-current operating liabilities (allowances) reversals	*778*	*1,152*	*1,068*
of which current operating liabilities (allowances) reversals	*(77)*	*(157)*	*(202)*
OPERATING EXPENSES	**(103,755)**	**(144,261)**	**(154,097)**

(a) Includes taxes paid on oil and gas production in the Exploration & Production segment, amongst others royalties.
(b) The Group values under/over lifting at market value.
(c) Principally composed of production and administrative costs (see in particular the payroll costs as detailed in Note 10 to the Consolidated Financial Statements "Payroll, staff and employee benefits obligations").

5.2.2 Research and development costs

ACCOUNTING PRINCIPLES

Research costs are charged to expense as incurred.

Development expenses are capitalized when the criteria of IAS38 are met.

Research and development costs incurred by the Group in 2020 and booked in operating expenses amount to $895 million ($968 million in 2019 and $986 million in 2018), corresponding to 0.64% of the sales.

The staff dedicated in 2020 to these research and development activities are estimated at 4,088 people (4,339 in 2019 and 4,288 in 2018).

5.3 Amortization, depreciation and impairment of tangible assets and mineral interests

The amortization, depreciation and impairment of tangible assets and mineral interests are detailed as follows:

For the year ended December 31, *(M$)*	2020	2019	2018
Depreciation and impairment of tangible assets	(21,188)	(14,640)	(13,364)
Amortization and impairment of mineral assets	(1,076)	(1,091)	(628)
TOTAL	**(22,264)**	**(15,731)**	**(13,992)**

Items related to balance sheet

5.4 Working capital

5.4.1 Inventories

ACCOUNTING PRINCIPLES

Inventories are measured in the Consolidated Financial Statements at the lower of historical cost or market value. Costs for petroleum and petrochemical products are determined according to the FIFO (First-In, First-Out) method or weighted-average cost method and other inventories are measured using the weighted-average cost method.

In addition stocks held for trading are measured at fair value less cost to sell.

Refining & Chemicals

Petroleum product inventories are mainly comprised of crude oil and refined products. Refined products principally consist of gasoline, distillate and fuel produced by the Group's refineries. The turnover of petroleum products does not exceed two months on average.

Crude oil costs include raw material and receiving costs. Refining costs principally include crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Costs of chemical product inventories consist of raw material costs, direct labor costs and an allocation of production overheads. Start-up costs, general administrative costs and financing costs are excluded from the costs of refined and chemicals products.

Marketing & Services

The costs of products refined by the Group's entities include mainly raw materials costs, production costs (energy, labor, depreciation of producing assets), primary costs of transport and an allocation of production overheads (taxes, maintenance, insurance, etc.).

General administrative costs and financing costs are excluded from the cost price of refined products.

Product inventories purchased from entities external to the Group are valued at their purchase cost plus primary costs of transport.

Carbon dioxide emission rights generated as part of the EU Emission Trading scheme (EU ETS)

In the absence of a current IFRS standard or interpretation on accounting for emission rights of carbon dioxide generated as part of the EU Emission Trading scheme (EU ETS), the following principles are applied:

- Emission rights are managed as a cost of production and as such are recognized in inventories:
  - Emission rights allocated for free are booked in inventories with a nil carrying amount;
  - Purchased emission rights are booked at acquisition cost;
  - Sales or annual surrender of emission rights result in decreases in inventories valued at weighted average cost;
  - If the carrying amount of inventories at closing date is higher than the market value, an impairment loss is recorded.
- At each closing, a provision is recorded in order to materialize the obligation to surrender emission rights related to the emissions of the period. This provision is calculated based on estimated emissions of the period, valued at weighted average cost of the inventories at the end of the period. It is reversed when the emission rights are surrendered;
- If emission rights to be surrendered at the end of the compliance period are higher than emission rights recorded in inventories, the shortage is accounted for as a liability at market value;
- Forward transactions are recognized at their fair market value in the balance sheet. Changes in the fair value of such forward transactions are recognized in the statement of income.

Energy savings certificates

In the absence of current IFRS standards or interpretations on accounting for energy savings certificates (ESC), the following principles are applied:

- If the obligations linked to the sales of energy are greater than the number of ESC's held then a liability is recorded. These liabilities are valued based on the price of the last transactions;
- In the event that the number of ESC's held exceeds the obligation at the balance sheet date this is accounted for as inventory. Otherwise a valuation allowance is recorded ;
- ESC inventories are valued at weighted average cost (acquisition cost for those ESC's acquired or cost incurred for those ESC's generated internally).

If the carrying value of the inventory of certificates at the balance sheet date is higher than the market value, an impairment loss is recorded.

As of December 31, 2020 (M$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	1,818	(1)	1,817
Refined products	3,913	(68)	3,845
Chemicals products	1,330	(102)	1,228
Trading inventories	5,130	–	5,130
Other inventories	3,824	(1,114)	2,710
TOTAL	**16,015**	**(1,285)**	**14,730**

As of December 31, 2019 (M$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	2,381	(14)	2,367
Refined products	5,326	(45)	5,281
Chemicals products	1,448	(91)	1,357
Trading inventories	5,500	–	5,500
Other inventories	3,651	(1,024)	2,627
TOTAL	**18,306**	**(1,174)**	**17,132**

As of December 31, 2018 (M$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	2,382	(110)	2,272
Refined products	5,464	(242)	5,222
Chemicals products	1,087	(54)	1,033
Trading inventories	3,918	–	3,918
Other inventories	3,372	(937)	2,435
TOTAL	**16,223**	**(1,343)**	**14,880**

Changes in the valuation allowance on inventories are as follows:

For the year ended December 31, (M$)	Valuation allowance as of January 1,	Increase (net)	Currency translation adjustment and other variations	Valuation allowance as of December 31,
2020	**(1,174)**	**(85)**	**(26)**	**(1,285)**
2019	(1,343)	205	(36)	(1,174)
2018	(1,007)	(359)	23	(1,343)

5.4.2 Accounts receivable and other current assets

As of December 31, 2020 (M$)	Gross value	Valuation allowance	Net value
Accounts receivable	**14,899**	**(831)**	**14,068**
Recoverable taxes	3,598	(67)	3,531
Other operating receivables	8,251	(208)	8,043
Prepaid expenses	1,801	–	1,801
Other current assets	53	–	53
Other current assets	**13,703**	**(275)**	**13,428**

As of December 31, 2019 (M$)	Gross value	Valuation allowance	Net value
Accounts receivable	**19,162**	**(674)**	**18,488**
Recoverable taxes	4,209	(95)	4,114
Other operating receivables	11,746	(240)	11,506
Prepaid expenses	1,336	–	1,336
Other current assets	57	–	57
Other current assets	**17,348**	**(335)**	**17,013**

As of December 31, 2018 *(M$)*	Gross value	Valuation allowance	Net value
Accounts receivable	**17,894**	**(624)**	**17,270**
Recoverable taxes	4,090	–	4,090
Other operating receivables	10,306	(573)	9,733
Prepaid expenses	837	–	837
Other current assets	64	–	64
Other current assets	**15,297**	**(573)**	**14,724**

Changes in the valuation allowance on "Accounts receivable" and "Other current assets" are as follows:

For the year ended December 31, *(M$)*	Valuation allowance as of January 1,	Increase (net)	Currency translation adjustments and other variations	Valuation allowance as of December 31,
Accounts receivable				
2020	**(674)**	**(107)**	**(50)**	**(831)**
2019	(624)	(89)	39	(674)
2018	(576)	(62)	14	(624)
Other current assets				
2020	**(335)**	**37**	**23**	**(275)**
2019	(573)	(46)	284	(335)
2018	(461)	(148)	36	(573)

As of December 31, 2020, the net portion of the overdue receivables included in "Accounts receivable" and "Other current assets" was $4,197 million, of which $2,140 million was due less than 90 days, $239 million was due between 90 days and 6 months, $553 million was due between 6 and 12 months and $1,265 million was due after 12 months.

As of December 31, 2019, the net portion of the overdue receivables included in "Accounts receivable" and "Other current assets" was $3,760 million, of which $2,089 million was due less than 90 days, $357 million was due between 90 days and 6 months, $402 million was due between 6 and 12 months and $912 million was due after 12 months.

As of December 31, 2018, the net portion of the overdue receivables included in "Accounts receivable" and "Other current assets" was $3,767 million, of which $1,993 million was due less than 90 days, $273 million was due between 90 days and 6 months, $450 million was due between 6 and 12 months and $1,051 million was due after 12 months.

5.4.3 Other creditors and accrued liabilities

As of December 31, *(M$)*	2020	2019	2018
Accruals and deferred income	842	522	546
Payable to States (including taxes and duties)	5,734	7,438	6,861
Payroll	1,587	1,527	1,553
Other operating liabilities	14,302	16,262	13,286
TOTAL	**22,465**	**25,749**	**22,246**

As of December 31, 2020, the heading "Other operating liabilities" notably includes the second quarterly interim dividend for the fiscal year 2020 for $2,129 million, which was paid in January 2021 and the third quarterly interim dividend for the fiscal year 2020 for $2,149 million, which will be paid in April 2021.

As of December 31, 2019, the heading "Other operating liabilities" notably included the second quarterly interim dividend for the fiscal year 2019 for $1,918 million, which was paid in January 2020 and the third quarterly interim dividend for the fiscal year 2019 for $2,038 million, which was paid in April 2020.

As of December 31, 2018, the heading "Other operating liabilities" notably included the second quarterly interim dividend for the fiscal year 2018 for $1,911 million, which was paid in January 2019 and the third quarterly interim dividend for the fiscal year 2018 for $1,912 million, which was paid in April 2019.

Items related to the cash flow statement

5.5 Cash flow from operating activities

ACCOUNTING PRINCIPLES

The Consolidated Statement of Cash Flows prepared in currencies other than dollar has been translated into dollars using the exchange rate on the transaction date or the average exchange rate for the period. Currency translation differences arising from the translation of monetary assets and liabilities denominated in foreign currency into dollars using the closing exchange rates are shown in the Consolidated Statement of Cash Flows under "Effect of exchange rates". Therefore, the Consolidated Statement of Cash Flows will not agree with the figures derived from the Consolidated Balance Sheet.

The following table gives additional information on cash paid or received in the cash flow from operating activities.

Detail of interest, taxes and dividends

For the year ended December 31, *(M$)*	2020	2019	2018
Interests paid	(2,145)	(2,181)	(1,818)
Interests received	197	210	164
Income tax paid[(a)]	(2,858)	(5,293)	(5,024)
Dividends received	1,444	1,988	2,456

(a) These amounts include taxes paid in kind under production-sharing contracts in exploration and production activities.

Detail of changes in working capital

For the year ended December 31, *(M$)*	2020	2019	2018
Inventories	2,274	(2,071)	1,430
Accounts receivable	4,818	(933)	(1,461)
Other current assets	3,374	(2,001)	(364)
Accounts payable	(5,355)	1,998	(822)
Other creditors and accrued liabilities	(3,242)	1,289	1,986
NET AMOUNT, DECREASE (INCREASE)	**1,869**	**(1,718)**	**769**

Detail of changes in provisions and deferred taxes

As of December 31, *(M$)*	2020	2019	2018
Accruals	350	403	(432)
Deferred taxes	(2,132)	(461)	(455)
TOTAL	**(1,782)**	**(58)**	**(887)**

NOTE 6 Other items from operating activities

6.1 Other income and other expense

For the year ended December 31, *(M$)*	2020	2019	2018
Gains on disposal of assets	961	670	1,041
Foreign exchange gains	746	238	252
Other	530	255	545
OTHER INCOME	**2,237**	**1,163**	**1,838**
Losses on disposal of assets	(52)	(56)	(111)
Foreign exchange losses	(320)	(463)	(444)
Amortization of other intangible assets (excl. mineral interests)	(343)	(266)	(225)
Other	(791)	(407)	(493)
OTHER EXPENSE	**(1,506)**	**(1,192)**	**(1,273)**

Other income

In 2020, gains on disposal of assets are mainly related to the sale of non-strategic assets in the British North Sea in the Exploration & Production segment, to the sale of the group's interest in the Fos Cavaou regasification terminal in France and the sale of infrastructure assets in the Integrated Gas Renewables & Power segment, as well as to the sale of real estate in Belgium in the Holding segment.

In 2019, gains on disposal of assets mainly related to the sale of assets and interests in Norway in the Exploration & Production segment, to the sale of Hazira and SunPower assets in the Integrated Gas Renewables & Power segment and the sale of assets in China in the Refining & Chemicals segment.

In 2018, gains on disposal of assets mainly related to the sale of assets and interests in Norway, Canada and Gabon in the Exploration & Production segment, to the sale of Dunkerque LNG SAS and SunPower assets in the Integrated Gas Renewables & Power segment and the sale of TotalErg and Total Haiti in the Marketing & Services segment.

Other expense

In 2020, the heading "Other" notably consists of restructuring charges in the Exploration & Production, Integrated Gas Renewables & Power and Refining & Chemicals segments for an amount of $312 million, and of the impairment of non-consolidated shares and loans granted to non-consolidated subsidiaries for an amount of $64 million.

In 2019, the heading "Other" notably consisted of restructuring charges in the Exploration & Production, Integrated Gas Renewables & Power and Refining & Chemicals segments for an amount of $96 million, and of the revaluation at fair value of non-consolidated shares for $94 million.

In 2018, the heading "Other" mainly consisted of restructuring charges in the Exploration & Production, Integrated Gas Renewables & Power and Refining & Chemicals segments for an amount of $179 million, and of the impairment of non-consolidated shares and loans granted to non-consolidated subsidiaries and equity affiliates for $77 million.

6.2 Other financial income and expense

As of December 31, *(M$)*	2020	2019	2018
Dividend income on non-consolidated subsidiaries	160	178	171
Capitalized financial expenses	110	227	519
Other	644	387	430
OTHER FINANCIAL INCOME	**914**	**792**	**1,120**
Accretion of asset retirement obligations	(607)	(639)	(530)
Other	(83)	(125)	(155)
OTHER FINANCIAL EXPENSE	**(690)**	**(764)**	**(685)**

6.3 Other non-current assets

As of December 31, 2020 *(M$)*	Gross value	Valuation allowance	Net value
Loans and advances[(a)]	2,731	(273)	2,458
Other non-current financial assets related to operational activities	287	–	287
Other	65	–	65
TOTAL	**3,083**	**(273)**	**2,810**

As of December 31, 2019 *(M$)*	Gross value	Valuation allowance	Net value
Loans and advances[(a)]	2,248	(266)	1,982
Other non-current financial assets related to operational activities	332	–	332
Other	101	–	101
TOTAL	**2,681**	**(266)**	**2,415**

As of December 31, 2018 *(M$)*	Gross value	Valuation allowance	Net value
Loans and advances[(a)]	2,180	(303)	1,877
Other non-current financial assets related to operational activities	471	–	471
Other	161	–	161
TOTAL	**2,812**	**(303)**	**2,509**

(a) Excluding loans to equity affiliates.

Changes in the valuation allowance on loans and advances are detailed as follows:

For the year ended December 31, *(M$)*	Valuation allowance as of January 1,	Increases	Decreases	Currency translation adjustment and other variations	Valuation allowance as of December 31,
2020	**(266)**	**(30)**	**15**	**8**	**(273)**
2019	(303)	(7)	43	1	(266)
2018	(359)	(5)	35	26	(303)

NOTE 7 Intangible and tangible assets

7.1 Intangible assets

ACCOUNTING PRINCIPLES

Goodwill

Guidance for measuring goodwill is presented in Note 1.1 paragraph B to the Consolidated Financial Statements. Goodwill is not amortized but is tested for impairment at least annually and as soon as there is any indication of impairment.

Mineral interests

Unproved mineral interests are tested for impairment based on the results of the exploratory activity or as part of the impairment tests of the cash-generating units to which they are allocated.

Unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.

Proved mineral interests are depreciated using the unit-of-production method based on proved reserves. The corresponding expense is recorded as depreciation of tangible assets and mineral interests.

Other intangible assets

Other intangible assets include patents, and trademarks.

Intangible assets are carried at cost, after deducting any accumulated amortization and accumulated impairment losses.

Intangible assets (excluding mineral interests) that have a finite useful life are amortized on a straight-line basis over three to twenty years depending on the useful life of the assets. The corresponding depreciation expense is recorded under other expense.

As of December 31, 2020 *(M$)*	Cost	Amortization and impairment	Net
Goodwill	9,738	(931)	8,807
Proved mineral interests	16,559	(9,595)	6,964
Unproved mineral interests	20,300	(4,790)	15,510
Other intangible assets	7,212	(4,965)	2,247
TOTAL INTANGIBLE ASSETS	**53,809**	**(20,281)**	**33,528**

As of December 31, 2019 *(M$)*	Cost	Amortization and impairment	Net
Goodwill	9,357	(1,011)	8,346
Proved mineral interests	15,966	(8,741)	7,225
Unproved mineral interests	20,138	(4,558)	15,580
Other intangible assets	5,743	(3,716)	2,027
TOTAL INTANGIBLE ASSETS	**51,204**	**(18,026)**	**33,178**

As of December 31, 2018 *(M$)*	Cost	Amortization and impairment	Net
Goodwill	9,188	(1,014)	8,174
Proved mineral interests	14,775	(7,947)	6,828
Unproved mineral interests	16,712	(4,491)	12,221
Other intangible assets	5,824	(4,125)	1,699
TOTAL INTANGIBLE ASSETS	**46,499**	**(17,577)**	**28,922**

Change in net intangible assets is analyzed in the following table:

(M$)	Net amount as of January 1,	Expenditures	Disposals	Amortization and impairment	Currency translation adjustment	Other	Net amount as of December 31,
2020	**33,178**	**784**	**(277)**	**(1,430)**	**305**	**968**	**33,528**
2019	28,922	1,087	(118)	(1,359)	(95)	4,741	33,178
2018	14,587	3,745	(28)	(852)	(351)	11,821	28,922

In 2020, the heading "Amortization and impairment" includes the accounting impact of exceptional asset impairments for an amount of $323 million (see note 3 paragraph D to the Consolidated Financial Statements).

In 2020, the heading "Other" mainly reflects changes in the consolidation scope (including the acquisition of the residential gas and electricity supply business in Spain) for $898 million.

In 2019, the heading "Amortization and impairment" included the accounting impact of exceptional asset impairments for an amount of $251 million (see note 3 paragraph D to the Consolidated Financial Statements).

In 2019, the heading "Other" mainly reflected changes in the consolidation scope (including the assets of Anadarko in Mozambique) for $3,887 million.

In 2018, the heading "Amortization and impairment" included the accounting impact of exceptional asset impairments for an amount of $67 million (see note 3 paragraph D to the Consolidated Financial Statements).

In 2018, the heading "Other" mainly reflected changes in the consolidation scope (including Maersk Oil, Global LNG and Direct Energie) for $12,044 million.

A summary of changes in the carrying amount of goodwill by business segment for the year ended December 31, 2020 is as follows:

(M$)	Net goodwill as of January 1, 2020	Increases	Impairments	Other	Net goodwill as of December 31, 2020
Exploration & Production	2,642	–	–	(4)	2,638
Integrated Gas, Renewables & Power	4,774	401	–	72	5,247
Refining & Chemicals	523	17	–	(6)	534
Marketing & Services	379	–	–	(22)	357
Corporate	28	–	–	3	31
TOTAL	**8,346**	**418**	**–**	**43**	**8,807**

The heading "Increases" includes the effect of entries in the consolidation scope, mainly the acquisition in Spain of the gas and electricity residential supply for an amount of $345 million (see Note 2 paragraph 2 to the Consolidated Financial Statements).

7.2 Property, plant and equipment

ACCOUNTING PRINCIPLES

Exploration costs

The Group applies IFRS 6 "Exploration for and Evaluation of Mineral Resources". Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Exploratory wells are capitalized and tested for impairment on an individual basis as follows:
- Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;
- Costs of exploratory wells are temporarily capitalized until proved reserves have been found, if both of the following conditions are met:
  - The well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditures are made;
  - The Group is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether the Group is waiting for governmental or other third-party authorization on a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to exploration costs.

Oil and Gas production assets of exploration and production activities

Development costs of oil and gas production facilities are capitalized. These costs include borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations.

The depletion rate of development wells and of production assets is equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

In the event that, due to the price effect on reserves evaluation, the unit-of-production method does not reflect properly the useful life of the asset, an alternative depreciation method is applied based on the reserves evaluated with the price of the previous year. This is the case in 2020 where the method of unit-of-production depreciation is applied to all assets in 2020 based on proven reserves measured with the price used in 2019. This method complies with IAS16.

With respect to phased development projects or projects subject to progressive well production start-up, the fixed assets' depreciable amount, excluding production or service wells, is adjusted to exclude the portion of development costs attributable to the undeveloped reserves of these projects.

With respect to production sharing contracts, the unit-of-production method is based on the portion of production and reserves assigned to the Group taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil/gas) as well as the sharing of hydrocarbon rights after deduction of cost oil (profit oil/gas).

Hydrocarbon transportation and processing assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the economic life of the asset.

Other property, plant and equipment

Other property, plant and equipment are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses. This cost includes borrowing costs directly attributable to the acquisition or production of a qualifying asset incurred until assets are placed in service. Borrowing costs are capitalized as follows:
- if the project benefits from a specific funding, the capitalization of borrowing costs is based on the borrowing rate;
- if the project is financed by all the Group's debt, the capitalization of borrowing costs is based on the weighted average borrowing cost for the period.

Routine maintenance and repairs are charged to expense as incurred. The costs of major turnarounds of refineries and large petrochemical units are capitalized as incurred and depreciated over the period of time between two consecutive major turnarounds.

Other property, plant and equipment are depreciated using the straight-line method over their useful lives, which are as follows:

Furniture, office equipment, machinery and tools	3 – 12 years
Transportation equipment	5 – 20 years
Storage tanks and related equipment	10 – 15 years
Specialized complex installations and pipelines	10 – 30 years
Buildings	10 – 50 years

As of December 31, 2020 *(M$)*	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities			
Proved properties	215,892	(147,914)	67,978
Unproved properties	2,978	(268)	2,710
Work in progress	13,873	(861)	13,012
SUBTOTAL	**232,743**	**(149,043)**	**83,700**
Other property, plant and equipment			
Land	2,999	(905)	2,094
Machinery, plant and equipment (including transportation equipment)	39,506	(27,381)	12,125
Buildings	11,184	(6,858)	4,326
Work in progress	3,063	(1)	3,062
Other	10,983	(7,955)	3,028
SUBTOTAL	**67,735**	**(43,100)**	**24,635**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**300,478**	**(192,143)**	**108,335**

As of December 31, 2019 *(M$)*	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities			
Proved properties	210,071	(130,134)	79,937
Unproved properties	2,160	(288)	1,872
Work in progress	12,056	(569)	11,487
SUBTOTAL	**224,287**	**(130,991)**	**93,296**
Other property, plant and equipment			
Land	2,826	(792)	2,034
Machinery, plant and equipment (including transportation equipment)	36,747	(25,548)	11,199
Buildings	10,519	(6,032)	4,487
Work in progress	2,501	(2)	2,499
Other	10,137	(7,244)	2,893
SUBTOTAL	**62,730**	**(39,618)**	**23,112**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**287,017**	**(170,609)**	**116,408**

As of December 31, 2018 *(M$)*	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities			
Proved properties	192,272	(120,435)	71,837
Unproved properties	1,673	(152)	1,521
Work in progress	22,553	(1,128)	21,425
SUBTOTAL	**216,498**	**(121,715)**	**94,783**
Other property, plant and equipment			
Land	1,775	(648)	1,127
Machinery, plant and equipment (including transportation equipment)	34,564	(25,393)	9,171
Buildings	8,864	(5,640)	3,224
Work in progress	2,540	(2)	2,538
Other	9,171	(6,690)	2,481
SUBTOTAL	**56,914**	**(38,373)**	**18,541**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**273,412**	**(160,088)**	**113,324**

Change in net property, plant and equipment is analyzed in the following table:

(M$)	Net amount as of January 1,	Expenditures	Disposals	Depreciation and impairment	Currency translation adjustment	Other	Net amount as of December 31,
2020	**116,408**	**9,980**	**(611)**	**(21,544)**	**1,706**	**2,396**	**108,335**
2019	113,324	11,426	(1,052)	(15,097)	(270)	8,077	116,408
2018	109,397	13,336	(2,494)	(13,732)	(1,454)	8,271	113,324

In 2020, the heading "Disposals" mainly includes the sale of non strategic assets in the United Kingdom for $240 million.

In 2020, the heading "Depreciation and impairment" includes the impact of impairments of assets recognized for an amount of $8,629 million (see Note 3 paragraph D to the Consolidated Financial Statements).

In 2020, the heading "Other" includes the impact of changes in the consolidation scope, the impact of the new IFRS 16 contracts of the period (mainly LNG carriers and FPSO vessels) for an amount of $1,815 million, and the reversal of the reclassification under IFRS 5 as at December 31, 2019 for $434 million corresponding to disposals (mainly non strategic assets in the United Kingdom and Total E&P Deep Offshore Borneo BV).

In 2019, the heading "Disposals" mainly included the impact of the 4% sale of Ichthys LNG in Australia.

In 2019, the heading "Depreciation and impairment" included the impact of impairments of assets recognized for an amount of $669 million (see Note 3 paragraph D to the Consolidated Financial Statements).

In 2019, the heading "Other" principally corresponded to the effect of the first application of IFRS 16 for an amount of $5,698 million, the entries in the consolidation scope (including Anadarko assets for $767 million) and the reversal of the reclassification under IFRS 5 as at December 31, 2018 for $812 million corresponding to disposals.

In 2018, the heading "Disposals" mainly included the impact of sales in the Exploration & Production segment (mainly Martin Linge in Norway and Fort Hills in Canada).

In 2018, the heading "Depreciation and impairment" included the impact of impairments of assets recognized for an amount of $1,707 million (see Note 3 paragraph D to the Consolidated Financial Statements).

In 2018, the heading "Other" principally corresponded to the effect of the entries in the consolidation scope (including Maersk, Lapa and Iara in Brazil and Direct Energie) for $6,987 million, to the reclassification of assets in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations" (mainly related to the 4% sale of Ichthys for $(812) million) and the reversal of the reclassification under IFRS 5 as at December 31, 2017 for $2,604 million corresponding to disposals.

Following the application of IFRS 16 "Leases", property, plant and equipment as at December 31, 2020 and 2019 presented above include the following amounts for rights of use of assets:

As of December 31, 2020 *(M$)*	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities	2,758	(1,297)	1,461
Other property, plant and equipment			
Land	1,187	(222)	965
Machinery, plant and equipment (including transportation equipment)	4,606	(1,631)	2,975
Buildings	1,778	(385)	1,393
Other	682	(286)	396
SUBTOTAL	**8,253**	**(2,524)**	**5,729**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**11,011**	**(3,821)**	**7,190**

As of December 31, 2019 *(M$)*	Cost	Depreciation and impairment	Net
Property, plant and equipment of exploration and production activities	2,482	(517)	1,965
Other property, plant and equipment			
Land	1,031	(104)	927
Machinery, plant and equipment (including transportation equipment)	3,527	(999)	2,528
Buildings	1,545	(201)	1,344
Other	483	(134)	349
SUBTOTAL	**6,586**	**(1,438)**	**5,148**
TOTAL PROPERTY, PLANT AND EQUIPMENT	**9,068**	**(1,955)**	**7,113**

Property, plant and equipment as at December 31, 2018 presented above include the following amounts for facilities and equipment under finance leases:

As of December 31, 2018 *(M$)*	Cost	Depreciation and impairment	Net
Machinery, plant and equipment	1,778	(605)	1,173
Buildings	121	(56)	65
Other	543	(83)	460
TOTAL	**2,442**	**(744)**	**1,698**

NOTE 8 Equity affiliates, other investments and related parties

8.1 Equity affiliates: investments and loans

ACCOUNTING PRINCIPLES

Under the equity method, the investment in the associate or joint venture is initially recognized at acquisition cost and subsequently adjusted to recognize the Group's share of the net income and other comprehensive income of the associate or joint venture.

Unrealized gains on transactions between the Group and its equity-accounted entities are eliminated to the extent of the Group's interest in the equity accounted entity.

In equity affiliates, goodwill is included in investment book value.

In cases where the group holds less than 20% of the voting rights in another entity, the determination of whether the Group exercises significant influence is also based on other facts and circumstances: representation on the board of directors or an equivalent governing body of the entity, participation in policy-making processes, including participation in decisions relating to dividends or other distributions, significant transactions between the investor and the entity, exchange of management personnel, or provision of essential technical information.

The contribution of equity affiliates in the consolidated balance sheet, consolidated statement of income and consolidated statement of comprehensive income is presented below:

Equity value as of December 31, *(M$)*	2020	2019	2018
Total Associates	15,745	17,026	13,330
Total Joint ventures	7,102	6,097	5,359
Total	**22,847**	**23,123**	**18,689**
Loans	5,129	3,999	4,755
TOTAL	**27,976**	**27,122**	**23,444**

Profit/(loss) *(M$)*	2020	2019	2018
Total Associates	753	2,534	2,329
Total Joint ventures	(301)	872	841
TOTAL	**452**	**3,406**	**3,170**

Other comprehensive income *(M$)*	2020	2019	2018
Total Associates	(1,704)	592	(461)
Total Joint ventures	(127)	(184)	(79)
TOTAL	**(1,831)**	**408**	**(540)**

A) Information related to associates

Information (100% gross) related to significant associates is as follows:

Exploration and production activities (M$)	Novatek[(a)] 2020	2019	2018	Liquefaction entities 2020	2019	2018	PetroCedeño[(a)] 2020	2019	2018
Non current assets	23,748	24,081	14,639	34,273	30,578	28,664	4,008	3,994	4,324
Current assets	4,170	6,898	4,545	7,537	9,994	9,358	6,428	7,457	5,580
TOTAL ASSETS	**27,918**	**30,979**	**19,184**	**41,810**	**40,572**	**38,022**	**10,436**	**11,451**	**9,904**
Shareholder's equity	22,160	24,884	14,163	23,403	23,640	22,615	4,548	4,548	4,581
Non current liabilities	3,164	3,727	3,086	13,608	11,445	9,826	73	76	20
Current liabilities	2,594	2,368	1,935	4,799	5,487	5,581	5,815	6,827	5,303
TOTAL LIABILITIES	**27,918**	**30,979**	**19,184**	**41,810**	**40,572**	**38,022**	**10,436**	**11,451**	**9,904**
Revenue from sales	9,733	13,227	13,415	15,584	22,684	25,644	66	356	1,629
NET INCOME	**1,759**	**8,260**	**4,636**	**2,416**	**5,692**	**7,408**	**–**	**(33)**	**122**
OTHER COMPREHENSIVE INCOME	**(3,206)**	**1,807**	**(2,545)**	**–**	**–**	**–**	**–**	**–**	**–**
% owned	19.40%	19.40%	19.40%				30.32%	30.32%	30.32%
Revaluation identifiable assets on equity affiliates	1,297	1,641	1,556	1,837	1,714	44	–	–	–
Equity value	5,596	6,469	4,303	5,534	5,493	3,758	1,379	1,379	1,389
Profit/(loss)	264	1,508	794	237	637	874	–	(10)	37
Share of Other Comprehensive Income, net amount	(1,409)	634	(540)	(122)	23	49	–	–	–
Dividends paid to the Group	229	266	151	406	752	816	–	–	218

(a) Information includes the best Group's estimates of results at the date of TOTAL's financial statements.

Novatek, listed in Moscow and London, is the 2nd largest producer of natural gas in Russia. The Group share of Novatek's market value amounted to $9,951 million as at December 31, 2020. Novatek is consolidated by the equity method. TOTAL, in fact, exercises significant influence particularly through its representation on the Board of Directors of Novatek and its interest in Yamal LNG and the project Arctic LNG 2.

The Group is not aware of significant restrictions limiting the ability of OAO Novatek to transfer funds to its shareholder, be it under the form of dividends, repayment of advances or loans made.

The Group's interests in associates operating liquefaction plants are combined. The amounts include investments in: Nigeria LNG (15.00%), Angola LNG (13.60%), Yemen LNG (39.62%), Qatar Liquefied Gas Company Limited (Qatargas) (10.00%), Qatar Liquefied Gas Company Limited II (16.70%), Oman LNG (5.54%), and Abu Dhabi Gas Liquefaction Company Limited (5.00%), Arctic LNG 2 (10.00%).

PetroCedeño produces and upgrades extra-heavy crude oil in Venezuela.

Refining & Chemicals activities *(M$)*	Saudi Aramco Total Refining & Petrochemicals 2020	2019	2018	Qatar 2020	2019	2018
Non current assets	10,698	10,976	11,281	4,105	4,160	3,968
Current assets	1,211	1,793	2,069	1,521	1,571	1,741
TOTAL ASSETS	**11,909**	**12,769**	**13,350**	**5,626**	**5,731**	**5,709**
Shareholder's equity	1,256	2,113	2,412	2,717	2,676	2,748
Non current liabilities	7,994	8,098	8,398	2,171	2,150	1,914
Current liabilities	2,659	2,558	2,540	738	905	1,047
TOTAL LIABILITIES	**11,909**	**12,769**	**13,350**	**5,626**	**5,731**	**5,709**
Revenue from sales	6,031	10,522	11,886	5,222	8,225	9,929
NET INCOME	**(686)**	**(171)**	**122**	**91**	**42**	**409**
OTHER COMPREHENSIVE INCOME	**(171)**	**(124)**	**16**	**–**	**111**	**(21)**
% owned	37.50%	37.50%	37.50%			
Revaluation identifiable assets on equity affiliates	–	–	–	–	–	–
Equity value	471	792	905	716	706	740
Profit/(loss)	(257)	(64)	46	57	91	198
Share of Other Comprehensive Income, net amount	(128)	(33)	40	(16)	14	6
Dividends paid to the Group	–	–	56	63	159	271

Saudi Aramco Total Refining & Petrochemicals is an entity including a refinery in Jubail, Saudi Arabia, with a capacity of 460,000 barrels/day with integrated petrochemical units.

The Group's interests in associates of the Refining & Chemicals segment, operating steam crackers and polyethylene lines in Qatar have been combined: Qatar Petrochemical Company Ltd. (20.00%), Qatofin (49.09%), Laffan Refinery (10.00%) and Laffan Refinery II (10.00%).

B) Information related to joint ventures

The information (100% gross) related to significant joint ventures is as follows:

(M$)	Liquefaction entities (Integrated Gas, Renewables & Power) 2020	2019	2018	Hanwha Total Petrochemicals (Refining & Chemicals) 2020	2019	2018
Non current assets	70,425	70,279	68,003	4,664	4,310	4,017
Current assets excluding cash and cash equivalents	1,513	1,866	1,928	1,575	1,842	2,180
Cash and cash equivalents	1,834	1,678	339	303	322	237
TOTAL ASSETS	**73,772**	**73,823**	**70,270**	**6,542**	**6,474**	**6,434**
Shareholder's equity	4,433	7,151	7,059	3,443	3,319	3,534
Other non current liabilities	8,259	6,864	3,472	167	150	157
Non current financial debts	58,128	56,379	56,841	1,703	1,761	1,418
Other current liabilities	2,952	3,429	2,898	583	756	725
Current financial debts	–	–	–	646	488	600
TOTAL LIABILITIES	**73,772**	**73,823**	**70,270**	**6,542**	**6,474**	**6,434**
Revenue from sales	8,543	9,240	2,908	5,734	8,437	10,191
Depreciation and depletion of tangible assets and mineral interests	(3,130)	(3,040)	(1,227)	(278)	(256)	(269)
Interest income	2	5	119	–	–	9
Interest expense	(2,972)	(2,993)	(670)	(2)	(14)	(5)
Income taxes	77	(270)	(386)	(69)	(124)	(310)
NET INCOME	**(2,399)**	**383**	**2,029**	**133**	**302**	**754**
OTHER COMPREHENSIVE INCOME	**(323)**	**(429)**	**132**	**194**	**(116)**	**(169)**
% owned				50.00%	50.00%	50.00%
Revaluation identifiable assets on equity affiliates	546	660	683	–	–	–
Equity value	1,602	2,318	2,404	1,721	1,660	1,767
Profit/(loss)	(633)	(19)	192	67	150	377
Share of Other Comprehensive Income, net amount	(84)	(112)	40	87	(68)	(67)
Dividends paid to the Group	–	–	–	102	200	332

The Group's interests in joint ventures operating liquefaction plants have been combined. The amounts include investments in Yamal LNG in Russia (20.02% direct holding) and Ichthys LNG in Australia (26.00%).

Hanwha Total Petrochemicals is a South Korean company that operates a petrochemical complex in Daesan (condensate separator, steam cracker, styrene, paraxylene, polyolefins).

Off balance sheet commitments relating to joint ventures are disclosed in Note 13 of the Consolidated Financial Statements.

C) Other equity consolidated affiliates

In Group share, the main aggregated financial items in equity consolidated affiliates including assets held for sale, which have not been presented individually are as follows:

	2020		2019		2018	
As of December 31, *(M$)*	**Associates**	**Joint ventures**	**Associates**	**Joint ventures**	**Associates**	**Joint ventures**
Non Current assets	5,454	7,002	5,435	4,287	4,512	2,487
Current assets	1,299	1,671	1,357	1,276	1,263	752
TOTAL ASSETS	**6,753**	**8,673**	**6,792**	**5,563**	**5,775**	**3,239**
Shareholder's equity	1,183	1,963	1,405	1,437	1,438	1,108
Non current liabilities	4,881	5,469	4,412	3,091	3,254	1,585
Current liabilities	689	1,241	975	1,035	1,083	546
TOTAL LIABILITIES	**6,753**	**8,673**	**6,792**	**5,563**	**5,775**	**3,239**

	2020		2019		2018	
For the year ended December 31, *(M$)*	**Associates**	**Joint ventures**	**Associates**	**Joint ventures**	**Associates**	**Joint ventures**
Revenues from sales	2,154	3,116	2,190	3,535	2,542	11,914
NET INCOME	**478**	**202**	**383**	**288**	**380**	**281**
Share of other comprehensive income items	(29)	(130)	(46)	(4)	(16)	(52)
Equity value	2,049	3,779	2,187	2,119	2,235	1,188
Profit/(Loss)	452	265	372	741	380	272
Dividends paid to the Group	409	59	362	50	416	49

8.2 Other investments

ACCOUNTING PRINCIPLES

Other investments are equity instruments and are measured according to IFRS 9 at fair value through profit and loss (default option). On initial recognition, the standard allows to make an election to record the changes of fair value in other comprehensive income. For these equity instruments, only dividends can be recognized in profit or loss.

The Group recognizes changes in fair value in equity or in profit or loss according to the option chosen on an instrument by instrument basis.

For quoted shares on active markets, this fair value is equal to the market price.

As of December 31, 2020 *(M$)*	As of January 1, 2020	Increase – Decrease	Change in fair value	As of December 31, 2020
Enphase Energy Inc	173	(251)	691	613
Tellurian Investments Inc.	207	(1)	(149)	57
Other shares through fair value OCI (unit value < $50M)	126	(4)	(9)	113
Equity instruments recorded through fair value OCI	**506**	**(256)**	**533**	**783**
BBPP	62	(4)	–	58
BTC Limited	28	–	(1)	27
Tas Helat Marketing Company[(a)]	108	(108)	–	–
Other shares through fair value P&L (unit value < $50M)	1,074	84	(19)	1,139
Equity instruments recorded through fair value P&L	**1,272**	**(28)**	**(20)**	**1,224**
TOTAL EQUITY INSTRUMENTS	**1,778**	**(284)**	**513**	**2,007**

(a) Tas Helat Marketing Company is a joint venture with SAUDI ARAMCO to develop the retail business. It was consolidated in 2020 (using the equity method).

As of December 31, 2019 *(M$)*	As of January 1, 2019	Increase – Decrease	Change in fair value	As of December 31, 2019
Enphase Energy Inc	36	(5)	142	173
Tellurian Investments Inc.	207	–	–	207
Other shares through fair value OCI (unit value < $50M)	119	7	–	126
Equity instruments recorded through fair value OCI	**362**	**2**	**142**	**506**
BBPP	62	–	–	62
BTC Limited	50	–	(22)	28
Tas Helat Marketing Company[(a)]	–	108	–	108
Total Lubrificantes do Brasil[(b)]	111	(111)	–	–
Other shares through fair value P&L (unit value < $50M)	836	238	–	1,074
Equity instruments recorded through fair value P&L	**1,059**	**235**	**(22)**	**1,272**
TOTAL EQUITY INSTRUMENTS	**1,421**	**237**	**120**	**1,778**

(a) Tas Helat Marketing Company is a joint venture with SAUDI ARAMCO to develop the retail business. It will be consolidated in 2020 (using the equity method).
(b) Total Lubrificantes do Brasil was consolidated in 2019.

As of December 31, 2018 *(M$)*	As of January 1, 2018	Increase – Decrease	Change in fair value	As of December 31, 2018
Tellurian Investments Inc.	207	–	–	207
Other shares through fair value OCI (unit value < $50M)	77	80	(2)	155
Equity instruments recorded through fair value OCI	**284**	**80**	**(2)**	**362**
BBPP	62	–	–	62
BTC Limited	55	–	(5)	50
DUNKERQUE LNG SAS	144	(217)	73	–
Total Lubrificantes do Brasil[(a)]	–	111	–	111
Other shares through fair value P&L (unit value < $50M)	1,182	(346)	–	836
Equity instruments recorded through fair value P&L	**1,443**	**(452)**	**68**	**1,059**
TOTAL EQUITY INSTRUMENTS	**1,727**	**(372)**	**66**	**1,421**

(a) Total Lubrificantes do Brasil will be consolidated in 2019.

8.3 Related parties

The main transactions as well as receivable and payable balances with related parties (principally non-consolidated subsidiaries and equity consolidated affiliates) are detailed as follows:

As of December 31, *(M$)*	2020	2019	2018
Balance sheet			
Receivables			
Debtors and other debtors	545	486	496
Loans (excl. loans to equity affiliates)	89	42	57
Payables			
Creditors and other creditors	662	968	888
Debts	3	2	2

For the year ended December 31, *(M$)*	2020	2019	2018
Statement of income			
Sales	3,134	4,127	4,192
Purchases	(7,183)	(10,158)	(9,253)
Financial income	1	4	2
Financial expense	(6)	(4)	(5)

8.4 Compensation for the administration and management bodies

The aggregate amount of direct and indirect compensation accounted by the French and foreign affiliates of the Company, for all executive officers of TOTAL as of December 31 and for the members of the Board of Directors who are employees of the Group, is detailed below.

During fiscal year 2020, the Company, taking into account the definition from US regulations applicable to Executive Officers and in the interest of harmonization, has chosen to reduce the list of its Executive Officers to the members of the Executive Committee in order to align this list with the list of "Persons Discharging Managerial Responsibilities" (PDMR) within the sense of Article 19.5 of Regulation (EU) No. 596/2014 on Market Abuse ("Regulation"). For the purposes of this Regulation, PDMRs are defined as the persons referred to in Article L. 621-18-2 (a) of the French Monetary and Financial Code (the "Directors") and the persons referred to in Article L. 621-18-2 (b) of the same code that TOTAL SE has defined as the members of the TOTAL Executive Committee ("COMEX").

As of December 31, 2020, the Group Executive Officers are the members of the Executive Committee, *i.e.* eight people.

As of December 31, 2019, the Group Executive Officers included the members of the Executive Committee and the four directors of the corporate functions members of the Group Performance Management Committee (Communication, Legal, Health, Safety and Environment, Investor relations), and the Group Treasurer, *i.e.* thirteen people.

There are three employees members of the Board of Directors on December 31, 2020. They were two on December 31, 2019. The increase in the number of employees members results from the appointment of a second director representing employees on the Board of Directors in accordance with the French "Pacte law" of May 22, 2019.

For the year ended December 31, *(M$)*	2020	2019	2018
Number of people	11	15	15
Direct or indirect compensation	12.6	15.0	17.7
Pension expenses[a]	1.5	(4.9)	2.5
Share-based payments expense (IFRS 2)[b]	7.2	8.7	12.6

(a) The benefits provided for executive officers of the Group and the members of the Board of Directors, who are employees of the Group, include severance to be paid upon retirement, supplementary pension schemes and insurance plans, which represent a commitment of $129.0 million as of December 31, 2020 (against $113.3 million as of December 31, 2019 and $117.0 million as of December 31, 2018). Converted into Euros, this commitment amounts to €105.2 million as of December 31, 2020 (against €100.8 million as of December 31, 2019 and €102.2 million as of December 31, 2018).

(b) Share-based payments expense computed for the executive officers and the members of the Board of Directors who are employees of the Group and based on the principles of IFRS 2 "Share-based payments" described in Note 9.

Restating the 2019 and 2018 data, to the scope of the Group of executive officers as defined in 2020, the detail of the compensation is as follows:

For the year ended December 31, *(M$)*	2020	2019	2018
Number of people	11	10	9
Direct or indirect compensation	12.6	12.0	14.0
Pension expenses	1.5	(2.4)	1.4
Share-based payments expense (IFRS2)	7.2	7.7	12.1

The compensation allocated to members of the Board of Directors as directors' fees totaled $1.44 million in 2020 ($1.57 million in 2019 and $1.65 million in 2018).

NOTE 9 Shareholders' equity and share-based payments

9.1 Shareholders' equity

Number of TOTAL shares and rights attached

As of December 31, 2020, the share capital of TOTAL SE amounts to €6,632,810,062.50, divided into 2,653,124,025 shares, with a par value of €2.50. There is only one category of shares. The shares may be held in either registered or bearer form.

The authorized share capital amounts to 3,668,371,962 shares as of December 31, 2020 compared to 3,593,399,547 shares as of December 31, 2019 and 3,669,077,772 shares as of December 31, 2018.

A double voting right is assigned to shares that are fully-paid and held in registered form in the name of the same shareholder for at least two years, with due consideration for the total portion of the share capital represented. A double voting right is also assigned, in the event of an increase in share capital by incorporation of reserves, profits or premiums, to registered shares granted for free to a shareholder due to shares already held that are entitled to this right.

Pursuant to the Company's bylaws (Statutes), no shareholder may cast a vote at a Shareholders' Meeting, either by himself or through an agent, representing more than 10% of the total voting rights for the Company's shares. This limit applies to the aggregated amount of voting rights held directly, indirectly or through voting proxies. However, in the case of double voting rights, this limit may be extended up to 20% of the total voting rights for the Company's shares.

These restrictions no longer apply if any individual or entity, acting alone or in concert, acquires at least two-thirds of the total share capital of the Company, directly or indirectly, following a public tender offer for all of the Company's shares.

Share cancellation

The Board of Directors, pursuant to the authorization granted by the Extraordinary Shareholders' Meeting on May 26, 2017, in the thirteenth resolution to reduce, on one or more occasions, the Company's share capital by cancelling shares, in accordance with the provisions of Articles L. 225-209 and L. 225-213 of the French Commercial Code, has proceeded with the following cancellation of TOTAL shares:

Fiscal year	Board of Directors' decision date	Number of shares bought back and cancelled	Buybacks for the purpose of: cancellation of the dilution[(a)]	Buybacks for the purpose of: the shareholder return policy[(b)]	Percentage of the share capital cancelled[(c)]
2020			**n/a[(d)]**		
2019	December 11, 2019	65,109,435 shares bought back between October 29, 2018 and September 9, 2019	34,860,133 shares issued as payment for the 1st, 2nd and 3rd 2018 interim dividends	30,249,302 shares	2.44%
2018	December 12, 2018	44,590,699 shares bought back between February 9 and October 11, 2018	28,445,840 shares issued as payment for the 2nd and 3rd interim dividends as well as for the final 2017 dividends	16,144,859 shares	1.66%

(a) Cancellation of the dilution for the shares issued, without discount, for the scrip dividend.
(b) Within the framework of the share buybacks announced in February 2018 which may amount up to $5 billion over the 2018-2020 period. On March 23, 2020, in the context of the COVID-19 pandemic and the fall in the oil prices, TOTAL SE announced the suspension of its buybacks. The Company had previously announced a $2 billion share buyback target for 2020 in a $60/b environment and has bought back $554 million.
(c) Percentage of the share capital that the cancelled shares represented on the operations' date.
(d) TOTAL SE did not cancel any shares in the fiscal year 2020.

Variation of the number of shares composing the share capital

AS OF DECEMBER 31, 2017(a)		**2,528,989,616**
	2018 Capital increase reserved for employees	9,354,889
	Capital increase as payment of the scrip dividend (second, third interim and final 2017 dividend, as well as the first 2018 interim dividend)	47,229,037
	Exercise of TOTAL share subscription options	2,096,571
	Capital increase in consideration for the acquisition of Maersk Olie og Gas A/S	97,522,593
	Capital reduction by cancellation of treasury shares	(44,590,699)
AS OF DECEMBER 31, 2018(b)		**2,640,602,007**
	2019 Capital increase reserved for employees	10,047,337
	Capital increase as payment of the scrip dividend (second and third 2018 interim dividend)	16,076,936
	Exercise of TOTAL share subscription options	264,230
	Capital reduction by cancellation of treasury shares	(65,109,435)
AS OF DECEMBER 31, 2019(c)		**2,601,881,075**
	Deferred contribution pursuant to the 2015 capital increase reserved for employees	18,879
	2020 Capital increase reserved for employees	13,160,383
	Capital increase as payment of the scrip dividend (final 2019 dividend)	38,063,688
AS OF DECEMBER 31, 2020(d)		**2,653,124,025**

(a) Including 8,376,756 treasury shares deducted from consolidated shareholders' equity.
(b) Including 32,473,281 treasury shares deducted from consolidated shareholders' equity.
(c) Including 15,474,234 treasury shares deducted from consolidated shareholders' equity.
(d) Including 24,392,703 treasury shares deducted from consolidated shareholders' equity.

Capital increase reserved for Group employees

The Extraordinary General Meeting ("**EGM**") of May 29, 2020, in its twentieth resolution, granted the authority to the Board of Directors to carry out, a capital increase, in one or more occasions within a maximum period of twenty-six months, reserved to members (employees and retirees) of a company or group savings plan of the Company ("**ESOP**").

In fiscal year 2020, the Board of Directors of September 16, 2020, by virtue of the twentieth resolution above-mentioned, decided to proceed with a capital increase reserved for Group employees and retirees within the limit of 18 million shares with immediate dividend rights. On this occasion, the Board of Directors has granted all powers to the Chairman and Chief Executive Officer to determine the opening and closing dates of the subscription period and the subscription price. This capital increase is expected to be completed after the General Meeting of May 28, 2021.

During the fiscal years 2018, 2019 and 2020, the Company completed the following ESOP, which terms are set out below:

Fiscal year	**2020**	**2019**	**2018**
Date of the ESOP	June 11, 2020	June 6, 2019	May 3, 2018
By virtue of	18th resolution of the EGM of June 1, 2018	18th resolution of the EGM of June 1, 2018	23rd resolution of the EGM of May 24, 2016
Subscriptions			
Number of shares subscribed	12,952,925	9,845,111	9,174,817
Subscription price	26.20 euros	40.10 euros	37.20 euros
Free shares			
Number of shares granted	207,458	202,226	180,072
By virtue of	19th resolution of the EGM of June 1, 2018	19th resolution of the EGM of June 1, 2018	24th resolution of the EGM of June 24, 2016
Deferred contribution			
Number of shares granted	1,380	5,932	6,784
Number of beneficiaries	276	1,187	1,360
End of the acquisition period	June 11, 2025	June 6, 2024	May 3, 2023

Treasury shares

ACCOUNTING PRINCIPLES

Treasury shares held by TOTAL SE or by its subsidiaries are deducted from consolidated shareholders' equity. Gains or losses on sales of treasury shares are excluded from the determination of net income and are recognized in shareholders' equity.

TOTAL shares held by TOTAL SE

As of December 31,	2020	2019	2018
Number of treasury shares held by TOTAL SE	24,392,703	15,474,234	32,473,281
Percentage of share capital	0.92%	0.59%	1.23%
Of which shares acquired with the intention to cancel them	*23,284,409*	*11,051,144*	*27,360,278*
Of which shares allocated to TOTAL share performance plans for Group employees	*1,055,446*	*4,357,324*	*5,044,817*
Of which shares intended to be allocated to new share performance or purchase options plans	*52,848*	*65,766*	*68,186*

Paid-in surplus

In accordance with French law, the paid-in surplus corresponds to premiums related to shares issuances, contributions or mergers of the parent company which can be capitalized or used to offset losses if the legal reserve has reached its minimum required level. The amount of the paid-in surplus may also be distributed subject to taxation except when it qualifies as a refund of shareholder contributions.

As of December 31, 2020, paid-in surplus relating to TOTAL SE amounted to €36,722 million (€35,415 million as of December 31, 2019 and €37,276 million as of December 31, 2018).

Reserves

Under French law, 5% of net income must be transferred to the legal reserve until the legal reserve reaches 10% of the nominal value of the share capital. This reserve cannot be distributed to the shareholders other than upon liquidation but can be used to offset losses.

If wholly distributed, the unrestricted reserves of the parent company would be taxed for an approximate amount of $492 million as of December 31, 2020 ($575 million as of December 31, 2019 and $607 million as of December 31, 2018) due to additional corporation tax applied on regulatory reserves so that they become distributable.

Earnings per share

ACCOUNTING PRINCIPLES

Earnings per share is calculated by dividing net income (Group share) by the weighted-average number of common shares outstanding during the period, excluding TOTAL shares held by TOTAL SE (Treasury shares) which are deducted from consolidated shareholders' equity.

Diluted earnings per share is calculated by dividing net income (Group share) by the fully-diluted weighted-average number of common shares outstanding during the period. Treasury shares held by the parent company, TOTAL SE are deducted from consolidated shareholders' equity. These shares are not considered outstanding for purposes of this calculation which also takes into account the dilutive effect of share subscription or purchase options plans, share grants and capital increases with a subscription period closing after the end of the fiscal year.

The weighted-average number of fully-diluted shares is calculated in accordance with the treasury stock method provided for by IAS 33. The proceeds, which would be recovered in the event of an exercise of rights related to dilutive instruments, are presumed to be a share buyback at the average market price over the period. The number of shares thereby obtained leads to a reduction in the total number of shares that would result from the exercise of rights.

In compliance with IAS 33, earnings per share and diluted earnings per share are based on the net income after deduction of the remuneration due to the holders of deeply subordinated notes.

The variation of both weighted-average number of shares and weighted-average number of diluted shares respectively, as of December 31, respectively used in the calculation of earnings per share and fully-diluted earnings per share is detailed as follows:

	2020	2019	2018
NUMBER OF SHARES AS OF JANUARY 1,	**2,601,881,075**	**2,640,602,007**	**2,528,989,616**
TOTAL shares held by TOTAL SE or by its subsidiaries and deducted from shareholders' equity	(15,474,234)	(32,473,281)	(8,376,756)
Evolution of the number of shares during the financial year *(pro-rated)*			
Exercise of TOTAL share subscription options	–	157,153	1,351,465
Final grant of TOTAL performance shares	2,154,064	2,140,576	2,039,729
Capital increase reserved for employees	7,689,476	5,860,947	6,236,593
Capital increase as payment of the scrip dividend	17,445,857	12,360,894	26,352,572
Capital increase in consideration for the acquisition of Maersk Olie og Gas A/S	–	–	81,268,828
Buyback of TOTAL treasury shares including:	(11,669,489)	(27,026,481)	(30,405,112)
Shares repurchased in during the fiscal year to cancel the dilution caused by the scrip dividend payment and within the framework of the share buyback program	*(10,666,710)*	*(24,818,443)*	*(30,102,242)*
Shares repurchased in during the fiscal year to cover for the performance share plans	*(1,002,779)*	*(2,208,038)*	*(302,870)*
WEIGHTED-AVERAGE NUMBER OF SHARES	**2,602,026,749**	**2,601,621,815**	**2,607,456,934**
Dilutive effect			
Grant of TOTAL share subscription or purchase options	–	33,636	296,830
Grant of TOTAL performance shares	–	14,593,030	13,794,896
Capital increase reserved for employees[(a)]	–	1,759,407	2,167,784
WEIGHTED-AVERAGE NUMBER OF DILUTED SHARES AS OF DECEMBER 31,[(b)]	**2,602, 026,749**	**2,618,007,888**	**2,623,716,444**

(a) Including the capital increase in consideration to the deferred contribution pursuant to the capital increase reserved for employees.
(b) In 2020, the effect generated by the grant of TOTAL performance shares and by the capital increase reserved for employees (19,007,836 shares) is anti-dilutive. In accordance with IAS 33, the weighted-average number of diluted shares is therefore equal to the weighted-average number of shares.

Earnings per share in euros

The earnings per share in euros, converted from the earnings per share in dollars, by using the average exchange rate euro/dollar, is €(2.54) per share for 2020 closing (€3.75 for 2019 closing). The fully-diluted earnings per share calculated by using the same method is €(2.54) per share for 2020 closing (€3.72 for 2019 closing).

Dividend

The Board of Directors, on February 8, 2021, after approving the financial statements for the 2020 fiscal year, decided to propose to the Shareholders' Meeting on May 28, 2021 the payment of a €2.64 dividend per share for the fiscal year 2020. Subject to the Shareholders' decision, considering the first three interim dividends already decided by the Board of Directors, the final dividend for the fiscal year 2020 will be €0.66 per share.

2020 Dividend	First interim	Second interim	Third interim	Final
Amount	€0.66	€0.66	€0.66	€0.66
Set date	May 4, 2020	July 29, 2020	October 29, 2020	May 28, 2021
Ex-dividend date	September 25, 2020	January 4, 2021	March 25, 2021	June 24, 2021
Payment date	October 2, 2020	January 11, 2021	April 1, 2021	July 1, 2021

Issuances of perpetual subordinated notes

On 25 January 2021, TOTAL SE issued two tranches of perpetual subordinated notes in euro:

- Deeply subordinated notes 1.625% perpetual maturity callable after 7 years (€1,500 million); and
- Deeply subordinated notes 2.125% perpetual maturity callable after 12 years (€1,500 million).

In 2020, TOTAL SE issued perpetual subordinated notes in euro:

- Deeply subordinated notes 2.000% perpetual maturity callable after 10 years (€1,000 million).

In parallel with this issuance, TOTAL SE partially tendered perpetual 2.250% subordinated notes issued in 2015 (of which the outstanding nominal amount before the operation was €1,000 million following a first partial tender executed in April 2019) for an amount of €703 million.

Following this transaction, the new nominal amount of the tendered tranche was €297 million and the Group's total outstanding amount of perpetual subordinated notes rose temporarily by €297 million. This residual amount was fully repaid in February 2021 on its first call date.

In 2019, TOTAL SE issued perpetual subordinated notes in euro:

- Deeply subordinated notes 1.750% perpetual maturity callable after 5 years (€1,500 million).

In parallel with this issuance, TOTAL SE partially tendered perpetual 2.250% subordinated notes issued in 2015 for an amount of €1,500 million. Following this transaction, the new nominal amount of the tranche tendered was €1,000 million and the Group's total outstanding amount of perpetual subordinated notes remained unchanged.

In 2018 and 2017, TOTAL SE did not issue any perpetual subordinated notes.

In 2016, TOTAL SE issued three tranches of perpetual subordinated notes in euro:
- Deeply subordinated notes 3.875% perpetual maturity callable after 6 years (€1,750 million);
- Deeply subordinated notes 2.708% perpetual maturity callable after 6.6 years (€1,000 million); and
- Deeply subordinated notes 3.369% perpetual maturity callable after 10 years (€1,500 million).

In 2015, TOTAL SE issued two tranches of perpetual subordinated notes in euro:
- Deeply subordinated notes 2.250% perpetual maturity callable after 6 years (€2,500 million); and
- Deeply subordinated notes 2.625% perpetual maturity callable after 10 years (€2,500 million).

Based on their characteristics (mainly no mandatory repayment and no obligation to pay a coupon except under certain circumstances specified into the documentation of the notes) and in compliance with IAS 32 standard – *Financial instruments* – Presentation, these notes were recorded in equity.

As of December 31, 2020, the amount of perpetual deeply subordinated notes booked in the Group shareholders' equity is $10,667 million. The coupons attributable to the holders of these securities are recognized as a deduction from the Group shareholders' equity for an amount of $308 million for fiscal year 2020 closing. The tax saving due to these coupons is booked in the statement of income.

Other comprehensive income

Detail of other comprehensive income showing both items potentially reclassifiable and those not potentially reclassifiable from equity to net income is presented in the table below:

For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**
Actuarial gains and losses	(212)	(192)	(12)
Change in fair value of investments in equity instruments	533	142	–
Tax effect	65	53	13
Currency translation adjustment generated by the parent company	7,541	(1,533)	(4,022)
SUB-TOTAL ITEMS NOT POTENTIALLY RECLASSIFIABLE TO PROFIT & LOSS	**7,927**	**(1,530)**	**(4,021)**
Currency translation adjustment	**(4,645)**	**740**	**1,113**
– Unrealized gain/(loss) of the period	(4,607)	800	1,238
– Less gain/(loss) included in net income	38	60	125
Cash flow hedge	**(313)**	**(599)**	**25**
– Unrealized gain/(loss) of the period	(175)	(552)	(94)
– Less gain/(loss) included in net income	138	47	(119)
Variation of foreign currency basis spread	**28**	**1**	**(80)**
– Unrealized gain/(loss) of the period	(22)	(57)	(80)
– Less gain/(loss) included in net income	(50)	(58)	–
Share of other comprehensive income of equity affiliates, net amount	**(1,831)**	**408**	**(540)**
– Unrealized gain/(loss) of the period	(1,841)	421	(495)
– Less gain/(loss) included in net income	(10)	13	45
Other	**(8)**	**(3)**	**(5)**
Tax effect	**72**	**202**	**14**
SUB-TOTAL ITEMS POTENTIALLY RECLASSIFIABLE TO PROFIT & LOSS	**(6,697)**	**749**	**527**
TOTAL OTHER COMPREHENSIVE INCOME, NET AMOUNT	**1,230**	**(781)**	**(3,494)**

The currency translation adjustment by currency is detailed in the following table:

As of December 31, 2020 *(M$)*	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	7,541	7,541	–	–	–
Currency translation adjustment	(4,645)	(4,668)	115	(12)	(80)
Currency translation adjustment of equity affiliates	(1,657)	(851)	(11)	(886)	91
TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME	**1,239**	**2,022**	**104**	**(898)**	**11**

As of December 31, 2019 *(M$)*	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	(1,533)	(1,533)	–	–	–
Currency translation adjustment	740	636	138	7	(41)
Currency translation adjustment of equity affiliates	607	149	(7)	530	(65)
TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME	**(186)**	**(748)**	**131**	**537**	**(106)**

As of December 31, 2018 *(M$)*	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	(4,022)	(4,022)	–	–	–
Currency translation adjustment	1,113	1,883	(431)	(10)	(329)
Currency translation adjustment of equity affiliates	(564)	343	14	(805)	(116)
TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME	**(3,473)**	**(1,796)**	**(417)**	**(815)**	**(445)**

Tax effects relating to each component of other comprehensive income are as follows:

	2020			2019			2018		
For the year ended December 31, *(M$)*	Pre-tax amount	Tax effect	Net amount	Pre-tax amount	Tax effect	Net amount	Pre-tax amount	Tax effect	Net amount
Actuarial gains and losses	(212)	47	(165)	(192)	55	(137)	(12)	13	1
Change in fair value of investments in equity instruments	533	18	551	142	(2)	140	–	–	–
Currency translation adjustment generated by the parent company	7,541	–	7,541	(1,533)	–	(1,533)	(4,022)	–	(4,022)
SUB-TOTAL ITEMS NOT POTENTIALLY RECLASSIFIABLE TO PROFIT & LOSS	**7,862**	**65**	**7,927**	**(1,583)**	**53**	**(1,530)**	**(4,034)**	**13**	**(4,021)**
Currency translation adjustment	(4,645)	–	(4,645)	740	–	740	1,113	–	1,113
Cash flow hedge	(313)	79	(234)	(599)	202	(397)	25	(6)	19
Variation of foreign currency basis spread	28	(7)	21	1	–	1	(80)	20	(60)
Share of other comprehensive income of equity affiliates, net amount	(1,831)	–	(1,831)	408	–	408	(540)	–	(540)
Other	(8)	–	(8)	(3)	–	(3)	(5)	–	(5)
SUB-TOTAL ITEMS POTENTIALLY RECLASSIFIABLE TO PROFIT & LOSS	**(6,769)**	**72**	**(6,697)**	**547**	**202**	**749**	**513**	**14**	**527**
TOTAL OTHER COMPREHENSIVE INCOME	**1,093**	**137**	**1,230**	**(1,036)**	**255**	**(781)**	**(3,521)**	**27**	**(3,494)**

Non-controlling interests

As of December 31, 2020, no subsidiary has non-controlling interests that would be material to the Group financial statements.

9.2 Share-based payments

ACCOUNTING PRINCIPLES

TOTAL SE may grant employees share subscription or purchase options plans, restricted share plans and offer its employees the opportunity to subscribe to reserved capital increases. These employee benefits are recognized as expenses with a corresponding credit to shareholders' equity.

The expense is equal to the fair value of the instruments granted. The expense is recognized on a straight-line basis over the period in which the advantages are acquired.

The fair value of the options is calculated using the Black-Scholes model at the grant date.

For restricted share plans, the fair value is calculated using the market price at the grant date after deducting the expected distribution rate during the vesting period.

The global cost is reduced to take into account the non-transferability over a 2-year holding period of the shares that could be awarded. The number of allocated equity instruments can be revised during the vesting period in cases of non-compliance with performance conditions, with the exception of those related to the market, or according to the rate of turnover of the beneficiaries.

The cost of employee-reserved capital increases is immediately expensed.

The cost of the capital increase reserved for employees consists of the cost related to the discount on the shares subscribed using the classic and/or the leveraged schemes, the cost of the free shares and the opportunity gain for the shares subscribed using the leveraged scheme, as applicable. This opportunity gain corresponds to the benefit of subscribing to the leveraged offer, rather than reproducing the same economic profile through the purchase of options in the market for individual investors.

The global cost is reduced to take into account the non-transferability of the shares that are subscribed by the employees over a period of five years.

A) TOTAL share subscription or purchase option plans

	2010 Plan	2011 Plan	Total	Weighted average exercise price
Date of the shareholders' meeting	5/21/2010	5/21/2010		
Award date[a]	9/14/2010	9/14/2011		
Strike price	38.20 €	33.00 €		
Expiry date	9/14/2018	9/14/2019		
Number of options				
Existing options as of January 1, 2018	**1,950,372**	**490,568**	**2,440,940**	**37.15 €**
Granted	–	–	–	–
Cancelled[b]	(79,139)	–	(79,139)	38.20 €
Exercised	(1,871,233)	(225,338)	(2,096,571)	37.64 €
Existing options as of January 1, 2019	**–**	**265,230**	**265,230**	**33.00 €**
Granted	–	–	–	–
Cancelled[b]	–	(1,000)	(1,000)	33.00 €
Exercised	–	(264,230)	(264,230)	33.00 €
EXISTING OPTIONS AS OF JANUARY 1, 2020	**–**	**–**	**–**	**n/a**

(a) The grant date is the date of the Board meeting awarding the share subscription or purchase options.
(b) Out of the options canceled in 2018 and 2019, (i) 79,139 options that were not exercised expired on September 14, 2018 due to expiry of 2010 Plan and (ii) 1,000 options that were not exercised expired on September 14, 2019 due to expiry of 2011 Plan.

Options granted as part of 2010 and 2011 Plans were exercisable, subject to a presence condition, after a 2-year period from the date of the Board meeting awarding the options and have expired eight years after this date. The underlying shares were not transferable during four years from the date of grant. The transfer restriction period did not apply to employees of non-French subsidiaries as of the date of the grant, who may have transferred the underlying shares after a 2-year period from the date of the grant.

The Combined General Meeting of May 29, 2020 authorised the Board of Directors, for a period of thirty-eight months to grant share subscription or purchase options. Since the 2011 Plan, the Board of Directors has not decided any new grant of TOTAL share subscription or purchase option plan. All the option plans have expired.

B) TOTAL performance share plans

	2015	2016	2017	2018	2019	2020	Total
Date of the shareholders' meeting	5/16/2014	5/24/2016	5/24/2016	5/24/2016	6/1/2018	1/6/2018	
Award date	7/28/2015	7/27/2016	7/26/2017	3/14/2018	3/13/2019	3/18/2020	
Date of the final award (end of the vesting period)	7/29/2018	7/28/2019	7/27/2020	3/15/2021	3/14/2022	3/20/2023	
Transfer authorized as from	7/29/2020	7/29/2021	7/28/2022	3/16/2023	3/15/2024	3/21/2025	
Grant date IFRS 2 fair value	35.90 €	35.37 €	35.57 €	36.22 €	40.11 €	12.40 €	
Number of performance shares							
Outstanding as of January 1, 2018	**4,697,305**	**5,607,100**	**5,679,039**	**–**	**–**	**–**	**15,983,444**
Notified	–	–	–	6,083,145	–	–	6,083,145
Cancelled	(621,568)	(61,840)	(26,640)	(12,350)	–	–	(722,398)
Finally granted	(4,075,737)	(2,040)	(1,480)	–	–	–	(4,079,257)
Outstanding as of January 1, 2019	**–**	**5,543,220**	**5,650,919**	**6,070,795**	**–**	**–**	**17,264,934**
Notified	–	–	–	–	6,447,069	–	6,447,069
Cancelled	–	(1,267,392)	(41,220)	(41,260)	(39,246)	–	(1,389,118)
Finally granted	–	(4,275,828)	(1,840)	(1,100)	(180)	–	(4,278,948)
Outstanding as of January 1, 2020	**–**	**–**	**5,607,859**	**6,028,435**	**6,407,643**	**–**	**18,043,937**
Notified	–	–	–	–	–	6,727,352	6,727,352
Cancelled	–	–	(1,313,687)	(55,830)	(44,289)	(18,691)	(1,432,497)
Finally granted	–	–	(4,294,172)	(10,740)	(10,890)	(1,773)	(4,317,575)
OUTSTANDING AS OF DECEMBER 31, 2020	**–**	**–**	**–**	**5,961,865**	**6,352,464**	**6,706,888**	**19,021,217**

The performance shares, which are bought back by the TOTAL SE on the market, are finally granted to their beneficiaries after a 3-year vesting period, from the date of the grant. The final grant is subject to a continued employment condition as well as:
- two performance conditions for the 2015 to 2018 Plans,
- three performance conditions for the 2019 Plan, and
- four performance conditions for the 2020 Plan.

Moreover, the transfer of the performance shares finally granted will not be permitted until the end of a 2-year holding period from the date of the final grant.

2020 Plan

On March 18, 2020, the Board of Directors granted performance shares to certain employees and executive directors of the Company or Group companies, subject to the fulfilment of the continued employment condition and four performance conditions.

The presence condition applies to all shares.

The performance conditions apply differently depending of the capacity of the beneficiaries. If all shares granted to senior executives are subject to performance conditions, the grant of the first 150 shares to non-senior executive are not subject to the performance condition abovementioned, which will, nonetheless, apply to any shares granted above this threshold.

The definitive number of granted shares will be based on the TSR (Total Shareholder Return), the annual variation of the net cash flow by share in dollars, the pre-dividend organic cash breakeven, as well as the change in the greenhouse gas emissions (GHG) on operated oil & gas facilities, for fiscal years 2020, 2021 and 2022, applied as follows:
- for 1/4 of the shares, the Company will be ranked against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) each year during the three vesting years (2020, 2021 and 2022) based on the TSR criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- for 1/4 of the shares, the Company will be ranked each year against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) during the three vesting years (2020, 2021 and 2022) using the annual variation in net cash flow per share criterion expressed in dollar.

Based on the ranking, a grant rate will be determined for each year for these first two criteria:

Ranking	Grant rate
1st place	180%
2nd place	130%
3rd place	80%
4th and 5th places	0%

- for 1/4 of the shares, the pre-dividend organic cash breakeven criterion will be assessed during the three vesting years (2020, 2021 and 2022) as follows. The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes covers the organic investments. The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter.
  - the maximum grant rate will be reached if the breakeven is less than or equal to $30/b,
  - the grant rate will be zero if the breakeven is greater than or equal to $40/b,
  - the interpolations will be linear between these two points of reference.
- for 1/4 of the shares, the change in the GHG on operated oil & gas facilities will be assessed each year as regard to the achievement of the target to reduce the GHG emissions (Scope 1 and Scope 2) set for fiscal years 2020, 2021 and 2022 and corresponding to 43 Mt CO_2e for 2020, 42.4 Mt CO_2e for 2021 and 41.8 Mt CO_2e for 2022.

- the maximum grant rate will be reached if the GHG emissions (Scope 1 and Scope 2) on operated oil & gas facilities target has been achieved,
- the grant rate will be zero if the GHG emissions of the year considered are 1 Mt CO_2e above the set target,
- the interpolations will be linear between these points of reference.

A grant rate will be determined for each year.

For each of the four criteria, the average of the three grant rates obtained (for each of the three fiscal years for which the performance conditions are assessed) will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%) and capped at 100%.

Each criterion will have a weight of 1/4 in the definitive grant rate. The definitive grant rate will also be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%). The number of shares definitively granted, after confirmation of the performance conditions, will be rounded up to the nearest whole number of shares in case of a fractional share.

C) SunPower Plans

During fiscal year 2020, SunPower had one stock incentive plan: the SunPower Corporation 2015 Omnibus Incentive Plan ("2015 Plan"). The 2015 Plan was adopted by SunPower's Board of Directors in February 2015 and approved by shareholders in June 2015. The 2015 Plan allows for the grant of options, as well as grant of stock appreciation rights, restricted stock grants, restricted stock units and other equity rights. The 2015 Plan also allows for tax withholding obligations related to stock option exercises or restricted stock awards to be satisfied through the retention of shares otherwise released upon vesting.

The 2015 Plan includes an automatic annual increase mechanism equal to the lower of three percent of the outstanding shares of all classes of SunPower's common stock measured on the last day of the immediately preceding fiscal year, 6 million shares, or such other number of shares as determined by SunPower's Board of Directors. In fiscal year 2015, SunPower's Board of Directors voted to reduce the stock incentive plan's automatic increase from 3% to 2% for 2016. As of December 31, 2020, approximately 18.0 million shares were available for grant under the 2015 Plan.

Incentive stock options, nonstatutory stock options, and stock appreciation rights may be granted at no less than the fair value of the common stock on the date of grant. The options and rights become exercisable when and as determined by SunPower's Board of Directors, although these terms generally do not exceed ten years for stock options. SunPower has not granted stock options since fiscal year 2008. All previously granted stock options have been exercised or expired and accordingly no options remain outstanding. Under the 2015 Plan, the restricted stock grants and restricted stock units typically vest in equal installments annually over three or four years.

The majority of shares issued are net of the minimum statutory withholding requirements that SunPower pays on behalf of its employees. During fiscal years 2020, 2019, and 2018, SunPower withheld 1.3 million, 0.8 million, and 0.7 million shares, respectively, to satisfy the employees' tax obligations. SunPower pays such withholding requirements in cash to the appropriate taxing authorities. Shares withheld are treated as common stock repurchases for accounting and disclosure purposes and reduce the number of shares outstanding upon vesting.

There were no options outstanding and exercisable as of December 31, 2020. The intrinsic value of the options exercised in fiscal years 2020, 2019, and 2018, were zero. There were no stock options granted in fiscal years 2020, 2019, and 2018.

The following table summarizes SunPower's restricted stock activities:

	Restricted Stock Awards and Units	
	Shares *(in thousands)*	Weighted-Average Grant Date Fair Value Per Share *(in dollars)*[(a)]
OUTSTANDING AS OF JANUARY 1, 2018	**7,293**	**11.83**
Granted	4,449	7.77
Vested[(b)]	(2,266)	14.45
Forfeited	(1,816)	10.10
OUTSTANDING AS OF JANUARY 1, 2019	**7,660**	**9.11**
Granted	5,430	6.82
Vested[(b)]	(2,460)	9.65
Forfeited	(1,304)	8.28
OUTSTANDING AS OF JANUARY 1, 2020	**9,326**	**7.75**
Granted	12,797	11.10
Vested[(b)]	(3,596)	9.88
Forfeited	(11,360)	7.07
OUTSTANDING AS OF DECEMBER 31, 2020	**7,167**	**13.75**

(a) SunPower estimates the fair value of the restricted stock unit awards as the stock price on the grant date.
(b) Restricted stock awards and units vested include shares withheld on behalf of employees to satisfy the minimum statutory tax withholding requirements.

D) Share-based payment expense

Share-based payment expense before tax was broken down as follows:

As of December 31, *(M$)*	2020	2019	2018
Total restricted shares plans	176	180	264
SunPower plans	26	26	21
Capital increase reserved for employees	12	27	30
TOTAL	**214**	**233**	**315**

The main assumptions used for the valuation of the cost of the capital increase reserved for employees in 2020 were the following:

For the year ended December 31,	2020
Date of the Board of Directors meeting that decided the issue	September 18, 2019
Reference price (€)[(a)]	32.75
Subscription price (€)[(b)]	26.20
Number of shares issued (in millions)[(c)]	13.16
Risk free interest rate over five years (%)	(0.392)
Employees loan financing rate (%)[(d)]	4.73
Non transferability cost (% of the reference's share price)	19.27

(a) Average of the closing prices of the TOTAL shares over the twenty trading sessions preceding April 29th, 2020, being the date of the Chairman and CEO's decision setting the price and opening date of the subscription period.
(b) Reference price, reduced by a 20% discount and rounded off to the highest tenth of a euro.
(c) Including the free shares issued.
(d) Average of 5 year consumer's credit rates.

8

NOTE 10 Payroll, staff and employee benefits obligations

10.1 Employee benefits obligations

ACCOUNTING PRINCIPLES

In accordance with the laws and practices of each country, the Group participates in employee benefit plans offering retirement, death and disability, healthcare and special termination benefits. These plans provide benefits based on various factors such as length of service, salaries, and contributions made to the governmental bodies responsible for the payment of benefits.

These plans can be either defined contribution or defined benefit pension plans and may be entirely or partially funded with investments made in various non-Group instruments such as mutual funds, insurance contracts, and other instruments.

For defined contribution plans, expenses correspond to the contributions paid.

Defined benefit obligations are determined according to the Projected Unit Method. Actuarial gains and losses may arise from differences between actuarial valuation and projected commitments (depending on new calculations or assumptions) and between projected and actual return of plan assets. Such gains and losses are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost is recorded immediately in the statement of income, whether vested or unvested.

The net periodic pension cost is recognized under "Other operating expenses".

Liabilities for employee benefits obligations consist of the following:

As of December 31, *(M$)*	**2020**	**2019**	**2018**
Pension benefits liabilities	3,111	2,651	2,545
Other benefits liabilities	700	742	669
Restructuring reserves (early retirement plans)	106	108	149
TOTAL	**3,917**	**3,501**	**3,363**
Net liabilities relating to assets held for sale	1	–	–

Description of plans and risk management

The Group operates, for the benefit of its current and former employees, both defined benefit plans and defined contribution plans.

The Group recognized a charge of $135 million for defined contribution plans in 2020 ($133 million in 2019 and $130 million in 2018).

The Group's main defined benefit pension plans are located in France, the United Kingdom, the United States, Belgium and Germany. Their main characteristics, depending on the country-specific regulatory environment, are the following:
- the benefits are usually based on the final salary and seniority;
- they are usually funded (pension fund or insurer);
- they are usually closed to new employees who benefit from defined contribution pension plans;
- they are paid in annuity or in lump sum.

The pension benefits include also termination indemnities and early retirement benefits. The other benefits are employer contributions to post-employment medical care.

In order to manage the inherent risks, the Group has implemented a dedicated governance framework to ensure the supervision of the different plans. These governance rules provide for:
- the Group's representation in key governance bodies or monitoring committees;
- the principles of the funding policy;
- the general investment policy, including for most plans:
  - the establishment of a monitoring committee to define and follow the investment strategy and performance,
  - the principles in respect of investment allocation are respected;
- a procedure to approve the establishment of new plans or the amendment of existing plans;
- the principles of administration, communication and reporting.

Change in benefit obligations and plan assets

The fair value of the defined benefit obligation and plan assets in the Consolidated Financial Statements is detailed as follows:

As of December 31, *(M$)*	Pension benefits 2020	Pension benefits 2019	Pension benefits 2018	Other benefits 2020	Other benefits 2019	Other benefits 2018
Change in benefit obligation						
Benefit obligation at beginning of year	12,285	11,501	12,872	742	669	705
Current service cost	244	214	236	19	13	14
Interest cost	217	295	296	11	17	17
Past service cost	–	4	(1)	–	–	(2)
Settlements	(10)	(20)	(141)	(3)	(9)	–
Plan participants' contributions	10	7	8	–	–	–
Benefits paid	(702)	(667)	(902)	(27)	(26)	(28)
Actuarial losses/(gains)	818	847	(372)	(89)	87	(29)
Foreign currency translation and other	729	104	(495)	47	(9)	(8)
Benefit obligation at year-end	**13,591**	**12,285**	**11,501**	**700**	**742**	**669**
Of which plans entirely or partially funded	12,830	11,584	10,864	–	–	–
Of which plans not funded	761	701	637	700	742	669
Change in fair value of plan assets						
Fair value of plan assets at beginning of year	(9,769)	(9,145)	(10,205)	–	–	–
Interest income	(191)	(255)	(261)	–	–	–
Actuarial losses/(gains)	(517)	(745)	424	–	–	–
Settlements	2	11	129	–	–	–
Plan participants' contributions	(10)	(7)	(8)	–	–	–
Employer contributions	(229)	(172)	(417)	–	–	–
Benefits paid	622	573	778	–	–	–
Foreign currency translation and other	(488)	(29)	415	–	–	–
Fair value of plan assets at year-end	**(10,580)**	**(9,769)**	**(9,145)**	**–**	**–**	**–**
UNFUNDED STATUS	**3,011**	**2,516**	**2,356**	**700**	**742**	**669**
Asset ceiling	36	34	28	–	–	–
NET RECOGNIZED AMOUNT	**3,047**	**2,550**	**2,384**	**700**	**742**	**669**
Pension benefits and other benefits liabilities	3,111	2,651	2,545	700	742	669
Other non-current assets	(65)	(101)	(161)	–	–	–
Net benefit liabilities relating to assets held for sale	1	–	–	–	–	–

As of December 31, 2020, the contribution from the main geographical areas for the net pension liability in the balance sheet is: 69% for the Euro area, 15% for the United Kingdom and 12% for the United States.

The amounts recognized in the consolidated income statement and the consolidated statement of comprehensive income for defined benefit plans are detailed as follows:

	Pension benefits			Other benefits		
For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**	**2020**	**2019**	**2018**
Current service cost	244	214	236	19	13	14
Past service cost	–	4	(1)	–	–	(2)
Settlements	(7)	(10)	(12)	(3)	(9)	–
Net interest cost	25	39	35	11	17	17
BENEFIT AMOUNTS RECOGNIZED ON PROFIT & LOSS	**262**	**247**	**258**	**27**	**21**	**29**
Actuarial (Gains)/Losses						
– Effect of changes in demographic assumptions	(12)	(166)	(1)	(3)	(2)	(21)
– Effect of changes in financial assumptions	773	1,071	(354)	(1)	89	(3)
– Effect of experience adjustments	57	(59)	(17)	(85)	–	(5)
– Actual return on plan assets	(517)	(745)	424	–	–	–
Effect of asset ceiling	–	3	(11)	–	–	–
BENEFIT AMOUNTS RECOGNIZED ON EQUITY	**301**	**104**	**41**	**(89)**	**87**	**(29)**
TOTAL BENEFIT AMOUNTS RECOGNIZED ON COMPREHENSIVE INCOME	**563**	**351**	**299**	**(62)**	**108**	**–**

Expected future cash outflows

The average duration of accrued benefits is approximately 14 years for defined pension benefits and 17 years for other benefits. The Group expects to pay contributions of $228 million in respect of funded pension plans in 2021.

Estimated future benefits either financed from plan assets or directly paid by the employer are detailed as follows:

Estimated future payments *(M$)*	**Pension benefits**	**Other benefits**
2021	874	37
2022	502	29
2023	426	28
2024	405	26
2025	392	26
2026-2030	2,243	130

Type of assets

	Pension benefits		
Asset allocation as of December 31,	**2020**	**2019**	**2018**
Equity securities	25%	25%	24%
Debt securities	45%	46%	47%
Monetary	2%	1%	1%
Annuity contracts	20%	20%	20%
Real estate	8%	8%	8%

Investments on equity and debt markets are quoted on active markets.

Main actuarial assumptions and sensitivity analysis

Assumptions used to determine benefits obligations

	Pension benefits			Other benefits		
As of December 31,	2020	2019	2018	2020	2019	2018
Discount rate (weighted average for all regions)	**1.28%**	**1.84%**	**2.68%**	**1.41%**	**1.71%**	**2.56%**
Of which Euro zone	*0.52%*	*0.73%*	*1.72%*	*0.68%*	*0.94%*	*1.87%*
Of which United States	*2.50%*	*3.25%*	*4.00%*	*2.50%*	*3.25%*	*4.00%*
Of which United Kingdom	*1.50%*	*2.25%*	*3.00%*	–	–	–
Inflation rate (weighted average for all regions)	**2.06%**	**2.20%**	**2.44%**	**–**	**–**	**–**
Of which Euro zone	*1.24%*	*1.21%*	*1.50%*	–	–	–
Of which United States	*2.50%*	*2.50%*	*2.50%*	–	–	–
Of which United Kingdom	*3.00%*	*3.25%*	*3.50%*	–	–	–

The discount rate retained is determined by reference to the high quality rates for AA-rated corporate bonds for a duration equivalent to that of the obligations. It derives from a benchmark per monetary area of different market data at the closing date.

Sensitivity to inflation in respect of defined benefit pension plans is not material in the United States.

A 0.5% increase or decrease in discount rates – all other things being equal – would have the following approximate impact on the benefit obligation:

(M$)	0.5% Increase	0.5% Decrease
Benefit obligation as of December 31, 2020	(908)	1,001

A 0.5% increase or decrease in inflation rates – all other things being equal – would have the following approximate impact on the benefit obligation:

(M$)	0.5% Increase	0.5% Decrease
Benefit obligation as of December 31, 2020	613	(568)

10.2 Payroll and staff

For the year ended December 31,	2020	2019	2018
Personnel expenses *(M$)*			
Wages and salaries (including social charges)	8,908	8,922	9,099
Group employees at December 31,			
France (DROM COM includ.)			
– Management	14,016	13,848	13,484
– Other	21,886	22,831	22,929
International			
– Management	17,102	16,821	16,856
– Other	52,472	54,276	51,191
TOTAL	**105,476**	**107,776**	**104,460**

The number of employees includes only employees of fully consolidated subsidiaries.

2019 and 2018 data were restated to show number of employees of France including DROM COM (overseas departments, regions and communities).

NOTE 11 Income taxes

ACCOUNTING PRINCIPLES

Income taxes disclosed in the statement of income include current tax expenses (or income) and deferred tax expenses (or income).

Current tax expenses (or income) are the estimated amount of the tax due for the taxable income of the period.

Deferred income taxes are recorded based on the temporary differences between the carrying amounts of assets and liabilities recorded in the balance sheet and their tax bases, and on carry-forwards of unused tax losses and other tax credits.

Deferred tax assets and liabilities are measured using the tax rates that have been enacted or substantially enacted at the balance sheet date. The tax rates used depend on the timing of reversals of temporary differences, tax losses and other tax credits. The effect of a change in tax rate is recognized either in the Consolidated Statement of Income or in shareholders' equity depending on the item it relates to.

Deferred tax resulting from temporary differences between the carrying amounts of equity-method investments and their tax bases are recognized. The deferred tax calculation is based on the expected future tax effect (dividend distribution rate or tax rate on capital gains).

Income taxes are detailed as follows:

For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**
Current income taxes	(2,450)	(5,469)	(6,971)
Deferred income taxes	2,132	(403)	455
TOTAL INCOME TAXES	**(318)**	**(5,872)**	**(6,516)**

Before netting deferred tax assets and liabilities by fiscal entity, the components of deferred tax balances are as follows:

As of December 31, *(M$)*	**2020**	**2019**	**2018**
Net operating losses and tax carry forwards	5,106	3,752	3,779
Employee benefits	1,004	970	995
Other temporary non-deductible provisions	9,068	8,660	8,409
Differences in depreciations	(14,641)	(16,029)	(15,469)
Other temporary tax deductions	(3,847)	(2,995)	(2,541)
NET DEFERRED TAX LIABILITY	**(3,310)**	**(5,642)**	**(4,827)**

The reserves of TOTAL subsidiaries that would be taxable if distributed but for which no distribution is planned, and for which no deferred tax liability has therefore been recognized, totaled $10,155 million as of December 31, 2020.

Deferred tax assets not recognized as of December 31, 2020 amount to $4,631 million as their future recovery was not regarded as probable given the expected results of the entities. Particularly in the Exploration & Production segment, when the affiliate or the field concerned is in its exploration phase, the net operating losses created during this phase will be useable only if a final investment and development decision is made. Accordingly, the time limit for the utilization of those net operating losses is not known.

Deferred tax assets not recognized relate notably to Canada for an amount of $1,371 million, to France for an amount of $1,197 million and to United States for an amount of $307 million.

After netting deferred tax assets and liabilities by fiscal entity, deferred taxes are presented on the balance sheet as follows:

As of December 31, *(M$)*	**2020**	**2019**	**2018**
Deferred tax assets	7,016	6,216	6,663
Deferred tax liabilities	(10,326)	(11,858)	(11,490)
NET AMOUNT	**(3,310)**	**(5,642)**	**(4,827)**

The net deferred tax variation in the balance sheet is analyzed as follows:

As of December 31, *(M$)*	**2020**	**2019**	**2018**
OPENING BALANCE	**(5,642)**	**(4,827)**	**(5,622)**
Deferred tax on income	2,132	(403)	455
Deferred tax on shareholders' equity [(a)]	137	255	27
Changes in scope of consolidation and others	76	(695)	151
Currency translation adjustment	(13)	28	162
CLOSING BALANCE	**(3,310)**	**(5,642)**	**(4,827)**

(a) This amount includes mainly deferred taxes on actuarial gains and losses, current income taxes and deferred taxes for changes in fair value of investments inequity instruments, as well as deferred taxes related to the cash flow hedge (see Note 9 to the Consolidated Financial Statements).

Reconciliation between provision for income taxes and pre-tax income:

For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**
Consolidated net income	(7,336)	11,438	11,550
Income taxes	318	5,872	6,516
PRE-TAX INCOME	**(7,018)**	**17,310**	**18,066**
French statutory tax rate	32.02%	34.43%	34.43%
THEORETICAL TAX CHARGE	**2,247**	**(5,960)**	**(6,220)**
Difference between French and foreign income tax rates	(1,109)	(2,007)	(3,058)
Tax effect of equity in income (loss) of affiliates	145	1,173	1,080
Permanent differences	665	1,422	1,740
Adjustments on prior years income taxes	(31)	12	(40)
Adjustments on deferred tax related to changes in tax rates	(204)	(270)	2
Variation of deferred tax assets not recognized	(2,031)	(242)	(20)
INCOME TAXES IN THE STATEMENT OF INCOME	**(318)**	**(5,872)**	**(6,516)**

The French statutory tax rate includes the standard corporate tax rate (31.0%), additional and exceptional applicable taxes that bring the overall tax rate to 32.02% in 2020 (versus 34.43% in 2019 and 34.43% in 2018).

Permanent differences are mainly due to impairment of goodwill and to dividends from non-consolidated companies as well as the specific taxation rules applicable to certain activities.

Net operating losses and carried forward tax credits

Deferred tax assets related to carried forward tax credits on net operating losses expire in the following years:

As of December 31, *(M$)*	**2020**	**2019**	**2018**
2019			90
2020		71	70
2021	69	48	38
2022	26	27	32
2023[(a)]	7	19	1,423
2024[(b)]	2	1,310	
2025 and after	1,643		
Unlimited	3,359	2,277	2,126
TOTAL	**5,106**	**3,752**	**3,779**

(a) 2023 and after for 2018.
(b) 2024 and after for 2019.

As of December 31, 2020 the schedule of deferred tax assets related to carried forward tax credits on net operating losses for the main countries is as follows:

	Tax				
As of December 31, 2020 *(M$)*	**Australia**	**United States**	**Canada**	**France**	**United Kingdom**
2021					
2022					
2023					
2024			17		
2025 and after		420	1,084		
Unlimited	1,140	536		900	184
TOTAL	**1,140**	**956**	**1,101**	**900**	**184**

NOTE 12 Provisions and other non-current liabilities

12.1 Provisions and other non-current liabilities

ACCOUNTING PRINCIPLES

A provision is recognized when the Group has a present obligation, legal or constructive, as a result of a past event for which it is probable that an outflow of resources will be required and when a reliable estimate can be made regarding the amount of the obligation. The amount of the liability corresponds to the best possible estimate.

Provisions and non-current liabilities are comprised of liabilities for which the amount and the timing are uncertain. They arise from environmental risks, legal and tax risks, litigation and other risks.

As of December 31, *(M$)*	2020	2019	2018
Litigations and accrued penalty claims	320	386	736
Provisions for environmental contingencies	960	742	862
Asset retirement obligations	15,368	14,492	14,286
Other non-current provisions	2,868	2,927	3,144
of which restructuring activities	*293*	*135*	*134*
of which financial risks related to non-consolidated and equity consolidated affiliates	*134*	*130*	*100*
of which contingency reserve on solar panels warranties (SunPower)	*82*	*140*	*173*
Other non-current liabilities	1,409	2,066	2,404
TOTAL	**20,925**	**20,613**	**21,432**

In 2020, litigation reserves amount to $320 million of which $208 million in the Exploration & Production, notably in Brazil and Angola.

In 2019, litigation reserves amounted to $386 million of which $286 million in the Exploration & Production, notably in Brazil, Angola and USA.

In 2018, litigation reserves amounted to $736 million of which $510 million was in the Exploration & Production, notably in Angola, Nigeria and Brazil.

Other non-current liabilities mainly include debts whose maturity is more than one year related to fixed assets acquisitions.

Changes in provisions and other non-current liabilities

Changes in provisions and other non-current liabilities are as follows:

(M$)	As of January 1,	Allowances	Reversals	Currency translation adjustment	Other	As of December 31,
2020	**20,613**	**1,756**	**(1,378)**	**452**	**(518)**	**20,925**
of which asset retirement obligations		*607*	*(519)*			
of which provisions for environmental contingencies		*217*	*(93)*			
of which provisions for restructuring of activities		*271*	*(135)*			
2019	**21,432**	**1,248**	**(2,414)**	**(33)**	**380**	**20,613**
of which asset retirement obligations		*639*	*(460)*			
of which provisions for environmental contingencies		*30*	*(92)*			
of which provisions for restructuring of activities		*60*	*(122)*			
2018	**15,986**	**2,416**	**(1,378)**	**(519)**	**4,927**	**21,432**
of which asset retirement obligations		*530*	*(320)*			
of which provisions for environmental contingencies		*33*	*(111)*			
of which provisions for restructuring of activities		*149*	*(106)*			

Asset retirement obligations

ACCOUNTING PRINCIPLES

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a risk-free discount rate to the amount of the liability. Given the long-term nature of expenditures related to our asset retirement obligations, the rate is determined by reference to the rates of high quality AA-rated corporate bonds on the USD area for a long-term horizon. The increase of the provision due to the passage of time is recognized as “Other financial expense”.

The discount rate used for the valuation of asset retirement obligation is 3% in 2020 and 4.5% in 2019 and 2018 (the expenses are estimated at current currency values with an inflation rate of 1.5% in 2020, and of 2% in 2019 and 2018).

A decrease of 0.5% of this rate would increase the asset retirement obligation by $1,442 million, with a corresponding impact in tangible assets, and with a negative impact of approximately $78 million on the following years net income. Conversely, an increase of 0.5% would have a nearly symmetrical impact compared to the effect of the decrease of 0.5%.

Changes in the asset retirement obligation are as follows:

(M$)	As of January 1,	Accretion	Revision in estimates	New obligations	Spending on existing obligations	Currency translation adjustment	Other	As of December 31,
2020	**14,492**	**607**	**526**	**87**	**(519)**	**284**	**(109)**	**15,368**
2019	14,286	639	(601)	567	(460)	47	14	14,492
2018	12,240	530	(458)	811	(320)	(364)	1,847	14,286

12.2 Other risks and contingent liabilities

TOTAL is not currently aware of any exceptional event, dispute, risks or contingent liabilities that could have a material impact on the assets and liabilities, results, financial position or operations of the Group.

NOTE 13 Off balance sheet commitments and lease contracts

13.1 Off balance sheet commitments and contractual obligations

		Maturity and installment plants		
As of December 31, 2020 *(M$)*	**Total**	**Less than 1 year**	**Between 1 and 5 years**	**More than 5 years**
Non-current debt obligations net of hedging instruments *(Note 15)*	48,705	–	22,745	25,960
Current portion of non-current debt obligations net of hedging instruments *(Note 15)*	4,674	4,674	–	–
Lease obligations *(Note 13.2)*	8,943	1,207	3,178	4,558
Asset retirement obligations *(Note 12)*	15,368	463	1,840	13,065
CONTRACTUAL OBLIGATIONS RECORDED IN THE BALANCE SHEET	**77,690**	**6,344**	**27,763**	**43,583**
Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)*	1,745	704	626	415
Purchase obligations	143,177	11,719	39,126	92,332
CONTRACTUAL OBLIGATIONS NOT RECORDED IN THE BALANCE SHEET	**144,922**	**12,423**	**39,752**	**92,747**
TOTAL OF CONTRACTUAL OBLIGATIONS	**222,612**	**18,767**	**67,515**	**136,330**
Guarantees given to customs authorities	2,312	2,189	60	63
Guarantees given on borrowings	14,164	746	3,660	9,758
Indemnities related to sales of businesses	333	179	–	154
Guarantees of current liabilities	147	68	56	23
Guarantees to customers/suppliers	19,182	2,603	1,853	14,726
Letters of credit	2,432	2,297	135	–
Other operating commitments	23,879	3,224	3,002	17,653
TOTAL OF OTHER COMMITMENTS GIVEN	**62,449**	**11,306**	**8,766**	**42,377**
Mortgages and liens received	77	28	24	25
Sales obligations	80,521	7,001	29,362	44,158
Other commitments received	20,401	15,270	1,474	3,657
TOTAL OF COMMITMENTS RECEIVED	**100,999**	**22,299**	**30,860**	**47,840**
Of which commitments given relating to joint ventures	*34,920*	*644*	*7,288*	*26,988*
Of which commitments given relating to associates	*51,795*	*999*	*8,664*	*42,132*

As of December 31, 2019 *(M$)*	Total	Maturity and installment plants Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments *(Note 15)*	40,931	–	19,888	21,043
Current portion of non-current debt obligations net of hedging instruments *(Note 15)*	5,331	5,331	–	–
Lease obligations *(Note 13.2)*	7,465	1,202	2,883	3,380
Asset retirement obligations *(Note 12)*	14,492	617	3,153	10,722
CONTRACTUAL OBLIGATIONS RECORDED IN THE BALANCE SHEET	**68,219**	**7,150**	**25,924**	**35,145**
Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)*	2,077	536	879	662
Purchase obligations	147,516	10,763	38,189	98,564
CONTRACTUAL OBLIGATIONS NOT RECORDED IN THE BALANCE SHEET	**149,593**	**11,299**	**39,068**	**99,226**
TOTAL OF CONTRACTUAL OBLIGATIONS	**217,812**	**18,449**	**64,992**	**134,371**
Guarantees given to customs authorities	2,012	1,876	17	119
Guarantees given on borrowings	14,510	306	7,372	6,832
Guarantees related to sales of businesses	331	163	16	152
Guarantees of current liabilities	172	79	60	33
Guarantees to customers/suppliers	12,318	1,435	2,169	8,714
Letters of credit	2,786	2,768	18	–
Other operating commitments	22,055	3,240	1,202	17,613
TOTAL OF OTHER COMMITMENTS GIVEN	**54,184**	**9,867**	**10,854**	**33,463**
Assets received as collateral (security interests)	85	23	37	25
Sales obligations	93,441	7,135	31,330	54,976
Other commitments received	22,358	16,845	1,705	3,808
TOTAL OF COMMITMENTS RECEIVED	**115,884**	**24,003**	**33,072**	**58,809**
Of which commitments given relating to joint ventures	*39,055*	*461*	*11,822*	*26,772*
Of which commitments given relating to associates	*31,465*	*913*	*8,381*	*22,171*

As of December 31, 2018 *(M$)*	Total	Maturity and installments		
		Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments *(Note 15)*	37,784	–	19,072	18,712
Current portion of non-current debt obligations net of hedging instruments *(Note 15)*	5,027	5,027	–	–
Finance lease obligations *(Note 13.2)*	1,878	213	468	1,197
Asset retirement obligations *(Note 12)*	14,286	844	3,388	10,054
CONTRACTUAL OBLIGATIONS RECORDED IN THE BALANCE SHEET	**58,975**	**6,084**	**22,928**	**29,963**
Operating lease obligations *(Note 13.2)*	9,130	1,644	3,691	3,795
Purchase obligations	121,119	9,708	30,652	80,759
CONTRACTUAL OBLIGATIONS NOT RECORDED IN THE BALANCE SHEET	**130,249**	**11,352**	**34,343**	**84,554**
TOTAL OF CONTRACTUAL OBLIGATIONS	**189,224**	**17,436**	**57,271**	**114,517**
Guarantees given to customs authorities	2,043	1,904	12	127
Guarantees given on borrowings	18,680	169	68	18,443
Indemnities related to sales of businesses	334	165	10	159
Guarantees of current liabilities	222	83	74	65
Guarantees to customers/suppliers	8,463	1,222	847	6,394
Letters of credit	3,515	3,164	160	191
Other operating commitments	29,416	2,085	1,046	26,285
TOTAL OF OTHER COMMITMENTS GIVEN	**62,673**	**8,792**	**2,217**	**51,664**
Mortgages and liens received	84	23	33	28
Sales obligations	91,695	7,989	27,709	55,997
Other commitments received	21,565	15,527	1,328	4,710
TOTAL OF COMMITMENTS RECEIVED	**113,344**	**23,539**	**29,070**	**60,735**
Of which commitments given relating to joint ventures	*42,768*	*162*	*4,425*	*38,181*
Of which commitments given relating to associates	*39,437*	*773*	*8,378*	*30,286*

A. Contractual obligations

Debt obligations

"Non-current debt obligations" are included in the items "Non-current financial debt" and "Non-current financial assets" of the Consolidated Balance Sheet. It includes the non-current portion of swaps hedging bonds, and excludes non-current lease obligations of $7,736 million.

The current portion of non-current debt is included in the items "Current borrowings", "Current financial assets" and "Other current financial liabilities" of the Consolidated Balance Sheet. It includes the current portion of swaps hedging bonds, and excludes the current portion of lease obligations of $1,207 million.

The information regarding contractual obligations linked to indebtedness is presented in Note 15 to the Consolidated Financial Statements.

Lease contracts

The information regarding leases is presented in Note 13.2 to the Consolidated Financial Statements.

Asset retirement obligations

This item represents the discounted present value of Exploration & Production and Integrated Gas, Renewables & Power asset retirement obligations, primarily asset removal costs at the completion date. The information regarding contractual obligations linked to asset retirement obligations is presented in Note 12 to the Consolidated Financial Statements.

Purchase obligations

Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on the company and specify all significant terms, including the amount and the timing of the payments.

These obligations mainly include: unconditional hydrocarbon purchase contracts (except where an active, highly-liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase) in the Integrated Gas, Renewables & Power segment, reservation of transport capacities in pipelines, unconditional exploration works and development works in the Exploration & Production segment, and contracts for capital investment projects in the Refining & Chemicals segment.

B. Other commitments given

Guarantees given to customs authorities

These consist of guarantees given by the Group to customs authorities in order to guarantee the payments of taxes and excise duties on the importation of oil and gas products, mostly in France.

Guarantees given on borrowings

The Group guarantees bank debt and lease obligations of certain non-consolidated subsidiaries and equity affiliates. Maturity dates vary, and guarantees will terminate on payment and/or cancellation of the obligation. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. As of December 31, 2020, the maturities of these guarantees are up to 2053.

As of December 31, 2020, the guarantees provided by TOTAL SE in connection with the financing of the Ichthys LNG project amount to $4,912 million. As of December 31, 2019, the guarantees amounted to $4,937 million.

As of December 31, 2020, the guarantees provided by TOTAL SE in connection with the financing of the Yamal LNG project for an amount of $3,250 million by TOTAL SE. As of December 31, 2019, the guarantees amounted to $3,688 million.

As of December 31, 2020, TOTAL SE has confirmed guarantees for TOTAL Refining SAUDI ARABIA SAS shareholders' advances for an amount of $1,164 million. As of December 31, 2019, the guarantees amounted to $1,184 million.

As of December 31, 2020, the guarantee given in 2008 by TOTAL SE in connection with the financing of the Yemen LNG project amounts to $509 million as in 2019.

As of December 31, 2020, guarantees provided by TOTAL SE in connection with the financing of the Bayport Polymers LLC project, amount to $1,820 million as in 2019.

Indemnities related to sales of businesses

In the ordinary course of business, the Group executes contracts involving standard indemnities for the oil industry and indemnities specific to transactions such as sales of businesses. These indemnities might include claims against any of the following: environmental, tax and shareholder matters, intellectual property rights, governmental regulations and employment-related matters, and commercial contractual relationships. Performance under these indemnities would generally be triggered by a breach of terms of the contract or by a third party claim. The Group regularly evaluates the probability of having to incur costs associated with these indemnities.

Other guarantees given

Non-consolidated subsidiaries

The Group also guarantees the current liabilities of certain non-consolidated subsidiaries. Performance under these guarantees would be triggered by a financial default of the entity.

Operating agreements

As part of normal ongoing business operations and consistent with generally accepted industry practices, the Group enters into numerous agreements with other parties. These commitments are often entered into for commercial purposes, for regulatory purposes or for other operating agreements.

C. Commitments received

Sales obligations

These amounts represent binding obligations to sell goods, including in particular hydrocarbon sales contracts (except where an active, highly-liquid market exists and when the volumes are expected to be re-sold shortly after purchase).

13.2 Lease contracts

ACCOUNTING PRINCIPLES

A lease contract is a contract that grants lessee the right to use an identified asset for a specified period of time in exchange for consideration. At lease inception, an asset corresponding to right of use and a debt are recognized in the lessee's balance sheet. Carrying value of right of use corresponds to present value of future lease payments plus any direct costs incurred for concluding the contract. Lease debt is recorded as a liability in the balance sheet under financial debts. Rights of use are depreciated over the useful lives applied by the Group.

Leases that are of short duration or that relate to low value assets are not recorded in the balance sheet, in accordance with the exemptions in the standard. They are presented as off-balance sheet commitments.
First-time application of IFRS 16 "Leases"
As part of the first application of IFRS 16 "Leases" as of January 1, 2019, the Group:

- applied the simplified retrospective transition method, accounting for the cumulative effect of the initial application of the standard at the date of first application, without restating the comparative periods;
- used the following simplification measures provided by the standard in the transitional provisions:
  - exclusion of contracts that the Group had not previously identified as containing a lease under IAS 17 and IFRIC 4;
  - exclusion of leases whose term ends within 12 months of the date of first application.
- recognized each lease component as a separate lease, separately from non-lease components of the lease (services);
- applied the two exemptions of the standard on short-term leases and leases of low-value assets.

The impact of the application of this standard as at January 1, 2019 is $5,698 million on fixed assets, $(5,505) million on net debt and $(193) million on other assets and liabilities. The weighted average incremental borrowing rate of 4.5% at transition date was determined on the basis of the initial duration of the contracts.

In 2019, the impact on fixed assets was broken down as follows:

(in M$)	
Right of use of buildings	2,278
Right of use of machinery, plant and equipment (including transportation equipment)	2,632
Other right of use	788
TOTAL	**5,698**

The Group mainly leases real estate, retail stations, ships, and other equipment (see Note 7 to the Consolidated Financial Statements).

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A) Reconciliation between the operating lease commitments disclosed under IAS17 at December 31, 2018 and the additional lease liabilities (IFRS 16) recognized on the balance sheet at January 1, 2019

Reconciliation between the operating lease commitments disclosed under IAS 17 at December 31, 2018 and the additional lease liabilities (IFRS 16) recognized on the balance sheet at January 1, 2019

The reconciliation is as follows:

(M$)	January 1, 2019
OPERATING LEASE COMMITMENTS AT DECEMBER 31, 2018	**9,130**
Commitments relating to IFRS 16 exemptions:	(417)
– *Low value assets*	(90)
– *Short-term leases*	(327)
Leases not yet commenced at January 1, 2019	(608)
Commitments relating to service component of lease contracts	(760)
Commitments relating to leases of non identified assets or substitute assets	(628)
Variable lease payments	(6)
Other impacts	204
Impact of discounting	(1,360)
ADDITIONAL LEASE LIABILITY ON CONTRACTS PREVIOUSLY ACCOUNTED FOR AS OPERATING LEASES	**5,555**
Finance lease liability at December 31, 2018	1,878
TOTAL LEASE LIABILITY AT JANUARY 1, 2019	**7,433**

Other information required on lease debts, notably their maturity, is presented in Note 15 to the consolidated financial statements.

B) Future minimum lease payments on leases to which the Group is committed

The future minimum lease payments on leases to which the Group is committed are as follows:

For the year ended December 31, 2020 *(M$)*	Exempted contracts	Leases recorded in balance sheet
2021	704	1,659
2022	252	1,366
2023	159	1,117
2024	118	1,022
2025	97	964
2026 and beyond	415	6,325
TOTAL MINIMUM PAYMENTS	**1,745**	**12,453**
Less financial expenses		(3,510)
NOMINAL VALUE OF CONTRACTS		**8,943**
Less current portion of lease contracts		(1,207)
NON-CURRENT LEASE LIABILITIES		**7,736**

For the year ended December 31, 2019 *(M$)*	Exempted contracts	Leases recorded in balance sheet
2020	536	1,586
2021	360	1,228
2022	212	1,019
2023	162	835
2024	145	766
2025 and beyond	662	4,757
TOTAL MINIMUM PAYMENTS	**2,077**	**10,191**
Less financial expenses		(2,726)
NOMINAL VALUE OF CONTRACTS		**7,465**
Less current portion of lease contracts		(1,202)
NON-CURRENT LEASE LIABILITIES		**6,263**

For the year ended December 31, 2018 *(M$)*	Operating leases	Finance leases
2019	1,644	263
2020	1,282	183
2021	967	182
2022	772	179
2023	669	179
2024 and beyond	3,796	1,826
TOTAL MINIMUM PAYMENTS	**9,130**	**2,812**
Less financial expenses		(934)
NOMINAL VALUE OF CONTRACTS		**1,878**
Less current portion of finance lease contracts		(213)
NON-CURRENT FINANCE LEASE LIABILITIES		**1,665**

For the year ended December 31, 2020, rental expense recorded in the income statement and incurred under short term leases or low value assets leases and under variable lease payments is $600 million and $162 million, respectively.

For the year ended December 31, 2019, rental expense recorded in the income statement and incurred under short term leases or low value assets leases and under variable lease payments was $366 million and $132 million, respectively.

Rental expense recorded in the income statement and incurred under operating leases for the year ended December 31, 2018 was $1,304 million.

NOTE 14 Financial assets and liabilities analysis per instrument class and strategy

The financial assets and liabilities disclosed in the balance sheet are detailed as follows:

As of December 31, 2020 *(M$)* ASSETS/(LIABILITIES)	Amortized cost	Fair value through P&L	Other Comprehensive Income	Fair value of hedging instruments	Total	Fair value
Equity affiliates: loans	5,129	–	–	–	5,129	5,129
Other investments	–	1,224	783	–	2,007	2,007
Non-current financial assets	1,019	541	–	3,221	4,781	4,781
Other non-current assets	2,745	–	–	–	2,745	2,745
Accounts receivable, net[(b)]	14,068	–	–	–	14,068	14,068
Other operating receivables	6,615	1,428	–	–	8,043	8,043
Current financial assets	4,547	65	–	18	4,630	4,630
Cash and cash equivalents	31,268	–	–	–	31,268	31,268
TOTAL FINANCIAL ASSETS	**65,391**	**3,258**	**783**	**3,239**	**72,671**	**72,671**
TOTAL NON-FINANCIAL ASSETS					**193,461**	**–**
TOTAL ASSETS					**266,132**	**–**
Non-current financial debt[(a)]	(58,470)	(118)	–	(1,615)	(60,203)	(66,210)
Accounts payable[(b)]	(23,574)	–	–	–	(23,574)	(23,574)
Other operating liabilities	(10,635)	(3,666)	–	(1)	(14,302)	(14,302)
Current borrowings[(a)]	(17,099)	–	–	–	(17,099)	(17,121)
Other current financial liabilities	–	(99)	–	(104)	(203)	(203)
TOTAL FINANCIAL LIABILITIES	**(109,778)**	**(3,883)**	**–**	**(1,720)**	**(115,381)**	**(121,410)**
TOTAL NON-FINANCIAL LIABILITIES					**(150,751)**	**–**
TOTAL LIABILITIES					**(266,132)**	**–**

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(1,844) million and $1,844 million on accounts payable.

As of December 31, 2019 *(M$)* **ASSETS/(LIABILITIES)**	Amortized cost	Fair value through P&L	Other Comprehensive Income	Fair value of hedging instruments	Total	Fair value
Equity affiliates: loans	3,999	–	–	–	3,999	3,999
Other investments	–	1,272	506	–	1,778	1,778
Non-current financial assets	164	236	–	512	912	912
Other non-current assets	2,314	–	–	–	2,314	2,314
Accounts receivable, net[(b)]	18,488	–	–	–	18,488	18,488
Other operating receivables	6,713	4,791	–	2	11,506	11,506
Current financial assets	3,870	122	–	–	3,992	3,992
Cash and cash equivalents	27,352	–	–	–	27,352	27,352
TOTAL FINANCIAL ASSETS	**62,900**	**6,421**	**506**	**514**	**70,341**	**70,341**
TOTAL NON-FINANCIAL ASSETS					**202,953**	**–**
TOTAL ASSETS					**273,294**	**–**
Non-current financial debt[(a)]	(46,035)	(44)	–	(1,694)	(47,773)	(50,921)
Accounts payable[(b)]	(28,394)	–	–	–	(28,394)	(28,394)
Other operating liabilities	(10,927)	(5,333)	–	(2)	(16,262)	(16,262)
Current borrowings[(a)]	(14,819)	–	–	–	(14,819)	(14,819)
Other current financial liabilities	–	(63)	–	(424)	(487)	(487)
TOTAL FINANCIAL LIABILITIES	**(100,175)**	**(5,440)**	**–**	**(2,120)**	**(107,735)**	**(110,883)**
TOTAL NON-FINANCIAL LIABILITIES					**(165,559)**	**–**
TOTAL LIABILITIES					**(273,294)**	**–**

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(2,073) million and $2,073 million on accounts payable.

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As of December 31, 2018 *(M$)* **ASSETS/(LIABILITIES)**	Amortized cost	Fair value through P&L	Fair value through OCI – equity instruments	Fair value of instruments hedge	Total	Fair value
Equity affiliates: loans	4,755	–	–	–	4,755	4,755
Other investments	–	1,059	362	–	1,421	1,421
Non-current financial assets	–	67	–	613	680	680
Other non-current assets	2,348	–	–	–	2,348	2,348
Accounts receivable, net[(b)]	17,270	–	–	–	17,270	17,270
Other operating receivables	6,994	2,731	–	8	9,733	9,733
Current financial assets	3,536	73	–	45	3,654	3,654
Cash and cash equivalents	27,907	–	–	–	27,907	27,907
TOTAL FINANCIAL ASSETS	**62,810**	**3,930**	**362**	**666**	**67,768**	**67,768**
TOTAL NON-FINANCIAL ASSETS					**188,994**	
TOTAL ASSETS					**256,762**	
Non-current financial debt[(a)]	(38,220)	(29)	–	(1,880)	(40,129)	(41,281)
Accounts payable[(b)]	(26,134)	–	–	–	(26,134)	(26,134)
Other operating liabilities	(9,854)	(3,429)	–	(3)	(13,286)	(13,286)
Current borrowings	(13,306)	–	–	–	(13,306)	(13,306)
Other current financial liabilities	–	(183)	–	(295)	(478)	(478)
TOTAL FINANCIAL LIABILITIES	**(87,514)**	**(3,641)**	**–**	**(2,178)**	**(93,333)**	**(94,485)**
TOTAL NON-FINANCIAL LIABILITIES					**(163,429)**	
TOTAL LIABILITIES					**(256,762)**	

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(2,903) million and $2,903 million on accounts payable.

NOTE 15 Financial structure and financial costs

15.1 Financial debt and derivative financial instruments

A) Non-current financial debt and derivative financial instruments

As of December 31, 2020 *(M$)* **(ASSETS)/LIABILITIES**	Secured	Unsecured	Total
Non-current financial debt	7,849	52,354	60,203
of which hedging instruments of non-current financial debt (liabilities)	–	1,615	1,615
Non-current financial assets	(1,019)	(3,762)	(4,781)
of which hedging instruments of non-current financial debt (assets)	–	(3,221)	(3,221)
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,830**	**48,592**	**55,422**
Variable rate bonds or bonds after fair value hedge	–	16,553	16,553
Fixed rate bonds or bonds after cash flow hedge	–	28,080	28,080
Other floating rate debt	40	3,944	3,984
Other fixed rate debt	73	438	511
Lease obligations	7,736	–	7,736
Non-current financial assets excluding derivative financial instruments	(1,019)	(432)	(1,451)
Non-current instruments held for trading	–	9	9
NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,830**	**48,592**	**55,422**

As of December 31, 2019 *(M$)* **(ASSETS)/LIABILITIES**	Secured	Unsecured	Total
Non-current financial debt	6,438	41,335	47,773
of which hedging instruments of non-current financial debt (liabilities)	–	*1,694*	*1,694*
Non-current financial assets	(164)	(748)	(912)
of which hedging instruments of non-current financial debt (assets)	–	*(512)*	*(512)*
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,274**	**40,587**	**46,861**
Variable rate bonds or bonds after fair value hedge	–	19,340	19,340
Fixed rate bonds or bonds after cash flow hedge	–	20,499	20,499
Other floating rate debt	72	618	690
Other fixed rate debt	103	322	425
Lease obligations	6,263	–	6,263
Non-current financial assets excluding derivative financial instruments	(164)	(169)	(333)
Non-current instruments held for trading	–	(23)	(23)
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**6,274**	**40,587**	**46,861**

As of December 31, 2018 *(M$)* **(ASSETS)/LIABILITIES**	Secured	Unsecured	Total
Non-current financial debt	1,870	38,259	40,129
of which hedging instruments of non-current financial debt (liabilities)	–	*1,880*	*1,880*
Non-current financial assets	–	(680)	(680)
of which hedging instruments of non-current financial debt (assets)	–	*(613)*	*(613)*
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**1,870**	**37,579**	**39,449**
Variable rate bonds or bonds after fair value hedge	–	20,570	20,570
Fixed rate bonds or bonds after cash flow hedge	–	15,672	15,672
Other floating rate debt	111	621	732
Other fixed rate debt	94	754	848
Financial lease obligations	1,665	–	1,665
Non-current instruments held for trading	–	(38)	(38)
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**1,870**	**37,579**	**39,449**

In April 2020, the Group put in place a new committed syndicated credit line with banking counterparties for an initial amount of USD 6,350 million and with a 12-month tenor (with the option to extend twice by a further 6 months at TOTAL's hand). As of December 31 2020, the remaining balance of the committed syndicated credit line is USD 3,646 million and is included in line item "Other floating rate debt" (in "Non-current financial debt").

The bonds, as of December 31, 2020, after taking into account currency and interest rates swaps fair value, is detailed as follows:

Bonds after fair value hedge or variable rate bonds *(M$)*	Currency of issuance	Amount after hedging as of December 31, 2020	Amount after hedging as of December 31, 2019	Amount after hedging as of December 31, 2018	Range of current maturities	Range of initial current rate before hedging instruments
Bond	USD	6,253	6,276	6,276	2021 – 2028	2.218% – 3.883%
Bond	USD	–	300	750		
Bond	CHF	410	410	204	2026 – 2029	0.176% – 0.298%
Bond	NZD	–	164	252		
Bond	AUD	377	378	699	2021 – 2025	4.000% – 4.250%
Bond	EUR	8,666	9,675	10,212	2021 – 2044	0.250% – 3.125%
Bond	EUR	–	1,641	1,644		
Bond	CAD	–	92	93		
Bond	GBP	1,522	2,035	1,536	2022 – 2031	1.405% – 2.250%
Bond	GBP	–	–	472		
Bond	HKD	129	128	207	2025	2.920%
Current portion (less than one year)		(2,699)	(3,661)	(3,679)		
Principal financing entities[a]		**14,658**	**17,438**	**18,666**		
TOTAL SE[b]		1,200	1,203	1,203	2022	0.500%
Other consolidated subsidiaries		695	699	701		
TOTAL VARIABLE RATE BONDS OR BONDS AFTER FAIR VALUE HEDGE		**16,553**	**19,340**	**20,570**		

Bonds after cash flow hedge or fixed rate bonds *(M$)*	Currency of issuance	Amount after hedging as of December 31, 2020	Amount after hedging as of December 31, 2019	Amount after hedging as of December 31, 2018	Range of current maturities	Range of initial current rate before hedging instruments
Bond	EUR	15,259	10,246	9,268	2024 – 2044	0.696% – 5.125 %
Bond	USD	11,524	8,565	5,040	2021 – 2060	2.829% – 4.250%
Bond	HKD	208	202	187	2026	3.088%
Bond	CHF	1,134	1,079	1,035	2024 – 2027	0.510% – 1.010%
Bond	GBP	998	982	326	2024 – 2026	1.250% – 1.660%
Bond	AUD	9	5	–	2025	4.000%
Current portion (less than one year)		(1,500)	(1,250)	(946)		
Principal financing entities[a]		**27,632**	**19,829**	**14,910**		
Other consolidated subsidiaries		448	670	762		
TOTAL BONDS AFTER CASH FLOW HEDGE OR FIXED RATE BONDS		**28,080**	**20,499**	**15,672**		

(a) All debt securities issued through the following subsidiaries are fully and unconditionally guaranteed by TOTAL SE as to payment of principal, premium, if any, interest and any other amounts due:
– TOTAL CAPITAL is a wholly and directly owned subsidiary of TOTAL SE (except for one share held by each director). It acts as a financing vehicle for the Group. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TOTAL SE.
– TOTAL CAPITAL CANADA Ltd. is a wholly and directly owned subsidiary of TOTAL SE. It acts as a financing vehicle for the activities of the Group in Canada. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TOTAL SE.
– TOTAL CAPITAL INTERNATIONAL is a wholly and directly owned subsidiary of TOTAL SE (except for one share held by each director). It acts as a financing vehicle for the Group. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TOTAL SE.
(b) Debt financing of $1.2 billion through a structure combining the issue of cash-settled convertible bonds with the purchase of cash-settled call options to hedge TOTAL's exposure to the exercise of the conversion rights under the bonds.

Loan repayment schedule (excluding current portion)

As of December 31, 2020 *(M$)*	Non-current financial debt	*of which hedging instruments of non-current financial debt (liabilities)*	Non-current financial assets	*of which hedging instruments of non-current financial debt (assets)*	Non-current financial debt and related financial instruments	%
2022	9,932	*142*	(142)	*(58)*	9,790	18%
2023	5,988	*59*	(268)	*(218)*	5,720	10%
2024	6,340	*115*	(395)	*(277)*	5,945	11%
2025	4,535	*150*	(260)	*(212)*	4,275	8%
2026 and beyond	33,408	*1,149*	(3,716)	*(2,456)*	29,692	53%
TOTAL	**60,203**	***1,615***	**(4,781)**	***(3,221)***	**55,422**	**100%**

As of December 31, 2019 *(M$)*	Non-current financial debt	*of which hedging instruments of non-current financial debt (liabilities)*	Non-current financial assets	*of which hedging instruments of non-current financial debt (assets)*	Non-current financial debt and related financial instruments	%
2021	5,716	*204*	(101)	*(9)*	5,615	12%
2022	6,226	*433*	(148)	*(121)*	6,078	13%
2023	5,230	*106*	(67)	*(18)*	5,163	11%
2024	5,885	*139*	(87)	*(83)*	5,798	12%
2025 and beyond	24,716	*812*	(509)	*(281)*	24,207	52%
TOTAL	**47,773**	***1,694***	**(912)**	***(512)***	**46,861**	**100%**

As of December 31, 2018 *(M$)*	Non-current financial debt	*of which hedging instruments of non-current financial debt (liabilities)*	Non-current financial assets	*of which hedging instruments of non-current financial debt (assets)*	Non-current financial debt and related financial instruments	%
2020	5,442	*386*	(10)	–	5,432	14%
2021	4,042	*251*	(76)	*(57)*	3,966	10%
2022	5,262	*448*	(104)	*(104)*	5,158	13%
2023	5,020	*93*	(37)	–	4,983	13%
2024 and beyond	20,363	*702*	(453)	*(452)*	19,910	50%
TOTAL	**40,129**	***1,880***	**(680)**	***(613)***	**39,449**	**100%**

Analysis by currency and interest rate

These analyses take into account interest rate and foreign currency swaps to hedge non-current financial debt.

As of December 31, *(M$)*	2020	%	2019	%	2018	%
U.S. Dollar	48,609	88%	43,276	92%	38,120	97%
Euro	3,144	6%	2,639	6%	1,103	3%
Norwegian krone	72	0%	81	0%	27	0%
Other currencies	3,597	6%	865	2%	199	0%
TOTAL	**55,422**	**100%**	**46,861**	**100%**	**39,449**	**100%**

As of December 31, *(M$)*	2020	%	2019	%	2018	%
Fixed rate	34,870	63%	26,985	58%	18,139	46%
Floating rate	20,552	37%	19,876	42%	21,310	54%
TOTAL	**55,422**	**100%**	**46,861**	**100%**	**39,449**	**100%**

B) Current financial assets and liabilities

Current borrowings consist mainly of drawings on commercial papers or treasury bills and of bank loans. These instruments bear interest at rates that are close to market rates.

As of December 31, *(M$)* (Assets)/Liabilities	2020	2019	2018
Current financial debt[a]	11,305	8,710	8,316
Current lease obligations	1,206	1,202	–
Current portion of non-current financial debt	4,588	4,907	4,990
CURRENT BORROWINGS *(note 14)*	**17,099**	**14,819**	**13,306**
Current portion of hedging instruments of debt (liabilities)	104	424	295
Other current financial instruments (liabilities)	99	63	183
Other current financial liabilities *(note 14)*	**203**	**487**	**478**
Current deposits beyond three months	(4,436)	(3,611)	(3,536)
Non-traded marketable securities	–	(114)	–
Financial receivables on sub-lease, current	(111)	(145)	–
Current portion of hedging instruments of debt (assets)	(18)	–	(45)
Other current financial instruments (assets)	(65)	(122)	(73)
CURRENT FINANCIAL ASSETS *(note 14)*	**(4,630)**	**(3,992)**	**(3,654)**
NET CURRENT BORROWINGS	**12,672**	**11,314**	**10,130**

(a) As of December 31, 2020, December 31, 2019 and December 31, 2018, the current financial debt includes a commercial paper program in Total Capital and Total Capital Canada Ltd. Total Capital and Total Capital Canada Ltd. are wholly-owned subsidiaries of TOTAL SE. They act as financing vehicles for the activities of the Group. Their debt securities are fully and unconditionally guaranteed by TOTAL SE as to payment of principal, premium, if any, interest and any other amounts due.

C) Cash flow from (used in) financing activities

The variations of financial debt are detailed as follows:

			Non-cash changes					
(M$)	As of January 1, 2020	Cash changes	Change in scope, including IFRS 5 reclassification	Foreign currency	Changes in fair value	Reclassification Non-current/ Current	Other	As of December 31, 2020
Non-current financial instruments – assets[a] and non-current financial assets	(912)	(228)	3	(59)	(2,729)	118	(974)	(4,781)
Non-current financial debt	47,773	15,800	(456)	192	2,973	(8,711)	2,632	60,203
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**46,861**	**15,572**	**(453)**	**133**	**244**	**(8,593)**	**1,658**	**55,422**
Current financial instruments – assets[a]	(268)	178	–	(6)	46	(118)	(26)	(194)
Current borrowings	14,819	(6,679)	6	(132)	188	8,711	186	17,099
Current financial instruments – liabilities[a]	487	–	(5)	8	(287)	–	–	203
CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**15,038**	**(6,501)**	**1**	**(130)**	**(53)**	**8,593**	**160**	**17,108**
Financial debt and financial assets classified as held for sale	301	–	(10)	22	–	–	–	313
FINANCIAL DEBT	**62,200**	**9,071**	**(462)**	**25**	**191**	**–**	**1,818**	**72,843**

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

(M$)	As of January 1, 2019	Cash changes	Non-cash changes: Change in scope, including IFRS 5 reclassification	First application IFRS 16	Foreign currency	Changes in fair value	Reclassification Non-current/ Current	Other	As of December 31, 2019
Non-current financial instruments – assets[a] and non-current financial assets	(680)	21	12	(50)	4	(71)	144	(292)	(912)
Non-current financial debt	40,129	8,110	(731)	4,805	(48)	484	(6,661)	1,685	47,773
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**39,449**	**8,131**	**(719)**	**4,755**	**(44)**	**413**	**(6,517)**	**1,393**	**46,861**
Current financial instruments – assets[a]	(118)	125	–	–	2	(32)	(144)	(101)	(268)
Current borrowings	13,306	(5,954)	(35)	750	184	(26)	6,661	(67)	14,819
Current financial instruments – liabilities[a]	478	–	–	–	(6)	15	–	–	487
CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**13,666**	**(5,829)**	**(35)**	**750**	**180**	**(43)**	**6,517**	**(168)**	**15,038**
Financial debt and financial assets classified as held for sale	–	–	301	–	–	–	–	–	301
FINANCIAL DEBT	**53,115**	**2,302**	**(453)**	**5,505**	**136**	**370**	**–**	**1,225**	**62,200**

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

(M$)	As of January 1, 2018	Cash changes	Non-cash changes: Change in scope, including IFRS 5 reclassification	Foreign currency	Changes in fair value	Reclassification Non-current/ Current	Other	As of December 31, 2018
Non-current financial instruments – assets[a]	(679)	–	(72)	12	59	–	–	(680)
Non-current financial debt	41,340	649	4,708	(59)	62	(6,260)	(311)	40,129
NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**40,661**	**649**	**4,636**	**(47)**	**121**	**(6,260)**	**(311)**	**39,449**
Current financial instruments – assets[a]	(423)	–	–	10	295	–	–	(118)
Current borrowings	11,096	(3,990)	230	270	(514)	6,260	(46)	13,306
Current financial instruments – liabilities[a]	245	–	67	(11)	177	–	–	478
CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS	**10,918**	**(3,990)**	**297**	**269**	**(42)**	**6,260**	**(46)**	**13,666**
Financial debt classified as held for sale	–	–	–	–	–	–	–	–
FINANCIAL DEBT	**51,579**	**(3,341)**	**4,933**	**222**	**79**	**–**	**(357)**	**53,115**

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

Monetary changes in non-current financial debt are detailed as follows:

For the year ended December 31, *(M$)*	2020	2019	2018
Issuance of non-current debt	16,075	8,668	3,938
Repayment of non-current debt	(275)	(538)	(3,289)
NET AMOUNT	**15,800**	**8,131**	**649**

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D) Cash and cash equivalents

ACCOUNTING PRINCIPLES

Cash and cash equivalents are comprised of cash on hand and highly liquid short-term investments that are easily convertible into known amounts of cash and are subject to insignificant risks of changes in value.

Investments with maturity greater than three months and less than twelve months are shown under "Current financial assets".

Changes in current financial assets and liabilities are included in the financing activities section of the Consolidated Statement of Cash Flows.

Cash and cash equivalents are detailed as follows:

For the year ended December 31, *(M$)*	2020	2019	2018
Cash	14,518	16,456	15,186
Cash equivalents	16,750	10,896	12,721
TOTAL	**31,268**	**27,352**	**27,907**

Cash equivalents are mainly composed of deposits less than three months deposited in government institutions or deposit banks selected in accordance with strict criteria.

As of December 31, 2020, the cash and cash equivalents include $2,140 millions subject to restrictions, notably due to regulatory framework or to the fact they are owned by affiliates located in countries with exchange controls.

E) Net-debt-to-capital ratio

For its internal and external communication needs, the Group calculates a debt ratio by dividing its net financial debt excluding leases by its capital.

The ratio is calculated as follows: *Net debt excluding leases/(Equity + Net debt excluding leases)*

As of December 31, *(M$)* **(ASSETS)/LIABILITIES**	2020	2019	2018
Current borrowings[a]	15,893	13,617	13,093
Other current financial liabilities	203	487	478
Current financial assets[a]	(4,519)	(3,847)	(3,654)
Net financial assets and liabilities held for sale or exchange	313	301	(15)
Non-current financial debt[a]	52,467	41,510	38,464
Non-current financial assets[a]	(3,762)	(748)	(680)
Cash and cash equivalents	(31,268)	(27,352)	(27,907)
NET FINANCIAL DEBT	**29,327**	**23,968**	**19,779**
Shareholders' equity – Group share	103,702	116,778	115,640
Non-controlling interests	2,383	2,527	2,474
SHAREHOLDERS' EQUITY	**106,085**	**119,305**	**118,114**
NET-DEBT-TO-CAPITAL RATIO EXCLUDING LEASES	**21.7%**	**16.7%**	**14.3%**

(a) excluding leases receivables & leases debts.

15.2 Fair value of financial instruments (excluding commodity contracts)

ACCOUNTING PRINCIPLES

The Group uses derivative instruments to manage its exposure to risks of changes in interest rates, foreign exchange rates and commodity prices. These financial instruments are accounted for in accordance with IFRS 9, changes in fair value of derivative instruments are recognized in the statement of income or in other comprehensive income and are recognized in the balance sheet in the accounts corresponding to their nature, according to the risk management strategy. The derivative instruments used by the Group are the following:

Cash management

Financial instruments used for cash management purposes are part of a hedging strategy of currency and interest rate risks within global limits set by the Group and are considered to be held for trading. Changes in fair value are systematically recorded in the statement of income. The balance sheet value of those instruments is included in “Current financial assets” or “Other current financial liabilities”.

Long-term financing

When an external long-term financing is set up, specifically to finance subsidiaries, and when this financing involves currency and interest rate derivatives, these instruments are qualified as:

1) Fair value hedge of the interest rate and currency risks on the external debt financing the loans to subsidiaries. Changes in fair value of derivatives are recognized in the statement of income, as are changes in fair value of underlying financial debts and loans to subsidiaries.

   The fair value of those hedging instruments of long-term financing is included in assets under “Non-current financial assets” or in liabilities under “Non-current financial debt “for the non-current portion. The current portion (less than one year) is accounted for in “Current financial assets” or “Other current financial liabilities”.

   In case of the anticipated termination of derivative instruments accounted for as fair value hedges, the amount paid or received is recognized in the statement of income and:
   - If this termination is due to an early cancellation of the hedged items, the adjustment previously recorded as revaluation of those hedged items is also recognized in the statement of income;
   - If the hedged items remain in the balance sheet, the adjustment previously recorded as a revaluation of those hedged items is spread over the remaining life of those items.

   In case of a change in the strategy of the hedge (fair value hedge to cash flow hedge), if the components of the initial aggregated exposure had already been designated in a hedging relationship (FVH), the Group designates the new instrument as a hedging instrument of an aggregated position (CFH) without having to end the initial hedging relationship.

2) Cash flow hedge when the Group implements a strategy of fixing interest rate and/or currency rate on the external debt. Changes in fair value are recorded in Other comprehensive Income for the effective portion of the hedging and in the statement of income for the ineffective portion of the hedging. When the hedged transaction affects profit or loss, the fair value variations of the hedging instrument recorded in equity are also symmetrically recycled to the income statement.

   The fair value of those hedging instruments of long-term financing is included in assets under “Non-current financial assets” or in liabilities under “Non-current financial debt” for the non-current portion. The current portion (less than one year) is accounted for in “Current financial assets” or “Other current financial liabilities”.

   If the hedging instrument expires, is sold or terminated by anticipation, gains or losses previously recognized in equity remain in equity. Amounts are recycled to the income statement only when the hedged transaction affects profit or loss.

3) In compliance with IFRS9, the Group has decided to recognize in a separate component of the comprehensive income the variation of foreign currency basis spread (Cross Currency Swaps) identified in the hedging relationships qualified as fair value hedges and cash flow hedges.

Foreign subsidiaries’ equity hedge

Certain financial instruments hedge against risks related to the equity of foreign subsidiaries whose functional currency is not the euro (mainly the dollar). These instruments qualify as “net investment hedges” and changes in fair value are recorded in other comprehensive income under “Currency translation” for the effective portion of the hedging and in the statement of income for the ineffective portion of the hedging. Gains or losses on hedging instruments previously recorded in equity, are reclassified to the statement of income in the same period as the total or partial disposal of the foreign activity.

The fair value of these instruments is recorded under “Current financial assets” and ”Other current financial liabilities”.

Commitments to purchase shares held by non-controlling interests (put options written on minority interests)

Put options granted to non-controlling-interest shareholders are initially recognized as financial liabilities at the present value of the exercise price of the options with a corresponding reduction in shareholders’ equity. The financial liability is subsequently measured at fair value at each balance sheet date in accordance with contractual clauses and any variation is recorded in the statement of income (cost of debt).

8

A) Impact on the statement of income per nature of financial instruments

Assets and liabilities from financing activities

The impact on the statement of income of financing assets and liabilities mainly includes:

- Financial income on cash, cash equivalents, and current financial assets (notably current deposits beyond three months) classified as "Loans and receivables";
- Financial expense of long term subsidiaries financing, associated hedging instruments (excluding ineffective portion of the hedge detailed below) and financial expense of short term financing classified as "Financing liabilities and associated hedging instruments";
- Ineffective portion of bond hedging;
- Financial income and financial expense on lease contracts and;
- Financial income, financial expense and fair value of derivative instruments used for cash management purposes classified as "Assets and liabilities held for trading".

Financial derivative instruments used for cash management purposes (interest rate and foreign exchange) are considered to be held for trading. Based on practical documentation issues, the Group did not elect to set up hedge accounting for such instruments. The impact on income of the derivatives is offset by the impact of loans and current liabilities they are related to. Therefore these transactions taken as a whole do not have a significant impact on the Consolidated Financial Statements.

For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**
Loans and receivables	154	200	161
Financing liabilities and associated hedging instruments	(1,660)	(1,897)	(1,927)
Fair value hedge (ineffective portion)	12	(1)	(6)
Lease assets and obligations	(422)	(417)	–
Assets and liabilities held for trading	(194)	(237)	(349)
IMPACT ON THE COST OF NET DEBT	**(2,110)**	**(2,352)**	**(2,121)**

B) Impact of the hedging strategies

Fair value hedge instruments

The impact on the statement of income of the bond hedging instruments which is recorded in the item "Financial interest on debt" in the Consolidated Statement of Income is detailed as follows:

For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**
Revaluation impact at market value of bonds	(4,004)	(762)	1,332
Swap hedging of bonds	4,016	761	(1,338)
INEFFECTIVE PORTION OF THE FAIR VALUE HEDGE	**12**	**(1)**	**(6)**

The ineffective portion is not representative of the Group's performance considering the Group's objective to hold swaps to maturity. The current portion of the swaps valuation is not subject to active management.

Net investment hedge

The variations of the period are detailed in the table below:

For the year ended December 31, *(M$)*	**As of January 1,**	**Variations**	**Disposals**	**As of December 31,**
2020	**(717)**	**(71)**	**–**	**(788)**
2019	(724)	7	–	(717)
2018	(762)	38	–	(724)

As of December 31, 2020, 2019 and 2018 the Group had no open forward contracts under these hedging instruments.

Cash flow hedge

The impact on the statement of income and other comprehensive income of the hedging instruments qualified as cash flow hedges is detailed as follows:

For the year ended December 31, *(M$)*	**2020**	**2019**	**2018**
Profit (Loss) recorded in other comprehensive income of the period	(327)	(585)	24
Recycled amount from other comprehensive income to the income statement of the period	139	47	(116)

As of December 31, 2020, 2019 and 2018, the ineffective portion of these financial instruments is nil.

Hedging instruments and hedged items by strategy

Fair Value Hedge

The following charts regarding Fair Value Hedge, disclose by nature of hedging instruments (Interest Rate Swaps and Cross Currency Swaps):
- The nominal amounts and carrying amounts of hedging instruments;
- The carrying amounts of hedged items and cumulative FVH adjustments included in the carrying amounts of the hedged items;
- The hedged items that have ceased to be adjusted for hedging gains and losses.

For the year ended December 31, 2020 *($M)* Hedged items	Hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments		Carrying amount of hedged items		Cumulative FVH adjustments included in the carrying amount of the hedged items		Line items in the statement of financial position
			Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	
Bonds	Interest Rate Swaps	8,063	527	(15)	–	(8,586)	–	(1,136)	*Financial debt/ Financial assets*
Bonds	Cross Currency Swaps	11,011	836	(211)	–	(11,109)	–	(98)	*Financial debt/ Financial assets*
End of hedging (before 2018)		–	–	–	–	–	–	(47)	

For the year ended December 31, 2019 *($M)* Hedged items	Hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments		Carrying amount of hedged items		Cumulative FVH adjustments included in the carrying amount of the hedged items		Line items in the statement of financial position
			Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	
Bonds	Interest Rate Swaps	8,012	270	(75)	–	(7,450)	–	(795)	*Financial debt/ Financial assets*
Bonds	Cross Currency Swaps	14,357	124	(1,011)	–	(14,357)	–	1,290	*Financial debt/ Financial assets*
End of hedging (before 2018)				–	–	–	–	(71)	

Cash Flow Hedge

The following charts regarding Cash Flow Hedge disclose the nominal amounts and carrying amounts by nature of hedging instruments (Interest Rate Swaps and Cross Currency Swaps).

According to IFRS 9, there is no accounting entry related to Cash Flow Hedge on hedged items.

For the year ended December 31, 2020 *(M$)*	Nature of hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments		Line item in the statement of financial position
			Assets	Liabilities	
Bonds	Interest Rate Swaps	12,781	–	(1,441)	*Financial debt/ Financial assets*
Bonds	Cross Currency Swaps	17,511	1,856	(32)	*Financial debt/ Financial assets*

For the year ended December 31, 2019 *(M$)*	Nature of hedging instruments	Nominal amount of hedging instruments	Carrying amount of hedging instruments		Line item in the statement of financial position
			Assets	Liabilities	
Bonds	Interest Rate Swaps	12,782	25	(527)	*Financial debt/ Financial assets*
Bonds	Cross Currency Swaps	12,604	19	(431)	*Financial debt/ Financial assets*

C) Maturity of derivative instruments

The maturity of the notional amounts of derivative instruments, excluding the commodity contracts, is detailed in the following table:

For the year ended December 31, 2020 *(M$)* ASSETS/(LIABILITIES)	Fair value	Notional value 2021	Fair value	2022 and after	Notional value schedule 2022	2023	2024	2025	2026 and after
Fair value hedge									
Swaps hedging bonds (assets)	18	1,250	1,365	12,642					
Swaps hedging bonds (liabilities)	(104)	1,445	(142)	3,737					
TOTAL SWAPS HEDGING BONDS	**(86)**	**2,695**	**1,223**	**16,379**	**4,350**	**3,858**	**2,087**	**1,630**	**4,454**
Cash flow hedge									
Swaps hedging bonds (assets)	–	–	1,856	16,259					
Swaps hedging bonds (liabilities)	–	–	(1,473)	14,033					
TOTAL SWAPS HEDGING BONDS	**–**	**–**	**383**	**30,292**	**–**	**1,000**	**3,659**	**4,459**	**21,174**
Forward exchange contracts related to operating activities (assets)	16	262	20	394					
Forward exchange contracts related to operating activities (liabilities)	–	–	–	–					
TOTAL FORWARD EXCHANGE CONTRACTS RELATED TO OPERATING ACTIVITIES	**16**	**262**	**20**	**394**	**276**	**118**	**–**	**–**	**–**
Held for trading									
Other interest rate swaps (assets)	10	22,011	84	3,214					
Other interest rate swaps (liabilities)	(51)	7,693	(116)	3,695					
TOTAL OTHER INTEREST RATE SWAPS	**(41)**	**29,704**	**(32)**	**6,909**	**2,067**	**764**	**2,004**	**1,937**	**137**
Currency swaps and forward exchange contracts (assets)	39	3,323	5	344					
Currency swaps and forward exchange contracts (liabilities)	(48)	2,580	(2)	54					
TOTAL CURRENCY SWAPS AND FORWARD EXCHANGE CONTRACTS	**(9)**	**5,903**	**3**	**398**	**189**	**145**	**64**	**–**	**–**

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

For the year ended December 31, 2019 *(M$)* ASSETS/(LIABILITIES)	Fair value	Notional value 2020	Fair value	2021 and after	Notional value schedule				
					2021	2022	2023	2024	2025 and after
Fair value hedge									
Swaps hedging bonds (assets)	–	–	469	10,896					
Swaps hedging bonds (liabilities)	(423)	3,346	(736)	8,127					
TOTAL SWAPS HEDGING BONDS	**(423)**	**3,346**	**(267)**	**19,023**	**2,695**	**4,298**	**3,858**	**2,337**	**5,835**
Cash flow hedge									
Swaps hedging bonds (assets)	–	–	43	4,062					
Swaps hedging bonds (liabilities)	–	–	(958)	21,324					
TOTAL SWAPS HEDGING BONDS	**–**	**–**	**(915)**	**25,386**	**–**	**–**	**1,000**	**3,659**	**20,727**
Forward exchange contracts related to operating activities (assets)	1	29	–	–					
Forward exchange contracts related to operating activities (liabilities)	–	–	–	–					
TOTAL FORWARD EXCHANGE CONTRACTS RELATED TO OPERATING ACTIVITIES	**1**	**29**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Held for trading									
Other interest rate swaps (assets)	11	23,522	50	2,225					
Other interest rate swaps (liabilities)	(24)	16,007	(44)	3,475					
TOTAL OTHER INTEREST RATE SWAPS	**(13)**	**39,529**	**6**	**5,700**	**2,217**	**1,463**	**18**	**1,820**	**182**
Currency swaps and forward exchange contracts (assets)	111	6,446	17	431					
Currency swaps and forward exchange contracts (liabilities)	(39)	4,455	–	131					
TOTAL CURRENCY SWAPS AND FORWARD EXCHANGE CONTRACTS	**72**	**10,901**	**17**	**562**	**529**	**33**	**–**	**–**	**–**

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

For the year ended December 31, 2018 *(M$)* ASSETS/(LIABILITIES)	Fair value	Notional value 2019	Fair value	2020 and after	Notional value schedule 2020	2021	2022	2023	2024 and after
Fair value hedge									
Swaps hedging bonds (assets)	45	1,345	235	3,712					
Swaps hedging bonds (liabilities)	(208)	1,874	(1,281)	16,225					
TOTAL SWAPS HEDGING BONDS	**(163)**	**3,219**	**(1,046)**	**19,937**	**3,346**	**1,945**	**4,309**	**3,858**	**6,479**
Cash flow hedge									
Swaps hedging bonds (assets)	–	–	378	10,043					
Swaps hedging bonds (liabilities)	(87)	969	(599)	11,265					
TOTAL SWAPS HEDGING BONDS	**(87)**	**969**	**(221)**	**21,308**	**–**	**–**	**–**	**–**	**21,308**
Forward exchange contracts related to operating activities (assets)	2	39	–	4					
Forward exchange contracts related to operating activities (liabilities)	–	–	–	–					
TOTAL FORWARD EXCHANGE CONTRACTS RELATED TO OPERATING ACTIVITIES	**2**	**39**	**–**	**4**	**4**	**–**	**–**	**–**	**–**
Held for trading									
Other interest rate swaps (assets)	7	17,001	57	2,515					
Other interest rate swaps (liabilities)	(79)	20,816	(22)	2,686					
TOTAL OTHER INTEREST RATE SWAPS	**(72)**	**37,817**	**35**	**5,201**	**2,186**	**1,004**	**56**	**1**	**1,954**
Currency swaps and forward exchange contracts (assets)	66	10,500	11	44					
Currency swaps and forward exchange contracts (liabilities)	(104)	9,107	(7)	34					
TOTAL CURRENCY SWAPS AND FORWARD EXCHANGE CONTRACTS	**(38)**	**19,607**	**4**	**78**	**65**	**12**	**1**	**–**	**–**

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

D) Fair value hierarchy

ACCOUNTING PRINCIPLES

Fair values are estimated for the majority of the Group's financial instruments, with the exception of publicly traded equity securities and marketable securities for which the market price is used.

Estimations of fair value, which are based on principles such as discounting future cash flows to present value, must be weighted by the fact that the value of a financial instrument at a given time may be influenced by the market environment (liquidity especially), and also the fact that subsequent changes in interest rates and exchange rates are not taken into account.

As a consequence, the use of different estimates, methodologies and assumptions could have a material effect on the estimated fair value amounts.

The methods used are as follows:

Financial debts, swaps

The market value of swaps and of bonds that are hedged by those swaps has been determined on an individual basis by discounting future cash flows with the market curves existing at year-end.

Other financial instruments

The fair value of the interest rate swaps and of FRA's (Forward Rate Agreements) are calculated by discounting future cash flows on the basis of market curves existing at year-end after adjustment for interest accrued but unpaid. Forward exchange contracts and currency swaps are valued on the basis of a comparison of the negotiated forward rates with the rates in effect on the financial markets at year-end for similar maturities.

Exchange options are valued based on models commonly used by the market.

The fair value hierarchy for financial instruments, excluding commodity contracts, is as follows:

As of December 31, 2020 *(M$)*	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Fair value hedge instruments	–	1,137	–	1,137
Cash flow hedge instruments	–	408	–	408
Assets and liabilities held for trading	–	(68)	–	(68)
Equity instruments	706	–	–	706
TOTAL	**706**	**1,477**	**–**	**2,183**

As of December 31, 2019 *(M$)*	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Fair value hedge instruments	–	(690)	–	(690)
Cash flow hedge instruments	–	(915)	–	(915)
Assets and liabilities held for trading	–	82	–	82
Equity instruments	240	–	–	240
TOTAL	**240**	**(1,523)**	**–**	**(1,283)**

As of December 31, 2018 *(M$)*	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Fair value hedge instruments	–	(1,209)	–	(1,209)
Cash flow hedge instruments	–	(306)	–	(306)
Assets and liabilities held for trading	–	(71)	–	(71)
Equity instruments	94	–	–	94
TOTAL	**94**	**(1,586)**	**–**	**(1,492)**

15.3 Financial risks management

Financial markets related risks

As part of its financing and cash management activities, the Group uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. The Group may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 14, 15.1 and 15.2 to the Consolidated Financial Statements.

Risks relative to cash management operations and to interest rate and foreign exchange financial instruments are managed according to rules set by the Group's senior management, which provide for regular pooling of available cash balances, open positions and management of the financial instruments by the Treasury Department. Excess cash of the Group is deposited mainly in government institutions, deposit banks, or major companies through deposits, reverse repurchase agreements and purchase of commercial paper. Liquidity positions and the management of financial instruments are centralized by the Treasury Department, where they are managed by a team specialized in foreign exchange and interest rate market transactions.

The Cash Monitoring-Management Unit within the Treasury Department monitors limits and positions per bank on a daily basis and results of the Front Office. This unit also prepares marked-to-market valuations of used financial instruments and, when necessary, performs sensitivity analysis.

Counterparty risk

The Group has established standards for market transactions under which any banking counterparty must be approved in advance, based on an assessment of the counterparty's financial solidity (multi-criteria analysis including notably a review of its Credit Default Swap (CDS) level, credit ratings from Standard & Poor's and Moody's, which must be of high standing, and general financial situation).

An overall credit limit is set for each authorised financial counterparty and is allocated amongst the affiliates and the Group's central treasury entities, according to the Group's financial needs.

To reduce the market valuation risk on its commitments, in particular relating to derivative instruments, the Treasury Department has entered into margin call agreements with its counterparties, in compliance with applicable regulations. Moreover, since December 21, 2018 and pursuant to Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate hedging swap (excluding cross currency swaps) entered into by a Group's entity is now subject to central clearing.

Short-term interest rate exposure and cash

Cash balances, which are primarily composed of euros and dollars, are managed according to the guidelines established by the Group's senior management (to maintain an adequate level of liquidity, optimize revenue from investments considering existing interest rate yield curves, and minimize the cost of borrowing) over a less than twelve-month horizon and on the basis of a daily interest rate benchmark, primarily through short-term interest rate swaps and short-term currency swaps, without modifying currency exposure.

Interest rate risk on non-current debt

The Group's policy consists in incurring long-term debt at a floating or fixed rate, depending on the Group's general corporate needs and the interest rate environment at the time of issue, mainly in dollars or euros. Long-term interest rate and currency swaps may be entered into for the purpose of hedging bonds at the time of issuance, synthetically resulting in the incurrence of variable or fixed rate debt. In order to partially alter the interest rate exposure of its long-term indebtedness, TOTAL may also enter into long-term interest rate swaps on an *ad-hoc* basis.

Currency exposure

The Group generally seeks to minimize the currency exposure of each entity to its functional currency (primarily the dollar, the euro, the pound sterling and the Norwegian krone).

For currency exposure generated by commercial activity, the hedging of revenues and costs in foreign currencies is typically performed using currency operations on the spot market and, in some cases, on the forward market. The Group rarely hedges future cash flows, although it may use options to do so.

With respect to currency exposure linked to non-current assets, the Group has a hedging policy of financing these assets in their functional currency.

Net short-term currency exposure is periodically monitored against limits set by the Group's senior management.

The non-current debt described in Note 15.1 to the Consolidated Financial Statements is generally raised by the corporate treasury entities either directly in dollars or in euros, or in other currencies which are then exchanged for dollars or euros through swap issues to appropriately match general corporate needs. The proceeds from these debt issuances are loaned to affiliates whose accounts are kept in dollars or in euros. Thus, the net sensitivity of these positions to currency exposure is not significant.

The Group's short-term currency swaps, the notional value of which appears in Note 15.2 to the Consolidated Financial Statements, are used to attempt to optimize the centralized cash management of the Group. Thus, the sensitivity to currency fluctuations which may be induced is likewise considered negligible.

Sensitivity analysis on interest rate and foreign exchange risk

The tables below present the potential impact of an increase or decrease of 10 basis points on the interest rate yield curves for each of the currencies on the fair value of the current financial instruments as of December 31, 2020, 2019 and 2018.

ASSETS/(LIABILITIES) *(M$)*	Carrying amount	Estimated fair value	Change in fair value due to a change in interest rate by + 10 basis points	- 10 basis points
AS OF DECEMBER 31, 2020				
Bonds (non-current portion, before swaps)	(46,239)	(52,246)	*440*	*(440)*
Swaps hedging bonds (liabilities)	*(1,615)*	*(1,615)*	–	–
Swaps hedging bonds (assets)	*3,221*	*3,221*	–	–
Total swaps hedging bonds (assets and liabilities)	1,606	1,606	(70)	70
Current portion of non-current debt after swaps (excluding lease obligations)	(4,674)	(4,696)	2	(2)
Other interest rates swaps	(73)	(73)	18	(18)
Currency swaps and forward exchange contracts	(6)	(6)	–	–
AS OF DECEMBER 31, 2019				
Bonds (non-current portion, before swaps)	(38,657)	(41,805)	247	(247)
Swaps hedging bonds (liabilities)	*(1,694)*	*(1,694)*	–	–
Swaps hedging bonds (assets)	*512*	*512*	–	–
Total swaps hedging bonds (assets and liabilities)	(1,182)	(1,182)	(44)	44
Current portion of non-current debt after swaps (excluding lease obligations)	(5,331)	(5,332)	1	(1)
Other interest rates swaps	(7)	(7)	18	(18)
Currency swaps and forward exchange contracts	89	89	–	–
AS OF DECEMBER 31, 2018				
Bonds (non-current portion, before swaps)	(34,975)	(36,127)	185	(185)
Swaps hedging bonds (liabilities)	*(1,880)*	*(1,880)*	–	–
Swaps hedging bonds (assets)	*613*	*613*	–	–
Total swaps hedging bonds (assets and liabilities)	(1,267)	(1,267)	(59)	59
Current portion of non-current debt after swaps (excluding capital lease obligations)	(5,027)	(5,027)	–	–
Other interest rates swaps	(37)	(37)	12	(12)
Currency swaps and forward exchange contracts	(34)	(34)	–	–

The impact of changes in interest rates on the cost of debt before tax is as follows:

For the year ended December 31, *(M$)*	2020	2019	2018
Cost of net debt	(2,110)	(2,352)	(2,121)
Interest rate translation of:			
+ 10 basis points	29	27	29
- 10 basis points	(29)	(27)	(29)

As a result of the policy for the management of currency exposure previously described, the Group's sensitivity to currency exposure is primarily influenced by the net equity of the subsidiaries whose functional currency is the euro and the ruble, and to a lesser extent, the pound sterling and the Norwegian krone.

This sensitivity is reflected in the historical evolution of the currency translation adjustment recorded in the statement of changes in consolidated shareholders' equity which, over the course of the last three years, is essentially related to the fluctuation of the euro, the ruble and the pound sterling and is set forth in the table below:

	Dollar/Euro exchange rates	Dollar/Pound sterling exchange rates	Dollar/Ruble exchange rates
DECEMBER 31, 2020	**0.81**	**0.73**	**74.54**
December 31, 2019	0.89	0.76	62.27
December 31, 2018	0.87	0.78	69.62

As of December 31, 2020 *(M$)*	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	113,958	28,893	60,613	4,494	9,913	10,045
Currency translation adjustment before net investment hedge	(10,279)	(2,448)	–	(1,726)	(4,253)	(1,852)
Net investment hedge – open instruments	23	23	–	–	–	–
Shareholders' equity at exchange rate as of December 31, 2020	103,702	26,468	60,613	2,768	5,660	8,193

As of December 31, 2019 *(M$)*	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	128,281	37,687	66,005	5,635	9,900	9,054
Currency translation adjustment before net investment hedge	(11,501)	(4,443)	–	(1,830)	(3,355)	(1,873)
Net investment hedge – open instruments	(2)	(2)	–	–	–	–
Shareholders' equity at exchange rate as of December 31, 2019	116,778	33,241	66,005	3,805	6,545	7,182

As of December 31, 2018 *(M$)*	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	126,953	41,518	59,125	9,077	8,248	8,985
Currency translation adjustment before net investment hedge	(11,321)	(3,706)	–	(1,960)	(3,892)	(1,763)
Net investment hedge – open instruments	8	8	–	–	–	–
Shareholders' equity at exchange rate as of December 31, 2018	115,640	37,820	59,125	7,117	4,356	7,222

Based on the 2020 financial statements, a conversion using rates different from + or – 10% for each of the currencies below would have the following impact on shareholders equity and net income (Group share):

As of December 31, 2020 *(M$)*	Euro	Pound sterling	Ruble
Impact of an increase of 10% of exchange rates on :			
– shareholders equity	2,647	277	566
– net income (Group share)	(189)	(64)	29
Impact of a decrease of (10)% of exchange rates on :			
– shareholders equity	(2,647)	(277)	(566)
– net income (Group share)	189	64	(29)

Stock market risk

The Group holds interests in a number of publicly-traded companies (see Note 8 to the Consolidated Financial Statements). The market value of these holdings fluctuates due to various factors, including stock market trends, valuations of the sectors in which the companies operate, and the economic and financial condition of each individual company.

Liquidity risk

TOTAL SE has committed credit facilities granted by international banks allowing it to benefit from significant liquidity reserves.

As of December 31, 2020, these credit facilities amounted to $14,902 million, of which $11,256 million were unutilized. The agreements underpinning credit facilities granted to TOTAL SE do not contain conditions related to the Company's financial ratios, to its credit ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position.

As of December 31, 2020, the aggregated amount of the main committed credit facilities granted by international banks to the Group's companies, including TOTAL SE, was $16,282 million, of which $11,808 million were unutilized. Credit facilities granted to the Group's companies other than TOTAL SE are not intended to fund the Group's general corporate purposes; they are intended to fund either general corporate purposes of the borrowing affiliate, or a specific project.

The following tables show the maturity of the financial assets and liabilities of the Group as of December 31, 2020, 2019 and 2018 (see Note 15.1 of the Consolidated Financial Statements).

As of December 31, 2020 *(M$)* **ASSETS/(LIABILITIES)**	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	–	(9,849)	(5,762)	(5,990)	(4,321)	(30,951)	(56,873)
Non-current financial assets excluding derivative financial instruments	–	59	42	45	46	1,259	1,451
Current borrowings	(17,099)	–	–	–	–	–	(17,099)
Other current financial liabilities	(203)	–	–	–	–	–	(203)
Current financial assets	4,630	–	–	–	–	–	4,630
Assets and liabilities available for sale or exchange	(313)	–	–	–	–	–	(313)
Cash and cash equivalents	31,268	–	–	–	–	–	31,268
NET AMOUNT BEFORE FINANCIAL EXPENSE	**18,283**	**(9,790)**	**(5,720)**	**(5,945)**	**(4,275)**	**(29,692)**	**(37,139)**
Financial expense on non-current financial debt	(930)	(888)	(825)	(696)	(603)	(5,833)	(9,775)
Interest differential on swaps	(163)	(149)	(158)	(173)	(196)	(930)	(1,769)
NET AMOUNT	**17,190**	**(10,827)**	**(6,703)**	**(6,814)**	**(5,074)**	**(36,455)**	**(48,683)**

As of December 31, 2019 *(M$)* **ASSETS/(LIABILITIES)**	Less than one year	1–2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	–	(5,683)	(6,102)	(5,172)	(5,802)	(24,435)	(47,194)
Non-current financial assets excluding derivative financial instruments	–	68	24	9	4	228	333
Current borrowings	(14,819)	–	–	–	–	–	(14,819)
Other current financial liabilities	(487)	–	–	–	–	–	(487)
Current financial assets	3,992	–	–	–	–	–	3,992
Assets and liabilities available for sale or exchange	(301)	–	–	–	–	–	(301)
Cash and cash equivalents	27,352	–	–	–	–	–	27,352
NET AMOUNT BEFORE FINANCIAL EXPENSE	**15,737**	**(5,615)**	**(6,078)**	**(5,163)**	**(5,798)**	**(24,207)**	**(31,124)**
Financial expense on non-current financial debt	(807)	(724)	(650)	(594)	(482)	(2,215)	(5,472)
Interest differential on swaps	(350)	(325)	(297)	(255)	(224)	(1,046)	(2,497)
NET AMOUNT	**14,580**	**(6,664)**	**(7,025)**	**(6,012)**	**(6,504)**	**(27,468)**	**(39,093)**

As of December 31, 2018 *(M$)* **ASSETS/(LIABILITIES)**	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	–	(5,432)	(3,966)	(5,158)	(4,983)	(19,910)	(39,449)
Current borrowings	(13,306)	–	–	–	–	–	(13,306)
Other current financial liabilities	(478)	–	–	–	–	–	(478)
Current financial assets	3,654	–	–	–	–	–	3,654
Assets and liabilities available for sale or exchange	15	–	–	–	–	–	15
Cash and cash equivalents	27,907	–	–	–	–	–	27,907
NET AMOUNT BEFORE FINANCIAL EXPENSE	**17,792**	**(5,432)**	**(3,966)**	**(5,158)**	**(4,983)**	**(19,910)**	**(21,657)**
Financial expense on non-current financial debt	(718)	(682)	(598)	(506)	(427)	(1,037)	(3,968)
Interest differential on swaps	(484)	(412)	(369)	(309)	(234)	(869)	(2,677)
NET AMOUNT	**16,590**	**(6,526)**	**(4,933)**	**(5,973)**	**(5,644)**	**(21,816)**	**(28,302)**

The following table sets forth financial assets and liabilities related to operating activities as of December 31, 2020, 2019 and 2018 (see Note 14 of the Notes to the Consolidated Financial Statements).

As of December 31, *(M$)* ASSETS/(LIABILITIES)	2020	2019	2018
Accounts payable	(23,574)	(28,394)	(26,134)
Other operating liabilities	(14,302)	(16,262)	(13,286)
including derivative financial instruments related to commodity contracts (liabilities)	*(3,666)*	*(5,333)*	*(3,429)*
Accounts receivable, net	14,068	18,488	17,270
Other operating receivables	8,043	11,506	9,733
including derivative financial instruments related to commodity contracts (assets)	*1,428*	*4,791*	*2,731*
TOTAL	**(15,765)**	**(14,662)**	**(12,417)**

These financial assets and liabilities mainly have a maturity date below one year.

Credit risk

Credit risk is defined as the risk of the counterparty to a contract failing to perform or pay the amounts due.

The Group is exposed to credit risks in its operating and financing activities. The Group's maximum exposure to credit risk is partially related to financial assets recorded on its balance sheet, including energy derivative instruments that have a positive market value.

The following table presents the Group's maximum credit risk exposure:

As of December 31, *(M$)* ASSETS/(LIABILITIES)	2020	2019	2018
Loans to equity affiliates *(note 8)*	5,129	3,999	4,755
Loans and advances *(note 6)*	2,458	1,982	1,877
Other non-current financial assets related to operational activities *(note 6)*	287	332	471
Non-current financial assets *(note 15.1)*	4,781	912	680
Accounts receivable *(note 5)*	14,068	18,488	17,270
Other operating receivables *(note 5)*	8,043	11,506	9,733
Current financial assets *(note 15.1)*	4,630	3,992	3,654
Cash and cash equivalents *(note 15.1)*	31,268	27,352	27,907
TOTAL	**70,664**	**68,563**	**66,347**

The valuation allowance on accounts receivable, other operating receivables and on loans and advances is detailed in Notes 5 and 6 of the Consolidated Financial Statements.

As part of its credit risk management related to operating and financing activities, the Group has developed margining agreements with certain counterparties. As of December 31, 2020, the net margin call paid amounted to $(1,556) million (against $2,486 million paid as of December 31, 2019 and $2,581 million paid as of December 31, 2018).

The Group has established a number of programs for the sale of receivables, without recourse, with various banks, primarily to reduce its exposure to such receivables. As a result of these programs the Group retains no risk of payment default after the sale, but may continue to service the customer accounts as part of a service arrangement on behalf of the buyer and is required to pay to the buyer payments it receives from the customers relating to the receivables sold. As of December 31, 2020, the net value of receivables sold amounted to $6,446 million. The Group has substantially transferred all the risks and rewards related to receivables. No financial asset or liability remains recognized in the consolidated balance sheet after the date of sale.

Furthermore, in 2020 the Group conducted several operations of reverse factoring for a value of $23 million.

Credit risk is managed by the Group's business segments as follows:

- **Exploration & Production segment**

Risks arising under contracts with government authorities or other oil companies or under long-term supply contracts necessary for the development of projects are evaluated during the project approval process. The long-term aspect of these contracts and the high-quality of the other parties lead to a low level of credit risk.

Risks related to commercial operations, other than those described above (which are, in practice, directly monitored by subsidiaries), are subject to procedures for establishing credit limits and reviewing outstanding balances.

- **Integrated Gas, Renewables & Power segment**
  - Gas & Power activities

Trading Gas & Power activities deal with counterparties in the energy, industrial and financial sectors throughout the world. Financial institutions providing credit risk coverage are highly rated international banks and insurance groups.

Potential counterparties are subject to credit assessment and approval before concluding transactions and are thereafter subject to regular review, including re-appraisal and approval of the limits previously granted.

The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as data published by rating agencies. On this basis, credit limits are defined for each potential counterparty and, where appropriate, transactions are subject to specific authorizations.

Credit exposure, which is essentially an economic exposure or an expected future physical exposure, is permanently monitored and subject to sensitivity measures.

Credit risk is mitigated by the systematic use of industry standard contractual frameworks that permit netting, enable requiring added security in case of adverse change in the counterparty risk, and allow for termination of the contract upon occurrence of certain events of default.

About the Professionals and Retail Gas and Power Sales activities, credit risk management policy is adapted to the type of customer either through the use of procedures of prepayments and appropriate collection, especially for mass customers or through credit insurances and sureties/guarantees obtaining. For the Professionals segment, the segregation of duties between the commercial and financial teams allows an "a priori" control of risks.

  – Renewables and Carbon Neutrality Businesses (CNB)

Internal procedures for the Renewables division and the Carbon Neutrality Business division include rules on credit risk management. Procedures to monitor customer risk are defined at the local level, especially for SunPower, Saft and Greenflex (rules for the approval of credit limits, use of guarantees, monitoring and assessment of the receivables portfolio,...).

- **Refining & Chemicals segment**
  - Refining & Chemicals activities

Credit risk is primarily related to commercial receivables. Internal procedures of Refining & Chemicals include rules for the management of credit describing the fundamentals of internal control in this domain. Each Business Unit implements the procedures of the activity for managing and provisioning credit risk according to the size of the subsidiary and the market in which it operates. The principal elements of these procedures are:
- implementation of credit limits with different authorization schemes;
- use of insurance policies or specific guarantees (letters of credit);
- regular monitoring and assessment of overdue accounts (aging balance), including dunning procedures.

Counterparties are subject to credit assessment and approval prior to any transaction being concluded. Regular reviews are made for all active counterparties including a re-appraisal and renewing of the granted credit limits. The limits of the counterparties are assessed based on quantitative and qualitative data regarding financial standing, together with the review of any relevant third party and market information, such as that provided by rating agencies and insurance companies.

  – Trading & Shipping activities

Trading & Shipping deals with commercial counterparties and financial institutions located throughout the world. Counterparties to physical and derivative transactions are primarily entities involved in the oil and gas industry or in the trading of energy commodities, or financial institutions. Credit risk coverage is arranged with financial institutions, international banks and insurance groups selected in accordance with strict criteria.

The Trading & Shipping division applies a strict policy of internal delegation of authority in order to set up credit limits by country and counterparty and approval processes for specific transactions. Credit exposures contracted under these limits and approvals are monitored on a daily basis.

Potential counterparties are subject to credit assessment and approval prior to any transaction being concluded and all active counterparties are subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as ratings published by Standard & Poor's, Moody's Investors Service and other agencies.

Contractual arrangements are structured so as to maximize the risk mitigation benefits of netting between transactions wherever possible and additional protective terms providing for the provision of security in the event of financial deterioration and the termination of transactions on the occurrence of defined default events are used to the greatest permitted extent.

Credit risks in excess of approved levels are secured by means of letters of credit and other guarantees, cash deposits and insurance arrangements. In respect of derivative transactions, risks are secured by margin call contracts wherever possible.

- **Marketing & Services segment**

Internal procedures for the Marketing & Services division include rules on credit risk that describe the basis of internal control in this domain, including the separation of authority between commercial and financial operations.

Credit policies are defined at the local level and procedures to monitor customer risk are implemented (credit committees at the subsidiary level, the creation of credit limits for corporate customers, etc.). Each entity also implements monitoring of its outstanding receivables. Risks related to credit may be mitigated or limited by subscription of credit insurance and/or requiring security or guarantees.

NOTE 16 Financial instruments related to commodity contracts

16.1 Financial instruments related to commodity contracts

ACCOUNTING PRINCIPLES

Financial instruments related to commodity contracts, including crude oil, petroleum products, gas, and power purchase/sales contracts within the trading activities, together with the commodity contract derivative instruments such as energy contracts and forward freight agreements, are used to adjust the Group's exposure to price fluctuations within global trading limits. According to the industry practice, these instruments are considered as held for trading. Changes in fair value are recorded in the statement of income. The fair value of these instruments is recorded in "Other current assets" or "Other creditors and accrued liabilities" depending on whether they are assets or liabilities.

The valuation methodology is to mark-to-market all open positions for both physical and paper transactions. The valuations are determined on a daily basis using observable market data based on organized and over the counter (OTC) markets. In particular cases when market data is not directly available, the valuations are derived from observable data such as arbitrages, freight or spreads and market corroboration. For valuation of risks which are the result of a calculation, such as options for example, commonly known models are used to compute the fair value.

As of December 31, 2020 *(M$)* ASSETS/(LIABILITIES)	Gross value before offsetting – assets	Gross value before offsetting – liabilities	Amounts offset – assets[c]	Amounts offset – liabilities[c]	Net balance sheet value presented – assets	Net balance sheet value presented – liabilities	Other amounts not offset	Net carrying amount	Fair value[b]
Crude oil, petroleum products and freight rates activities									
Petroleum products, crude oil and freight rate swaps	302	(443)	(207)	207	95	(236)	–	(141)	(141)
Forwards[a]	158	(297)	(13)	13	145	(284)	–	(139)	(139)
Options	113	(125)	(68)	68	45	(57)	–	(12)	(12)
Futures	–	–	–	–	–	–	–	–	–
Options on futures	117	(135)	(117)	117	–	(18)	–	(18)	(18)
Other/Collateral	–	–	–	–	–	–	43	43	43
TOTAL CRUDE OIL, PETROLEUM PRODUCTS AND FREIGHT RATES	**690**	**(1,000)**	**(405)**	**405**	**285**	**(595)**	**43**	**(267)**	**(267)**
Integrated Gas, Renewables & Power activities									
Swaps	10	(71)	–	–	10	(71)	–	(61)	(61)
Forwards[a]	1,372	(3,113)	(186)	186	1,186	(2,927)	–	(1,741)	(1,741)
Options	(61)	(75)	(13)	13	(74)	(62)	–	(136)	(136)
Futures	42	(32)	(21)	21	21	(11)	–	10	10
Other/Collateral	–	–	–	–	–	–	22	22	22
TOTAL INTEGRATED GAS, RENEWABLES & POWER	**1,363**	**(3,291)**	**(220)**	**220**	**1,143**	**(3,071)**	**22**	**(1,906)**	**(1,906)**
TOTAL	**2,053**	**(4,291)**	**(625)**	**625**	**1,428**	**(3,666)**	**65**	**(2,173)**	**(2,173)**
Total of fair value non recognized in the balance sheet									

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

As of December 31, 2019 *(M$)* ASSETS/(LIABILITIES)	Gross value before offsetting – assets	Gross value before offsetting – liabilities	Amounts offset – assets[c]	Amounts offset – liabilities[c]	Net balance sheet value presented – assets	Net balance sheet value presented – liabilities	Other amounts not offset	Net carrying amount	Fair value[b]
Crude oil, petroleum products and freight rates activities									
Petroleum products, crude oil and freight rate swaps	152	(244)	(73)	73	79	(171)	–	(92)	(92)
Forwards[a]	300	(297)	(3)	3	297	(294)	–	3	3
Options	73	(106)	–	–	73	(106)	–	(33)	(33)
Futures	–	–	–	–	–	–	–	–	–
Options on futures	–	(160)	–	–	–	(160)	–	(160)	(160)
Other/Collateral	–	–	–	–	–	–	147	147	147
TOTAL CRUDE OIL, PETROLEUM PRODUCTS AND FREIGHT RATES	**525**	**(807)**	**(76)**	**76**	**449**	**(731)**	**147**	**(135)**	**(135)**
Integrated Gas, Renewables & Power activities									
Swaps	469	9	39	(39)	508	(30)	–	478	478
Forwards[a]	4,080	(4,831)	(296)	296	3,784	(4,535)	–	(751)	(751)
Options	76	(37)	(28)	28	48	(9)	–	39	39
Futures	17	(43)	(15)	15	2	(28)	–	(26)	(26)
Other/Collateral	–	–	–	–	–	–	(772)	(772)	(772)
TOTAL INTEGRATED GAS, RENEWABLES & POWER	**4,642**	**(4,902)**	**(300)**	**300**	**4,342**	**(4,602)**	**(772)**	**(1,032)**	**(1,032)**
TOTAL	**5,167**	**(5,709)**	**(376)**	**376**	**4,791**	**(5,333)**	**(625)**	**(1,167)**	**(1,167)**
Total of fair value non recognized in the balance sheet									

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

As of December 31, 2018 *(M$)* ASSETS/(LIABILITIES)	Gross value before offsetting – assets	Gross value before offsetting – liabilities	Amounts offset – assets[(c)]	Amounts offset – liabilities[(c)]	Net balance sheet value presented – assets	Net balance sheet value presented – liabilities	Other amounts not offset	Net carrying amount	Fair value[(b)]
Crude oil, petroleum products and freight rates activities									
Petroleum products, crude oil and freight rate swaps	389	(272)	(140)	140	249	(132)	–	117	117
Forwards[(a)]	243	(373)	(59)	59	184	(314)	–	(130)	(130)
Options	243	(363)	(156)	156	87	(207)	–	(120)	(120)
Futures	10	–	–	–	10	–	–	10	10
Options on futures	529	(689)	(529)	529	–	(160)	–	(160)	(160)
Other/Collateral	–	–	–	–	–	–	(118)	(118)	(118)
TOTAL CRUDE OIL, PETROLEUM PRODUCTS AND FREIGHT RATES	**1,414**	**(1,697)**	**(884)**	**884**	**530**	**(813)**	**(118)**	**(401)**	**(401)**
Integrated Gas, Renewables & Power activities									
Swaps	18	(624)	(6)	6	12	(618)	–	(606)	(606)
Forwards[(a)]	2,492	(2,285)	(316)	316	2,176	(1,969)	–	207	207
Options	3	(20)	(18)	18	(15)	(2)	–	(17)	(17)
Futures	126	(125)	(98)	98	28	(27)	–	1	1
Other/Collateral	–	–	–	–	–	–	445	445	445
TOTAL INTEGRATED GAS, RENEWABLES & POWER	**2,639**	**(3,054)**	**(438)**	**438**	**2,201**	**(2,616)**	**445**	**30**	**30**
TOTAL	**4,053**	**(4,751)**	**(1,322)**	**1,322**	**2,731**	**(3,429)**	**327**	**(371)**	**(371)**
Total of fair value non recognized in the balance sheet									

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

Commitments on crude oil and refined products have, for the most part, a short-term maturity (less than one year).

The changes in fair value of financial instruments related to commodity contracts are detailed as follows:

For the year ended December 31, *(M$)*	Fair value as of January 1,	Impact on income	Settled contracts	Other	Fair value as of December 31,
Crude oil, petroleum products and freight rates activities					
2020	**(282)**	**3,813**	**(3,841)**	**–**	**(310)**
2019	(283)	4,189	(4,188)	–	(282)
2018	(223)	2,689	(2,749)	–	(283)
Integrated Gas, Renewables & Power activities					
2020	**(260)**	**676**	**(2,348)**	**4**	**(1,928)**
2019	(415)	1,588	(686)	(747)	(260)
2018	416	1,220	(2,057)	6	(415)

In 2019, the Other column mainly included the acquisition of Toshiba's LNG portfolio, for which financial instruments related to commodity contracts had been recognized for the amount of treasury received.

The fair value hierarchy for financial instruments related to commodity contracts is as follows:

As of December 31, 2020 *(M$)*	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Crude oil, petroleum products and freight rates activities	10	(320)	–	(310)
Integrated Gas, Renewables & Power activities	(159)	(361)	(1,408)	(1,928)
TOTAL	**(149)**	**(681)**	**(1,408)**	**(2,238)**

As of December 31, 2019 *(M$)*	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Crude oil, petroleum products and freight rates activities	(182)	(172)	72	(282)
Integrated Gas, Renewables & Power activities	392	2,054	(2,706)	(260)
TOTAL	**210**	**1,882**	**(2,634)**	**(542)**

As of December 31, 2018 *(M$)*	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Crude oil, petroleum products and freight rates activities	(303)	20	–	(283)
Integrated Gas, Renewables & Power activities	424	(638)	(201)	(415)
TOTAL	**121**	**(618)**	**(201)**	**(698)**

Financial instruments classified as level 3 are mainly composed of long-term liquefied natural gas purchase and sale contracts which relate to the trading activity.

For the purpose of valuation and accounting of LNG contracts, the Group refers to the active management horizon for trading positions which corresponds to 12 months in 2019 and in 2020. The management of positions being carried out on a net value of LNG purchase and sale commitments, the applied valuation method is the contractual portfolio method based mostly on observable market data such as the prices of energy commodities forward contracts.

Concerning the period beyond the management horizon, a sensitivity analysis is carried out to verify that no liability should be recognized. The assumptions used are based on internal assumptions such as the oil and gas price trajectories adopted by the Group, prices renegotiation clauses included in long-term contracts, uncertainties related to contracts execution and flexibilities included in LNG contracts.

This sensitivity analysis highlights that the valuation method of the LNG contracts is sensitive to market risks, and more specifically to the price risk resulting from the volatility of oil and natural gas prices on North American, Asian, and European markets, and to the valuation of flexibilities, and that beyond the active management horizon of 12 months, a 10% change of the spread between gas prices in the US and Asia would have an estimated annual impact of +/- 0.1 B$ on the margin of the contractual portfolio for the following year.

The description of each fair value level is presented in Note 15 to the Consolidated Financial Statements.

Cash Flow hedge

The impact on the statement of income and other comprehensive income of the hedging instruments related to commodity contracts and qualified as cash flow hedges is detailed as follows:

As of December 31, *(M$)*	2020	2019	2018
Profit (Loss) recorded in other comprehensive income of the period	14	(14)	3
Recycled amount from other comprehensive income to the income statement of the period	(1)	–	(3)

These financial instruments are mainly one year term Henry Hub derivatives and European gas, power and CO_2 emission rights derivatives.

As of December 31, 2020, the ineffective portion of these financial instruments is nil (in 2019 and in 2018 the ineffective portion of these financial instruments was nil).

16.2 Oil, Gas and Power markets related risks management

Due to the nature of its business, the Group has significant oil and gas trading activities as part of its day-to-day operations in order to optimize revenues from its oil and gas production and to obtain favorable pricing to supply its refineries.

In its international oil trading business, the Group follows a policy of not selling its future production. However, in connection with this trading business, the Group, like most other oil companies, uses energy derivative instruments to adjust its exposure to price fluctuations of crude oil, refined products, natural gas, and power. The Group also uses freight rate derivative contracts in its shipping business to adjust its exposure to freight-rate fluctuations. To hedge against this risk, the Group uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets. The list of the different derivatives held by the Group in these markets is detailed in Note 16.1 of the Consolidated Financial Statements.

The Trading & Shipping division measures its market risk exposure, i.e. potential loss in fair values, on its crude oil, refined products and freight rates trading activities using a “value-at-risk” technique. This technique is based on an historical model and makes an assessment of the market risk arising from possible future changes in market values over a 24-hour period. The calculation of the range of potential changes in fair values is based on the end-of-day exposures and historical price movements of the last 400 business days for all traded instruments and maturities. Options are systematically re-evaluated using appropriate models.

The “value-at-risk” represents the most unfavorable movement in fair value obtained with a 97.5% confidence level. This means that the Group’s portfolio result is likely to exceed the value-at-risk loss measure once over 40 business days if the portfolio exposures were left unchanged.

Trading & Shipping: “value-at-risk with” a 97.5% probability

As of December 31, *(M$)*	High	Low	Average	Year end
2020	**30**	**6**	**15**	**19**
2019	28	9	17	21
2018	21	5	12	7

As part of its gas and power trading activity, the Group also uses derivative instruments such as futures, forwards, swaps and options in both organized and over-the-counter markets. In general, the transactions are settled at maturity date through physical delivery. The Gas division measures its market risk exposure, i.e. potential loss in fair values, on its trading business using a “value-at-risk” technique. This technique is based on an historical model and makes an assessment of the market risk arising from possible future changes in market values over a one-day period. The calculation of the range of potential changes in fair values takes into account a snapshot of the end-of-day exposures and the set of historical price movements for the past two years for all instruments and maturities in the global trading business.

Integrated Gas, Renewables & Power division trading: “value-at-risk” with a 97.5% probability

As of December 31, *(M$)*	High	Low	Average	Year end
2020	**51**	**6**	**21**	**27**
2019	83	10	20	64
2018	20	3	10	10

The Group has implemented strict policies and procedures to manage and monitor these market risks. These are based on the separation of control and front-office functions and on an integrated information system that enables real-time monitoring of trading activities.

Limits on trading positions are approved by the Group’s Executive Committee and are monitored daily. To increase flexibility and encourage liquidity, hedging operations are performed with numerous independent operators, including other oil companies, major energy producers or consumers and financial institutions. The Group has established counterparty limits and monitors outstanding amounts with each counterparty on an ongoing basis.

NOTE 17 Post closing events

There was no post closing event.

NOTE 18 Consolidation scope

As of December 31, 2020, 1,118 entities are consolidated of which 146 are accounted for under the equity method (E).

The table below presents a comprehensive list of the Group consolidated entities:

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Exploration & Production					
	Abu Dhabi Gas Industries Limited	15.00%	E	United Arab Emirates	United Arab Emirates
	Abu Dhabi Marine Areas Limited	33.33%	E	United Kingdom	United Arab Emirates
	Angola Block 14 B.V.	50.01%		Netherlands	Angola
	Angola LNG Supply Services, LLC	13.60%	E	United States	United States
	Bonny Gas Transport Limited	15.00%	E	Bermuda	Nigeria
	Brass Holdings B.V.	100.00%		Netherlands	Nigeria
	Brass LNG Limited	20.48%	E	Nigeria	Nigeria
	Deer Creek Pipelines Limited	75.00%		Canada	Canada
	Dolphin Energy Limited	24.50%	E	United Arab Emirates	United Arab Emirates
	E.F. Oil And Gas Limited	100.00%		United Kingdom	United Kingdom
	Elf E&P	100.00%		France	France
	Elf Exploration UK Limited	100.00%		United Kingdom	United Kingdom
	Elf Petroleum Iran	100.00%		France	Iran
	Elf Petroleum UK Limited	100.00%		United Kingdom	United Kingdom
	Gas Investment and Services Company Limited	10.00%	E	Bermuda	Oman
	Mabruk Oil Operations	49.02%		France	Libya
	Moattama Gas Transportation Company Limited	31.24%	E	Bermuda	Myanmar
	Norpipe Oil A/S	34.93%	E	Norway	Norway
	Norpipe Petroleum UK Limited	45.22%	E	United Kingdom	Norway
	Norpipe Terminal Holdco Limited	45.22%	E	United Kingdom	Norway
	Norsea Pipeline Limited	45.22%	E	United Kingdom	Norway
	North Oil Company	30.00%	E	Qatar	Qatar
	Novatek	19.40%	E	Russia	Russia
	Pars LNG Limited	40.00%	E	Bermuda	Iran
	Petrocedeno	30.32%	E	Venezuela	Venezuela
	Private Oil Holdings Oman Limited	10.00%	E	United Kingdom	Oman
	Stogg Eagle Funding B.V.	100.00%		Netherlands	Nigeria
	Tepkri Sarsang A/S	100.00%		Denmark	Iraq
	Termokarstovoye S.A.S.	100.00%		France	France
	Terneftegaz JSC[a]	58.89%	E	Russia	Russia
	Total (BTC) B.V.	100.00%		Netherlands	Azerbaijan
	Total Abu Al Bu Khoosh	100.00%		France	United Arab Emirates
	Total Austral	100.00%		France	Argentina
	Total Brazil Services B.V.	100.00%		Netherlands	Netherlands
	Total Danmark Pipelines A/S	100.00%		Denmark	Denmark
	Total Denmark ASW Pipeline ApS	100.00%		Denmark	Denmark
	Total Denmark ASW, Inc.	100.00%		United States	Denmark
	Total Dolphin Midstream	100.00%		France	France
	Total E&P Chissonga	100.00%		France	Angola
	Total E&P Absheron B.V.	100.00%		Netherlands	Azerbaijan

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Exploration & Production (continued)					
	Total E&P Al Shaheen A/S	100.00%		Denmark	Qatar
	Total E&P Algerie	100.00%		France	Algeria
	Total E&P Algerie Berkine A/S	100.00%		Denmark	Algeria
	Total E&P Americas, LLC	100.00%		United States	United States
	Total E&P Anchor, LLC	100.00%		United States	United States
	Total E&P Angola	100.00%		France	Angola
	Total E&P Angola Block 15/06	100.00%		France	Angola
	Total E&P Angola Block 16	100.00%		France	Angola
	Total E&P Angola Block 16 Holdings	100.00%		France	Angola
	Total E&P Angola Block 17.06	100.00%		France	Angola
	Total E&P Angola Block 25	100.00%		France	Angola
	Total E&P Angola Block 32	100.00%		France	Angola
	Total E&P Angola Block 33	100.00%		France	Angola
	Total E&P Angola Block 39	100.00%		France	Angola
	Total E&P Angola Block 40	100.00%		France	Angola
	Total E&P Angola Block 48 B.V.	100.00%		Netherlands	Angola
	Total E&P Angola Blocks 20-21	100.00%		France	Angola
	Total E&P Aruba B.V.	100.00%		Netherlands	Aruba
	Total E&P Asia Pacific Pte. Limited	100.00%		Singapore	Singapore
	Total E&P Azerbaijan B.V.	100.00%		Netherlands	Azerbaijan
	Total E&P Bolivie	100.00%		France	Bolivia
	Total E&P Borneo B.V.	100.00%		Netherlands	Brunei
	Total E&P Bulgaria B.V.	100.00%		Netherlands	Bulgaria
	Total E&P Cambodge	100.00%		France	Cambodia
	Total E&P Canada Limited	100.00%		Canada	Canada
	Total E&P Chine	100.00%		France	China
	Total E&P Colombie	100.00%		France	Colombia
	Total E&P Congo	85.00%		Congo	Congo
	Total E&P Cote d'Ivoire	100.00%		France	Côte d'Ivoire
	Total E&P Cote d'Ivoire CI – 514	100.00%		France	Côte d'Ivoire
	Total E&P Cote d'Ivoire CI – 515	100.00%		France	Côte d'Ivoire
	Total E&P Cote d'Ivoire B.V.	100.00%		Netherlands	Côte d'Ivoire
	Total E&P Cyprus B.V.	100.00%		Netherlands	Cyprus
	Total E&P Danmark A/S – CPH	100.00%		Denmark	Denmark
	Total E&P Danmark A/S – EBJ	100.00%		Denmark	Denmark
	Total E&P Do Brasil Ltda	100.00%		Brazil	Brazil
	Total E&P Dolphin Upstream	100.00%		France	Qatar
	Total E&P Dunga GmbH	100.00%		Germany	Kazakhstan
	Total E&P East El Burullus Offshore B.V.	100.00%		Netherlands	Egypt
	Total E&P Egypt Block 2 B.V.	100.00%		Netherlands	Egypt
	Total E&P Egypte	100.00%		France	Egypt
	Total E&P Europe and Central Asia Limited	100.00%		United Kingdom	United Kingdom
	Total E&P France	100.00%		France	France
	Total E&P Golfe Limited	100.00%		France	Qatar
	Total E&P Greece B.V.	100.00%		Netherlands	Greece
	Total E&P Guyana B.V.	100.00%		Netherlands	Guyana
	Total E&P Guyane Francaise	100.00%		France	France
	Total E&P Holdings Russia	100.00%		France	France
	Total E&P Holdings UAE B.V.	100.00%		Netherlands	United Arab Emirates

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Exploration & Production (continued)					
	Total E&P International K1 Limited	100.00%		Kenya	Kenya
	Total E&P International K2 Limited	100.00%		Kenya	Kenya
	Total E&P International K3 Limited	100.00%		Kenya	Kenya
	Total E&P International Limited	100.00%		United Kingdom	Kenya
	Total E&P Iraq	100.00%		France	Iraq
	Total E&P Ireland B.V.	100.00%		Netherlands	Ireland
	Total E&P Italia	100.00%		Italy	Italy
	Total E&P Jack LLC	100.00%		United States	United States
	Total E&P Jutland Denmark B.V.	100.00%		Netherlands	Denmark
	Total E&P Kazakhstan	100.00%		France	Kazakhstan
	Total E&P Kenya B.V.	100.00%		Netherlands	Kenya
	Total E&P Kurdistan Region of Iraq (Harir) B.V.	100.00%		Netherlands	Iraq
	Total E&P Kurdistan Region of Iraq (Safen) B.V.	100.00%		Netherlands	Iraq
	Total E&P Kurdistan Region of Iraq (Taza) B.V.	100.00%		Netherlands	Iraq
	Total E&P Kurdistan Region of Iraq B.V.	100.00%		Netherlands	Iraq
	Total E&P Liban S.A.L.	100.00%		Lebanon	Lebanon
	Total E&P Libye	100.00%		France	Libya
	Total E&P Lower Zakum B.V.	100.00%		Netherlands	United Arab Emirates
	Total E&P M2 Holdings Limited	100.00%		South Africa	South Africa
	Total E&P Malaysia	100.00%		France	Malaysia
	Total E&P Mauritania Block C18 B.V.	100.00%		Netherlands	Mauritania
	Total E&P Mauritania Block C9 B.V.	100.00%		Netherlands	Mauritania
	Total E&P Mauritania Blocks DW B.V.	100.00%		Netherlands	Mauritania
	Total E&P Mauritanie	100.00%		France	Mauritania
	Total E&P Mexico S.A. de C.V.	100.00%		Mexico	Mexico
	Total E&P Mozambique B.V.	100.00%		Netherlands	Mozambique
	Total E&P Myanmar	100.00%		France	Myanmar
	Total E&P Namibia B.V.	100.00%		Netherlands	Namibia
	Total E&P Nederland B.V.	100.00%		Netherlands	Netherlands
	Total E&P New Ventures Inc.	100.00%		United States	United States
	Total E&P Nigeria Deepwater A Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater B Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater C Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater D Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater E Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater F Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater G Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Deepwater H Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria Limited	100.00%		Nigeria	Nigeria
	Total E&P Nigeria S.A.S.	100.00%		France	France
	Total E&P Norge AS	100.00%		Norway	Norway
	Total E&P North Sea UK Limited	100.00%		United Kingdom	United Kingdom
	Total E&P Oman	100.00%		France	Oman
	Total E&P Participations Petrolieres Congo	100.00%		Congo	Congo
	Total E&P Philippines B.V.	100.00%		Netherlands	Philippines
	Total E&P Qatar	100.00%		France	Qatar
	Total E&P RDC	100.00%		Democratic Republic of Congo	Democratic Republic of Congo
	Total E&P Research & Technology USA LLC	100.00%		United States	United States

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Exploration & Production (continued)					
	Total E&P Russie	100.00%		France	Russia
	Total E&P Sao Tome and Principe B.V.	100.00%		Netherlands	Angola
	Total E&P Senegal	100.00%		France	Senegal
	Total E&P Services China Company Limited	100.00%		China	China
	Total E&P South Africa B.V.	100.00%		Netherlands	South Africa
	Total E&P South Africa Block 567 (Pty) Ltd	100.00%		South Africa	South Africa
	Total E&P South Pars	100.00%		France	Iran
	Total E&P South Sudan	100.00%		France	Republic of South Sudan
	Total E&P Suriname B.V.	100.00%		Netherlands	Suriname
	Total E&P Syrie	100.00%		France	Syrian Arab Republic
	Total E&P Tajikistan B.V.	100.00%		Netherlands	Tajikistan
	Total E&P Thailand	100.00%		France	Thailand
	Total E&P Three Pl B.V.	100.00%		Netherlands	Brazil
	Total E&P Timan-Pechora LLC	100.00%		Russia	Russia
	Total E&P UAE Unconventional Gas B.V.	100.00%		Netherlands	United Arab Emirates
	Total E&P Uganda B.V.	100.00%		Netherlands	Uganda
	Total E&P UK Limited	100.00%		United Kingdom	United Kingdom
	Total E&P Umm Shaif Nasr B.V.	100.00%		Netherlands	United Arab Emirates
	Total E&P Uruguay B.V.	100.00%		Netherlands	Uruguay
	Total E&P Uruguay Onshore B.V.	100.00%		Netherlands	Uruguay
	Total E&P US Well Containment, LLC	100.00%		United States	United States
	Total E&P USA Inc.	100.00%		United States	United States
	Total E&P USA Oil Shale, LLC	100.00%		United States	United States
	Total E&P Waha Limited	100.00%		Cayman Islands	Libya
	Total E&P Well Response	100.00%		France	France
	Total E&P Yemen	100.00%		France	Yemen
	Total E&P Yemen Block 3 B.V.	100.00%		Netherlands	Yemen
	Total East Africa Midstream B.V.	100.00%		Netherlands	Uganda
	Total Energy (Meuk) Limited	100.00%		United Kingdom	United Kingdom
	Total Exploration M'Bridge	100.00%		Netherlands	Angola
	Total Facilities Management B.V.	100.00%		Netherlands	Netherlands
	Total Gabon	58.28%		Gabon	Gabon
	Total Gass Handel Norge AS	100.00%		Norway	Norway
	Total Gastransport Nederland B.V.	100.00%		Netherlands	Netherlands
	Total Holding Dolphin Amont	100.00%		France	France
	Total Holdings Nederland B.V.	100.00%		Netherlands	Netherlands
	Total Holdings Nederland International B.V.	100.00%		Netherlands	Netherlands
	Total Iran B.V.	100.00%		Netherlands	Iran
	Total LNG Supply Services USA Inc.	100.00%		United States	United States
	Total Oil and Gas South America	100.00%		France	France
	Total Oil and Gas Venezuela B.V.	100.00%		Netherlands	Venezuela
	Total Oil GB Limited	100.00%		United Kingdom	United Kingdom
	Total Oil UK Limited	100.00%		United Kingdom	United Kingdom
	Total P&G do Brasil Ltda	100.00%		Brazil	Brazil
	Total Pars LNG	100.00%		France	France
	Total Petroleum Angola	100.00%		France	Angola
	Total Profils Petroliers	100.00%		France	France
	Total Qatar	100.00%		France	Qatar
	Total South Pars	100.00%		France	Iran

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Exploration & Production (continued)					
	Total Upstream Danmark A/S	100.00%		Denmark	Denmark
	Total Upstream Nigeria Limited	100.00%		Nigeria	Nigeria
	Total Upstream UK Limited	100.00%		United Kingdom	United Kingdom
	Total Venezuela	100.00%		France	France
	Uintah Colorado Resources, LLC	66.67%		United States	United States
	Unitah Colorado Resources II, LLC	100.00%		United States	United States
	Ypergas S.A.	37.33%		Venezuela	Venezuela
Integrated Gas, Renewables & Power					
	Abu Dhabi Gas Liquefaction Company Limited	5.00%	E	United Arab Emirates	United Arab Emirates
	Adani Gas Limited AGL	37.40%	E	India	India
	Adani Green Energy Twenty Three Limited	50.00%	E	India	India
	Adani Total Private Limited[(e)]	50.00%	E	India	India
	Advanced Thermal Batteries Inc.	49.99%	E	United States	United States
	Aerospatiale Batteries (ASB)	49.99%	E	France	France
	Aerowatt Energies	65.00%	E	France	France
	Aerowatt Energies 2	51.00%	E	France	France
	Abarloar Solar, S.L.U.	100.00%		Spain	Spain
	Alcad AB	99.99%		Sweden	Sweden
	Alicante	50.00%	E	France	France
	Alicante 2	50.00%	E	France	France
	Al Kharsaa Solar Holdings B.V.	49.00%	E	Netherlands	Netherlands
	Amber Solar Power Cinco, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Cuatro, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Dieciseis, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Diez, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Nueve, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Quince, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Tres, S.L.	65.00%	E	Spain	Spain
	Amber Solar Power Uno, S.L.	65.00%	E	Spain	Spain
	Anayet Solar, S.L.U.	100.00%		Spain	Spain
	Armada Solar, S.L.U.	100.00%		Spain	Spain
	Amura Solar, S.L.U.	100.00%		Spain	Spain
	Angola LNG Limited	13.60%	E	Bermuda	Angola
	Arbotante Solar, S.L.U.	100.00%		Spain	Spain
	Arctic LNG 2 LLC[(b)]	21.64%	E	Russia	Russia
	ATJV Offshore	50.00%	E	Singapore	Singapore
	Automotive Cells Company, S.E.	49.99%	E	France	France
	Baser Comercializadora de Referencia	100.00%		Spain	Spain
	Bassin Du Capiscol	100.00%		France	France
	Beauce Oratorienne	100.00%		France	France
	Biogaz Breuil	100.00%		France	France
	Biogaz Chatillon	100.00%		France	France
	Biogaz Corcelles	100.00%		France	France
	Biogaz Epinay	100.00%		France	France
	Biogaz Libron	100.00%		France	France
	Biogaz Milhac	100.00%		France	France
	Biogaz Soignolles	100.00%		France	France
	Biogaz Torcy	100.00%		France	France
	Biogaz Vert Le Grand	100.00%		France	France

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Biogaz Viriat	100.00%		France	France
	Borrowed Sunshine II Parent, LLC	51.61%		United States	United States
	Borrowed Sunshine II, LLC	51.61%		United States	United States
	BSP Class B Member HoldCo, LLC	51.61%		United States	United States
	BSP Class B Member, LLC	51.61%		United States	United States
	BSP Holding Company, LLC	51.61%		United States	United States
	BSP II Parent, LLC	51.61%		United States	United States
	Cameron LNG Holdings LLC	16.60%	E	United States	United States
	Centrale Eolienne Ploumoguer	100.00%		France	France
	Centrale Eolienne De Goulien	100.00%		France	France
	Centrale Eolienne De La Vallee Gentillesse	74.80%		France	France
	Centrale Hydrolique Alas	100.00%		France	France
	Centrale Hydrolique Ardon	90.00%		France	France
	Centrale Hydrolique Arvan	100.00%		France	France
	Centrale Hydrolique Barbaira	100.00%		France	France
	Centrale Hydrolique Bonnant	100.00%		France	France
	Centrale Hydrolique Gavet	100.00%		France	France
	Centrale Hydrolique La Buissiere	100.00%		France	France
	Centrale Hydrolique Miage	100.00%		France	France
	Centrale Hydrolique Previnquieres	100.00%		France	France
	Centrale Photovoltaique De Merle Sud	40.58%	E	France	France
	Centrale Photovoltaique Du Seneguier	100.00%		France	France
	Centrale Photovoltaique Le Barou	100.00%		France	France
	Centrale Solaire 2	100.00%		France	France
	Centrale Solaire Autoprod	100.00%		France	France
	Centrale Solaire Base 112	100.00%		France	France
	Centrale Solaire Beauce Val de Loire	100.00%		France	France
	Centrale Solaire Briffaut	100.00%		France	France
	Centrale Solaire Centre Ouest 2	100.00%		France	France
	Centrale Solaire Cet De Hesse	100.00%		France	France
	Centrale Solaire Chauveau	100.00%		France	France
	Centrale Solaire Chemin De Melette	100.00%		France	France
	Centrale Solaire De Cazedarnes	75.00%		France	France
	Centrale Solaire de la Med	100.00%		France	France
	Centrale Solaire Dom	100.00%		France	France
	Centrale Solaire Du Centre Ouest	100.00%		France	France
	Centrale Solaire Du Lavoir	60.00%		France	France
	Centrale Solaire Estarac	35.00%	E	France	France
	Centrale Solaire Ficon	100.00%		France	France
	Centrale Solaire Forum Laudun	100.00%		France	France
	Centrale Solaire Gare de Boussens	100.00%		France	France
	Centrale Solaire Golbey	100.00%		France	France
	Centrale Solaire Guinots	100.00%		France	France
	Centrale Solaire Heliovale	59.63%	E	France	France
	Centrale Solaire La Fenasse	100.00%		France	France
	Centrale Solaire La Metairie	100.00%		France	France
	Centrale Solaire La Potence	100.00%		France	France
	Centrale Solaire La Sauteirane	100.00%		France	France
	Centrale Solaire La Tastere	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Centrale Solaire Le Castellet	100.00%		France	France
	Centrale Solaire Les Ancizes	100.00%		France	France
	Centrale Solaire Les Aspres	100.00%		France	France
	Centrale Solaire Les Canebieres	100.00%		France	France
	Centrale Solaire Les Cordeliers	83.98%		France	France
	Centrale Solaire Les Cordeliers 2	100.00%		France	France
	Centrale Solaire Les Galliennes	100.00%		France	France
	Centrale Solaire Lodes	50.00%	E	France	France
	Centrale Solaire Lyreco	100.00%		France	France
	Centrale Solaire Manosque Ombriere	100.00%		France	France
	Centrale Solaire Mazeran Lr	50.00%	E	France	France
	Centrale Solaire Mazeran Paca	100.00%		France	France
	Centrale Solaire Olinoca	10.00%	E	France	France
	Centrale Solaire Ombrieres Cap Agathois	83.98%		France	France
	Centrale Solaire Ombrieres De Blyes	100.00%		France	France
	Centrale Solaire Ombrieres P5	100.00%		France	France
	Centrale Solaire Pezenas	100.00%		France	France
	Centrale Solaire Piennes	100.00%		France	France
	Centrale Solaire Plateau De Pouls	51.00%		France	France
	Centrale Solaire Pont Sur Sambre	100.00%		France	France
	Centrale Solaire Quadrao	100.00%		France	France
	Centrale Solaire Quinipily 2	100.00%		France	France
	Centrale Solaire Sainte-Marie La Mare	100.00%		France	France
	Centrale Solaire SPW2	100.00%		France	France
	Centrale Solaire Supdevenergie	100.00%		France	France
	Centrale Solaire Toiture Josse	100.00%		France	France
	Centrale Solaire TQ1	100.00%		France	France
	Centrale Solaire Valorbi	100.00%		France	France
	Centrale Solaire Zabo	100.00%		France	France
	Centrale Solaire Zabo 2	100.00%		France	France
	Cerezo Solar, S.L.U.	100.00%		Spain	Spain
	Cidra Solar, S.L.U.	100.00%		Spain	Spain
	Co Biogaz	26.00%	E	France	France
	Cogenra Solar, Inc.	51.61%		United States	United States
	Colón LNG Marketing S. de R. L.	50.00%	E	Panama	Panama
	Cote d'Ivoire GNL	34.00%	E	Côte d'Ivoire	Côte d'Ivoire
	DAJA 148	100.00%		France	France
	DAJA 154	100.00%		France	France
	DAJA 160	100.00%		France	France
	ECA LNG Holdings B.V.	16.60%	E	Netherlands	Netherlands
	Eclipse Solar SPA	100.00%		Chile	Chile
	Edelweis Solar, S.L.U.	100.00%		Spain	Spain
	EDP Comercializadora S.A.U.	100.00%		Spain	Spain
	EDP Energia S.A.U.	100.00%		Spain	Spain
	Electricite Solaire De Molleges	100.00%		France	France
	Energie Developpement	50.00%	E	France	France
	Eole Boin	100.00%		France	France
	Eole Champagne Conlinoise	66.00%	E	France	France
	Eole Cote Du Moulin	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Eole Fonds Caraibes	100.00%		France	France
	Eole Grand Maison	100.00%		France	France
	Eole La Montagne	87.60%		France	France
	Eole La Perriere S.A.R.L.	100.00%		France	France
	Eole Les Buissons	100.00%		France	France
	Eole Morne Carriere	100.00%		France	France
	Eole Morne Constant	100.00%		France	France
	Eole Moulin Tizon	100.00%		France	France
	Eole Pierrefitte Es Bois	100.00%		France	France
	Eole Sorbon II	100.00%		France	France
	Eole Yate	100.00%		France	France
	Eoliennes Arques 3	100.00%		France	France
	Eoliennes Du Champ Chardon	100.00%		France	France
	Eolmed	20.00%	E	France	France
	Falla Solar, S.L.U.	100.00%		Spain	Spain
	Fast Jung KB	99.99%		Sweden	Sweden
	Finansol 1	100.00%		France	France
	Finansol 2	100.00%		France	France
	Finansol 3	100.00%		France	France
	Fluxsol	100.00%		France	France
	Frieman & Wolf Batterietechnick GmbH	99.99%		Germany	Germany
	Gas Del Litoral SRLCV	25.00%	E	Mexico	Mexico
	Gfs I Holding Company, LLC	51.61%		United States	United States
	Glaciere De Palisse	100.00%		France	France
	Global Energy Armateur SNC	100.00%		France	France
	Global LNG Armateur S.A.S.	100.00%		France	France
	Global LNG Downstream S.A.S.	100.00%		France	France
	Global LNG North America Corporation	100.00%		United States	United States
	Global LNG S.A.S.	100.00%		France	France
	Global LNG UK Limited	100.00%		United Kingdom	United Kingdom
	Go Electric	99.99%		United States	United States
	Golden Fields Solar I, LLC	51.61%		United States	United States
	Goodfellow Solar Construction, LLC	51.61%		United States	United States
	Goodfellow Solar II, LLC	51.61%		United States	United States
	Goodfellow Solar III, LLC	51.61%		United States	United States
	Gray Whale Offshore Wind Power No.1 Co., Ltd	50.00%	E	South Korea	South Korea
	Gray Whale Offshore Wind Power No.2 Co., Ltd	50.00%	E	South Korea	South Korea
	Greenflex Actirent Group, S.L.	100.00%		Spain	Spain
	Greenflex S.A.S.	99.99%		France	France
	GridVault DR1, LLC	51.61%		United States	United States
	Grillete Solar, S.L.U.	100.00%		Spain	Spain
	Gulf Total Tractebel Power Company PSJC	20.00%	E	United Arab Emirates	United Arab Emirates
	Helio 100 Kw	100.00%		France	France
	Helio 21	100.00%		France	France
	Helio 974 Sol 1	100.00%		France	France
	Helio 974 Toitures	100.00%		France	France
	Helio 974 Toiture 2	100.00%		France	France
	Helio Bakia	50.00%	E	France	France
	Helio Boulouparis	50.00%	E	France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Helio Boulouparis 2	50.00%	E	France	France
	Helio Fonds Caraibes	100.00%		France	France
	Helio Koumac	50.00%	E	France	France
	Helio L'R	100.00%		France	France
	Helio Moindah	100.00%		France	France
	Helio Piin Patch	50.00%	E	France	France
	Helio Plaine des Gaiacs	100.00%		France	France
	Helio Popidery	50.00%	E	France	France
	Helio Reunion	100.00%		France	France
	Helio Saint Benoit	100.00%		France	France
	Helio Tamoa	50.00%	E	France	France
	Helio Temala	50.00%	E	France	France
	Helio Tontouta	100.00%		France	France
	Helio Wabealo	100.00%		France	France
	Helix Project III, LLC	51.61%		United States	United States
	Helix Project V, LLC	51.61%		United States	United States
	HETTY	100.00%		France	France
	Holding Eole 2018	100.00%		France	France
	Hydro Tinee	50.00%	E	France	France
	Hydromons	100.00%		France	France
	Ichthys LNG PTY Limited	26.00%	E	Australia	Australia
	Institut Photovoltaique D'Ile De France (IPVF)	43.00%		France	France
	Ise Total Nanao Power Plant G.K.	50.00%	E	Japan	Japan
	JDA Overseas Holdings, LLC	51.61%		United States	United States
	Jingdan New Energy investment (Shanghai) Co. Ltd	50.00%	E	China	China
	Jmcp	50.05%		France	France
	JOBS Tugboat, LLC	51.61%		United States	United States
	Komundo Offshore Wind Power Co., Ltd	50.00%	E	South Korea	South Korea
	LA Basin Solar I, LLC	51.61%		United States	United States
	La Compagnie Electrique de Bretagne	100.00%		France	France
	La Metairie Neuve	25.00%	E	France	France
	La Seauve	95.01%		France	France
	Lampiris S.A.	100.00%		Belgium	Belgium
	Lanuza Solar, S.L.U.	100.00%		Spain	Spain
	Lemoore Stratford Land Holdings IV, LLC	51.61%		United States	United States
	Les Vents De Nivillac	100.00%		France	France
	Les Vents De Ranes	100.00%		France	France
	Leuret	100.00%		France	France
	Lincoln Solar Star, LLC	51.61%		United States	United States
	Luce Solar SPA	100.00%		Chile	Chile
	Luminora Solar cuatro, S.L.	65.00%	E	Spain	Spain
	Luminora Solar Dos, S.L.	65.00%	E	Spain	Spain
	Luminora Solar Tres, S.L.	65.00%	E	Spain	Spain
	Margeriaz Energie	100.00%		France	France
	Marysville Unified School District Solar, LLC	51.61%		United States	United States
	Mauricio Solar, S.L.U.	100.00%		Spain	Spain
	Maxeon Solar Technologies, Pte. Ltd.	36.40%	E	Singapore	Singapore
	Messigaz SNC	100.00%		France	France
	Methanergy	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Missiles & Space Batteries Limited	49.99%	E	United Kingdom	United Kingdom
	Miyagi Osato Solar Park G.K.	45.00%	E	Japan	Japan
	Miyako Kuzakai Solarpark G.K.	50.00%	E	Japan	Japan
	Mojave Solar Investment, LLC	51.61%		United States	United States
	Moz LNG1 Financing Company Ltd	26.50%		United Arab Emirates	United Arab Emirates
	Moz LNG1 Holding Company Ltd	26.50%		United Arab Emirates	United Arab Emirates
	Mozambique MOF Company S.A.	26.50%		Mozambique	Mozambique
	Mozambique LNG Marine Terminal Company S.A.	26.50%		Mozambique	Mozambique
	Mulilo Prieska PV (RF) Proprietary Limited	27.00%	E	South Africa	South Africa
	National Gas Shipping Company Limited	5.00%	E	United Arab Emirates	United Arab Emirates
	NEM Solar Targetco, LLC	51.61%		United States	United States
	Nevada Joint Union High School District Solar, LLC	51.61%		United States	United States
	Nigeria LNG Limited	15.00%	E	Nigeria	Nigeria
	NorthStar Energy Management, LLC	51.61%		United States	United States
	NorthStar Energy Management Nevada, LLC	51.61%		United States	United States
	Nouvelle Centrale Eolienne de Lastours	50.00%	E	France	France
	Nuza Solar, S.L.U.	100.00%		Spain	Spain
	Nyk Armateur S.A.S.	50.00%	E	France	France
	Oman LNG, LLC	5.54%	E	Oman	Oman
	Parc Eolien Nordex III	50.00%	E	France	France
	Parc Eolien Nordex XXIX	50.00%	E	France	France
	Parc Eolien Nordex XXX	50.00%	E	France	France
	Parc Solaire De Servian	100.00%		France	France
	Parc Solaire De Servian 2	100.00%		France	France
	Parque Fotovoltaico Alicahue Solar SPA	100.00%		Chile	Chile
	Parque Fotovoltaico Santa Adriana Solar SPA	100.00%		Chili	Chili
	Partrederiet Bw Gas Global LNG	49.00%	E	Norway	Norway
	Perpetual Sunhine Solar Program I, LLC	51.61%		United States	United States
	Perpetual Sunshine I, LLC	51.61%		United States	United States
	Pilastra Solar, S.L.U.	100.00%		Spain	Spain
	Portalon Solar, S.L.U.	100.00%		Spain	Spain
	Pos	100.00%		France	France
	Pos Production Ii	60.00%		France	France
	Pos Production Iii	70.00%		France	France
	Pos Production Iv	70.00%		France	France
	Pos Production V	70.00%		France	France
	Postigo Solar, S.L.U.	100.00%		Spain	Spain
	Qatar Liquefied Gas Company Limited	10.00%	E	Qatar	Qatar
	Qatar Liquefied Gas Company Limited (II)	16.70%	E	Qatar	Qatar
	Quadrica	51.00%	E	France	France
	Quilla Solar, S.L.U.	100.00%		Spain	Spain
	RLA Solar SPA	100.00%		Chile	Chile
	Rosamond Raven Holdings, LLC	51.61%		United States	United States
	Saft (Zhuhai FTZ) Batteries Company Limited	99.99%		China	China
	Saft (Zhuhai) Energy Storage Co	99.99%		China	China
	Saft AB	99.99%		Sweden	Sweden
	Saft Acquisition S.A.S.	99.99%		France	France
	Saft America Inc.	99.99%		United States	United States
	Saft AS	99.99%		Norway	Norway

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Saft Australia PTY Limited	99.99%		Australia	Australia
	Saft Batterias SL	99.99%		Spain	Spain
	Saft Batterie Italia S.R.L.	99.99%		Italy	Italy
	Saft Batterien GmbH	99.99%		Germany	Germany
	Saft Batteries Pte Limited	99.99%		Singapore	Singapore
	Saft Batteries PTY Limited	99.99%		Australia	Australia
	Saft Batterijen B.V.	99.99%		Netherlands	Netherlands
	Saft Do Brasil Ltda	99.99%		Brazil	Brazil
	Saft EV S.A.S.	99.99%		France	France
	Saft Ferak AS	99.99%		Czech Republic	Czech Republic
	Saft Groupe S.A.	99.99%		France	France
	Saft Hong Kong Limited	99.99%		Hong Kong	Hong Kong
	Saft India Private Limited	99.99%		India	India
	Saft Japan KK	99.99%		Japan	Japan
	Saft Limited	99.99%		United Kingdom	United Kingdom
	Saft LLC	99.99%		Russia	Russia
	Saft Nife ME Limited	99.99%		Cyprus	Cyprus
	Saft S.A.S.	99.99%		France	France
	Seagreen HoldCo 1 Limited	51.00%	E	United Kingdom	United Kingdom
	SGS Antelope Valley Development, LLC	51.61%		United States	United States
	Shams Power Company PJSC	20.00%	E	United Arab Emirates	United Arab Emirates
	Societe Champenoise d'Energie	16.00%	E	France	France
	Societe d'exploitation de centrales photovoltaiques 1	25.86%		France	France
	Societe Economie Mixte Production Energetique Renouvelable	35.92%	E	France	France
	Solar Carport NJ, LLC	51.61%		United States	United States
	Solar Energies	65.00%	E	France	France
	Solar Sail, LLC	51.61%		United States	United States
	Solar Sail Commercial DevCo I, LLC	51.61%		United States	United States
	Solar Sail Commercial Holdings, LLC	51.61%		United States	United States
	Solar Sail Commercial MPW DevCo, LLC	51.61%		United States	United States
	Solar Star Always Low Prices Ct, LLC	51.61%		United States	United States
	Solar Star Always Low Prices Hi, LLC	51.61%		United States	United States
	Solar Star Always Low Prices Ma, LLC	51.61%		United States	United States
	Solar Star Arizona HMR-I, LLC	51.61%		United States	United States
	Solar Star Arizona II, LLC	51.61%		United States	United States
	Solar Star Arizona VII, LLC	51.61%		United States	United States
	Solar Star Bay City 2, LLC	51.61%		United States	United States
	Solar Star Bear Creek, LLC	51.61%		United States	United States
	Solar Star Big Apple CDG, LLC	51.61%		United States	United States
	Solar Star Big Apple BTM, LLC	51.61%		United States	United States
	Solar Star California I, LLC	51.61%		United States	United States
	Solar Star California IV, LLC	51.61%		United States	United States
	Solar Star California LXXV, LLC	51.61%		United States	United States
	Solar Star California LXXVI, LLC	51.61%		United States	United States
	Solar Star California XXXV, LLC	51.61%		United States	United States
	Solar Star California XXXVI, LLC	51.61%		United States	United States
	Solar Star California XXXVIII, LLC	51.61%		United States	United States
	Solar Star Co Co 1, LC	51.61%		United States	United States

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Solar Star Co Co 2, LLC	51.61%		United States	United States
	Solar Star Coastal Pirate, LLC	51.61%		United States	United States
	Solar Star Colorado II, LLC	51.61%		United States	United States
	Solar Star CRC Kern Front, LLC	51.61%		United States	United States
	Solar Star CRC Yowlumne 1 North, LLC	51.61%		United States	United States
	Solar Star CRC Yowlumne 2 South, LLC	51.61%		United States	United States
	Solar Star CRC North Shafter, LLC	51.61%		United States	United States
	Solar Star CRC Pier A West, LLC	51.61%		United States	United States
	Solar Star CRC Mt. Poso, LLC	51.61%		United States	United States
	Solar Star Deer Island, LLC	51.61%		United States	United States
	Solar Star Energy Center, LLC	51.61%		United States	United States
	Solar Star Golden Empire, LLC	51.61%		United States	United States
	Solar Star Harbor, LLC	51.61%		United States	United States
	Solar Star HD Maryland, LLC	51.61%		United States	United States
	Solar Star HD New Jersey, LLC	51.61%		United States	United States
	Solar Star HD New York, LLC	51.61%		United States	United States
	Solar Star Healthy 1, LLC	51.61%		United States	United States
	Solar Star Healthy Lake, LLC	51.61%		United States	United States
	Solar Star Hernwood, LLC	51.61%		United States	United States
	Solar Star Kale 1, LLC	51.61%		United States	United States
	Solar Star Khsd, LLC	51.61%		United States	United States
	Solar Star LA County High Desert, LLC	51.61%		United States	United States
	Solar Star LCR Culver City, LLC	51.61%		United States	United States
	Solar Star LCR Irvine, LLC	51.61%		United States	United States
	Solar Star LCR LA 1, LLC	51.61%		United States	United States
	Solar Star LCR LA 2, LLC	51.61%		United States	United States
	Solar Star LCR Split 1, LLC	51.61%		United States	United States
	Solar Star LCR Split 2, LLC	51.61%		United States	United States
	Solar Star Lincoln School, LLC	51.61%		United States	United States
	Solar Star MA – Tewksbury, LLC	51.61%		United States	United States
	Solar Star Massachusetts II, LLC	51.61%		United States	United States
	Solar Star Massachusetts III, LLC	51.61%		United States	United States
	Solar Star Maxx 1, LLC	51.61%		United States	United States
	Solar Star Meridian Park West, LLC	51.61%		United States	United States
	Solar Star Parent CRC Kern Front, LLC	51.61%		United States	United States
	Solar Star Parent CRC Mt. Poso, LLC	51.61%		United States	United States
	Solar Star Parent CRC North Shafter, LLC	51.61%		United States	United States
	Solar Star Parent CRC Pier A West, LLC	51.61%		United States	United States
	Solar Star Parent CRC Yowlumne 1 North, LLC	51.61%		United States	United States
	Solar Star Parent CRC Yowlumne 2 South, LLC	51.61%		United States	United States
	Solar Star Parkton, LLC	51.61%		United States	United States
	Solar Star Prairie Holding, LLC	51.61%		United States	United States
	Solar Star Prime 2, LLC	51.61%		United States	United States
	Solar Star Prime 3, LLC	51.61%		United States	United States
	Solar Star Prime 4, LLC	51.61%		United States	United States
	Solar Star Prime SCK3, LLC	51.61%		United States	United States
	Solar Star Rancho CWD I, LLC	51.61%		United States	United States
	Solar Star River, LLC	51.61%		United States	United States
	Solar Star Track, LLC	51.61%		United States	United States

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Solar Star Track Anacostia, LLC	51.61%		United States	United States
	Solar Star Track Cheverly, LLC	51.61%		United States	United States
	Solar Star Track Southern Ave 1, LLC	51.61%		United States	United States
	Solar Star Track Southern Ave 2, LLC	51.61%		United States	United States
	Solar Star Track Southern Ave Bus, LLC	51.61%		United States	United States
	Solar Star Tranquility, LLC	51.61%		United States	United States
	Solar Star Unkety Brook, LLC	51.61%		United States	United States
	Solar Star Urbana Landfill Central, LLC	51.61%		United States	United States
	Solar Star Urbana Landfill East, LLC	51.61%		United States	United States
	Solar Star Vegas 1, LLC	51.61%		United States	United States
	Solar Star Woodlands St Cr, LLC	51.61%		United States	United States
	SolarBridge Technologies Inc.	51.61%		United States	United States
	Solarstar Billerica I, LLC	51.61%		United States	United States
	Solarstar Ma I, LLC	51.61%		United States	United States
	Solarstar Prime I, LLC	51.61%		United States	United States
	SolarStorage Fund A, LLC	51.61%		United States	United States
	SolarStorage Fund B, LLC	51.61%		United States	United States
	SolarStorage Fund C, LLC	51.61%		United States	United States
	SolarStorage Fund D, LLC	51.61%		United States	United States
	South Hook LNG Terminal Company Limited	8.35%	E	United Kingdom	United Kingdom
	Spinnaker Solar, S.L.U.	100.00%		Spain	Spain
	SPWR SS 1, LLC	51.61%		United States	United States
	SPWR SunStrong Holdings, LLC	51.61%		United States	United States
	SSCA XLI Holding Company, LLC	51.61%		United States	United States
	SunPower AssetCo, LLC	51.61%		United States	United States
	SunPower Bobcat Solar, LLC	51.61%		United States	United States
	SunPower Capital Services, LLC	51.61%		United States	United States
	SunPower Capital, LLC	51.61%		United States	United States
	SunPower Commercial FTB Construction, LLC	51.61%		United States	United States
	SunPower Commercial Holding Company FTB SLB Parent, LLC	51.61%		United States	United States
	SunPower Commercial Holding Company FTB SLB, LLC	51.61%		United States	United States
	SunPower Corporation	51.61%		United States	United States
	SunPower Corporation, Systems	51.61%		United States	United States
	SunPower DevCo, LLC	51.61%		United States	United States
	SunPower Electrical of New York, LLC	51.61%		United States	United States
	SunPower Energia SPA	51.61%		Chile	Chile
	SunPower Energy Systems Canada Corporation	51.61%		Canada	Canada
	SunPower Equity Holdings, LLC	51.61%		United States	United States
	SunPower Foundation	51.61%		United States	United States
	SunPower Helix I, LLC	51.61%		United States	United States
	SunPower HoldCo, LLC	51.61%		United States	United States
	SunPower Manufacturing Oregon, LLC	51.61%		United States	United States
	SunPower North America, LLC	51.61%		United States	United States
	SunPower NY CDG 1,LLC	51.61%		United States	United States
	SunPower Philippines Limited – Regional Operating Headquarters	51.61%		Cayman Islands	Cayman Islands
	SunPower Revolver HoldCo I Parent, LLC	51.61%		United States	United States
	SunPower Revolver HoldCo I, LLC	51.61%		United States	United States

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	SunPower Systems Mexico S. de R.L. de C.V.	51.61%		Mexico	Mexico
	SunPower Technologies Assetco Holdings, LLC	51.61%		United States	United States
	SunStrong Capital Acquisition 3, LLC	51.61%		United States	United States
	Sunstrong Capital Holdings, LLC	51.61%	E	United States	United States
	SunStrong Partners, LLC	51.61%	E	United States	United States
	Sunzil	50.00%	E	France	France
	Swingletree Operations, LLC	51.61%		United States	United States
	Tadiran Batteries GmbH	99.99%		Germany	Germany
	Tadiran Batteries Limited	99.99%		Israel	Israel
	Temasol	51.61%		Morocco	Morocco
	Tenesol SPV 1	100.00%		France	France
	Tianneng Saft Energy Joint Stock Company	39.99%	E	China	China
	TIEA Energie	100.00%		France	France
	Total Carbon Neutrality Ventures Europe	100.00%		France	France
	Total Carbon Neutrality Ventures International	100.00%		France	France
	Total Direct Energie – Centrale Electrique Bayet	100.00%		France	France
	Total Direct Energie – Centrale Electrique Marchienne-au-Pont	100.00%		Belgium	Belgium
	Total Direct Energie – Centrale Electrique Saint Avold	100.00%		France	France
	Total Direct Energie Belgium	100.00%		Belgium	Belgium
	Total Direct Energie – Centrale Electrique de Toul	100.00%		France	France
	Total Direct Energie Generation	100.00%		France	France
	Total Direct Energie S.A.	100.00%		France	France
	Total Direct Energie Services	100.00%		Belgium	Belgium
	Total Direct Energies Centrale Electrique de Pont Sur Sambres	100.00%		France	France
	Total E&P Angola Developpement Gaz	100.00%		France	Angola
	Total E&P Australia	100.00%		France	Australia
	Total E&P Australia Exploration PTY Limited	100.00%		Australia	Australia
	Total E&P Australia II	100.00%		France	Australia
	Total E&P Australia III	100.00%		France	Australia
	Total E&P Barnett USA, LLC	100.00%		United States	United States
	Total E&P Holding Ichthys	100.00%		France	France
	Total E&P Holdings Australia PTY Limited	100.00%		Australia	Australia
	Total E&P Ichthys B.V.	100.00%		Netherlands	Australia
	Total E&P Indonesia Mentawai B.V.	100.00%		Netherlands	Indonesia
	Total E&P Indonesie	100.00%		France	Indonesia
	Total E&P Mauritius Holding Limited	100.00%		Mauritius Island	Mauritius Island
	Total E&P Mozambique Area 1, Limitada	100.00%		Mozambique	Mozambique
	Total E&P Oman Block 12 B.V.	100.00%		Netherlands	Oman
	Total E&P Oman Dev. B.V	100.00%		Netherlands	Oman
	Total E&P PNG 2 B.V.	100.00%		Netherlands	Papua New Guinea
	Total E&P PNG 5 B.V.	100.00%		Netherlands	Papua New Guinea
	Total E&P PNG Limited	100.00%		Papua New Guinea	Papua New Guinea
	Total E&P Salmanov	100.00%		France	France
	Total E&P Sebuku	100.00%		France	Indonesia
	Total E&P Singapore Pte. Ltd.	100.00%		Singapore	Singapore

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Total E&P Yamal	100.00%		France	France
	Total Energia Italia S.R.L.	100.00%		Italy	Italy
	Total Energie Gas GmbH	100.00%		Germany	Germany
	Total Energy Investments Tianjin	100.00%		China	China
	Total Energy Services	100.00%		France	France
	Total Energy Ventures Emerging Markets	100.00%		France	France
	Total Eren[(c)]	29.60%	E	France	France
	Total Eren Holding	33.86%	E	France	France
	Total Gas & Power Actifs Industriels	100.00%		France	France
	Total Gas & Power Asia Private Limited	100.00%		Singapore	Singapore
	Total Gas & Power Brazil	100.00%		France	France
	Total Gas & Power Chartering Limited	100.00%		United Kingdom	United Kingdom
	Total Gas & Power Infrastructure Limited	100.00%		United Kingdom	United Kingdom
	Total Gas & Power Limited	100.00%		United Kingdom	United Kingdom
	Total Gas & Power North America Inc.	100.00%		United States	United States
	Total Gas & Power Services Limited	100.00%		United Kingdom	United Kingdom
	Total Gas and Power Limited, London, Meyrin – Geneva Branch	100.00%		Switzerland	Switzerland
	Total Gas Pipeline USA Inc.	100.00%		United States	United States
	Total Gas Y Electricidad Argentina S.A.	100.00%		Argentina	Argentina
	Total Gasandes	100.00%		France	France
	Total Gaz Electricite Holdings France	100.00%		France	France
	Total GLNG Australia	100.00%		France	Australia
	Total GLNG Australia Holdings	100.00%		France	Australia
	Total Investment Management Tianjin	100.00%		China	China
	Total LNG Angola	100.00%		France	France
	Total Midstream Holdings UK Limited	100.00%		United Kingdom	United Kingdom
	Total Nature Based Solutions	100.00%		France	France
	Total New Energies Limited	100.00%		United Kingdom	United Kingdom
	Total New Energies Ventures USA, Inc.	100.00%		United States	United States
	Total Offshore Wind Korea	100.00%		France	France
	Total Quadran	100.00%		France	France
	Total Quadran Caraibes	100.00%		France	France
	Total Qadran DK Aps	100.00%		Denmark	Denmark
	Total Quadran Nogara	50.00%	E	France	France
	Total Quadran Pacific	100.00%		France	France
	Total Renewables	100.00%		France	France
	Total Renewables USA, LLC	100.00%		United States	United States
	Total Solar Assets FZE	100.00%		United Arab Emirates	United Arab Emirates
	Total Solar Iberica, S.A.U.	100.00%		Spain	Spain
	Total Solar International	100.00%		France	France
	Total Solar Intl	100.00%		France	France
	Total Solar Latin America SPA	100.00%		Chile	Chile
	Total Solar Singapore Pte Ltd	100.00%		Singapore	Singapore
	Total Solar (Thailand) Co., Ltd.	100.00%		Thailand	Thailand
	Total Strong, LLC	50.00%	E	United States	United States
	Total SunPower Energia S.A.	51.61%		Chile	Chile
	Total Tengah	100.00%		France	Indonesia
	Total Tractebel Emirates O & M Company	50.00%	E	France	United Arab Emirates

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Integrated Gas, Renewables & Power (continued)					
	Total Tractebel Emirates Power Company	50.00%	E	France	United Arab Emirates
	Total USA International, LLC	100.00%		United States	United States
	Total Yemen LNG Company Limited	100.00%		Bermuda	Bermuda
	TQN Hydro	100.00%		France	France
	TQN Solar	100.00%		France	France
	TQN Solar Nogara	50.00%	E	France	France
	TQN Wind	100.00%		France	France
	Transportadora de Gas del Mercosur S.A.	32.68%	E	Argentina	Argentina
	Trofeo Solar, S.L.U.	100.00%		Spain	Spain
	TSGF SpA	50.00%	E	Chile	Chile
	Tugboat Commercial Pledgor, LLC	51.61%		United States	United States
	TW2 Tugboat, LLC	51.61%		United States	United States
	Ultralight 2 Class B Member, LLC	51.61%		United States	United States
	Ultralight 2 Holdco, LLC	51.61%		United States	United States
	Ultralight 2 Mezzanine Borrower, LLC	51.61%		United States	United States
	Ultralight 2 Mezzanine Pledgor, LLC	51.61%		United States	United States
	Ultralight 2 Residential Solar, LL	51.61%		United States	United States
	Ultralight 2 SolarBloom, LLC	51.61%		United States	United States
	Ultralight 2 SolarBloom Pledgor, LLC	51.61%		United States	United States
	Valorene	66.00%		France	France
	Vega Solar 1 S.A.P.I. de C.V.	51.61%		Mexico	Mexico
	Vega Solar 2 S.A.P.I. de C.V.	51.61%		Mexico	Mexico
	Vents D'Oc Energies Renouvelables	100.00%		France	France
	Vents D'Oc Centrale D'Energie Renouvelable 17	100.00%		France	France
	Vents D'Oc Centrale D'Energie Renouvelable 18	100.00%		France	France
	Vertigo	25.00%	E	France	France
	Watt Prox	100.00%		France	France
	Winergy	100.00%		France	France
	WP France 21	100.00%		France	France
	WP France 25	100.00%		France	France
	Yamal LNG[(d)]	29.73%	E	Russia	Russia
	Yemen LNG Company Limited	39.62%	E	Bermuda	Yemen
	Zeeland Solar B.V.	100.00%		Netherlands	Netherlands
Refining & Chemicals					
	Appryl S.N.C	50.00%		France	France
	Atlantic Trading and Marketing Financial Inc.	100.00%		United States	United States
	Atlantic Trading and Marketing Inc.	100.00%		United States	United States
	Balzatex S.A.S.	100.00%		France	France
	Barry Controls Aerospace S.N.C.	100.00%		France	France
	BASF Total Petrochemicals LLC	40.00%		United States	United States
	Bay Junction Inc.	100.00%		United States	United States
	Bayport Polymers LLC	50.00%	E	United States	United States
	Borrachas Portalegre Ltda	100.00%		Portugal	Portugal
	BOU Verwaltungs GmbH	100.00%		Germany	Germany
	Buckeye Products Pileline LP	14.66%	E	United States	United States
	Catelsa-Caceres S.A.U.	100.00%		Spain	Spain
	Cie Tunisienne du Caoutchouc S.A.R.L.	100.00%		Tunisia	Tunisia
	Composite Industrie Maroc S.A.R.L.	100.00%		Morocco	Morocco
	Composite Industrie S.A.	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Refining & Chemicals (continued)					
	Cosden, LLC	100.00%		United States	United States
	COS-MAR Company	50.00%		United States	United States
	Cray Valley (Guangzhou) Chemical Company, Limited	100.00%		China	China
	Cray Valley Czech	100.00%		Czech Republic	Czech Republic
	Cray Valley HSC Asia Limited	100.00%		China	Hong Kong
	Cray Valley Italia S.R.L.	100.00%		Italy	Italy
	Cray Valley S.A.	100.00%		France	France
	CSSA – Chartering and Shipping Services S.A.	100.00%		Switzerland	Switzerland
	Espa S.A.R.L.	100.00%		France	France
	Ethylene Est	99.98%		France	France
	Feluy Immobati	100.00%		Belgium	Belgium
	Fina Pipeline Co	100.00%		United States	United States
	FINA Technology, Inc.	100.00%		United States	United States
	Gasket (Suzhou) Valve Components Company, Limited	100.00%		China	China
	Gasket International S.R.L.	100.00%		Italy	Italy
	Grande Paroisse S.A.	100.00%		France	France
	Gulf Coast Pipeline LP	14.66%	E	United States	United States
	Hanwha Total Petrochemical Co. Limited	50.00%	E	South Korea	South Korea
	HBA Hutchinson Brasil Automotive Ltda	100.00%		Brazil	Brazil
	Hutchinson (UK) Limited	100.00%		United Kingdom	United Kingdom
	Hutchinson (Wuhan) Automotive Rubber Products Company Limited	100.00%		China	China
	Hutchinson Aeronautique & Industrie Limited	100.00%		Canada	Canada
	Hutchinson Aeroservices S.A.S.	100.00%		France	France
	Hutchinson Aerospace & Industry Inc.	100.00%		United States	United States
	Hutchinson Aerospace GmbH	100.00%		Germany	Germany
	Hutchinson Aftermarket USA Inc.	100.00%		United States	United States
	Hutchinson Antivibration Systems Inc.	100.00%		United States	United States
	Hutchinson Automotive Systems Company, Limited	100.00%		China	China
	Hutchinson Autopartes Mexico S.A. de C.V.	100.00%		Mexico	Mexico
	Hutchinson Borrachas de Portugal Ltda	100.00%		Portugal	Portugal
	Hutchinson Corporation	100.00%		United States	United States
	Hutchinson d.o.o Ruma	100.00%		Serbia	Serbia
	Hutchinson Do Brasil S.A.	100.00%		Brazil	Brazil
	Hutchinson Fluid Management Systems Inc.	100.00%		United States	United States
	Hutchinson GmbH	100.00%		Germany	Germany
	Hutchinson Holding GmbH	100.00%		Germany	Germany
	Hutchinson Holdings UK Limited	100.00%		United Kingdom	United Kingdom
	Hutchinson Iberia S.A.	100.00%		Spain	Spain
	Hutchinson Industrial Rubber Products (Suzhou) Company, Limited	100.00%		China	China
	Hutchinson Industrias Del Caucho SAU	100.00%		Spain	Spain
	Hutchinson Industries Inc.	100.00%		United States	United States
	Hutchinson Japan Company Limited	100.00%		Japan	Japan
	Hutchinson Korea Limited	100.00%		South Korea	South Korea
	Hutchinson Maroc S.A.R.L. AU	100.00%		Morocco	Morocco
	Hutchinson Poland SP ZO.O.	100.00%		Poland	Poland
	Hutchinson Polymers S.N.C.	100.00%		France	France
	Hutchinson Porto	100.00%		Portugal	Portugal

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Refining & Chemicals (continued)					
	Hutchinson Precision Sealing Systems Inc.	100.00%		United States	United States
	Hutchinson Research & Innovation Singapore PTE. Limited	100.00%		Singapore	Singapore
	Hutchinson Rubber Products Private Limited Inde	100.00%		India	India
	Hutchinson S.A.	100.00%		France	France
	Hutchinson S.N.C.	100.00%		France	France
	Hutchinson S.R.L. (Italie)	100.00%		Italy	Italy
	Hutchinson S.R.L. (Roumanie)	100.00%		Romania	Romania
	Hutchinson Sales Corporation	100.00%		United States	United States
	Hutchinson Seal De Mexico S.A. de CV.	100.00%		Mexico	Mexico
	Hutchinson Sealing Systems Inc.	100.00%		United States	United States
	Hutchinson SRO	100.00%		Czech Republic	Czech Republic
	Hutchinson Stop – Choc GmbH & CO. KG	100.00%		Germany	Germany
	Hutchinson Suisse S.A.	100.00%		Switzerland	Switzerland
	Hutchinson Transferencia de Fluidos S.A. de C.V.	100.00%		Mexico	Mexico
	Hutchinson Tunisie S.A.R.L.	100.00%		Tunisia	Tunisia
	Hutchinson Vietnam Company Limited	100.00%		Vietnam	Vietnam
	Industrias Tecnicas De La Espuma SL	100.00%		Spain	Spain
	Industrielle Desmarquoy S.N.C.	100.00%		France	France
	Jehier S.A.S.	99.89%		France	France
	Joint Precision Rubber	100.00%		France	France
	KTN Kunststofftechnik Nobitz GmbH	100.00%		Germany	Germany
	Laffan Refinery Company Limited	10.00%	E	Qatar	Qatar
	Laffan Refinery Company Limited 2	10.00%	E	Qatar	Qatar
	LaPorte Pipeline Company LP	20.16%	E	United States	United States
	LaPorte Pipeline GP LLC	19.96%	E	United States	United States
	Le Joint Francais S.N.C.	100.00%		France	France
	Legacy Site Services Funding Inc.	100.00%		United States	United States
	Legacy Site Services LLC	100.00%		United States	United States
	Les Stratifies S.A.S.	100.00%		France	France
	Lone Wolf Land Company	100.00%		United States	United States
	Machen Land Limited	100.00%		United Kingdom	United Kingdom
	Mide Technology Corporation	100.00%		United States	United States
	Naphtachimie	50.00%		France	France
	Novogy, Inc.	100.00%		United States	United States
	Olutex Oberlausitzer Luftfahrttextilien GmbH	100.00%		Germany	Germany
	Pamargan (Malta) Products Limited	100.00%		Malta	Malta
	Pamargan Products Limited	100.00%		United Kingdom	United Kingdom
	Paulstra S.N.C.	100.00%		France	France
	Paulstra Silentbloc S.A.	100.00%		Belgium	Belgium
	PFW Aerospace GmbH	100.00%		Germany	Germany
	PFW Havacilik Sanayi ve Dis Ticaret Limited Sirtketi	100.00%		Turkey	Turkey
	PFW Uk Machining Ltd.	100.00%		United Kingdom	United Kingdom
	Polyblend GmbH	100.00%		Germany	Germany
	Qatar Petrochemical Company Q.S.C. (QAPCO)	20.00%	E	Qatar	Qatar
	Qatofin Company Limited	49.09%	E	Qatar	Qatar
	Resilium	100.00%		Belgium	Belgium
	Retia	100.00%		France	France
	Retia USA LLC	100.00%		United States	United States

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Refining & Chemicals (continued)					
	San Jacinto Rail Limited	17.00%	E	United States	United States
	Saudi Aramco Total Refining & Petrochemical Company	37.50%	E	Saoudia Arabia	Saoudia Arabia
	SigmaKalon Group B.V.	100.00%		Netherlands	Netherlands
	Societe Bearnaise De Gestion Industrielle	100.00%		France	France
	Societe du Pipeline Sud-Europeen	35.14%	E	France	France
	SPA Sonatrach Total Entreprise de Polymères	49.00%	E	Algeria	Algeria
	Stillman Seal Corporation	100.00%		United States	United States
	Stop-Choc (UK) Limited	100.00%		United Kingdom	United Kingdom
	Synova	100.00%		France	France
	Techlam S.A.S.	100.00%		France	France
	Thermal Control Systems Automotive Sasu	60.00%		France	France
	Total Activites Maritimes	100.00%		France	France
	Total Atlantic Trading Mexico SA De CV	100.00%		Mexico	Mexico
	Total Corbion PLA B.V.	50.00%	E	Netherlands	Netherlands
	Total Country Services Belgium	100.00%		Belgium	Belgium
	Total Deutschland GmbH[e]	100.00%		Germany	Germany
	Total Downstream UK PLC	100.00%		United Kingdom	United Kingdom
	Total Energy Marketing A/S	100.00%		Denmark	Denmark
	Total European Trading	100.00%		France	France
	Total Laffan Refinery	100.00%		France	France
	Total Laffan Refinery II B.V.	100.00%		Netherlands	Netherlands
	Total Lindsey Oil Refinery Limited	100.00%		United Kingdom	United Kingdom
	Total New Energies USA, Inc.	100.00%		United States	United States
	Total Olefins Antwerp	100.00%		Belgium	Belgium
	Total Opslag En Pijpleiding Nederland NV	55.00%		Netherlands	Netherlands
	Total PAR LLC	100.00%		United States	United States
	Total Petrochemicals (Hong Kong) Limited	100.00%		Hong Kong	Hong Kong
	Total Petrochemicals (Shangai) Limited	100.00%		China	China
	Total Petrochemicals Development Feluy	100.00%		Belgium	Belgium
	Total Petrochemicals Ecaussinnes	100.00%		Belgium	Belgium
	Total Petrochemicals Feluy	100.00%		Belgium	Belgium
	Total Petrochemicals France	100.00%		France	France
	Total Petrochemicals Iberica	100.00%		Spain	Spain
	Total Petrochemicals Pipeline USA Inc.	100.00%		United States	United States
	Total Petrochemicals UK Limited	100.00%		United Kingdom	United Kingdom
	Total Polymers Antwerp	100.00%		Belgium	Belgium
	Total Raffinaderij Antwerpen N.V.	100.00%		Belgium	Belgium
	Total Raffinage France	100.00%		France	France
	Total Raffinerie Mitteldeutschland GmbH	100.00%		Germany	Germany
	Total Refining & Chemicals	100.00%		France	France
	Total Refining & Chemicals Saudi Arabia S.A.S.	100.00%		France	France
	Total Research & Technology Feluy	100.00%		Belgium	Belgium
	Total Splitter USA Inc	100.00%		United States	United States
	Total Trading and Marketing Canada LP	100.00%		Canada	Canada
	Total Trading Asia Pte Limited	100.00%		Singapore	Singapore
	Total Trading Canada Limited	100.00%		Canada	Canada
	Total Trading Products S.A.	100.00%		Switzerland	Switzerland
	TOTSA Total Oil Trading S.A.	100.00%		Switzerland	Switzerland
	Totseanergy	49.00%	E	Belgium	Belgium

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Refining & Chemicals (continued)					
	Transalpes S.N.C.	67.00%		France	France
	Trans-Ethylene	99.98%		France	France
	Tssa Total Storage & Services S.A.	100.00%		Switzerland	Switzerland
	Vibrachoc S.A.U.	100.00%		Spain	Spain
	Zeeland Refinery NV	55.00%		Netherlands	Netherlands
Marketing & Services					
	Air Total (Suisse) S.A.	100.00%		Switzerland	Switzerland
	Air Total International S.A.	100.00%		France	France
	Alvea	100.00%		France	France
	Antilles Gaz	100.00%		France	France
	Argedis	100.00%		France	France
	Aristea	51.00%	E	Belgium	Belgium
	Arteco	49.99%	E	Belgium	Belgium
	AS 24	100.00%		France	France
	AS24 Belgie N.V.	100.00%		Belgium	Belgium
	AS24 Espanola S.A.	100.00%		Spain	Spain
	AS24 Fuel Cards Limited	100.00%		United Kingdom	United Kingdom
	AS24 Lithuanie	100.00%		Lithunia	Lithunia
	AS24 Polska SP ZO.O.	100.00%		Poland	Poland
	AS24 Tankservice GmbH	100.00%		Germany	Germany
	Charvet La Mure Bianco	100.00%		France	France
	Clean Energy	25.63%	E	United States	United States
	Compagnie Petroliere de l'Ouest – CPO	100.00%		France	France
	Cristal Marketing Egypt	84.62%		Egypt	Egypt
	Total Proxi Energies Nord Est	100.00%		France	France
	Elf Oil UK Aviation Limited	100.00%		United Kingdom	United Kingdom
	Elf Oil UK Properties Limited	100.00%		United Kingdom	United Kingdom
	Fioulmarket.fr	100.00%		France	France
	Gapco Kenya Limited	100.00%		Kenya	Kenya
	Gapco Tanzania Limited	100.00%		Tanzania	Tanzania
	Guangzhou Elf Lubricants Company Limited	77.00%		China	China
	Gulf Africa Petroleum Corporation	100.00%		Mauritius Island	Mauritius Island
	Lubricants Vietnam Holding Limited	100.00%		Hong Kong	Hong Kong
	National Petroleum Refiners Of South Africa (PTY) Limited	18.22%	E	South Africa	South Africa
	Progeres S.A.S.	100.00%		France	France
	Quimica Vasca S.A.U.	100.00%		Spain	Spain
	Saudi Total Petroleum Products	51.00%	E	Saoudia Arabia	Saoudia Arabia
	Servauto Nederland B.V.	100.00%		Netherlands	Netherlands
	Societe d'exploitation de l'usine de Rouen	98.98%		France	France
	Societe mahoraise de stockage de produits petroliers	100.00%		France	France
	Societe Urbaine des Petroles	100.00%		France	France
	S-Oil Total Lubricants Company Limited	50.00%	E	South Korea	South Korea
	South Asia LPG Private Limited	50.00%	E	India	India
	Stedis	100.00%		France	France
	Tas'Helat Marketing Company	50.00%	E	Saoudia Arabia	Saoudia Arabia
	Total (Africa) Limited	100.00%		United Kingdom	United Kingdom
	Total (Fiji) Limited	100.00%		Fiji Islands	Fiji Islands
	Total Additifs et Carburants Speciaux	100.00%		France	France
	Total Africa S.A.	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Marketing & Services (continued)					
	Total Aviation & Export Limited	100.00%		Zambia	Zambia
	Total Belgium	100.00%		Belgium	Belgium
	Total Bitumen Deutschland GmbH	100.00%		Germany	Germany
	Total Bitumen UK Limited	100.00%		United Kingdom	United Kingdom
	Total Botswana (PTY) Limited	50.10%		Botswana	Botswana
	Total Brasil Diesel Comercio e Transportes Ltda	100.00%		Brazil	Brazil
	Total Brasil Distribuidora Ltda	100.00%		Brazil	Brazil
	Total Burkina	100.00%		Burkina Faso	Burkina Faso
	Total Cambodge	100.00%		Cambodia	Cambodia
	Total Cameroun	67.01%		Cameroon	Cameroon
	Total Caraibes	100.00%		France	France
	Total Ceska Republika S.R.O.	100.00%		Czech Republic	Czech Republic
	Total China Investment Company Limited	100.00%		China	China
	Total Congo	100.00%		Congo	Congo
	Total Corse	100.00%		France	France
	Total Cote D'Ivoire	72.99%		Côte d'Ivoire	Côte d'Ivoire
	Total Denmark A/S	100.00%		Denmark	Denmark
	Total Egypt	84.62%		Egypt	Egypt
	Total Espana S.A.	100.00%		Spain	Spain
	Total Especialidades Argentina	100.00%		Argentina	Argentina
	Total Ethiopia	100.00%		Ethiopia	Ethiopia
	Total Fluides	100.00%		France	France
	Total Freeport Corporation	51.00%	E	Philippines	Philippines
	Total Fuels Wuhan Company Limited	100.00%		China	China
	Total Glass Lubricants Europe GmbH	100.00%		Germany	Germany
	Total Guadeloupe	100.00%		France	Guadeloupe
	Total Guinea Ecuatorial	70.00%		Equatorial Guinea	Equatorial Guinea
	Total Guinee	100.00%		Guinea	Guinea
	Total Holding Asie	100.00%		France	France
	Total Holding India	100.00%		France	France
	Total Italia	100.00%		Italy	Italy
	Total Jamaica Limited	100.00%		Jamaica	Jamaica
	Total Jordan PSC	100.00%		Jordan	Jordan
	Total Kenya	93.96%		Kenya	Kenya
	Total Liban	100.00%		Lebanon	Lebanon
	Total Liberia Inc.	100.00%		Liberia	Liberia
	Total Lubricants (China) Company Limited	77.00%		China	China
	Total Lubricants Taiwan Limited	63.00%		Taiwan	Taiwan
	Total Lubrifiants	99.98%		France	France
	Total Lubrifiants Algerie	78.90%		Algeria	Algeria
	Total Lubrifiants Service Automobile	99.98%		France	France
	Total Luxembourg S.A.	100.00%		Luxembourg	Luxembourg
	Total Madagasikara S.A.	79.44%		Madagascar	Madagascar
	Total Malawi Limited	100.00%		Malawi	Malawi
	Total Mali	100.00%		Mali	Mali
	Total Marine Fuels	100.00%		Singapore	Singapore
	Total Marketing Egypt	84.62%		Egypt	Egypt
	Total Marketing et Services Angola S.A.	50.00%	E	Angola	Angola
	Total Marketing France	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Marketing & Services (continued)					
	Total Marketing Gabon	90.00%		Gabon	Gabon
	Total Marketing Middle East Free Zone	100.00%		United Arab Emirates	United Arab Emirates
	Total Marketing Services	100.00%		France	France
	Total Marketing Tchad	100.00%		Chad	Chad
	Total Marketing Uganda	100.00%		Uganda	Uganda
	Total Maroc	55.00%		Morocco	Morocco
	Total Mauritius	55.00%		Mauritius Island	Mauritius Island
	Total Mayotte	100.00%		France	Mayotte
	Total Mexico S.A. de C.V.	100.00%		Mexico	Mexico
	Total Mineraloel und Chemie GmbH	100.00%		Germany	Germany
	Total Mineralol GmbH	100.00%		Germany	Germany
	Total Mozambique	100.00%		Mozambique	Mozambique
	Total Namibia (PTY) Limited	50.10%		Namibia	Namibia
	Total Nederland NV	100.00%		Netherlands	Netherlands
	Total Niger S.A.	100.00%		Niger	Niger
	Total Nigeria PLC	61.72%		Nigeria	Nigeria
	Total Oil Asia-Pacific Pte Limited	100.00%		Singapore	Singapore
	Total Oil India Private Limited	100.00%		India	India
	Total Outre-Mer	100.00%		France	France
	Total Pacifique	100.00%		France	New Caledonia
	Total Paiement Services	100.00%		France	France
	Total Parco Pakistan Limited	50.00%	E	Pakistan	Pakistan
	Total Petroleum (Shanghai) Company Limited	100.00%		China	China
	Total Petroleum Ghana Limited	76.74%		Ghana	Ghana
	Total Petroleum Puerto Rico Corp.	100.00%		Puerto Rico	Puerto Rico
	Total Philippines Corporation	51.00%	E	Philippines	Philippines
	Total Polska	100.00%		Poland	Poland
	Total Polynesie	100.00%		France	French Polynesia
	Total RDC	60.00%		Democratic Republic of Congo	Democratic Republic of Congo
	Total Reunion	100.00%		France	Reunion
	Total Romania S.A.	100.00%		Romania	Romania
	Total Senegal	69.14%		Senegal	Senegal
	Total Singapore Shared Services Pte Limited	100.00%		Singapore	Singapore
	Total Sinochem Fuels Company Limited	49.00%	E	China	China
	Total Sinochem Oil Company Limited	49.00%	E	China	China
	Total South Africa (PTY) Limited	50.10%		South Africa	South Africa
	Total Specialties USA Inc.	100.00%		United States	United States
	Total Supply MS S.A.	100.00%		Switzerland	Switzerland
	Total Swaziland (PTY) Limited	50.10%		Swaziland	Swaziland
	Total Tanzania Limited	100.00%		Tanzania	Tanzania
	Total Tianjin Manufacturing Company Limited	77.00%		China	China
	Total Togo	76.72%		Togo	Togo
	Total Tunisie	100.00%		Tunisia	Tunisia
	Total Turkey Pazarlama	100.00%		Turkey	Turkey
	Total UAE LLC	49.00%		United Arab Emirates	United Arab Emirates
	Total Uganda Limited	100.00%		Uganda	Uganda
	Total UK Limited	100.00%		United Kingdom	United Kingdom
	Total Ukraine LLC	100.00%		Ukraine	Ukraine

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Marketing & Services (continued)					
	Total Vietnam Limited	100.00%		Vietnam	Vietnam
	Total Vostok	100.00%		Russia	Russia
	Total Zambia	100.00%		Zambia	Zambia
	Total Zimbabwe	80.00%		Zimbabwe	Zimbabwe
	Totalgaz Vietnam LLC	100.00%		Vietnam	Vietnam
	Trapil	35.50%	E	France	France
	Upbeatprops 100 PTY Limited	50.10%		South Africa	South Africa
	V Energy S.A.	70.00%		Dominican Republic	Dominican Republic
Corporate					
	Albatros	100.00%		France	France
	Elf Aquitaine Fertilisants	100.00%		France	France
	Elf Aquitaine Inc.	100.00%		United States	United States
	Elf Forest Products LLC	100.00%		United States	United States
	Omnium Reinsurance Company S.A.	100.00%		Switzerland	Switzerland
	Pan Insurance Limited	100.00%		Ireland	Ireland
	Septentrion Participations	100.00%		France	France
	Socap S.A.S.	100.00%		France	France
	Societe Civile Immobiliere CB2	100.00%		France	France
	Sofax Banque	100.00%		France	France
	Total American Services Inc.	100.00%		United States	United States
	Total Capital	100.00%		France	France
	Total Capital Canada Limited	100.00%		Canada	Canada
	Total Capital International	100.00%		France	France
	Total Consulting	100.00%		France	France
	Total Corporate Management (Beijing) Company Limited	100.00%		China	China
	Total Delaware Inc.	100.00%		United States	United States
	Total Developpement Regional S.A.S.	100.00%		France	France
	Total Digital Factory	100.00%		France	France
	Total Facilities Management Services (TFMS)	100.00%		France	France
	Total Finance	100.00%		France	France
	Total Finance Corporate Services Limited	100.00%		United Kingdom	United Kingdom
	Total Finance Global Services (TOFIG)	100.00%		Belgium	Belgium
	Total Finance international B.V.	100.00%		Netherlands	Netherlands
	Total Finance Nederland B.V.	100.00%		Netherlands	Netherlands
	Total Finance USA Inc.	100.00%		United States	United States
	Total Funding Nederland B.V.	100.00%		Netherlands	Netherlands
	Total Funding Nederland International B.V.	100.00%		Netherlands	Netherlands
	Total Gestion Filiales	100.00%		France	France
	Total Gestion USA	100.00%		France	France
	Total Global Financial Services	100.00%		France	France
	Total Global Human Ressources Services	100.00%		France	France
	Total Global Information Technology Services Belgium	99.98%		Belgium	Belgium
	Total Global IT Services (TGITS)	100.00%		France	France
	Total Global Procurement (TGP)	100.00%		France	France
	Total Global Procurement Belgium S.A. (TGPB)	100.00%		Belgium	Belgium
	Total Global Services Bucharest	99.01%		Romania	Romania
	Total Global Services Philippines	100.00%		Philippines	Philippines
	Total Holding Allemagne	100.00%		France	France

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Corporate (continued)					
	Total Holdings Europe	100.00%		France	France
	Total Holdings International B.V.	100.00%		Netherlands	Netherlands
	Total Holdings S.A.S.	100.00%		France	France
	Total Holdings UK Limited	100.00%		United Kingdom	United Kingdom
	Total Holdings USA Inc.	100.00%		United States	United States
	Total International NV	100.00%		Netherlands	Netherlands
	Total Investments	100.00%		France	France
	Total Learning Solutions (TLS)	100.00%		France	France
	Total Operations Canada Limited	100.00%		Canada	Canada
	Total Overseas Holding (PTY) Limited	100.00%		South Africa	Netherlands
	Total Participations	100.00%		France	France
	Total Petrochemicals & Refining S.A./NV[e]	100.00%		Belgium	Belgium
	Total Petrochemicals & Refining USA Inc.[e]	100.00%		United States	United States
	Total Petrochemicals Security USA Inc.	100.00%		United States	United States
	Total Resources (Canada) Limited	100.00%		Canada	Canada
	TOTAL S.E.	–		France	France
	Total Treasury	100.00%		France	France
	Total UK Finance Limited	100.00%		United Kingdom	United Kingdom

(a) of control different from % of interest: 49%.
(b) of control different from % of interest: 10%.
(c) of control different from % of interest: 5.80%.
(d) of control different from % of interest: 20.02%.
(e) Multi-segment entities.

9

Supplemental oil and gas information (unaudited)

9.1 Oil and gas information pursuant to FASB Accounting Standards Codification 932

Proved reserves estimates are calculated according to the Securities and Exchange Commission (SEC) Rule 4-10 of Regulation S-X set forth in the "Modernization of Oil and Gas Reporting" release (SEC Release n° 33-8995) and the Financial Accounting Standard Board (FASB) Accounting Standards Update regarding Extractive Activities – Oil and Gas (ASC 932), which provide definitions and disclosure requirements.

9.1.1 Assessment process for reserves

Reserves estimations are performed by experienced geoscientists, engineers and economists under the supervision of each subsidiary's General Management. Staff involved in reserves evaluation are trained to follow SEC-compliant internal guidelines and policies regarding criteria that must be met before reserves can be considered as proved. All of the Group's proved reserves held in consolidated subsidiaries and equity affiliates are estimated within the affiliates of the Group with the exception of the proved reserves held by the equity affiliate PAO Novatek. The assessment of the net proved liquids and natural gas reserves of certain properties owned by PAO Novatek was completed as of December 31, 2020, in accordance with the standards applied by the Group, based on an independent third-party report from DeGolyer & MacNaughton. These independently assessed reserves account for 46% of the total net proved reserves TOTAL held in Russia as of December 31, 2020.

The technical validation process relies on a Technical Reserves Committee that is responsible for approving proved reserves variations above a certain threshold and technical evaluations of reserves associated with an investment decision that requires approval from the Exploration & Production Executive Committee. The Chairman of the Technical Reserves Committee is appointed by the Senior Management of Exploration & Production and its members have expertise in reservoir engineering, production geology, production geophysics, reserves methodology, drilling and development studies.

An internal control process related to reserves estimation is formalized and involves the following elements:

- a central Reserves Entity the responsibility of which is to consolidate, document and archive the Group's reserves; to ensure coherence of evaluations worldwide; to maintain the Corporate Reserves Guidelines Standards in line with SEC guidelines and policies; to deliver training on reserves evaluation and classification; and to conduct periodically in-depth technical review of reserves for each affiliate;
- a review of affiliate reserves conducted by an internal group of specialists selected for their expertise in geosciences and engineering and their knowledge of the affiliate. All members of this group, chaired by the Reserves Vice-President ("RVP") of the Development and Support to Operations division and composed of at least three Technical Reserves Committee members, are knowledgeable in the SEC guidelines for proved reserves evaluation. Their responsibility is to provide an independent review of significant reserves changes proposed by affiliates and ensure that reserves are estimated using appropriate standards and procedures;
- at the end of the annual review carried out by the Development and Support to Operations division, a SEC Reserves Committee chaired by the Exploration & Production Senior Vice President Finance and Economics and comprised of the Development and Support to Operations and Strategy-Business Development-R&D Senior Vice Presidents, and the Finance and Legal Vice Presidents as well as the Chairman of the Technical Reserves Committee and the RVP, approves the elements of the SEC reserve booking proposals concerning criteria that are not dependent upon technical expertise (reservoir, geosciences, etc.). The results of the annual review and the proposals for including revisions or additions of SEC Proved Reserves are presented to the Exploration & Production Executive Committee for approval before final validation by the Group's General Management and Chief Financial Officer.

The reserves evaluation and control process is audited periodically by the Group's internal auditors.

The RVP of the Development and Support to Operations division is the technical person responsible for preparing the reserves estimates for the Group. Appointed by the President of Exploration & Production, the RVP supervises the Reserves Entity, chairs the annual review of reserves, and is a member of the Technical Reserves Committee and the SEC Reserves Committee. The current RVP has over 25 years of experience in the oil and gas industry. He previously held several management positions in the Group in reservoir engineering and geosciences, and in the field of reserves evaluation and control process. He holds an engineering degree from *École Centrale Paris*, France, and a petroleum engineering degree from IFP School, France. He is a member of the UNECE (United Nations Economic Commission for Europe) Expert Group on Resource Classification, and an active member of the Society of Petroleum Engineers.

9.1.2 Proved developed reserves

As of December 31, 2020, proved developed reserves of hydrocarbons (oil, bitumen and gas) were 7,985 Mboe and represented 65% of the proved reserves. As of December 31, 2019, proved developed reserves of hydrocarbons (oil, bitumen and gas) were 8,532 Mboe and represented 67% of the proved reserves. As of December 31, 2018, proved developed reserves of hydrocarbons (oil, bitumen and gas) were 8,400 Mboe and represented 70% of the proved reserves. Over the past three years, the average of proved developed reserves renewal has remained well above 1,300 Mboe per year.

9.1.3 Proved undeveloped reserves

As of December 31, 2020, TOTAL's combined proved undeveloped reserves (PUDs) of oil and gas were 4,343 Mboe compared to 4,149 Mboe as of December 31, 2019 and 3,650 Mboe as of December 31, 2018.

The variation between December 31, 2019 and December 31, 2020 is due to -497 Mboe converted from PUDs to proved developed reserves and to +517 Mboe revisions of previous estimates, mainly in the Brazil, Norway, Azerbaijan, Russia and United Arab Emirates, -2 Mboe from disposal. Concerning the variations of PUDs not included in opening balance, +151 Mboe are related to extensions and discoveries, mainly in Russia and +25 Mboe from acquisitions.

In 2020, out of 497 Mboe converted from PUDs to proved developed reserves, 408 Mboe of PUDs were converted to proved developed within the scope of development activity in Russia, Norway, United Arab Emirates, Brazil and United Kingdom. This confirms once again the Group's ability to develop and bring into production large scale and complex projects.

In 2020, the costs incurred to develop proved undeveloped reserves were $4.7 billion, which represented 68% of 2020 development costs incurred, and were related to projects located for the most part in Norway, Nigeria, Russia, the United States, Qatar, Australia and Denmark.

The Group's PUDs that may remain undeveloped for five years or more after first disclosure (PUD5+) correspond to the remaining PUD on large scale and complex development projects and to field development projects the implementation of which is dependent on capacity constraints.

Although the Group has converted significant amount of reserves associated to large scale and complex projects from PUD5+ into developed reserves in the last years, those projects still hold PUD5+ that are expected to be developed over time as part of initial field development plans or additional development phases.

In addition, some projects are designed and optimized for a given production capacity that controls the pace at which the field is developed and the wells are drilled. At production start-up, only a portion of the proved reserves is developed to meet capacity constraints and contractual obligations.

Under these specific circumstances, the Group believes that it is justified to report those PUDs as proved reserves, despite the fact that some of these PUDs may remain undeveloped for more than five years.

9.1.4 Estimated proved reserves of oil, bitumen and gas

The following tables present, for oil, bitumen and gas reserves, an estimate of the Group's oil, bitumen and gas quantities by geographic areas as of December 31, 2020, 2019 and 2018.

Quantities shown correspond to proved developed and undeveloped reserves together with changes in quantities for 2020, 2019 and 2018.

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the revised Rule 4-10 of SEC Regulation S-X.

All references in the following tables to reserves or production are to the Group's entire share of such reserves or production. TOTAL's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates.

Significant changes in proved reserves between 2019 and 2020 are discussed below.

For consolidated subsidiaries, the revisions of +276 Mboe for the year 2020 were due to:

- +827 Mboe due to new information obtained from drilling and production history – notably underpinned by production ramp up for recent developments – mainly in Brazil, United Arab Emirates, Angola, Norway, Nigeria and Azerbaijan;
- -670 Mboe which are no longer economically producible according to SEC rules, due to low prices in 2020, notably for the entire proved reserves at Fort Hills (Canada). More favorable prices in the future could lead to re-booking of those reserves;
- +119 Mboe resulting from contractual and royalties effects linked to low prices in 2020.

For consolidated subsidiaries, the acquisition in Middle East and North Africa corresponds to the recognition of proved reserves in Libya.

For equity affiliates, the revisions of +86 Mboe for the year 2020 were due to:

- +99 Mboe due to new information obtained from drilling and production history mainly in Russia;
- -13 Mboe due to economic factors.

9.1.4.1 Changes in oil, bitumen and gas reserves

Proved developed and undeveloped reserves (in million barrels of oil equivalent)	Consolidated subsidiaries						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
BALANCE AS OF DECEMBER 31, 2017 – BRENT AT 54.36$/b	**1,678**	**11**	**1,679**	**1,450**	**1,816**	**943**	**7,577**
Revisions of previous estimates	126	–	132	137	28	27	450
Extensions, discoveries and other	69	–	45	444	27	13	598
Acquisitions of minerals in place	316	–	–	85	86	–	487
Sales of minerals in place	(103)	–	(5)	–	(24)	(89)	(221)
Production for the year	(190)	(1)	(238)	(154)	(134)	(51)	(768)
BALANCE AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b	**1,896**	**10**	**1,613**	**1,962**	**1,799**	**843**	**8,123**
Revisions of previous estimates	67	2	113	211	76	25	494
Extensions, discoveries and other	9	–	1	1	76	32	119
Acquisitions of minerals in place	40	–	421	17	–	–	478
Sales of minerals in place	(3)	–	–	–	(1)	–	(4)
Production for the year	(197)	(2)	(249)	(175)	(131)	(79)	(833)
BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b	**1,812**	**10**	**1,899**	**2,016**	**1,819**	**821**	**8,377**
Revisions of previous estimates	144	4	61	175	(131)	23	276
Extensions, discoveries and other	–	–	19	<1	13	25	57
Acquisitions of minerals in place	–	–	–	206	–	–	206
Sales of minerals in place	(10)	–	–	(3)	–	(8)	(21)
Production for the year	(205)	(2)	(222)	(149)	(129)	(83)	(790)
BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b	**1,741**	**12**	**1,757**	**2,245**	**1,572**	**778**	**8,105**
Minority interest in proved developed and undeveloped reserves as of							
December 31, 2018 – Brent at 71.43$/B	–	–	98	–	–	–	98
December 31, 2019 – Brent at 62.74$/b	–	–	86	–	–	–	86
DECEMBER 31, 2020 – BRENT AT 41.32$/b	**–**	**–**	**52**	**–**	**–**	**–**	**52**

Proved developed and undeveloped reserves (in million barrels of oil equivalent)	Equity affiliates						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
BALANCE AS OF DECEMBER 31, 2017 – BRENT AT 54.36$/b	**–**	**2,451**	**63**	**1,237**	**147**	**–**	**3,898**
Revisions of previous estimates	–	128	(1)	61	(1)	–	187
Extensions, discoveries and other	–	11	–	–	–	–	11
Acquisitions of minerals in place	–	102	–	–	–	–	102
Sales of minerals in place	–	(26)	–	–	–	–	(26)
Production for the year	–	(141)	(7)	(89)	(8)	–	(245)
BALANCE AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b	**–**	**2,525**	**55**	**1,209**	**138**	**–**	**3,927**
Revisions of previous estimates	–	85	(0)	41	(38)	–	88
Extensions, discoveries and other	–	538	–	18	–	–	556
Acquisitions of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production for the year	–	(175)	(8)	(82)	(2)	–	(267)
BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b	**–**	**2,973**	**47**	**1,186**	**98**	**–**	**4,304**
Revisions of previous estimates	–	54	41	10	(19)	–	86
Extensions, discoveries and other	–	89	–	5	–	–	94
Acquisitions of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production for the year	–	(173)	(9)	(79)	(<1)	–	(261)
BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b	**–**	**2,943**	**79**	**1,122**	**79**	**–**	**4,223**

Proved developed and undeveloped reserves (in million barrels of oil equivalent)	Consolidated subsidiaries and equity affiliates						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b							
Proved developed and undeveloped reserves	**1,896**	**2,535**	**1,668**	**3,171**	**1,937**	**843**	**12,050**
Consolidated subsidiaries	1,896	10	1,613	1,962	1,799	843	8,123
Equity affiliates	–	2,525	55	1,209	138	–	3,927
Proved developed reserves	**1,275**	**1,395**	**1,266**	**2,702**	**1,245**	**517**	**8,400**
Consolidated subsidiaries	1,275	8	1,257	1,649	1,182	517	5,888
Equity affiliates	–	1,387	9	1,053	63	–	2,512
Proved undeveloped reserves	**621**	**1,140**	**402**	**469**	**692**	**326**	**3,650**
Consolidated subsidiaries	621	2	356	313	617	326	2,235
Equity affiliates	–	1,138	46	156	75	–	1,415
AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b							
Proved developed and undeveloped reserves	**1,812**	**2,983**	**1,946**	**3,202**	**1,917**	**821**	**12,681**
Consolidated subsidiaries	1,812	10	1,899	2,016	1,819	821	8,377
Equity affiliates	–	2,973	47	1,186	98	–	4,304
Proved developed reserves	**1,454**	**1,506**	**1,217**	**2,628**	**1,225**	**502**	**8,532**
Consolidated subsidiaries	1,454	8	1,211	1,604	1,181	502	5,960
Equity affiliates	–	1,498	6	1,024	44	–	2,572
Proved undeveloped reserves	**358**	**1,477**	**729**	**574**	**692**	**319**	**4,149**
Consolidated subsidiaries	358	2	688	412	638	319	2,417
Equity affiliates	–	1,475	41	162	54	–	1,732
AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b							
Proved developed and undeveloped reserves	**1,741**	**2,955**	**1,836**	**3,367**	**1,651**	**778**	**12,328**
Consolidated subsidiaries	1,741	12	1,757	2,245	1,572	778	8,105
Equity affiliates	–	2,943	79	1,122	79	–	4,223
Proved developed reserves	**1,306**	**1,470**	**1,083**	**2,763**	**859**	**504**	**7,985**
Consolidated subsidiaries	1,306	8	1,070	1,803	816	504	5,507
Equity affiliates	–	1,462	13	960	43	–	2,478
Proved undeveloped reserves	**435**	**1,485**	**753**	**604**	**792**	**274**	**4,343**
Consolidated subsidiaries	435	4	687	442	756	274	2,598
Equity affiliates	–	1,481	66	162	36	–	1,745

9.1.4.2 Changes in oil & bitumen reserves

The oil reserves include crude oil, condensates and natural gas liquids reserves.

Proved developed and undeveloped reserves (in million barrels)	Consolidated subsidiaries							
	Oil							Bitumen
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total	Americas
BALANCE AS OF DECEMBER 31, 2017 – BRENT AT 54.36$/b	**902**	**9**	**1,188**	**1,218**	**168**	**192**	**3,677**	**928**
Revisions of previous estimates	34	–	122	141	51	3	351	(26)
Extensions, discoveries and other	34	–	7	404	2	8	455	–
Acquisitions of minerals in place	221	–	–	60	83	–	364	–
Sales of minerals in place	(36)	–	(3)	–	–	(23)	(62)	(24)
Production for the year	(95)	(1)	(185)	(136)	(24)	(6)	(447)	(35)
BALANCE AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b	**1,060**	**8**	**1,129**	**1,687**	**280**	**174**	**4,338**	**843**
Revisions of previous estimates	46	2	97	206	51	8	410	(1)
Extensions, discoveries and other	8	–	1	1	62	1	73	–
Acquisitions of minerals in place	20	–	7	16	–	–	43	–
Sales of minerals in place	(2)	–	–	–	(0)	–	(2)	–
Production for the year	(101)	(2)	(202)	(152)	(23)	(16)	(496)	(36)
BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b	**1,031**	**8**	**1,032**	**1,758**	**370**	**167**	**4,366**	**806**
Revisions of previous estimates	82	4	50	164	169	8	477	(309)
Extensions, discoveries and other	–	–	1	1	4	<1	6	–
Acquisitions of minerals in place	–	–	–	169	–	–	169	–
Sales of minerals in place	(10)	–	–	(3)	–	(8)	(21)	–
Production for the year	(111)	(2)	(177)	(128)	(28)	(15)	(461)	(30)
BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b	**992**	**10**	**906**	**1,961**	**515**	**152**	**4,536**	**467**
Minority interest in proved developed and undeveloped reserves as of								
December 31, 2018 – Brent at 71.43$/b	–	–	90	–	–	–	90	–
December 31, 2019 – Brent at 62.74$/b	–	–	77	–	–	–	77	–
DECEMBER 31, 2020 – BRENT AT 41.32$/b	**–**	**–**	**46**	**–**	**–**	**–**	**46**	**–**

Proved developed and undeveloped reserves	Equity affiliates*						
	Oil						
(in million barrels)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
BALANCE AS OF DECEMBER 31, 2017 – BRENT AT 54.36$/b	**–**	**284**	**11**	**410**	**140**	**–**	**845**
Revisions of previous estimates	–	54	–	57	(3)	–	108
Extensions, discoveries and other	–	–	–	–	–	–	–
Acquisitions of minerals in place	–	10	–	–	–	–	10
Sales of minerals in place	–	(5)	–	–	–	–	(5)
Production for the year	–	(26)	(2)	(54)	(8)	–	(90)
BALANCE AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b	**–**	**317**	**9**	**413**	**129**	**–**	**868**
Revisions of previous estimates	–	6	(0)	32	(35)	–	3
Extensions, discoveries and other	–	24	–	18	–	–	42
Acquisitions of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production for the year	–	(27)	(2)	(48)	(2)	–	(79)
BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b	**–**	**320**	**7**	**415**	**92**	**–**	**834**
Revisions of previous estimates	–	24	6	9	(16)	–	23
Extensions, discoveries and other	–	13	–	5	–	–	18
Acquisitions of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production for the year	–	(27)	(2)	(45)	–	–	(74)
BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b	**–**	**330**	**11**	**384**	**76**	**–**	**801**

* There are no bitumen reserves for equity affiliates.

Proved developed and undeveloped reserves	Consolidated subsidiaries and equity affiliates*							
	Oil							Bitumen
(in million barrels)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total	Americas
AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b								
Proved developed and undeveloped reserves[(a)]	**1,060**	**325**	**1,138**	**2,100**	**409**	**174**	**5,206**	**843**
Consolidated subsidiaries	1,060	8	1,129	1,687	280	174	4,338	843
Equity affiliates	–	317	9	413	129	–	868	–
Proved developed reserves	**698**	**196**	**928**	**1,750**	**164**	**118**	**3,854**	**512**
Consolidated subsidiaries	698	6	927	1,430	106	118	3,285	512
Equity affiliates	–	190	1	320	58	–	569	–
Proved undeveloped reserves	**362**	**129**	**210**	**350**	**245**	**56**	**1,352**	**331**
Consolidated subsidiaries	362	2	202	257	174	56	1,053	331
Equity affiliates	–	127	8	93	71	–	299	–
AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b								
Proved developed and undeveloped reserves[(a)]	**1,031**	**328**	**1,039**	**2,173**	**462**	**167**	**5,200**	**806**
Consolidated subsidiaries	1,031	8	1,032	1,758	370	167	4,366	806
Equity affiliates	–	320	7	415	92	–	834	–
Proved developed reserves	**859**	**199**	**900**	**1,718**	**155**	**114**	**3,945**	**497**
Consolidated subsidiaries	859	7	899	1,402	113	114	3,394	497
Equity affiliates	–	192	1	316	42	–	551	–
Proved undeveloped reserves	**172**	**129**	**139**	**455**	**307**	**53**	**1,255**	**309**
Consolidated subsidiaries	172	1	133	356	257	53	972	309
Equity affiliates	–	128	6	99	50	–	283	–
AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b								
Proved developed and undeveloped reserves[(a)]	**992**	**340**	**917**	**2,345**	**591**	**152**	**5,337**	**467**
Consolidated subsidiaries	992	10	906	1,961	515	152	4,536	467
Equity affiliates	–	330	11	384	76	–	801	–
Proved developed reserves	**811**	**195**	**781**	**1,882**	**205**	**104**	**3,978**	**136**
Consolidated subsidiaries	811	8	779	1,589	162	104	3,453	136
Equity affiliates	–	187	2	293	43	–	525	–
Proved undeveloped reserves	**181**	**145**	**136**	**463**	**386**	**48**	**1,359**	**331**
Consolidated subsidiaries	181	2	127	372	353	48	1,083	331
Equity affiliates	–	143	9	91	33	–	276	–

(a) The tables do not include separate figures for NGL reserves because they represented less than 8.5% of the Group's proved developed and undeveloped oil reserves in each of the years 2018, 2019 and 2020.
* There are no bitumen reserves for equity affiliates.

9.1.4.3 Changes in gas reserves

Proved developed and undeveloped reserves (in billion cubic feet)	Consolidated subsidiaries						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
BALANCE AS OF DECEMBER 31, 2017 – BRENT AT 54.36$/b	**4,132**	**7**	**2,431**	**1,290**	**4,066**	**4,078**	**16,004**
Revisions of previous estimates	481	1	39	(21)	24	141	665
Extensions, discoveries and other	176	–	191	214	141	29	751
Acquisitions of minerals in place	516	–	–	130	14	–	660
Sales of minerals in place	(362)	–	(5)	–	–	(343)	(710)
Production for the year	(515)	–	(257)	(110)	(421)	(273)	(1,576)
BALANCE AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b	**4,428**	**8**	**2,399**	**1,503**	**3,824**	**3,632**	**15,794**
Revisions of previous estimates	115	(0)	76	40	142	114	487
Extensions, discoveries and other	4	–	–	–	79	178	261
Acquisitions of minerals in place	104	–	2,272	5	–	–	2,381
Sales of minerals in place	(10)	–	–	–	(2)	–	(12)
Production for the year	(514)	(1)	(236)	(129)	(405)	(368)	(1,653)
BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b	**4,127**	**7**	**4,511**	**1,419**	**3,638**	**3,556**	**17,258**
Revisions of previous estimates	354	1	59	63	10	99	586
Extensions, discoveries and other	–	–	92	–	50	142	284
Acquisitions of minerals in place	–	–	–	216	–	–	216
Sales of minerals in place	(3)	–	–	–	–	(2)	(5)
Production for the year	(509)	(1)	(227)	(123)	(401)	(385)	(1,646)
BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b	**3,969**	**7**	**4,435**	**1,575**	**3,298**	**3,409**	**16,693**
Minority interest in proved developed and undeveloped reserves as of							
December 31, 2018 – Brent at 71.43$/b	–	–	43	–	–	–	43
December 31, 2019 – Brent at 62.74$/b	–	–	44	–	–	–	44
DECEMBER 31, 2020 – BRENT AT 41.32$/b	**–**	**–**	**25**	**–**	**–**	**–**	**25**

Proved developed and undeveloped reserves	Equity affiliates						
(in billion cubic feet)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
BALANCE AS OF DECEMBER 31, 2017 – BRENT AT 54.36$/b	**–**	**11,671**	**276**	**4,513**	**42**	**–**	**16,502**
Revisions of previous estimates	–	394	(9)	28	11	–	424
Extensions, discoveries and other	–	60	–	–	–	–	60
Acquisitions of minerals in place	–	489	–	–	–	–	489
Sales of minerals in place	–	(112)	–	–	–	–	(112)
Production for the year	–	(616)	(30)	(184)	(2)	–	(832)
BALANCE AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b	**–**	**11,886**	**237**	**4,357**	**51**	**–**	**16,531**
Revisions of previous estimates	–	425	(1)[a]	45	(14)	–	455[a]
Extensions, discoveries and other	–	2,786	–	–	–	–	2,786
Acquisitions of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production for the year	–	(798)	(33)[a]	(184)	(0)	–	(1,015)[a]
BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b	**–**	**14,299**	**203**	**4,218**	**37**	**–**	**18,757**
Revisions of previous estimates	–	202	186	3	(16)	–	375
Extensions, discoveries and other	–	401	–	–	–	–	401
Acquisitions of minerals in place	–	–	–	–	–	–	–
Sales of minerals in place	–	–	–	–	–	–	–
Production for the year	–	(788)	(35)	(183)	–	–	(1,006)
BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b	**–**	**14,114**	**354**	**4,038**	**21**	**–**	**18,527**

(a) Data restated.

Proved developed and undeveloped reserves (in billion cubic feet)	Consolidated subsidiaries and equity affiliates						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
AS OF DECEMBER 31, 2018 – BRENT AT 71.43$/b							
Proved developed and undeveloped reserves	**4,428**	**11,894**	**2,636**	**5,860**	**3,875**	**3,632**	**32,325**
Consolidated subsidiaries	4,428	8	2,399	1,503	3,824	3,632	15,794
Equity affiliates	–	11,886	237	4,357	51	–	16,531
Proved developed reserves	**3,050**	**6,426**	**1,658**	**5,233**	**3,213**	**2,219**	**21,799**
Consolidated subsidiaries	3,050	4	1,625	1,224	3,188	2,219	11,310
Equity affiliates	–	6,422	33	4,009	25	–	10,489
Proved undeveloped reserves	**1,378**	**5,468**	**978**	**627**	**662**	**1,413**	**10,526**
Consolidated subsidiaries	1,378	4	774	279	636	1,413	4,484
Equity affiliates	–	5,464	204	348	26	–	6,042
AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b							
Proved developed and undeveloped reserves	**4,127**	**14,306**	**4,714**	**5,637**	**3,675**	**3,556**	**36,015**
Consolidated subsidiaries	4,127	7	4,511	1,419	3,638	3,556	17,258
Equity affiliates	–	14,299	203	4,218	37	–	18,757
Proved developed reserves	**3,137**	**7,018**	**1,547**	**5,009**	**3,237**	**2,152**	**22,100**
Consolidated subsidiaries	3,137	4	1,526	1,141	3,219	2,152	11,179
Equity affiliates	–	7,014	21	3,868	18	–	10,921
Proved undeveloped reserves	**990**	**7,288**	**3,167**	**628**	**438**	**1,404**	**13,915**
Consolidated subsidiaries	990	3	2,985	278	419	1,404	6,079
Equity affiliates	–	7,285	182	350	19	–	7,836
AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b							
Proved developed and undeveloped reserves	**3,969**	**14,121**	**4,789**	**5,613**	**3,319**	**3,409**	**35,220**
Consolidated subsidiaries	3,969	7	4,435	1,575	3,298	3,409	16,693
Equity affiliates	–	14,114	354	4,038	21	–	18,527
Proved developed reserves	**2,602**	**6,864**	**1,470**	**4,862**	**2,915**	**2,212**	**20,925**
Consolidated subsidiaries	2,602	5	1,429	1,224	2,908	2,212	10,380
Equity affiliates	–	6,859	41	3,638	7	–	10,545
Proved undeveloped reserves	**1,367**	**7,257**	**3,319**	**751**	**404**	**1,197**	**14,295**
Consolidated subsidiaries	1,367	2	3,006	351	390	1,197	6,313
Equity affiliates	–	7,255	313	400	14	–	7,982

9.1.5 Results of operations for oil and gas producing activities

The following tables do not include revenues and expenses related to oil and gas transportation activities and LNG liquefaction and transportation.

	Consolidated subsidiaries						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018							
Revenues Non-Group sales	2,199	–	1,899	2,331	1,109	1,384	8,922
Group sales	6,686	86	10,702	6,760	1,730	222	26,186
Total Revenues	**8,885**	**86**	**12,601**	**9,091**	**2,839**	**1,606**	**35,108**
Production costs	(1,546)	(14)	(1,208)	(617)	(864)	(147)	(4,396)
Exploration expenses	(297)	(1)	(144)	(45)	(218)	(93)	(798)
Depreciation, depletion and amortization and valuation allowances	(2,464)	(33)	(4,400)	(1,227)	(1,356)	(1,066)	(10,546)
Other expenses[(a)]	(395)	(12)	(993)	(5,561)	(423)	(141)	(7,525)
Pre-tax income from producing activities[(b)]	**4,183**	**26**	**5,856**	**1,641**	**(22)**	**159**	**11,843**
Income tax	(2,356)	(16)	(2,440)	(868)	88	(25)	(5,617)
Results of oil and gas producing activities[(b)]	**1,827**	**10**	**3,416**	**773**	**66**	**134**	**6,226**

(a) Included production taxes and accretion expense as provided by IAS 37 ($515 million in 2018).
(b) Including adjustment items applicable to ASC 932 perimeter, amounting to a net charge of $1,238 million before tax and $703 million after tax, related to asset impairments.

(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2019							
Revenues Non-Group sales	1,011	–	1,260	1,686	972	2,171	7,100
Group sales	6,383	83	11,286	7,369	2,110	390	27,621
Total Revenues	**7,394**	**83**	**12,546**	**9,055**	**3,082**	**2,561**	**34,721**
Production costs	(1,521)	(12)	(1,249)	(639)	(873)	(239)	(4,533)
Exploration expenses	(230)	(2)	(65)	(24)	(392)	(72)	(785)
Depreciation, depletion and amortization and valuation allowances	(2,238)	(100)	(5,556)	(798)	(1,924)	(1,019)	(11,635)
Other expenses[(a)]	(456)	(12)	(918)	(5,560)	(392)	(173)	(7,511)
Pre-tax income from producing activities[(b)]	**2,949**	**(43)**	**4,758**	**2,034**	**(499)**	**1,058**	**10,257**
Income tax	(1,564)	13	(2,004)	(814)	309	(108)	(4,168)
Results of oil and gas producing activities[(b)]	**1,385**	**(30)**	**2,754**	**1,220**	**(190)**	**950**	**6,089**

(a) Included production taxes and accretion expense as provided by IAS 37 ($615 million in 2019).
(b) Including adjustment items applicable to ASC 932 perimeter, amounting to a net charge of $899 million before tax and $392 million after tax, related to asset impairments.

(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2020							
Revenues Non-Group sales	700	–	677	981	708	1,713	4,779
Group sales	3,806	24	5,540	4,229	1,068	397	15,064
Total Revenues	**4,506**	**24**	**6,217**	**5,210**	**1,776**	**2,110**	**19,843**
Production costs	(1,317)	(11)	(1,097)	(624)	(774)	(241)	(4,064)
Exploration expenses	(157)	(1)	(159)	(53)	(305)	(56)	(731)
Depreciation, depletion and amortization and valuation allowances	(2,456)	(51)	(4,565)	(697)	(7,950)	(1,612)	(17,331)
Other expenses[(a)]	(358)	(8)	(614)	(2,778)	(339)	(132)	(4,229)
Pre-tax income from producing activities[(b)]	**218**	**(47)**	**(218)**	**1,058**	**(7,592)**	**69**	**(6,512)**
Income tax	(176)	2	270	(269)	384	(79)	132
Results of oil and gas producing activities[(b)]	**42**	**(45)**	**52**	**789**	**(7,208)**	**(10)**	**(6,380)**

(a) Included production taxes and accretion expense as provided by IAS 37 ($548 million in 2020).
(b) Including adjustment items applicable to ASC 932 perimeter, amounting to a net charge of $7,911 million before tax and $7,450 million after tax, related to asset impairments.

	Equity affiliates						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018							
Revenues Non-Group sales	–	1,915	122	3,429	346	–	5,812
Group sales	–	45	32	941	–	–	1,018
Total Revenues	**–**	**1,960**	**154**	**4,370**	**346**	**–**	**6,830**
Production costs	–	(139)	–	(399)	(49)	–	(587)
Exploration expenses	–	(14)	–	–	–	–	(14)
Depreciation, depletion and amortization and valuation allowances	–	(196)	–	(253)	(68)	–	(517)
Other expenses	–	(239)	(32)	(2,548)	(185)	–	(3,004)
Pre-tax income from producing activities	**–**	**1,372**	**122**	**1,170**	**44**	**–**	**2,708**
Income tax	–	(228)	–	(424)	(3)	–	(655)
Results of oil and gas producing activities	**–**	**1,144**	**122**	**746**	**41**	**–**	**2,053**
2019							
Revenues Non-Group sales	–	2,317	67	3,128	41	–	5,553
Group sales	–	–	–	606	–	–	606
Total Revenues	**–**	**2,317**	**67**	**3,734**	**41**	**–**	**6,159**
Production costs	–	(182)	–	(311)	(19)	–	(512)
Exploration expenses	–	(30)	–	–	–	–	(30)
Depreciation, depletion and amortization and valuation allowances	–	(254)	–	(227)	(23)	–	(504)
Other expenses	–	(230)	(9)	(2,086)	(39)	–	(2,364)
Pre-tax income from producing activities	**–**	**1,621**	**58**	**1,110**	**(40)**	**–**	**2,749**
Income tax	–	(222)	–	(469)	13	–	(678)
Results of oil and gas producing activities	**–**	**1,399**	**58**	**641**	**(27)**	**–**	**2,071**
2020							
Revenues Non-Group sales	–	1,608	–	1,505	–	–	3,113
Group sales	–	–	–	607	–	–	607
Total Revenues	**–**	**1,608**	**–**	**2,112**	**–**	**–**	**3,720**
Production costs	–	(179)	–	(251)	(6)	–	(436)
Exploration expenses	–	(29)	–	–	–	–	(29)
Depreciation, depletion and amortization and valuation allowances	–	(222)	–	(246)	(4)	–	(472)
Other expenses	–	(186)	(20)	(970)	10	–	(1,166)
Pre-tax income from producing activities	**–**	**992**	**(20)**	**645**	**–**	**–**	**1,617**
Income tax	–	(149)	–	(241)	–	–	(390)
Results of oil and gas producing activities	**–**	**843**	**(20)**	**404**	**–**	**–**	**1,227**

9.1.6 Cost incurred

The following tables set forth the costs incurred in the Group's oil and gas property acquisition, exploration and development activities, including both capitalized and expensed amounts. They do not include costs incurred related to oil and gas transportation and LNG liquefaction and transportation activities.

	Consolidated subsidiaries						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018[b]							
Proved property acquisition	2,899	–	210	473	1,417	–	4,999
Unproved property acquisition	3,173	–	245	2,337	2,137	1	7,893
Exploration costs	379	1	196	34	406	156	1,172
Development costs[a]	1,642	23	3,252	1,378	1,649	1,346	9,290
TOTAL COST INCURRED	**8,093**	**24**	**3,903**	**4,222**	**5,609**	**1,503**	**23,354**
2019[c]							
Proved property acquisition	16	–	244	10	14	–	284
Unproved property acquisition	7	–	3,124	42	509	3	3,685
Exploration costs	262	2	198	78	469	84	1,093
Development costs[a]	2,273	28	2,724	1,074	1,547	598	8,244
TOTAL COST INCURRED	**2,558**	**30**	**6,290**	**1,204**	**2,539**	**685**	**13,306**
2020[d]							
Proved property acquisition	14	–	3	3	–	1	21
Unproved property acquisition	–	–	1,016	13	15	–	1,044
Exploration costs	182	1	312	118	485	58	1,156
Development costs[a]	2,410	31	1,215	1,024	1,042	238	5,960
TOTAL COST INCURRED	**2,606**	**32**	**2,546**	**1,158**	**1,542**	**297**	**8,181**

	Equity affiliates						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018							
Proved property acquisition	–	153	–	–	–	–	153
Unproved property acquisition	–	9	–	–	–	–	9
Exploration costs	–	–	–	3	–	–	3
Development costs[a]	–	204	–	590	67	–	861
TOTAL COST INCURRED	**–**	**366**	**–**	**593**	**67**	**–**	**1,026**
2019							
Proved property acquisition	–	–	–	–	–	–	–
Unproved property acquisition	–	1,673	–	–	–	–	1,673
Exploration costs	–	–	–	5	–	–	5
Development costs[a]	–	390	–	400	4	–	794
TOTAL COST INCURRED	**–**	**2,063**	**–**	**405**	**4**	**–**	**2,472**
2020							
Proved property acquisition	–	120	–	–	–	–	120
Unproved property acquisition	–	–	–	–	–	–	–
Exploration costs	–	–	–	5	–	–	5
Development costs[a]	–	455	–	479	–	–	934
TOTAL COST INCURRED	**–**	**575**	**–**	**484**	**–**	**–**	**1,059**

(a) Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.
(b) Including costs incurred relating to acquisitions of Maersk Oil, Iara and Lapa concessions and Marathon Oil Libya Ltd.
(c) Including costs incurred relating to acquisitions of Anadarko in Mozambique.
(d) Including costs incurred relating to acquisitions of Anadarko in South Africa, B20-21 in Angola and Tulow's interests in Uganda.

9.1.7 Capitalized costs related to oil and gas producing activities

Capitalized costs represent the amount of capitalized proved and unproved property costs, including support equipment and facilities, along with the related accumulated depreciation, depletion and amortization. The following tables do not include capitalized costs related to oil and gas transportation and LNG liquefaction and transportation activities.

	Consolidated subsidiaries						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
As of December 31, 2018							
Proved properties	58,981	641	82,077	15,684	28,744	26,122	212,249
Unproved properties	2,873	4	4,631	2,802	8,969	1,708	20,987
TOTAL CAPITALIZED COSTS	**61,854**	**645**	**86,708**	**18,486**	**37,713**	**27,830**	**233,236**
Accumulated depreciation, depletion and amortization	(35,036)	(454)	(50,029)	(10,012)	(14,398)	(16,682)	(126,611)
Net capitalized costs	**26,818**	**191**	**36,679**	**8,474**	**23,315**	**11,148**	**106,625**
As of December 31, 2019							
Proved properties	61,556	669	84,170	16,773	29,580	25,705	218,453
Unproved properties	2,720	4	8,253	2,998	8,987	1,792	24,754
TOTAL CAPITALIZED COSTS	**64,276**	**673**	**92,423**	**19,771**	**38,567**	**27,497**	**243,207**
Accumulated depreciation, depletion and amortization	(36,815)	(551)	(55,686)	(10,720)	(15,414)	(17,645)	(136,831)
NET CAPITALIZED COSTS	**27,461**	**122**	**36,737**	**9,051**	**23,153**	**9,852**	**106,376**
As of December 31, 2020							
Proved properties	65,964	700	84,556	17,913	31,235	25,628	225,996
Unproved properties	2,658	4	10,253	2,762	8,758	1,696	26,131
TOTAL CAPITALIZED COSTS	**68,622**	**704**	**94,809**	**20,675**	**39,993**	**27,324**	**252,127**
Accumulated depreciation, depletion and amortization	(40,749)	(602)	(60,270)	(11,260)	(23,525)	(19,954)	(156,360)
NET CAPITALIZED COSTS	**27,873**	**102**	**34,539**	**9,415**	**16,468**	**7,370**	**95,767**

	Equity affiliates						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
As of December 31, 2018							
Proved properties	–	6,268	–	3,463	1,743	–	11,474
Unproved properties	–	132	–	–	–	–	132
TOTAL CAPITALIZED COSTS	**–**	**6,400**	**–**	**3,463**	**1,743**	**–**	**11,606**
Accumulated depreciation, depletion and amortization	–	(1,461)	–	(1,856)	(660)	–	(3,977)
Net capitalized costs	**–**	**4,939**	**–**	**1,607**	**1,083**	**–**	**7,629**
As of December 31, 2019							
Proved properties	–	9,004	–	3,791	1,699	–	14,494
Unproved properties	–	110	–	–	–	–	110
TOTAL CAPITALIZED COSTS	**–**	**9,114**	**–**	**3,791**	**1,699**	**–**	**14,604**
Accumulated depreciation, depletion and amortization	–	(1,995)	–	(2,036)	(681)	–	(4,712)
NET CAPITALIZED COSTS	**–**	**7,119**	**–**	**1,755**	**1,018**	**–**	**9,892**
As of December 31, 2020							
Proved properties	–	8,749	–	4,282	1,699	–	14,730
Unproved properties	–	62	–	–	–	–	62
TOTAL CAPITALIZED COSTS	**–**	**8,811**	**–**	**4,282**	**1,699**	**–**	**14,792**
Accumulated depreciation, depletion and amortization	–	(2,034)	–	(2,249)	(686)	–	(4,969)
NET CAPITALIZED COSTS	**–**	**6,777**	**–**	**2,033**	**1,013**	**–**	**9,823**

9.1.8 Standardized measure of discounted future net cash flows (excluding transportation)

The standardized measure of discounted future net cash flows relating to proved oil and gas reserve quantities was developed as follows:

- estimates of proved reserves and the corresponding production profiles are based on existing technical and economic conditions;
- the estimated future cash flows are determined based on prices used in estimating the Group's proved oil and gas reserves;
- the future cash flows incorporate estimated production costs (including production taxes), future development costs and asset retirement costs. All cost estimates are based on year-end technical and economic conditions;
- future income taxes are computed by applying the year-end statutory tax rate to future net cash flows after consideration of permanent differences and future income tax credits; and
- future net cash flows are discounted at a standard discount rate of 10%.

These principles applied are those required by ASC 932 and do not reflect the expectations of real revenues from these reserves, nor their present value; hence, they do not constitute criteria for investment decisions. An estimate of the fair value of reserves should also take into account, among other things, the recovery of reserves not presently classified as proved, anticipated future changes in prices and costs and a discount factor more representative of the time value of money and the risks inherent in reserves estimates.

	Consolidated subsidiaries						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
As of December 31, 2018							
Future cash inflows	90,506	508	79,258	121,614	41,224	19,936	353,046
Future production costs	(21,813)	(226)	(19,236)	(95,749)	(21,282)	(4,570)	(162,876)
Future development costs	(17,735)	(135)	(13,861)	(6,656)	(6,584)	(3,093)	(48,064)
Future income taxes	(22,486)	(63)	(16,357)	(5,965)	(2,322)	(2,809)	(50,002)
Future net cash flows, after income taxes	**28,472**	**84**	**29,804**	**13,244**	**11,036**	**9,464**	**92,104**
Discount at 10%	(11,811)	(16)	(8,277)	(5,469)	(5,479)	(3,247)	(34,299)
Standardized measure of discounted future net cash flows	**16,661**	**68**	**21,527**	**7,775**	**5,557**	**6,217**	**57,805**
As of December 31, 2019							
Future cash inflows	70,868	436	70,854	110,796	50,810	19,953	323,717
Future production costs	(18,957)	(224)	(18,940)	(85,511)	(20,843)	(5,187)	(149,662)
Future development costs	(15,668)	(107)	(14,942)	(7,865)	(9,171)	(3,014)	(50,767)
Future income taxes	(12,932)	(46)	(12,341)	(4,887)	(1,790)	(1,867)	(33,863)
Future net cash flows, after income taxes	**23,311**	**59**	**24,631**	**12,533**	**19,006**	**9,885**	**89,425**
Discount at 10%	(10,029)	(11)	(10,004)	(5,143)	(10,061)	(3,588)	(38,836)
Standardized measure of discounted future net cash flows	**13,282**	**48**	**14,627**	**7,390**	**8,945**	**6,297**	**50,589**
As of December 31, 2020							
Future cash inflows	43,152	341	39,525	85,550	32,649	13,099	214,316
Future production costs	(13,573)	(208)	(13,333)	(65,377)	(14,028)	(3,994)	(110,513)
Future development costs	(12,920)	(110)	(13,150)	(7,948)	(8,873)	(3,272)	(46,273)
Future income taxes	(3,161)	(16)	(4,682)	(2,741)	(859)	(736)	(12,195)
Future net cash flows, after income taxes	**13,498**	**7**	**8,360**	**9,484**	**8,889**	**5,097**	**45,335**
Discount at 10%	(6,743)	7	(4,124)	(3,705)	(4,885)	(1,453)	(20,903)
Standardized measure of discounted future net cash flows	**6,755**	**14**	**4,236**	**5,779**	**4,004**	**3,644**	**24,432**
Minority interests in future net cash flows as of							
December 31, 2018	–	–	1,440	–	–	–	1,440
December 31, 2019	–	–	968	–	–	–	968
DECEMBER 31, 2020	**–**	**–**	**61**	**–**	**–**	**–**	**61**

	Equity affiliates						
(M$)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
As of December 31, 2018							
Future cash inflows	–	40,376	1,368	48,144	6,969	–	96,857
Future production costs	–	(11,136)	(47)	(21,248)	(3,372)	–	(35,803)
Future development costs	–	(1,118)	(28)	(2,731)	(326)	–	(4,203)
Future income taxes	–	(4,825)	–	(11,631)	(1,233)	–	(17,689)
Future net cash flows, after income taxes	**–**	**23,297**	**1,293**	**12,534**	**2,038**	**–**	**39,162**
Discount at 10%	–	(12,454)	(658)	(6,279)	(1,019)	–	(20,410)
Standardized measure of discounted future net cash flows	**–**	**10,843**	**635**	**6,255**	**1,019**	**–**	**18,752**
As of December 31, 2019							
Future cash inflows	–	43,959	326	39,513	3,970	–	87,768
Future production costs	–	(9,904)	(44)	(17,392)	(2,062)	–	(29,402)
Future development costs	–	(1,894)	(44)	(3,272)	(242)	–	(5,452)
Future income taxes	–	(4,499)	–	(9,852)	(996)	–	(15,347)
Future net cash flows, after income taxes	**–**	**27,662**	**238**	**8,997**	**670**	**–**	**37,567**
Discount at 10%	–	(16,507)	(156)	(4,626)	(406)	–	(21,695)
Standardized measure of discounted future net cash flows	**–**	**11,155**	**82**	**4,371**	**264**	**–**	**15,872**
As of December 31, 2020							
Future cash inflows	–	29,006	45	23,121	1,915	–	54,087
Future production costs	–	(8,505)	(38)	(15,457)	(964)	–	(24,964)
Future development costs	–	(1,881)	–	(3,321)	(208)	–	(5,410)
Future income taxes	–	(1,875)	–	(571)	(657)	–	(3,103)
Future net cash flows, after income taxes	**–**	**16,745**	**7**	**3,772**	**86**	**–**	**20,610**
Discount at 10%	–	(9,752)	13	(2,160)	(119)	–	(12,018)
Standardized measure of discounted future net cash flows	**–**	**6,993**	**20**	**1,612**	**(33)**	**–**	**8,592**

9.1.9 Changes in the standardized measure of discounted future net cash flows

Consolidated subsidiaries *(M$)*	2018	2019	2020
Discounted future net cash flows at January 1	**37,097**	**57,805**	**50,589**
Sales and transfers, net of production costs	(23,700)	(23,292)	(12,095)
Net change in sales and transfer prices and in production costs and other expenses	28,420	(15,484)	(55,732)
Extensions, discoveries and improved recovery	8,412	558	335
Changes in estimated future development costs	(1,071)	(1,735)	(1,000)
Previously estimated development costs incurred during the year	6,636	6,755	7,419
Revisions of previous quantity estimates	4,588	7,845	13,635
Accretion of 10% discount	3,710	5,780	5,059
Net change in income taxes	(11,538)	12,146	15,919
Purchases of reserves in place	7,876	266	329
Sales of reserves in place	(2,625)	(55)	(26)
END OF YEAR	**57,805**	**50,589**	**24,432**

Equity affiliates *(M$)*	2018	2019	2020
Discounted future net cash flows at January 1	**14,942**	**18,752**	**15,872**
Sales and transfers, net of production costs)	(3,248)	(3,160)	(2,133)
Net change in sales and transfer prices and in production costs and other expenses	7,322	(8,191)	(12,705)
Extensions, discoveries and improved recovery	76	4,386	234
Changes in estimated future development costs	(255)	(736)	(172)
Previously estimated development costs incurred during the year	789	845	851
Revisions of previous quantity estimates	1,030	(104)	(1,868)
Accretion of 10% discount	1,494	1,875	1,587
Net change in income taxes	(3,691)	2,205	6,926
Purchases of reserves in place	388	–	–
Sales of reserves in place	(95)	–	–
END OF YEAR	**18,752**	**15,872**	**8,592**

9.2 Other information

9.2.1 Natural Gas Production available for sale

	Consolidated subsidiaries						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018							
Natural Gas production available for sale[a] *(Bcf)*	480	–	215	91	413	262	1,461
2019							
Natural Gas production available for sale[a] *(Bcf)*	476	–	177	110	395	348	1,506
2020							
Natural Gas production available for sale[a] *(Bcf)*	474	–	185	107	389	375	1,530

(a) The reported volumes are different from those shown in the reserves table due to gas consumed in operations.

	Equity affiliates						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018							
Natural Gas production available for sale[a] *(Bcf)*	–	586	26	173	–	–	785
2019							
Natural Gas production available for sale[a] *(Bcf)*	–	747	31[b]	175	–	–	953[b]
2020							
Natural Gas production available for sale[a] *(Bcf)*	–	735	30	174	–	–	939

(a) The reported volumes are different from those shown in the reserves table due to gas consumed in operations.
(b) Data restated.

9.2.2 Production prices

	Consolidated subsidiaries						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018[a]							
Oil *($/b)*[b]	61.71	59.88	67.17	69.56	50.29	66.29	65.72
Bitumen *($/b)*	–	–	–	–	11.48	–	11.48
Natural Gas *($/kcf)*	6.58	–	2.05	2.06	2.89	4.86	4.30
2019[a]							
Oil *($/b)*[b]	55.83	52.11	60.97	63.42	43.09	46.61	59.25
Bitumen *($/b)*	–	–	–	–	30.53	–	30.53
Natural Gas *($/kcf)*	3.76	–	1.83	2.54	2.49	5.01	3.42
2020[a]							
Oil *($/b)*[b]	32.50	33.59	36.44	39.14	31.33	32.94	35.73
Bitumen *($/b)*	–	–	–	–	11.29	–	11.29
Natural Gas *($/kcf)*	2.15	–	1.28	2.10	1.76	4.67	2.54

(a) The volumes used for calculation of the average sales prices are the ones sold from the Group's own production.
(b) The reported price represents an average aggregate price of prices for crude oil, condensates and NGL. The table does not include separate figures for NGL production prices because the production of NGL represented less than 7.5% of the Group's total liquids production in each of the years 2018, 2019 and 2020.

	Equity affiliates						
	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018[(a)]							
Oil *($/b)*[(b)]	–	38.85	–	64.41	50.80	–	56.13
Bitumen *($/b)*	–	–	–	–	–	–	–
Natural Gas *($/kcf)*	–	2.38	5.11	5.92	–	–	3.26
2019[(a)]							
Oil *($/b)*[(b)]	–	35.15	–	60.30	19.36	–	50.15
Bitumen *($/b)*	–	–	–	–	–	–	–
Natural Gas *($/kcf)*	–	2.07	3.83	6.55	–	–	2.74
2020[(a)]							
Oil *($/b)*[(b)]	–	21.91	–	39.95	–	–	32.84
Bitumen *($/b)*	–	–	–	–	–	–	–
Natural Gas *($/kcf)*	–	1.80	–	3.05	–	–	1.91

(a) The volumes used for calculation of the average sales prices are the ones sold from the Group's own production.
(b) The reported price represents an average aggregate price of prices for crude oil, condensates and NGL. The table does not include separate figures for NGL production prices because the production of NGL represented less than 7.5% of the Group's total liquids production in each of the years 2018, 2019 and 2020.

9.2.3 Production costs

	Consolidated subsidiaries						
(in $/boe)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018[(a)]							
Oil, bitumen and natural gas	8.44	9.72	5.27	4.08	6.54	2.97	5.89
Of which bitumen	–	–	–	–	13.69	–	13.69
2019[(a)]							
Oil, bitumen and natural gas	8.04	7.81	5.19	3.73	6.75	3.13	5.60
Of which bitumen	–	–	–	–	15.28	–	15.28
2020[(a)]							
Oil, bitumen and natural gas	6.63	6.91	5.14	4.27	6.10	2.97	5.29
Of which bitumen	–	–	–	–	15.41	–	15.41

(a) The volumes of oil used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.

	Equity affiliates						
(in $/boe)	Europe and Central Asia (excl. Russia)	Russia	Africa (excl. North Africa)	Middle East and North Africa	Americas	Asia-Pacific	Total
2018[(a)]							
Oil, bitumen and natural gas	–	1.03	–	4.62	6.00	–	2.49
Of which bitumen	–	–	–	–	–	–	–
2019[(a)]							
Oil, bitumen and natural gas	–	1.10	–	3.90	8.96	–	2.01
Of which bitumen	–	–	–	–	–	–	–
2020[(a)]							
Oil, bitumen and natural gas	–	1.10	–	3.26	25.75	–	1.76
Of which bitumen	–	–	–	–	–	–	–

(a) The volumes of oil used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.

9.3 Report on the payments made to governments (Article L. 22-10-37 of the French Commercial Code)

Article L. 22-10-37 of the French Commercial Code[1] (formerly L. 225-102-3) requires large undertakings and public-interest entities that are active in the extractive industry or logging of primary forests to disclose in an annual report payments of at least 100,000 euros made to governments in the countries in which they operate.

The consolidated report of TOTAL is presented below pursuant to the aforementioned provisions. This report covers the aforementioned payments made by the Group's extractive companies as defined below, for the benefit of each government of states or territories in which TOTAL carries out its activities, by detailing the total amount of payments made, the total amount by payment type, the total amount by project and the total amount by payment type for each project. When payments were made in kind, valuated hydrocarbons' volumes are specified.

This report has been approved by the Board of Directors of TOTAL SE.

Definitions

The meaning of certain terms used in this report are set forth below:

Extractive Companies: TOTAL SE and any company of undertaking of which the activities consist, in whole or in part, of exploration, prospection, discovery, development and extraction of minerals, crude oil and natural gas, among others, fully consolidated by TOTAL SE.

Payment: a single payment of multiple interconnected payments of an amount equal to, or in excess of, 100,000 euros (or its equivalent) paid, whether in money or in kind, for extractive activities. Payment types included in this report are the following:

- **Taxes:** taxes and levies paid on income, production or profits, excluding taxes levied on consumption such as added value taxes, customs duties, personal income taxes and sales taxes.
- **Royalties:** percentage of production payable to the owner of mineral rights.
- **License Fees:** license fees, surface or rental fees, and other consideration for licenses and /or concessions that are paid for access to the area where the extractive activities will be conducted.
- **License bonus:** bonuses paid for and in consideration of signature, discovery, production, awards, grants and transfers of extraction rights; bonuses related to the achievement or failure to achieve certain production levels or certain targets, and discovery of additional mineral reserves /deposits.
- **Dividends:** dividends paid to a host government holding an interest in an Extractive Company.
- **Payments for Infrastructure Improvements:** payments for local development, including the improvement of infrastructure, not directly necessary for the conduct of extractive activities but mandatory pursuant to the terms of a production sharing contract or to the terms of a law relating to oil and gas activities.
- **Production entitlement:** host Government's share of production. This payment is generally made in kind.

Government: any national, regional or local authority of a country or territory, or any department, agency or undertaking controlled by that authority.

Project: operational activities governed by a single contract, license, lease, concession or similar legal agreement and that form the basis for payment liabilities with a Government. If multiple such agreements are substantially interconnected, they shall be considered as a single Project. Payments (such as company income tax when it concerns several projects which cannot be separated in application of the fiscal regulations) unable to be attributed to a Project are disclosed under the item "non-attributable".

Reporting principles

This report sets forth all payments as booked in the Extractive Companies' accounts. They are presented based on the Group share in each Project, whether the payments have been made directly by the Group Extractive Companies as operator or indirectly through third-party operating companies.

Production entitlement and Royalties that are mandatorily paid in kind and that are owed to host Governments pursuant to legal or contractual provisions (not booked in the Extractive Companies' accounts pursuant to accounting standards) are reported in proportion of the interest held by the Extractive Company in the Project as of the date on which such Production entitlements and Royalties are deemed to be acquired.

Payments in kind are estimated at fair value.

Fair value corresponds to the contractual price of hydrocarbons used to calculate Production entitlement, market price (if available) or an appropriate benchmark price. These prices might be calculated on an averaged basis over a given period.

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(1) Article L. 22-10-37 of the French Commercial Code (formerly L. 225-102-3) transposes certain provisions set out in Directive 2013/24/UE of the European Parliament and of the Council of June 26, 2013 (chapter 10).

9.3.1 Reporting by country and type of Payment

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
EUROPE AND CENTRAL ASIA	**681,193**	**–**	**27,085**	**2,304**	**–**	**12,261**	**46,617**	**769,460**
Bulgaria	–	–	300	–	–	–	–	300
Denmark	92,140	–	8,639	–	–	–	–	100,779
Greece	–	–	424	–	–	–	–	424
Italy	2,804	–	1,252	–	–	–	–	4,056
Kazakhstan	10,843	–	35	2,304	–	12,261	27,033	52,476
Netherlands	11,286	–	1,271	–	–	–	–	12,557
Norway	508,332	–	4,843	–	–	–	–	513,175
Russia	11,927	–	78	–	–	–	19,584	31,589
United Kingdom	43,861	–	10,243	–	–	–	–	54,104
AFRICA	**1,523,305**	**–**	**63,049**	**350,106**	**62,371**	**33,522**	**932,587**	**2,964,940**
Angola	502,881	–	11,698	350,053	–	–	907,577	1,772,209
Côte d'Ivoire	–	–	1,686	–	–	–	–	1,686
Gabon	92,929	–	4,412	–	62,371	16,160	–	175,872
Kenya	–	–	94	–	–	54	–	148
Mauritania	–	–	2,442	–	–	–	–	2,442
Mozambique	–	–	1,060	–	–	–	–	1,060
Nigeria	616,193	–	15,748	–	–	14,492	24,283	670,716
Republic of the Congo	311,302	–	14,817	53	–	2,599	727	329,498
São Tomé and Principe	–	–	181	–	–	–	–	181
Senegal	–	–	1,119	–	–	217	–	1,336
South Africa	–	–	617	–	–	–	–	617
Uganda	–	–	9,175	–	–	–	–	9,175
MIDDLE EAST AND NORTH AFRICA	**3,479,083**	**–**	**17,559**	**15,554**	**–**	**–**	**878,819**	**4,391,015**
Algeria	246,263	–	3,219	2,384	–	–	–	251,866
Cyprus	–	–	990	–	–	–	–	990
Egypt	–	–	781	778	–	–	–	1,559
Iraq	20,958	–	–	–	–	–	–	20,958
Lebanon	–	–	210	–	–	–	–	210
Libya	266,572	–	226	–	–	–	401,143	667,941
Oman	140,041	–	280	12,392	–	–	7,222	159,935
Qatar	102,100	–	–	–	–	–	470,454	572,554
United Arab Emirates	2,703,149	–	11,853	–	–	–	–	2,715,002
AMERICAS	**343,854**	**40,528**	**49,536**	**11,632**	**–**	**171**	**23,465**	**469,186**
Argentina	82,436	–	3,900	4,066	–	–	–	90,402
Bolivia	194,918	–	1,327	5,162	–	171	12,551	214,129
Brazil	51,416	–	1,112	–	–	–	10,914	63,442
Canada	–	9,253	22,589	–	–	–	–	31,842
France (French Guyana)	–	–	2,171	–	–	–	–	2,171
Guyana	–	–	164	–	–	–	–	164
Mexico	5,179	–	14,557	–	–	–	–	19,736
United States	9,905	31,275	3,716	2,404	–	–	–	47,300
ASIA PACIFIC	**485,885**	**–**	**333**	**46,935**	**–**	**–**	**174,817**	**707,970**
Australia	13,641	–	–	–	–	–	–	13,641
Brunei	74,140	–	5	–	–	–	3,269	77,414
China	16,898	–	–	–	–	–	27,547	44,445
Indonesia	5,526	–	–	–	–	–	5,466	10,992
Myanmar	37,306	–	–	–	–	–	138,535	175,841
Papua New Guinea	–	–	328	–	–	–	–	328
Thailand	338,374	–	–	46,935	–	–	–	385,309
TOTAL	**6,513,320**	**40,528**	**157,562**	**426,531**	**62,371**	**45,954**	**2,056,305**	**9,302,571**

9.3.2 Reporting of Payments by Project and by type of Payment, and by Government and by type of Payment

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
ALGERIA								
Payments per Project								
Groupement Berkine	137,343[(a)]	–	–	–	–	–	–	137,343
Organisation Orhoud	26,088[(b)]	–	–	–	–	–	–	26,088
Timimoun	7,467	–	2,412	–	–	–	–	9,879
Tin Fouyé Tabankort II	75,365	–	652	1,967	–	–	–	77,984
Tin Fouyé Tabankort Sud	–	–	155	417	–	–	–	572
TOTAL	**246,263**	**–**	**3,219**	**2,384**	**–**	**–**	**–**	**251,866**
Payments per Government								
Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach	163,431[(c)]	–	–	–	–	–	–	163,431
Direction Générale des Impôts, Direction des Grandes Entreprises	57,482	–	3,219	–	–	–	–	60,701
Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT)	25,350	–	–	–	–	–	–	25,350
Sonatrach	–	–	–	2,384	–	–	–	2,384
TOTAL	**246,263**	**–**	**3,219**	**2,384**	**–**	**–**	**–**	**251,866**

(a) Corresponds to the valuation of 2,960 kboe at fiscal selling prices for taxes of different natures.
(b) Corresponds to the valuation of 562 kboe at fiscal selling prices for taxes of different natures.
(c) Corresponds to the valuation of 3,523 kboe at fiscal selling prices for taxes of different natures.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
ANGOLA								
Payments per Project								
Block 0	118,085	–	1,074	–	–	–	–	119,159
Block 14	15,319	–	526	–	–	–	40,862[(a)]	56,707
Block 14k	601	–	59	53	–	–	727[(b)]	1,440
Block 16	–	–	331	–	–	–	–	331
Block 17	255,918	–	6,696	–	–	–	824,724[(c)]	1,087,338
Block 17/6	4	–	113	–	–	–	–	117
Block 20	–	–	–	52,500	–	–	–	52,500
Block 21	–	–	–	297,500	–	–	–	297,500
Block 25	32	–	–	–	–	–	–	32
Block 32	112,920	–	2,685	–	–	–	41,264[(d)]	156,869
Block 40	2	–	–	–	–	–	–	2
Block 48	–	–	214	–	–	–	–	214
TOTAL	**502,881**	**–**	**11,698**	**350,053**	**–**	**–**	**907,577**	**1,772,209**
Payments per Government								
Caixa do Tesouro Nacional	502,881	–	457	–	–	–	–	503,338
Sonangol P&P – Pesquisa e Produção, SARL	–	–	–	350,000[(e)]	–	–	–	350,000
Ministério dos Recursos Minerais, Petróleo e Gás	–	–	11,241	53	–	–	–	11,294
ANPG – Agência Nacional de Petróleo, Gás e Biocombustíveis	–	–	–	–	–	–	907,577[(f)]	907,577
TOTAL	**502,881**	**–**	**11,698**	**350,053**	**–**	**–**	**907,577**	**1,772,209**

(a) Corresponds to the valuation of 1,083 kboe at the weighted average fiscal price of the year.
(b) Corresponds to the valuation of 17 kboe at the weighted average fiscal price of the year.
(c) Corresponds to the valuation of 19,470 kboe at the weighted average fiscal price of the year.
(d) Corresponds to the valuation of 1,050 kboe at the weighted average fiscal price of the year.
(e) Purchase of working interests in the blocks 20 and 21 from Sonangol P&P, majority controlled by the Angolan State as of December 31, 2020.
(f) Corresponds to the valuation of 21,619 kboe at the weighted average fiscal price of the year.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
ARGENTINA								
Payments per Project								
Cuenca Argentina Norte – Block 111	–	–	13	–	–	–	–	13
Cuenca Argentina Norte – Block 113	–	–	14	–	–	–	–	14
Malvinas Ocidental – Block 123	–	–	6	–	–	–	–	6
Neuquen	19,485	–	441	4,066	–	–	–	23,992
Santa Cruz	–	–	69	–	–	–	–	69
Tierra del Fuego	36,296	–	3,357	–	–	–	–	39,653
Non-attributable	26,655	–	–	–	–	–	–	26,655
TOTAL	**82,436**	**–**	**3,900**	**4,066**	**–**	**–**	**–**	**90,402**
Payments per Government								
Administracion Federal de Ingresos Publicos	26,655	–	–	–	–	–	–	26,655
Secretaria de Energia, Republica Argentina	19,282	–	171	–	–	–	–	19,453
Provincia del Neuquen	19,485	–	441	3,878	–	–	–	23,804
Provincia de Tierra del Fuego	17,014	–	3,288	188	–	–	–	20,490
TOTAL	**82,436**	**–**	**3,900**	**4,066**	**–**	**–**	**–**	**90,402**
AUSTRALIA								
Payments per Project								
GLNG	13,641	–	–	–	–	–	–	13,641
TOTAL	**13,641**	**–**	**–**	**–**	**–**	**–**	**–**	**13,641**
Payments per Government								
Queensland Government, Office of State Revenue	13,641	–	–	–	–	–	–	13,641
TOTAL	**13,641**	**–**	**–**	**–**	**–**	**–**	**–**	**13,641**
BOLIVIA								
Payments per Project								
Aquio	24,372	–	143	–	–	–	–	24,515
Azero	–	–	741	–	–	101	–	842
Ipatí	111,276	–	226	–	–	70	–	111,572
Itaú	7,441	–	123	–	–	–	–	7,564
San Alberto	10,105	–	32	5,162	–	–	2,138[(a)]	17,437
San Antonio	41,724	–	62	–	–	–	10,413[(b)]	52,199
TOTAL	**194,918**	**–**	**1,327**	**5,162**	**–**	**171**	**12,551**	**214,129**
Payments per Government								
Yacimientos Petroliferos Fiscales Bolivianos (YPFB)	–	–	1,327	5,162	–	–	12,551[(c)]	19,040
Servicio de Impuestos Nacionales (SIN) c/o YPFB	124,747	–	–	–	–	–	–	124,747
Departamentos c/o YPFB	70,171	–	–	–	–	–	–	70,171
Fundesoc c/o Indigeneous Communities	–	–	–	–	–	171	–	171
TOTAL	**194,918**	**–**	**1,327**	**5,162**	**–**	**171**	**12,551**	**214,129**

(a) Corresponds to the valuation of 133 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(b) Corresponds to the valuation of 644 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(c) Corresponds to the valuation of 776 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
BRAZIL								
Payments per Project								
Barreirinhas	–	–	43	–	–	–	–	43
BMC-30	–	–	154	–	–	–	–	154
BMC-32	–	–	115	–	–	–	–	115
Ceara (CE-M-661)	–	–	76	–	–	–	–	76
Espirito Santo	–	–	17	–	–	–	–	17
Foz de Amazonas	–	–	33	–	–	–	–	33
Gato do Mato	–	–	56	–	–	–	–	56
Iara	24,845	–	–	–	–	–	–	24,845
Lapa	15,226	–	529	–	–	–	–	15,755
Libra	11,345	–	–	–	–	–	10,914[a]	22,259
Pelotas	–	–	43	–	–	–	–	43
Xerelete (BC-2)	–	–	33	–	–	–	–	33
Non-attributable	–	–	13	–	–	–	–	13
TOTAL	**51,416**	**–**	**1,112**	**–**	**–**	**–**	**10,914**	**63,442**
Payments per Government								
Agencia National de Petroleo, Gas Natural e Biocombustiveis	–	–	865	–	–	–	–	865
Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renovaveis (IBAMA)	–	–	247	–	–	–	–	247
Receita Federal	51,416	–	–	–	–	–	–	51,416
Pré-sal Petroleo (PPSA)	–	–	–	–	–	–	10,914[a]	10,914
TOTAL	**51,416**	**–**	**1,112**	**–**	**–**	**–**	**10,914**	**63,442**

(a) Corresponds to the valuation of 257 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
BRUNEI								
Payments per Project								
Block B	55,739	–	5	–	–	–	–	55,744
Block CA1	18,401	–	–	–	–	–	3,269	21,670
TOTAL	**74,140**	**–**	**5**	**–**	**–**	**–**	**3,269**	**77,414**
Payments per Government								
Brunei Government	64,237	–	5	–	–	–	–	64,242
Petroleum Authority of Brunei Darussalam	9,903	–	–	–	–	–	3,269	13,172
TOTAL	**74,140**	**–**	**5**	**–**	**–**	**–**	**3,269**	**77,414**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
BULGARIA								
Payments per Project								
Khan Asparuh	–	–	300	–	–	–	–	300
TOTAL	**–**	**–**	**300**	**–**	**–**	**–**	**–**	**300**
Payments per Government								
Ministry of Energy of Bulgaria	–	–	300	–	–	–	–	300
TOTAL	**–**	**–**	**300**	**–**	**–**	**–**	**–**	**300**
CANADA								
Payments per Project								
Deer Creek	–	–	10	–	–	–	–	10
Fort Hills	–	4,324	10,465	–	–	–	–	14,789
Northern Lights	–	–	63	–	–	–	–	63
Surmont	–	4,929	12,045	–	–	–	–	16,974
Other oil sands projects	–	–	6	–	–	–	–	6
TOTAL	**–**	**9,253**	**22,589**	**–**	**–**	**–**	**–**	**31,842**
Payments per Government								
Province of Alberta	–	9,253	2,207	–	–	–	–	11,460
Municipality of Wood Buffalo (Alberta)	–	–	20,118	–	–	–	–	20,118
Fort McKay First Nations (FMFN)	–	–	264	–	–	–	–	264
TOTAL	**–**	**9,253**	**22,589**	**–**	**–**	**–**	**–**	**31,842**
CHINA								
Payments per Project								
Sulige	16,898[(a)]	–	–	–	–	–	27,547[(b)]	44,445
TOTAL	**16,898**	**–**	**–**	**–**	**–**	**–**	**27,547**	**44,445**
Payments per Government								
China National Petroleum Company	16,898[(a)]	–	–	–	–	–	27,547[(b)]	44,445
TOTAL	**16,898**	**–**	**–**	**–**	**–**	**–**	**27,547**	**44,445**

(a) Includes the valuation for 15,478 k$ of 542 kboe for taxes of different natures.
(b) Corresponds to the valuation of 963 kboe for production entitlements.

CÔTE D'IVOIRE								
Payments per Project								
CI-100	–	–	76	–	–	–	–	76
CI-605	–	–	260	–	–	–	–	260
CI-705	–	–	650	–	–	–	–	650
CI-706	–	–	700	–	–	–	–	700
TOTAL	**–**	**–**	**1,686**	**–**	**–**	**–**	**–**	**1,686**
Payments per Government								
République de Côte d'Ivoire, Direction Générale des Hydrocarbures	–	–	1,686	–	–	–	–	1,686
TOTAL	**–**	**–**	**1,686**	**–**	**–**	**–**	**–**	**1,686**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
CYPRUS								
Payments per Project								
Block 2	–	–	71	–	–	–	–	71
Block 3	–	–	96	–	–	–	–	96
Block 6	–	–	168	–	–	–	–	168
Block 7	–	–	176	–	–	–	–	176
Block 8	–	–	174	–	–	–	–	174
Block 9	–	–	66	–	–	–	–	66
Block 11	–	–	239	–	–	–	–	239
TOTAL	**–**	**–**	**990**	**–**	**–**	**–**	**–**	**990**
Payments per Government								
Ministry of Energy, Commerce, Industry and Tourism	–	–	990	–	–	–	–	990
TOTAL	**–**	**–**	**990**	**–**	**–**	**–**	**–**	**990**
DENMARK								
Payments per Project								
Sole Concession Area	92,140	–	8,639	–	–	–	–	100,779
TOTAL	**92,140**	**–**	**8,639**	**–**	**–**	**–**	**–**	**100,779**
Payments per Government								
Arbejdstilsynet	–	–	291	–	–	–	–	291
Energistyrelsen	–	–	168	–	–	–	–	168
Dansk Teknisk Universitet	–	–	8,180	–	–	–	–	8,180
Skat	92,140	–	–	–	–	–	–	92,140
TOTAL	**92,140**	**–**	**8,639**	**–**	**–**	**–**	**–**	**100,779**
EGYPT								
Payments per Project								
North Ras El Kanyis Offshore	–	–	781	778	–	–	–	1,559
TOTAL	**–**	**–**	**781**	**778**	**–**	**–**	**–**	**1,559**
Payments per Government								
Egyptian Natural Gas Holding Company	–	–	781	778	–	–	–	1,559
TOTAL	**–**	**–**	**781**	**778**	**–**	**–**	**–**	**1,559**
FRANCE (FRENCH GUYANA)								
Payments per Project								
Guyane Maritime	–	–	2,171	–	–	–	–	2,171
TOTAL	**–**	**–**	**2,171**	**–**	**–**	**–**	**–**	**2,171**
Payments per Government								
Comité Régional pêches et Elevages Marins	–	–	1,628	–	–	–	–	1,628
Université de Guyane	–	–	543	–	–	–	–	543
TOTAL	**–**	**–**	**2,171**	**–**	**–**	**–**	**–**	**2,171**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
GABON								
Payments per Project								
Baudroie-Mérou CEPP	21,588[(a)]	–	926	–	–	–	–	22,514
Concessions (périmètre Convention d'Etablissement)	14,304	–	3,138	–	–	16,160[(b)]	–	33,602
Concession Anguille	14,248	–	–	–	–	–	–	14,248
Concession Grondin	14,404	–	–	–	–	–	–	14,404
Concession Torpille	26,025	–	–	–	–	–	–	26,025
Hylia II CEPP	2,360[(c)]	–	348	–	–	–	–	2,708
Non-attributable	–	–	–	–	62,371	–	–	62,371
TOTAL	**92,929**	**–**	**4,412**	**–**	**62,371**	**16,160**	**–**	**175,872**
Payments per Government								
Trésor Public gabonais	74,805	–	1,312	–	–	–	–	76,117
Direction Générale des Hydrocarbures	–	–	2,451	–	–	–	–	2,451
République du Gabon	18,124[(d)]	–	–	–	62,371	11,069	–	91,564
Direction Générale des Impôts	–	–	649	–	–	–	–	649
Ville de Port-Gentil	–	–	–	–	–	4,127	–	4,127
Miscellaneous PID beneficiaries	–	–	–	–	–	660	–	660
Miscellaneous PIH beneficiaries	–	–	–	–	–	304	–	304
TOTAL	**92,929**	**–**	**4,412**	**–**	**62,371**	**16,160**	**–**	**175,872**

(a) Includes the valuation for 16,897 k$ of 417 kboe at the official selling price and applying the fiscal terms of the profit sharing agreements.
(b) Financing of projects (infrastructure, education, health) under joint control of the State and TOTAL within the framework of the *Provision pour Investissements Diversifiés* (PID – contribution to diversified investments) and of the *Provision pour Investissements dans les Hydrocarbures* (PIH – contribution to investments in hydrocarbons).
(c) Includes the valuation for 1,227 k$ of 30 kboe at the official selling price and applying the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 447 kboe at the official selling price and applying the fiscal terms of the profit sharing agreements.

	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
GREECE								
Payments per Project								
Block 2	–	–	151	–	–	–	–	151
Block SouthWest Crete	–	–	136	–	–	–	–	136
Block West Crete	–	–	137	–	–	–	–	137
TOTAL	**–**	**–**	**424**	**–**	**–**	**–**	**–**	**424**
Payments per Government								
Hellenic Hydrocarbon Resources Management	–	–	424	–	–	–	–	424
TOTAL	**–**	**–**	**424**	**–**	**–**	**–**	**–**	**424**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
GUYANA								
Payments per Project								
Canje	–	–	102	–	–	–	–	102
Kanuku	–	–	40	–	–	–	–	40
Orinduik	–	–	22	–	–	–	–	22
TOTAL	**–**	**–**	**164**	**–**	**–**	**–**	**–**	**164**
Payments per Government								
Guyana Geology and Mines Commission	–	–	164	–	–	–	–	164
TOTAL	**–**	**–**	**164**	**–**	**–**	**–**	**–**	**164**
INDONESIA								
Payments per Project								
Sebuku PSC	5,526	–	–	–	–	–	5,466[(a)]	10,992
TOTAL	**5,526**	**–**	**–**	**–**	**–**	**–**	**5,466**	**10,992**
Payments per Government								
Directorate General of Taxation, Ministry of Finance	5,526	–	–	–	–	–	–	5,526
Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas)	–	–	–	–	–	–	5,466[(a)]	5,466
TOTAL	**5,526**	**–**	**–**	**–**	**–**	**–**	**5,466**	**10,992**

(a) Corresponds to the valuation at net-back price of 156 kboe for production entitlements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
IRAQ								
Payments per Project								
Halfaya	13,234	–	–	–	–	–	–	13,234
Sarsang	7,724[(a)]	–	–	–	–	–	–	7,724
TOTAL	**20,958**	**–**	**–**	**–**	**–**	**–**	**–**	**20,958**
Payments per Government								
Ministry of Natural Resources, Erbil, Kurdistan region of Iraq	7,724[(a)]	–	–	–	–	–	–	7,724
Ministry of Finance, General Commission of Taxation	13,234	–	–	–	–	–	–	13,234
TOTAL	**20,958**	**–**	**–**	**–**	**–**	**–**	**–**	**20,958**

(a) Corresponds to the valuation of 221 kboe based on market prices for taxes of different natures.

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(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
ITALY								
Payments per Project								
Gorgoglione Unified License	2,804	–	1,252	–	–	–	–	4,056
TOTAL	**2,804**	**–**	**1,252**	**–**	**–**	**–**	**–**	**4,056**
Payments per Government								
Regione Basilicata	1,291	–	714	–	–	–	–	2,005
Comune Corleto Perticara	1,156	–	–	–	–	–	–	1,156
Ministero dell'Economia e delle Finanze	–	–	538	–	–	–	–	538
Tesoreria dello Stato	357	–	–	–	–	–	–	357
TOTAL	**2,804**	**–**	**1,252**	**–**	**–**	**–**	**–**	**4,056**
KAZAKHSTAN								
Payments per Project								
Dunga	–	–	35	1,800	–	–	14,004	15,839
Kashagan	10,843	–	–	504	–	12,261	13,029[(a)]	36,637
TOTAL	**10,843**	**–**	**35**	**2,304**	**–**	**12,261**	**27,033**	**52,476**
Payments per Government								
Atyrau and Mangistau regions c/o North Caspian Operating Company b.v.	–	–	–	–	–	336	–	336
Atyrau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	6,585	–	6,585
Mangistau region c/o North Caspian Operating Company b.v.	–	–	–	–	–	5,340	–	5,340
Ministry of Finance	10,843	–	35	2,304	–	–	14,004	27,186
Ministry of Energy	–	–	–	–	–	–	13,029[(a)]	13,029
TOTAL	**10,843**	**–**	**35**	**2,304**	**–**	**12,261**	**27,033**	**52,476**

(a) Corresponds to the valuation of 490 kboe at average net-back prices for production entitlements.

KENYA								
Payments per Project								
L11A	–	–	32	–	–	18	–	50
L11B	–	–	31	–	–	18	–	49
L12	–	–	31	–	–	18	–	49
TOTAL	**–**	**–**	**94**	**–**	**–**	**54**	**–**	**148**
Payments per Government								
Kenya Ministry of Energy	–	–	94	–	–	–	–	94
National Oil Corporation of Kenya	–	–	–	–	–	54	–	54
TOTAL	**–**	**–**	**94**	**–**	**–**	**54**	**–**	**148**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
LEBANON								
Payments per Project								
Block 4	–	–	105	–	–	–		105
Block 9	–	–	105	–	–	–	–	105
TOTAL	**–**	**–**	**210**	**–**	**–**	**–**	**–**	**210**
Payments per Government								
Lebanese Petroleum Administration (LPA)	–	–	210	–	–	–	–	210
TOTAL	**–**	**–**	**210**	**–**	**–**	**–**	**–**	**210**
LIBYA								
Payments per Project								
Areas 15, 16 & 32 (Al Jurf)	103,245[(a)]	–	–	–	–	–	134,133[(b)]	237,378
Areas 129 & 130	47,208[(c)]	–	–	–	–	–	191,645[(d)]	238,853
Areas 130 & 131	5,814[(e)]	–	–	–	–	–	75,365[(f)]	81,179
Waha	110,305	–	226	–	–	–	–	110,531
TOTAL	**266,572**	**–**	**226**	**–**	**–**	**–**	**401,143**	**667,941**
Payments per Government								
National Oil Corporation	–	–	–	–	–	–	401,143[(g)]	401,143
Ministry of Finance c/o National Oil Corporation	156,267[(h)]	–	–	–	–	–	–	156,267
Ministry of Oil and Gas	110,305	–	226	–	–	–	–	110,531
TOTAL	**266,572**	**–**	**226**	**–**	**–**	**–**	**401,143**	**667,941**

(a) Corresponds to the valuation of 2,516 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 3,262 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(c) Corresponds to the valuation of 997 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 4,064 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(e) Corresponds to the valuation of 119 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(f) Corresponds to the valuation of 1,527 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(g) Corresponds to the valuation of 8,852 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(h) Corresponds to the valuation of 3,633 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
MAURITANIA								
Payments per Project								
Block C7	–	–	334	–	–	–	–	334
Block C15	–	–	670	–	–	–	–	670
Block C18	–	–	780	–	–	–	–	780
Block C31	–	–	658	–	–	–	–	658
TOTAL	**–**	**–**	**2,442**	**–**	**–**	**–**	**–**	**2,442**
Payments per Government								
Trésor Public de Mauritanie	–	–	608	–	–	–	–	608
SMHPM (Société Mauritanienne des Hydrocarbures et du Patrimoine Minier)	–	–	967	–	–	–	–	967
Commission Environnementale	–	–	867	–	–	–	–	867
TOTAL	**–**	**–**	**2,442**	**–**	**–**	**–**	**–**	**2,442**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
MEXICO								
Payments per Project								
AS-CS-06 (B33)	295	–	226	–	–	–	–	521
Block 15	592	–	454	–	–	–	–	1,046
G-CS-02 (B32)	523	–	401	–	–	–	–	924
G-CS-03 (B34)	337	–	223	–	–	–	–	560
Perdido Block 2	1,511	–	11,780	–	–	–	–	13,291
Salina 1	806	–	618	–	–	–	–	1,424
Salina 3	1,115	–	855	–	–	–	–	1,970
TOTAL	**5,179**	**–**	**14,557**	**–**	**–**	**–**	**–**	**19,736**
Payments per Government								
Servicio de Administracion Tributaria	5,179	–	–	–	–	–	–	5,179
Fondo Mexicano del Petroleo	–	–	14,557	–	–	–	–	14,557
TOTAL	**5,179**	**–**	**14,557**	**–**	**–**	**–**	**–**	**19,736**
MOZAMBIQUE								
Payments per Project								
Area 1 Golfino-Atum	–	–	1,060	–	–	–	–	1,060
TOTAL	**–**	**–**	**1,060**	**–**	**–**	**–**	**–**	**1,060**
Payments per Government								
Instituto Nacional de Petroleo	–	–	1,060	–	–	–	–	1,060
TOTAL	**–**	**–**	**1,060**	**–**	**–**	**–**	**–**	**1,060**
MYANMAR								
Payments per Project								
Blocks M5 and M6	28,106	–	–	–	–	–	138,535[a]	166,641
Non-attributable	9,200	–	–	–	–	–	–	9,200
TOTAL	**37,306**	**–**	**–**	**–**	**–**	**–**	**138,535**	**175,841**
Payments per Government								
Myanmar Ministry of Finance	37,306	–	–	–	–	–	–	37,306
Myanmar Oil and Gas Enterprise	–	–	–	–	–	–	138,535[a]	138,535
TOTAL	**37,306**	**–**	**–**	**–**	**–**	**–**	**138,535**	**175,841**

(a) Includes the valuation at a net-back price for 85,344 k$ of 3,021 kboe for production entitlements dedicated to domestic delivery obligations.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
NETHERLANDS								
Payments per Project								
Offshore Blocks	–	–	1,271	–	–	–	–	1,271
Non-attributable	11,286	–	–	–	–	–	–	11,286
TOTAL	**11,286**	**–**	**1,271**	**–**	**–**	**–**	**–**	**12,557**
Payments per Government								
Belastingdienst Nederland	11,286	–	1,271	–	–	–	–	12,557
TOTAL	**11,286**	**–**	**1,271**	**–**	**–**	**–**	**–**	**12,557**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
NIGERIA								
Payments per Project								
OML 58 (joint venture with NNPC, operated)	29,449	–	–	–	–	–	–	29,449
OML 99 Amenam-Kpono (joint venture with NNPC, operated)	21,217	–	–	–	–	–	–	21,217
OML 100 (joint venture with NNPC, operated)	16,241	–	–	–	–	–	–	16,241
OML 102 (joint venture with NNPC, operated)	112,228	–	–	–	–	–	–	112,228
OML 118 (Bonga)	70,628[(a)]	–	–	–	–	1,545	13,462[(b)]	85,635
OML 130	12,459	–	3,292	–	–	–	–	15,751
OML 130 PSA (Akpo & Egina)	22,753	–	–	–	–	5,941	–	28,694
OML 138 (Usan)	16,092[(c)]	–	27[(d)]	–	–	835	10,821[(e)]	27,775
Joint ventures with NNPC, operated – Non-attributable	–	–	7,845	–	–	–	–	7,845
Joint ventures with NNPC, non operated – Non-attributable	81,656	–	4,584	–	–	6,171	–	92,411
Non-attributable	233,470[(f)]	–	–	–	–	–	–	233,470
TOTAL	**616,193**	**–**	**15,748**	**–**	**–**	**14,492**	**24,283**	**670,716**
Payments per Government								
Federal Inland Revenue Service	274,797	–	–	–	–	–	–	274,797
Department of Petroleum Resources, Federal Government of Nigeria	262,198	–	14,284	–	–	–	–	276,482
Niger Delta Development Commission	–	–	–	–	–	14,492	–	14,492
Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria	–	–	1,437	–	–	–	–	1,437
Nigerian National Petroleum Corporation	–	–	–	–	–	–	24,283[(g)]	24,283
Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation	39,796[(h)]	–	–	–	–	–	–	39,796
Department of Petroleum Resources c/o Nigerian National Petroleum Corporation	39,402[(i)]	–	27[(d)]	–	–	–	–	39,429
TOTAL	**616,193**	**–**	**15,748**	**–**	**–**	**14,492**	**24,283**	**670,716**

(a) Includes the valuation for 66,331 k$ of 1,447 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation for 295 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(c) Includes the valuation for 12,867 k$ of 304 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 426 boe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(e) Corresponds to the valuation for 236 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(f) This amount includes the tax implications of the provisions of the Modified Carry Agreement (MCA). Under the MCA, Total E&P Nigeria is entitled to recover 85% of the Carry Capital Cost through claims of capital allowance, described in the MCA as "Carry Tax Relief". The balance of 15% is to be recovered from NNPC's share of crude oil produced.
(g) Corresponds to the valuation for 531 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(h) Corresponds to the valuation for 800 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(i) Corresponds to the valuation for 951 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
NORWAY								
Payments per Project								
Åsgard area	7,609	–	992	–	–	–	–	8,601
Ekofisk area	23,406	–	2,604	–	–	–	–	26,010
Heimdal area	566	–	47	–	–	–	–	613
Johan Sverdrup	265	–	59	–	–	–	–	324
Oseberg area	10,319	–	798	–	–	–	–	11,117
PL018C	–	–	55	–	–	–	–	55
Snøhvit area	10,365	–	158	–	–	–	–	10,523
Troll area	2,094	–	130	–	–	–	–	2,224
Non-attributable	453,708	–	–	–	–	–	–	453,708
TOTAL	**508,332**	**–**	**4,843**	**–**	**–**	**–**	**–**	**513,175**
Payments per Government								
Norwegian Tax Administration	508,332	–	–	–	–	–	–	508,332
Norwegian Petroleum Directorate	–	–	4,843	–	–	–	–	4,843
TOTAL	**508,332**	**–**	**4,843**	**–**	**–**	**–**	**–**	**513,175**
OMAN								
Payments per Project								
Block 6	138,787	–	–	–	–	–	–	138,787
Block 12	–	–	280	12,392	–	–	–	12,672
Block 53	1,254[(a)]	–	–	–	–	–	7,222[(b)]	8,476
TOTAL	**140,041**	**–**	**280**	**12,392**	**–**	**–**	**7,222**	**159,935**
Payments per Government								
Oman Ministry of Oil and Gas	–	–	80	–	–	–	7,222[(b)]	7,302
Oman Ministry of Finance	140,041[(c)]	–	200	12,392	–	–	–	152,633
TOTAL	**140,041**	**–**	**280**	**12,392**	**–**	**–**	**7,222**	**159,935**

(a) Corresponds to the valuation for 26 kboe at the weighted average selling price and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation for 149 kboe at the weighted average selling price and applying the profit sharing agreements.
(c) Includes the valuation for 1,254 k$ of 26 kboe at the weighted average selling price and applying the fiscal terms of the profit sharing agreements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
PAPUA NEW GUINEA								
Payments per Project								
PPL-576	–	–	25	–	–	–	–	25
PRL-15	–	–	303	–	–	–	–	303
TOTAL	**–**	**–**	**328**	**–**	**–**	**–**	**–**	**328**
Payments per Government								
Conservation & Environment Protection Authority	–	–	328	–	–	–	–	328
TOTAL	**–**	**–**	**328**	**–**	**–**	**–**	**–**	**328**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
QATAR								
Payments per Project								
Al Khalij	28,318	–	–	–	–	–	–	28,318
Dolphin	47,653[(a)]	–	–	–	–	–	432,775[(b)]	480,428
Qatargas 1	26,129[(c)]	–	–	–	–	–	37,679[(d)]	63,808
TOTAL	**102,100**	**–**	**–**	**–**	**–**	**–**	**470,454**	**572,554**
Payments per Government								
Qatar Petroleum	–	–	–	–	–	–	470,454[(e)]	470,454
Qatar Ministry of Finance	102,100[(f)]	–	–	–	–	–	–	102,100
TOTAL	**102,100**	**–**	**–**	**–**	**–**	**–**	**470,454**	**572,554**

(a) Corresponds to the valuation of 3,128 kboe based on the average price of production entitlements and as per the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 28,726 kboe based on the average price of production entitlements.
(c) Corresponds to the valuation of 667 kboe based on the average price of production entitlements and as per the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 941 kboe based on the average price of production entitlements.
(e) Corresponds to the valuation of 29,667 kboe based on the average price of production entitlements.
(f) Includes the valuation for 73,782 k$ of 3,796 kboe based on the average price of the production entitlements and as per the fiscal terms of the profit sharing agreements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
REPUBLIC OF THE CONGO								
Payments per Project								
CPP Haute Mer – Zone A	24,526[(a)]	–	1,018	–	–	–	–	25,544
CPP Haute Mer – Zone B	6,673[(b)]	–	311	–	–	724	–	7,708
CPP Haute Mer – Zone D	218,949[(c)]	–	11,514	–	–	–	–	230,463
CPP Pointe Noire Grands Fonds (PNGF)	23,820[(d)]	–	782	–	–	–	–	24,602
Kombi, Likalala & Libondo	27,486[(e)]	–	91	–	–	–	–	27,577
Lianzi	601	–	59	53	–	–	727[(f)]	1,440
Madingo	9,247[(g)]	–	261	–	–	–	–	9,508
Marine XX	–	–	135	–	–	375	–	510
Mokelembembe	–	–	330	–	–	750	–	1,080
Nanga	–	–	256	–	–	750	–	1,006
Pegase Nord (ex MTPS)	–	–	60	–	–	–	–	60
TOTAL	**311,302**	**–**	**14,817**	**53**	**–**	**2,599**	**727**	**329,498**
Payments per Government								
Ministère des hydrocarbures	293,297[(h)]	–	1,126	–	–	–	–	294,423
Trésor Public	17,404	–	13,691	53	–	2,599	–	33,747
Société Nationale des Pétroles Congolais	601	–	–	–	–	–	727[(f)]	1,328
TOTAL	**311,302**	**–**	**14,817**	**53**	**–**	**2,599**	**727**	**329,498**

(a) Includes the valuation for 9,441 k$ of 229 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(b) Includes the valuation for 2,300 k$ of 84 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(c) Corresponds to the valuation of 4,175 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 540 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(e) Corresponds to the valuation of 673 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(f) Corresponds to the valuation of 17 kboe at official fiscal prices and applying the profit sharing agreements.
(g) Corresponds to the valuation of 238 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(h) Corresponds to the valuation of 5,939 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
RUSSIA								
Payments per Project								
Kharyaga	11,927	–	78	–	–	–	19,584	31,589
TOTAL	**11,927**	**–**	**78**	**–**	**–**	**–**	**19,584**	**31,589**
Payments per Government								
Nenets Tax Inspection	11,927	–	78	–	–	–	–	12,005
Ministry of Energy	–	–	–	–	–	–	19,584	19,584
TOTAL	**11,927**	**–**	**78**	**–**	**–**	**–**	**19,584**	**31,589**
SÃO TOMÉ ET PRINCIPE								
Payments per Project								
Block 1	–	–	181	–	–	–	–	181
TOTAL	**–**	**–**	**181**	**–**	**–**	**–**	**–**	**181**
Payments per Government								
National Oil account São Tomé e Principe	–	–	181	–	–	–	–	181
TOTAL	**–**	**–**	**181**	**–**	**–**	**–**	**–**	**181**
SENEGAL								
Payments per Project								
ROP	–	–	769	–	–	100	–	869
UDO	–	–	350	–	–	117	–	467
TOTAL	**–**	**–**	**1,119**	**–**	**–**	**217**	**–**	**1,336**
Payments per Government								
Société des Pétroles du Sénégal	–	–	1,119	–	–	–	–	1,119
Etat du Sénégal C/O Fondation Total Sénégal	–	–	–	–	–	217	–	217
TOTAL	**–**	**–**	**1,119**	**–**	**–**	**217**	**–**	**1,336**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
SOUTH AFRICA								
Payments per Project								
Block 2C	–	–	15	–	–	–	–	15
Blocks 5/6/7	–	–	169	–	–	–	–	169
Block DOWB	–	–	151	–	–	–	–	151
Block ODB	–	–	107	–	–	–	–	107
Block South Outeniqua	–	–	175	–	–	–	–	175
TOTAL	**–**	**–**	**617**	**–**	**–**	**–**	**–**	**617**
Payments per Government								
Petroleum Agency South Africa (PASA)	–	–	279	–	–	–	–	279
Upstream Training Trust (UTT)	–	–	338	–	–	–	–	338
TOTAL	**–**	**–**	**617**	**–**	**–**	**–**	**–**	**617**
THAILAND								
Payments per Project								
Bongkot	335,806	–	–	46,935	–	–	–	382,741
G12/48	2,568	–	–	–	–	–	–	2,568
TOTAL	**338,374**	**–**	**–**	**46,935**	**–**	**–**	**–**	**385,309**
Payments per Government								
Revenue Department	240,018	–	–	–	–	–	–	240,018
Department of Mineral Fuels, Ministry Of Energy	98,356	–	–	–	–	–	–	98,356
Ministry Of Energy	–	–	–	46,935	–	–	–	46,935
TOTAL	**338,374**	**–**	**–**	**46,935**	**–**	**–**	**–**	**385,309**
UGANDA								
Payments per Project								
Block EA-1	–	–	164	–	–	–	–	164
Block EA-2	–	–	138	–	–	–	–	138
Block EA-3	–	–	248	–	–	–	–	248
Non-attributable	–	–	8,625	–	–	–	–	8,625
TOTAL	**–**	**–**	**9,175**	**–**	**–**	**–**	**–**	**9,175**
Payments per Government								
Ministry of Energy and Mineral Development	–	–	550	–	–	–	–	550
Uganda Revenue Authority	–	–	8,625	–	–	–	–	8,625
TOTAL	**–**	**–**	**9,175**	**–**	**–**	**–**	**–**	**9,175**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
UNITED ARAB EMIRATES								
Payments per Project								
Abu Al Bukhoosh	21,908	–	–	–	–	–	–	21,908
ADNOC Gas Processing	197,054	–	–	–	–	–	–	197,054
ADNOC Onshore	1,836,836	–	9,347	–	–	–	–	1,846,183
Lower Zakum	191,878	–	501	–	–	–	–	192,379
Umm Shaif Nasr	455,473	–	2,005	–	–	–	–	457,478
TOTAL	**2,703,149**	**–**	**11,853**	**–**	**–**	**–**	**–**	**2,715,002**
Payments per Government								
Supreme Petroleum Council – Government of Abu Dhabi	21,908	–	–	–	–	–	–	21,908
Abu Dhabi Fiscal Authorities	2,523,482	–	–	–	–	–	–	2,523,482
Abu Dhabi National Oil Company	157,759	–	11,853	–	–	–	–	169,612
TOTAL	**2,703,149**	**–**	**11,853**	**–**	**–**	**–**	**–**	**2,715,002**
UNITED KINGDOM								
Payments per Project								
Aspen	–	–	660	–	–	–	–	660
Central Graben Area	–	–	589	–	–	–	–	589
Culzean	–	–	9	–	–	–	–	9
Eastern North Sea	–	–	3,795	–	–	–	–	3,795
Greater Laggan Area	–	–	2,616	–	–	–	–	2,616
Markham Area	–	–	103	–	–	–	–	103
Northern North Sea	–	–	2,306	–	–	–	–	2,306
Non-attributable	43,861	–	165	–	–	–	–	44,026
TOTAL	**43,861**	**–**	**10,243**	**–**	**–**	**–**	**–**	**54,104**
Payments per Government								
HM Revenue & Customs	43,861	–	–	–	–	–	–	43,861
Crown Estate	–	–	165	–	–	–	–	165
Oil and Gas Authority	–	–	10,078	–	–	–	–	10,078
TOTAL	**43,861**	**–**	**10,243**	**–**	**–**	**–**	**–**	**54,104**

(in thousands of dollars)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
UNITED STATES								
Payments per Project								
Barnett Shale	8,238	7,881	–	–	–	–	–	16,119
Gulf of Mexico	–	–	3,716	2,404	–	–	–	6,120
Tahiti	–	23,394	–	–	–	–	–	23,394
Utica	1,667	–	–	–	–	–	–	1,667
TOTAL	**9,905**	**31,275**	**3,716**	**2,404**	**–**	**–**	**–**	**47,300**
Payments per Government								
Office of Natural Resources Revenue	–	23,394	3,716	2,404	–	–	–	29,514
State of Ohio	753	–	–	–	–	–	–	753
Johnson County Tax Assessor	2,895	–	–	–	–	–	–	2,895
Tarrant County Tax Assessor	4,587	–	–	–	–	–	–	4,587
Texas State Comptroller's Office	605	–	–	–	–	–	–	605
City of Fort Worth	–	2,355	–	–	–	–	–	2,355
Dallas/Fort Worth International Airport Board	–	1,024	–	–	–	–	–	1,024
City of Arlington	–	1,045	–	–	–	–	–	1,045
Tarrant Regional Water District	–	539	–	–	–	–	–	539
State of Texas	–	341	–	–	–	–	–	341
City of North Richland Hills	–	310	–	–	–	–	–	310
Fort Worth Independent School District	–	209	–	–	–	–	–	209
Burleson Independent School District	–	210	–	–	–	–	–	210
Arlington Independent School District	–	236	–	–	–	–	–	236
Harrison County	387	–	–	–	–	–	–	387
Carroll County	527	–	–	–	–	–	–	527
Birdville Independent School District	–	398	–	–	–	–	–	398
Tarrant County College	–	230	–	–	–	–	–	230
City of Grand Prairie	–	133	–	–	–	–	–	133
Kennedale Independant School District	–	146	–	–	–	–	–	146
Tarrant County AAAA	–	106	–	–	–	–	–	106
Grapevine-Colleyville Tax Office	151	–	–	–	–	–	–	151
City of Cleburne	–	123	–	–	–	–	–	123
City of Burleson	–	138	–	–	–	–	–	138
Mansfield Independant School District	–	141	–	–	–	–	–	141
Crowley Independant School District	–	111	–	–	–	–	–	111
City of Crowley	–	43	–	–	–	–	–	43
White Settlement Independant School District	–	43	–	–	–	–	–	43
TOTAL	**9,905**	**31,275**	**3,716**	**2,404**	**–**	**–**	**–**	**47,300**

9.4 Reporting of payments to governments for purchases of oil, gas and minerals (EITI reporting)

Purpose of the reporting

In September 2020, the Extractive Industries Transparency Initiative, or EITI, published its "Reporting Guidelines for Companies Buying Oil, Gas and Minerals from Governments." Those Guidelines are intended for companies that purchase oil, gas and/or minerals from governments, to guide them for the disclosure of payments made to governments. They aim to ensure the consistent disclosure of payments made to the state or state-owned enterprises (SOEs)[1] where oil, gas or minerals are being sold on behalf of the state, where EITI requirements are applicable and relevant, or where there is commitment to transparency in commodity sales.

These reporting guidelines were developed by the EITI Working Group on Transparency in Commodity Trading, and documented by the discussions at the OECD Thematic Dialogue on Commodity Trading Transparency. They are part of the implementation of Requirement 4.2 of the 2019 EITI Standard, which aims to ensure transparency in how the state is selling oil, gas and minerals by requiring disclosures by SOEs and/or other relevant government agencies concerning the sale of the state's share of production or other revenues collected in kind. Correspondingly, the Standard encourages companies buying oil, gas and/or mineral resources from the state or SOEs to disclose information regarding the volumes received from the state or SOE and payments made for the purchase of oil, gas and mineral resources.

Companies that purchase these commodities disclose this data on a voluntary basis. The Guidelines aim to identify:

1. Who is buying the product.
2. Who is selling the product.
3. What product is being purchased.
4. What the buyer pays to the seller for the product.

Definitions

Applicable purchases: Under the Guidelines, purchases of oil, petroleum products, metals and minerals should be reported. Oil and petroleum products may be categorized as "crude oil," "refined products" or "natural gas." For its 2020 reporting, TOTAL is disclosing its purchases of oil and petroleum products made during fiscal year 2020 by TOTAL SE fully consolidated companies.

Selling entities and purchases to be covered: EITI recommends that the disclosures cover:

– purchases of the state's share of production and other in-kind revenues from EITI countries where the selling entity is a government agency or SOE or a third party appointed to sell on their behalf (i.e., where EITI Requirement 4.2 is applicable);
– purchases from SOEs in non-EITI countries that have explicitly or publicly stated their support to the initiative.

Reporting principles

TOTAL reporting follow the EITI recommendations mentioned hereabove.

From the reporting models suggested by EITI regarding the level of disaggregation, TOTAL has chosen model 1, in which disclosures of both volumes and values (amounts paid) are aggregated by individual seller (where the seller is any company that is wholly or majority owned by the state) for purchases of commodities delivered in 2020.

TOTAL follows the EITI recommendation, in particular with regards to obtaining the prior consent of the concerned countries before the publication of the procurement data concerning them. Therefore, TOTAL discloses under the category "Other Countries", aggregate data on its purchases from (i) SOEs in EITI countries for which prior approval could not be obtained in due time and (ii) in non-EITI Countries, whether those countries have supported the transparency initiative or not.

(1) For the purpose of EITI implementation, a "state-owned enterprise (SOE) is a wholly or majority government-owned company that is engaged in extractives activities on behalf of the government." EITI Requirement 2.6.a.i.

Disclosure of volumes and value by individual seller

Crude oil – Refined products

1. Who is selling the product			2. Who is buying the product		3. What product is being bought		4. What does the buyer pay to the seller for the product
Core Information		Additional Information	Core Information	Additional Information	Core Information		Core Information
Name of Country of Seller of Government Share of Production	Name of SOE or seller of the state share of production	Counterparty state owned %	Buying Entity	Beneficial Ownership	Product Type	Volumes Purchased (barrel)	Amounts paid (USD)
Iraq	SOMO	100	TOTSA TOTAL OIL TRADING SA	TOTAL SE	Crude oil	6,795,575	215,109,446
Nigeria	NNPC	100	TOTSA TOTAL OIL TRADING SA	TOTAL SE	Crude oil	8,592,505	346,468,741
Other Countries		100	TOTSA TOTAL OIL TRADING SA	TOTAL SE	Crude oil	162,619,335	6,393,816,848
Iraq	SOMO	100	TOTSA TOTAL OIL TRADING SA	TOTAL SE	Refined products	605,728	30,707,417
Other Countries		100	TOTSA TOTAL OIL TRADING SA	TOTAL SE	Refined products	124,684,684	5,612,411,659

Natural Gas – LNG – Sulphur – Petcoke

1. Who is selling the product			2. Who is buying the product		3. What product is being bought			4. What does the buyer pay to the seller for the product
Core Information		Additional Information	Core Information	Additional Information	Core Information			Core Information
Name of Country of Seller of Government Share of Production	Name of SOE or seller of the state share of production	Counterparty state owned %	Buying Entity	Beneficial Ownership	Product Type	Volumes Purchased (Mbtu)	Volumes Purchased (ton)	Amounts paid (USD)
Germany	ENBW Baden-Wurttemberg AG	93.5	Total Gas & Power Limited	TOTAL SE	Natural Gas	1,763,702		12,315,607
Germany	VNG Handel & Vertrieb GmbH	74.2	Total Gas & Power Limited	TOTAL SE	Natural Gas	6,184,406		22,301,486
Indonesia	PT Pertamina (Persero)	100	Total Gas and Power Asia Pte Ltd	TOTAL SE	LNG	10,464,240		22,801,861
Other Countries			Total Gas & Power Limited	TOTAL SE	LNG	463,846,492		1,819,340,655
Other Countries			Total Gas & Power Limited	TOTAL SE	Natural Gas	14,183,246		28,555,916
Other Countries			Total Gas & Power Limited	TOTAL SE	Sulphur		35,000	1,469,989
Other Countries			Total Gas & Power Limited	TOTAL SE	Petcoke		816,642	37,676,916
Other Countries			Total Gas and Power Asia Pte Ltd	TOTAL SE	LNG	23,789,581		96,648,819

LPG

1. Who is selling the product		2. Who is buying the product		3. What product is being bought		4. What does the buyer pay to the seller for the product
Core Information	Additional Information	Core Information	Additional Information	Core Information		Core Information
Name of Country of Seller of Government Share of Production	Counterparty state owned %	Buying Entity	Beneficial Ownership	Product Type	Volumes Purchased (barrel)	Amounts paid (USD)
Other Countries	100	TOTSA TOTAL OIL TRADING SA	TOTAL SE	LPG	5,775,097	177,353,462

10

Statutory financial statements of TOTAL SE

10.1 Statutory auditors' report on the financial statements

To the Annual General Meeting of TOTAL SE,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying financial statements of TOTAL SE for the year ended December 31, 2020.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2020 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (*Code de commerce*) and the French Code of Ethics (*Code de déontologie*) for statutory auditors for the period from January 1, 2020 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

Justification of Assessments – Key Audit Matters

Due to the global crisis related to the Covid-19 pandemic, the financial statements for this period have been prepared and audited under special circumstances. Indeed, this crisis and the exceptional measures taken in the context of the health emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties regarding their future prospects. Some of these measures, such as travel restrictions and remote working, have also had an impact on companies' internal organization and on how audits are performed.

It is in this complex and evolving context that, in accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Valuation of investments in and loans to consolidated subsidiaries and equity affiliates

Risk identified	Our response

Investments in and loans to consolidated subsidiaries and equity affiliates recorded in the balance sheet as at December 31, 2020 for a net amount of €113.7 billion, represent 97% of the assets. Investments in consolidated subsidiaries and equity affiliates are accounted for at their acquisition date at cost, and loans to consolidated subsidiaries and equity affiliates are stated at their nominal value. As indicated in the "Financial Assets" section of "Accounting policies" Note to the annual financial statements, these investments and loans are impaired as follows:
– For Exploration & Production activities:
  – In the absence of a development decision, depreciation allowances are recorded against investments and loans for an amount corresponding to the exploration costs incurred.
  – When the existence of proved reserves is established, the value of the investments and loans is limited to the amounts of discounted future earnings.
– For other segments, provisions for impairment in value are calculated by reference to the Company's equity in the underlying net assets, the fair value and usefulness of the investment. Your Company relies in particular on the forecasts of the discounted future earnings resulting from the strategic plan drawn up by the subsidiaries.
 	
Given the materiality of investments in and loans to consolidated subsidiaries and equity affiliates in your Company's financial statements and the judgment required to assess their value in use and the determination of certain assumptions, including the probability of achieving the forecasts, we considered the valuation of those investments in and loans to consolidated subsidiaries and equity affiliates to be a key audit matter.
	To assess the estimate of the value in use of investments in and loans to consolidated subsidiaries and equity affiliates, based on the information provided to us, our work consisted in:
	– testing the functioning of your Company's key controls regarding the process to determine the value in use of investments in and loans to consolidated subsidiaries and equity affiliates;
	– assessing the conformity of the valuation method used by your Company with the applicable accounting principles and its consistency with the previous fiscal year, according to the investments and loans concerned;
	– on a sample of investments in and loans to consolidated subsidiaries and equity affiliates, including the more sensitive ones, perform an analysis of the conditions of implementation of this method by performing the following work, if applicable:
	  – assessing the consistency of the assumptions used taking into account the economic environment on the closing and reporting dates;
	  – comparing the forecasts of the discounted future earnings with the budget and the strategic plan approved by Management, and integrating the health and oil crisis context;
	  – comparing the equity used for valuation with the equity resulting from the accounts of the entities concerned, that have undergone an audit or analytical procedures if necessary, and analyzing the adjustments made, if any, on said equity.
	
	We also assessed the appropriateness of the information presented in the "Financial Assets" section of the "Accounting policies" Note to the annual financial statements.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

Information given in the management report and in the other documents with respect to the financial position and the financial statements provided to the shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the Board of Directors' management report and in the other documents with respect to the financial position and the financial statements provided to the shareholders.

We attest the fair presentation and the consistency with the financial statements of the information relating to payment deadlines mentioned in Article D. 441-6 of the French Commercial Code (*Code de commerce*).

Report on Corporate Governance

We attest that the Board of Directors' Report on Corporate Governance sets out the information required by Articles L. 225-37-4 et L. 22-10-10 and L. 22-10-9 of the French Commercial Code (*Code de commerce*).

Concerning the information given in accordance with the requirements of Article L. 22-10-9 of the French Commercial Code (*Code de commerce*) relating to remunerations and benefits received by, or allocated to the directors and any other commitments made in their favor, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies controlled thereby, included in the consolidation scope. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L. 22-10-11 of the French Commercial Code (*Code de commerce*), we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

Format of presentation of the financial statements intended to be included in the annual financial report

In accordance with Article 222-3, III of the General Regulation of the AMF (*Autorité des Marchés Financiers*), your Company's Management informed us of its decision to postpone the application of the European single electronic format as defined in Commission Delegated Regulation (EU) No 2019/815 of December 17, 2018 to years beginning on or after January 1, 2021. Therefore, this report does not include a conclusion on the compliance with this format of the presentation of the financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (*Code monétaire et financier*).

Appointment of the Statutory Auditors

We were appointed as statutory auditors of TOTAL SE by the Annual General Meeting held on May 13, 1998 for KPMG S.A. (replacing CCAS, appointed in 1986, firm acquired by KPMG S.A. in 1997) and on May 14, 2004 for ERNST & YOUNG Audit.

As at December 31, 2020, KPMG S.A. and ERNST & YOUNG Audit were in the 23rd year and 17th year of total uninterrupted engagement, respectively.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Financial Statements

Objectives and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the financial statements.
- Assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (*code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for statutory auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense, March 17, 2021

The Statutory Auditors
French original signed by:

KPMG Audit
Division of KPMG S.A.

Jacques-François Lethu
Partner

Eric Jacquet
Partner

ERNST & YOUNG Audit

Laurent Vitse
Partner

Céline Eydieu-Boutté
Partner

10.2 Statutory Financial Statements of TOTAL SE as parent company

10.2.1 Statement of income

As of December 31, *(M€)*		2020	2019	2018
Sales	(note 13)	3,960	6,337	7,377
Net operating expenses	(note 14)	(4,704)	(6,931)	(8,089)
Operating depreciation, amortization and allowances	(note 15)	(3)	(198)	(23)
OPERATING INCOME		**(747)**	**(792)**	**(735)**
Financial expenses and income	(note 16)	(599)	(259)	(489)
Dividends	(note 17)	9,261	8,263	7,709
Net financial allowances and reversals	(note 18)	(1,167)	(472)	(1,448)
Other financial expenses and income	(note 19)	26	42	105
FINANCIAL INCOME		**7,521**	**7,574**	**5,877**
CURRENT INCOME		**6,774**	**6,782**	**5,142**
Gains (Losses) on sales of marketable securities and loans		(4)	8	118
Gains (Losses) on sales of fixed assets		(1)	–	–
Non-recurring items		(23)	(53)	(17)
NON-RECURRING INCOME	(note 20)	**(28)**	**(45)**	**101**
Employee profit-sharing plan		(44)	(65)	(56)
Taxes	(note 21)	536	367	298
NET INCOME		**7,238**	**7,039**	**5,485**

10.2.2 Balance sheet

ASSETS

As of December 31, *(M€)*		2020	2019	2018
Non-current assets				
Intangible assets		812	831	817
Depreciation, depletion, amortization and valuation allowances		(522)	(516)	(475)
Intangible assets, net	(note 2)	**290**	**315**	**342**
Property, plant and equipment		580	569	531
Depreciation, depletion, amortization and valuation allowances		(452)	(418)	(385)
Property, plant and equipment, net	(note 2)	**128**	**151**	**146**
Subsidiaries and affiliates: investments and loans	(note 3)	119,312	111,810	130,966
Valuation allowances on investments and loans	(note 3)	(5,578)	(5,395)	(5,404)
Other non-current assets	(note 4)	1,066	565	1,378
Investments and other non-current assets, net		**114,800**	**106,980**	**126,940**
TOTAL NON-CURRENT ASSETS		**115,218**	**107,446**	**127,428**
Current assets				
Inventories		2	2	2
Accounts receivable	(note 5)	1,412	1,750	1,812
Marketable securities	(note 6)	54	213	236
Cash/cash equivalents and short-term deposits		–	37	1
TOTAL CURRENT ASSETS		**1,468**	**2,002**	**2,051**
Prepaid expenses		2	1	5
Currency translation adjustments	(note 12)	803	141	192
TOTAL ASSETS		**117,491**	**109,590**	**129,676**

LIABILITIES

As of December 31, *(M€)*		2020	2019	2018
Shareholders' equity	(note 7)			
Share capital		6,633	6,505	6,602
Paid-in surplus		36,722	35,415	37,276
Reserves	(note 7.2)	3,933	3,934	3,934
Retained earnings		13,332	13,222	14,424
Net income		7,238	7,039	5,485
Interim dividends		(5,221)	(5,235)	(5,018)
TOTAL SHAREHOLDERS' EQUITY		**62,637**	**60,880**	**62,703**
Contingency liabilities	(notes 8 and 9)	10,191	9,245	8,611
Debts				
Long-term loans	(note 10)	36,799	31,601	37,804
Short-term loans	(note 10)	1,992	2,495	14,733
Accounts payable	(note 11)	4,690	4,790	5,130
TOTAL DEBTS		**43,481**	**38,886**	**57,667**
Accrued income		46	70	94
Currency translation adjustments	(note 12)	1,136	510	601
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**117,491**	**109,590**	**129,676**

10.2.3 Statement of cash flow

As of December 31, *(M€)*	2020	2019	2018
Cash flow from operating activities			
Net income	7,238	7,039	5,485
Depreciation, depletion and amortization	42	76	74
Valuation allowances on investments and loans	184	(9)	590
Other provisions	946	634	853
Funds generated from operations	**8,410**	**7,740**	**7,002**
(Gains) Losses on disposal of assets	212	189	66
(Increase) Decrease in working capital	(7,732)	19,070	3,951
Other, net	320	(3)	55
CASH FLOW FROM OPERATING ACTIVITIES	**1,210**	**26,996**	**11,074**
Cash flow used in investing activities			
Purchase of property, plant and equipment and intangible assets	(45)	(42)	(30)
Purchase of investments and long-term loans	(1,237)	(1,691)	(3,523)
Investments	**(1,282)**	**(1,733)**	**(3,553)**
Proceeds from disposals of property, plant and equipment and intangible assets	1	–	–
Proceeds from disposal of marketable securities and loans	223	1,405	1,031
Total divestitures	**224**	**1,405**	**1,031**
CASH FLOW USED IN INVESTING ACTIVITIES	**(1,058)**	**(328)**	**(2,522)**
Cash flow from financing activities			
Capital increase	338	403	412
Share buybacks	(552)	(2,510)	(3,684)
Cash dividends paid related to the previous year	(4,120)	(4,216)	(3,476)
Cash interim dividends paid related to current year	(1,735)	(1,715)	(683)
Increase (Decrease) in short-term borrowings and bank overdrafts	5,880	(18,594)	(1,251)
CASH FLOW FROM FINANCING ACTIVITIES	**(189)**	**(26,632)**	**(8,682)**
Increase (Decrease) in cash and cash equivalents	**(37)**	**36**	**(130)**
Cash and cash equivalents at beginning of year	**37**	**1**	**131**
Cash and cash equivalents at year-end	**–**	**37**	**1**

10.2.4 Statement of changes in shareholders' equity

(M€)	Common shares issued			General reserves and retained earnings	Revaluation reserve	Total
	Number	Amount	Premiums			
AS OF JANUARY 1, 2018	**2,528,989,616**	**6,322**	**32,882**	**20,011**	**3**	**59,218**
Balance of cash dividends paid[a]	–	–	–	(1,331)	–	(1,331)
Final dividend paid in shares[a']	5,798,335	15	287	(325)	–	(23)
Net income 2018	–	–	–	5,485	–	5,485
Cash interim dividends paid for 2018[b] [b']	–	–	–	(5,018)	–	(5,018)
Issuance of common shares[c]	99,619,164	249	4,036	–	–	4,285
Capital increase reserved for Group employees	9,354,889	23	318	–	–	341
Changes in revaluation differences	–	–	–	–	–	–
Expenses related to the capital increase reserved for employees	–	–	(1)	–	–	(1)
Capital increase by dividend paid in shares	41,430,702	104	1,932	–	–	2,036
Capital reduction by cancellation of treasury shares[d]	(44,590,699)	(111)	(2,178)	–	–	(2,289)
AS OF DECEMBER 31, 2018	**2,640,602,007**	**6,602**	**37,276**	**18,822**	**3**	**62,703**
Balance of cash dividends paid[e]	–	–	–	(1,668)	–	(1,668)
Net income 2019	–	–	–	7,039	–	7,039
Cash interim dividends paid for 2019[f] [f']	–	–	–	(5,235)	–	(5,235)
Issuance of common shares[g]	264,230	1	8	–	–	9
Capital increase reserved for Group employees	10,047,337	25	370	(1)	–	394
Changes in revaluation differences	–	–	–	–	–	–
Expenses related to the capital increase reserved for employees	–	–	(1)	–	–	(1)
Capital increase by dividend paid in shares	16,076,936	40	751	–	–	791
Capital reduction by cancellation of treasury shares[d]	(65,109,435)	(163)	(2,989)	–	–	(3,152)
AS OF DECEMBER 31, 2019	**2,601,881,075**	**6,505**	**35,415**	**18,957**	**3**	**60,880**
Balance of cash dividends paid[h]	–	–	–	(598)	–	(598)
Final dividend paid in shares[h']	38,063,688	95	1,001	(1,096)	–	–
Net income 2020	–	–	–	7,238	–	7,238
Cash interim dividends paid for 2020[i] [i']	–	–	–	(5,221)	–	(5,221)
Issuance of common shares	–	–	–	–	–	–
Capital increase reserved for Group employees	13,179,262	33	307	(1)	–	339
Changes in revaluation differences	–	–	–	–	–	–
Expenses related to the capital increase reserved for employees	–	–	(1)	–	–	(1)
Capital increase by dividend paid in shares	–	–	–	–	–	–
Capital reduction by cancellation of treasury shares[d]	–	–	–	–	–	–
AS OF DECEMBER 31, 2020	**2,653,124,025**	**6,633**	**36,722**	**19,279**	**3**	**62,637**

(a) Balance of the 2017 dividend paid in cash (€0.62 per share).
(a') Balance of the 2017 dividend: €302 million paid in shares increased by €23 million adjustment for the exact number of eligible shares, according to the shareholders' meeting dated on June 01, 2018.
(b) Interim dividend paid in 2018 for the 1st quarter 2018: €683 million (€0.64 per share) paid in cash and €995 million paid in shares.
(b') Interim dividend not paid in 2018 for the 2nd and 3rd quarters 2018: €3,340 million (€0.64 per share) with option to receive dividend in shares.
(c) Including 97,522,593 shares in remuneration for the acquisition of Maersk Olie og Gas A/S and 2,096,571 shares by subscription of stock options.
(d) See note 7.
(e) Balance of the 2018 dividend: including €1,673 million (€0.64 per share) paid in cash decreased by €5 million adjustment for the exact number of eligible shares, according to the Shareholders' meeting on May 29,2019.
(f) Interim dividend paid in 2019 for the 1st quarter 2019: €1,715 million (€0.66 per share) paid in cash.
(f') Interim dividend not paid in 2019 for the 2nd and 3rd quarters 2019: €1,707 million (€0.66 per share) for the 2nd quarter and €1,813 million (€0,68 per share) for the 3rd quarter.
(g) 264,230 shares by subscription of stock options.
(h) Balance of the 2019 dividend: including €663 million (€0.68 per share) paid in cash decreased by €65 adjustment for the exact number of eligible shares, according to the Shareholders' meeting on May 29,2020.
(h') Balance of the 2019 dividend: €1,096 million (€0.68 per share) paid in shares increased, according to the shareholders' meeting dated on May 29, 2020.
(i) Interim dividend paid in 2020 for the 1st quarter 2020: €1,735 million (€0.66 per share) paid in cash.
(i') Interim dividend not paid in 2020 for the 2nd and 3rd quarters 2020: €1,735 million (€0.66 per share) for the 2nd quarter and €1,751 million (€0,66 per share) for the 3rd quarter.

10.3 Notes to the statutory financial statements

Following its registration with the Trade and Companies Register of Nanterre as a European Company, on July 16, 2020, TOTAL S.A. has become TOTAL SE.

NOTE 1 Accounting policies

The 2020 financial statements have been prepared in accordance with French Generally Accepted Accounting Principles ("French GAAP") in force (ANC 2018-01 regulation).

Accounting principles retained for the preparation of the financial statements of the 2020 financial year are identical to those of 2019.

The 2020 financial statements have been prepared and closed in application of the principle of going concern.

Property, plant and equipment

Property, plant and equipment are carried at cost except assets that were acquired before 1976 for which the basis has been revalued pursuant to French regulations. They are depreciated according to the straight-line method over their estimated useful life, as follows:

Buildings	20-30 years
Furniture and fixtures	5-10 years
Transportation equipment	2-5 years
Office equipment and furniture	5-10 years
Computer equipment	3-5 years

Intangible assets

These items include essentially:
- purchase prices or production cost of the software, depreciated on their useful life which is generally between 1 and 3 years.
- proved mineral interests correspond to the costs of the exploration wells which result in proved reserves. The costs of activities correspond essentially to the entrance fees and the bonus giving access to proved reserves. When the production starts, the capitalized exploration wells are depreciated using the unit-of-production method based on proved developed reserves.

Investments and loans to consolidated subsidiaries and equity affiliates

Investments in consolidated subsidiaries and equity affiliates are accounted for at the acquisition cost, or the appraised value for investments affected by the 1976 legal revaluation.

Loans to consolidated subsidiaries and equity affiliates are stated at their nominal value.

For exploration and production activities, in the absence of a development decision, allowances are recorded against investments and loans for an amount corresponding to the exploration costs incurred. When the existence of proved reserves is established, the value of the investments and loans is limited to the subsidiary expected pay-back evaluated at year-end.

For other segments, valuation allowances on investments and loans are based on their financial performance, results or fair value. The company notably takes into account discounted expected future cash flows from the long-term plan of subsidiaries and affiliates.

Other long-term financial investments are accounted for at the acquisition cost. They are depreciated if the market value of the asset is lower than the net book value.

Inventories

Cost for crude oil and refined product inventories are determined according to the First-In, First-Out (FIFO) method. Inventories are valued at either the historical cost or the market value, whichever is lower.

Receivables and payables

Receivables and payables are stated at nominal value. Allowances for doubtful debts are recorded when the actual value is lower than the net book value.

Provisions and other non-current liabilities

A provision is recognized when TOTAL SE has a present obligation, legal or constructive, as a result of a past event for which it is probable that an outflow of resources will be required and when a reliable estimate can be made regarding the amount of the obligation. The amount of the liability corresponds to the best possible estimation.

Foreign currency transactions

Receivables and payables in foreign currency are converted into euros at the year-end exchange rate. Unrealized foreign exchange gains or losses are recognized in the balance sheet as "Currency translation adjustment asset or liability''. A provision for risks is recorded only for unrealized foreign exchange losses, generated by individual positions.

Financial instruments

TOTAL SE uses financial instruments for hedging purposes only in order to manage its exposure to changes in interest rates and foreign exchange rates.

As part of this policy, the Company may use interest rate swap agreements and forward transactions. The difference between interest to be paid and interest to be received on these swaps or premiums and discounts on these forward transactions is recognized as interest expense or interest income on a prorated basis, over the life of the instruments.

NOTE 2 Intangible assets and property, plant and equipment

As of December 31, *(M€)*	2020 Gross amount	2020 Depreciation, depletion, amortization and valuation allowances	2020 Net	2019 Net
Headquarters	**296**	**(214)**	**82**	**62**
– Software	160	(135)	25	4
– Proved mineral interests	99	(61)	38	41
– Other intangible assets	37	(18)	19	17
– Work in progress	–	–	–	–
Branch (A.D.G.I.L.)[(a)]	**516**	**(308)**	**208**	**253**
– Proved mineral interests	484	(308)	176	208
– Unproved mineral interests	32	–	32	45
TOTAL INTANGIBLE ASSETS	**812**	**(522)**	**290**	**315**
Land	36	–	36	36
Buildings	95	(89)	6	10
Other	449	(363)	86	105
TOTAL PROPERTY, PLANT AND EQUIPMENT	**580**	**(452)**	**128**	**151**
TOTAL[(b)]	**1,392**	**(974)**	**418**	**466**

(a) Branches amortization related to commercial activity is accounted for as purchase cost of goods sold.
(b) As of December 31, 2019, aggregate cost, depreciation and valuation allowance amounted respectively to €1,400 million and €934 million.

NOTE 3 Subsidiaries and affiliates: investments and loans

3.1 Changes in investments and loans

As of December 31, *(M€)*	2020 Gross amount at beginning of year	Increases Monetary	Increases Non monetary	Decreases Monetary	Decreases Non monetary	Currency translation adjustment	Gross amount at year-end
Investments[(a)]	102,417	211	1	(1)	(239)	–	102,389
Loans[(b)]	9,393	8,270	–	(179)	(30)	(531)	16,923
TOTAL	**111,810**	**8,481**	**1**	**(180)**	**(269)**	**(531)**	**119,312**
Analysis by segment							
Exploration & Production	9,639	39	–	(1)	(239)	(13)	9,425
Integrated Gas, Renewables & Power	4,102	204	1	–	(30)	–	4,277
Marketing & Services	6,344	–	–	–	–	–	6,344
Refining & Chemicals	27,153	–	–	–	–	–	27,153
Corporate	64,572	8,238	–	(179)	–	(518)	72,113
TOTAL	**111,810**	**8,481**	**1**	**(180)**	**(269)**	**(531)**	**119,312**

(a) The variation of equity shares on December 31st, 2020 is mainly due to:
- Recapitalization of intra-group companies which belong to Integrated Gas, Renewables and Power activity.
- Universal Transfer of Assets for companies which belong to Exploration & Production activity.

(b) Changes in loans mainly relate to the financing of Total Finance and Total Treasury.

3.2 Changes in depreciation on investments and loans

As of December 31, *(M€)*	2020 Beginning of year	Allowances	Reversals	Currency translation adjustment	Year-end
Investments[a]	4,851	393	(252)	–	4,992
Loans[b]	544	43	–	(1)	586
TOTAL	**5,395**	**436**	**(252)**	**(1)**	**5,578**
Analysis by segment					
Exploration & Production	2,174	87	(240)	(1)	2,020
Integrated Gas, Renewables & Power	383	7	(12)	–	378
Marketing & Services	–	–	–	–	–
Refining & Chemicals	2,832	340	–	–	3,172
Corporate	6	2	–	–	8
TOTAL	**5,395**	**436**	**(252)**	**(1)**	**5,578**

(a) The variation in the investments allowances as of December 31, 2020 is mainly due to:
- the depreciation of Total Raffinage France shares in Refining & Chemicals activity,
- the reversal relating to the Universal Transfer of Assets in Exploration & Production activity.

(b) The variation of depreciation of loans on December 31, 2020 is mainly due to loans in the Exploration activity.

3.3 Net investments and loans

As of December 31, *(M€)*	2020 Gross amount	2020 Net allowances	2020 Net	2019 Net
Investments	102,389	(4,992)	97,397	97,566
Loans[a] [b]	16,923	(586)	16,337	8,849
TOTAL[c]	**119,312**	**(5,578)**	**113,734**	**106,415**
Analysis by segment				
Exploration & Production	9,425	(2,020)	7,405	7,465
Integrated Gas, Renewables & Power	4,277	(378)	3,899	3,719
Marketing & Services	6,344	–	6,344	6,344
Refining & Chemicals	27,153	(3,172)	23,981	24,321
Corporate	72,113	(8)	72,105	64,566
TOTAL	**119,312**	**(5,578)**	**113,734**	**106,415**

(a) As of December 31, 2020, the gross amount includes €16,736 million related to affiliates.
(b) As of December 31, 2020, the gross amount is split by maturity date less than one year and more than one year, respectively for €10,369 million and €6,554 million.
(c) As of December 31, 2020, gross amounts and net allowances amounted respectively to €111,810 million and €5,395 million.

NOTE 4 Other non-current assets

4.1 Changes in other non-current assets

As of December 31, *(M€)*	2020 Gross amount at beginning of year	Increases Monetary	Increases Non monetary	Decreases Monetary	Decreases Non monetary	Currency translation adjustment	Gross amount at year-end
Investment portfolio[a]	542	502	–	(1)	(3)	–	1,040
Other non-current assets	20	17	–	(16)	–	–	21
Deposits and guarantees	3	2	–	–	–	–	5
TOTAL	**565**	**521**	**–**	**(17)**	**(3)**	**–**	**1,066**

(a) Variations in investment portfolio correspond to the purchase and cancellation of treasury shares.

4.2 Net amounts of non-current assets

As of December 31, *(M€)*	2020 Gross amount	2020 Net allowances	2020 Net	2019 Net
Investment portfolio	1,040	–	1,040	542
Other non-current assets[a]	21	–	21	20
Deposits and guarantees	5	–	5	3
TOTAL	**1,066**	**–**	**1,066**	**565**

(a) The net amount due within 12 months as of December 31, 2020, is amounting to €5 million.

NOTE 5 Accounts receivable

As of December 31, *(M€)*	2020 Gross amount	2020 Net allowances	2020 Net	2019 Net
Accounts receivable	813	–	813	934
Other operating receivables	603	(4)	599	816
TOTAL[a][b]	**1,416**	**(4)**	**1,412**	**1,750**

(a) Including €764 million related to affiliates as of December 31, 2020.
(b) Including €1,411 million due within 12 months and €5 million due in more than 12 months as of December 31, 2020.

NOTE 6 Marketable securities

As of December 31st, 2020, TOTAL SE holds 1,108,294 treasury shares for a gross amount of €54 million.

NOTE 7 Shareholders' equity

7.1 Share capital variation

The variation of the number of shares composing the share capital is as follows:

AS OF DECEMBER 31, 2017[a]		**2,528,989,616**
	2018 Capital increase reserved for employees	9,354,889
	Capital increase as payment of the scrip dividend (second, third interim and final 2017 dividend, as well as the first 2018 interim dividend)	47,229,037
	Exercise of TOTAL share subscription options	2,096,571
	Issuance of shares in consideration for the acquisition of Maersk Olie og Gas A/S	97,522,593
	Capital reduction by cancellation of treasury shares	(44,590,699)
AS OF DECEMBER 31, 2018[b]		**2,640,602,007**
	2019 Capital increase reserved for employees	10,047,337
	Capital increase as payment of the scrip dividend (second and third 2018 interim dividend)	16,076,936
	Exercise of TOTAL share subscription options	264,230
	Capital reduction by cancellation of treasury shares	(65,109,435)
AS OF DECEMBER 31, 2019[c]		**2,601,881,075**
	Deferred contribution pursuant to the 2015 capital increase reserved for employees	18,879
	2020 Capital increase reserved for employees	13,160,383
	Capital increase as payment of the scrip dividend (final 2019 dividend)	38,063,688
AS OF DECEMBER 31, 2020[d]		**2,653,124,025**

(a) Including 8,376,756 treasury shares.
(b) Including 32,473,281 treasury shares.
(c) Including 15,474,234 treasury shares.
(d) Including 24,392,703 treasury shares.

Capital increase reserved for Group employees

The Extraordinary General Meeting ("**EGM**") of May 29, 2020, in its twentieth resolution, granted the authority to the Board of Directors to carry out, a capital increase, in one or more occasions within a maximum period of twenty-six months, reserved to members (employees and retirees) of a company or group savings plan of the Company ("**ESOP**").

In fiscal year 2020, the Board of Directors of September 16, 2020, by virtue of the twentieth resolution above-mentioned, decided to proceed with a capital increase reserved for Group employees and retirees, within the limit of 18 million shares with immediate dividend rights. On this occasion, the Board of Directors has granted all powers to the Chairman and Chief Executive Officer to determine the opening and closing dates of the subscription period and the subscription price. This capital increase is expected to be completed after the General Meeting of May 28, 2021.

During the fiscal years 2018, 2019 and 2020, the Company completed the following ESOP, which terms are set out below:

Fiscal year	2020	2019	2018
Date of the ESOP	June 11, 2020	June 6, 2019	May 3, 2018
By virtue of	18th resolution of the EGM of June 1, 2018	18th resolution of the EGM of June 1, 2018	23rd resolution of the EGM of May 24, 2016
Subscriptions			
Number of shares subscribed	12,952,925	9,845,111	9,174,817
Subscription price	26.20 euros	40.10 euros	37.20 euros
Free shares			
Number of shares granted	207,458	202,226	180,072
By virtue of	19th resolution of the EGM of June 1, 2018	19th resolution of the EGM of June 1, 2018	24th resolution of the EGM of June 24, 2016
Deferred contribution			
Number of shares granted	1,380	5,932	6,784
Number of beneficiaries	276	1,187	1,360
End of the acquisition period	June 11, 2025	June 6, 2024	May 3, 2023

Capital increase as payment of scrip dividend

The Ordinary Shareholders' Meeting on May 29, 2020, approved the option for shareholders to receive the final 2019 dividend in new shares of the Company or in cash.

TOTAL shares held by TOTAL SE

As of December 31,	2020	2019	2018
Number of treasury shares held by TOTAL SE	24,392,703	15,474,234	32,473,281
Percentage of share capital	0.92%	0.59%	1.23%
Of which shares acquired with the intention to cancel them	*23,284,409*	*11,051,144*	*27,360,278*
Of which shares allocated to TOTAL share performance plans for Group employees	*52,848*	*4,357,324*	*5,044,817*
Of which shares intended to be allocated to new share performance or purchase options plans	*1,055,446*	*65,766*	*68,186*

Share cancellation

The Board of Directors, pursuant to the authorization granted by the Extraordinary Shareholders' Meeting on May 26, 2017, in the thirteenth resolution to reduce, on one or more occasions, the Company's share capital by cancelling shares, in accordance with the provisions of Articles L. 225-209 and L. 225-213 of the French Commercial Code, has proceeded with the following cancellation of TOTAL shares:

			Buybacks for the purpose of		
Fiscal year	Board of Directors' decision date	Number of shares bought back and cancelled	cancellation of the dilution[(a)]	the shareholder return policy[(b)]	Percentage of the share capital cancelled[(c)]
2020			n/a[(d)]		
2019	December 11, 2019	65,109,435 shares bought back between October 29, 2018 and September 9, 2019	34,860,133 shares issued as payment for the 1st, 2nd and 3rd 2018 interim dividends	30,249,302 shares	2.44%
2018	December 12, 2018	44,590,699 shares bought back between February 9 and October 11, 2018	28,445,840 shares issued as payment for the 2nd and 3rd interim dividends as well as for the final 2017 dividends	16,144,859 shares	1.66%

(a) Cancellation of the dilution for the shares issued, without discount, for the scrip dividend.
(b) Within the framework of the $5 billion share buyback program over the 2018-2020 period. On March 23, 2020, in the context of the COVID-19 pandemic and the fall in the oil prices, TOTAL SE announced the suspension of its buyback programme. The Company had previously announced a $2 billion buyback target for 2020 in a 60 $/b environment and has bought back $554 million, i.e. €502 million.
(c) Percentage of the share capital that the cancelled shares represented on the operations' date.
(d) TOTAL SE did not cancel any shares in the fiscal year 2020.

7.2 Reserves

As of December 31, *(M€)*	2020	2019	2018
Revaluation reserves	3	3	3
Legal reserves	740	740	740
Untaxed reserves	2,808	2,808	2,808
Other reserves	382	383	383
TOTAL	**3,933**	**3,934**	**3,934**

NOTE 8 Contingency liabilities

	2020					
			Reversals			
As of December 31, *(M€)*	Gross amount at beginning of year	Allowances	Used	Unused	Currency translation adjustment	Gross amount at year-end
Provisions for financial risks	**8,512**	**983**	**–**	**–**	**–**	**9,495**
Guarantee of the subsidiaries of Exploration & Production activity	8,465	970	–	–	–	9,435
Provisions for risks linked to loans and investments	47	13	–	–	–	60
Provisions for operating risks and compensation expenses	**733**	**183**	**(220)**	**–**	**–**	**696**
Provisions for pensions benefits, and other benefits[(a)]	194	52	(22)	–	–	224
Provisions for long-service medals	12	–	–	–	–	12
Provisions for compensation expenses	403	130	(187)	–	–	346
Other operating provisions	124	1	(11)	–	–	114
Provisions for non-recurring items	**–**	**–**	**–**	**–**	**–**	**–**
TOTAL	**9,245**	**1,166**	**(220)**	**–**	**–**	**10,191**

(a) See NOTE 9.

NOTE 9 Employee benefits obligations

TOTAL SE participates in death-disability, pension, early retirement and severance pay plans. Expenses for defined contribution and multi-employer plans correspond to the contributions paid.

TOTAL SE recorded €224 million as a provision for pension benefits and other benefits as of December 31, 2020 and €194 million as of December 31, 2019.

For defined benefit plans, commitments are determined using a prospective methodology called “projected unit credit method”. The commitment actuarial value depends on various parameters such as the length of service, the life expectancy, the employee turnover rate and the salary increase and discount rate assumptions.

The actuarial assumptions used as of December 31, are the following:

	2020	2019
Discount rate	0.56%	0.75%
Average expected rate of salary increase	2.90%	2.80%
Average residual life expectancy of operations	10-20 years	10-20 years

TOTAL SE records a provision in its accounts for the net actuarial liability of the plan assets and the deferred gains and losses to be amortized when this sum represents a pension liability.

Actuarial gains and losses resulting from changes in actuarial assumptions are amortized using the straight-line method over the estimated remaining length of service of employees involved.

The reconciliation between the total commitment for pension plans not covered through insurance companies and the provision booked is as follows:

(M€)	2020	2019
Actuarial liability as of December 31,	150	201
Deferred gains and losses to be amortized	(12)	(39)
PROVISION FOR PENSION BENEFITS AND OTHER BENEFITS AS OF DECEMBER 31,	**138**	**162**

The company's commitment for pension plans covered through insurance companies amounts to:

(M€)	2020	2019
Actuarial liability as of December 31,	634	579
Plan assets	(459)	(492)
NET COMMITMENT AS OF DECEMBER 31,	**175**	**87**
Provision for pension benefits and other benefits as of December 31,	**86**	**32**

NOTE 10 Loans

Due dates as of December 31, (M€)	2020	Within 1 year	1 to 5 years	More than 5 years	2019
Bonds					
€2,500 2.25% Perpetual Non-Call 6 year 02/2021	297	297	–	–	1,000
€2,500 2.625% Perpetual Non-Call 10 year 02/2025	2,500	–	2,500	–	2,500
€1,500 1.750% Perpetual Non-Call 5 year 04/2024	1,500	–	1,500	–	1,500
$1,200 0.5% Non-Dilutive Convertible Bonds due 2022[(a)]	978	–	978	–	1,068
€1,750 3.875% Perpetual Non-Call 6 year – 05/2022	1,750	–	1,750	–	1,750
€1,000 2.708% Perpetual Non-Call 6.6 year – 05/2023	1,000	–	1,000	–	1,000
€1,500 3.369% Perpetual Non-Call 10 year – 10/2026	1,500	–	–	1,500	1,500
€1,000 2.0% Perpetual Non-Call 10 year – 09/2030	1,000	–	–	1,000	–
Accrued interest	160	160	–	–	168
TOTAL BONDS	**10,685**	**457**	**7,728**	**2,500**	**10,486**
Other loans[(b)]	26,610	39	26,571	–	21,477
Current accounts[(c)]	1,496	1,496	–	–	2,133
TOTAL	**38,791**	**1,992**	**34,299**	**2,500**	**34,096**

(a) This loan was converted into floating rate debt by insurance of asset-backed swaps individually.
(b) Including €23,620 million as of December 31, 2020 and €21,430 million as of December 31, 2019 related to affiliates.
(c) Including €1,496 million as of December 31, 2020 and €2,127 million as of December 31, 2019 related to affiliates.

On January 25, 2021, TOTAL SE issued perpetual subordinated bonds for an amount of €3 billion:
- €1.5 billion at 1.625% coupon for the tranche with a 7 year first call date.
- €1.5 billion at 2.125% coupon for the tranche with a 12 year first call date.

NOTE 11 Accounts payable

As of December 31, *(M€)*	2020	2019
Suppliers	612[(a)]	631[(b)]
Other operating liabilities	4,078	4,159
TOTAL[(c) (d)]	**4,690**	**4,790**

(a) Excluding invoices not yet received (€470 million), the outstanding liability amounts to €142 million, of which:
- €107 million for invoices of foreign suppliers to foreign branches for which the payment schedule is as follows: €88 million within 1 month and €19 million payable no later than 6 months;
- €16 million non-Group for which the payment schedule is as follows: €7 million due on December 31, 2020 and €9 million payable no later than January 31, 2021;
- €19 million to the Group for which the payment schedule is as follows: €-1 million due on December 31, 2020 and €20 million payable no later than January 31, 2021.

(b) Excluding invoices not yet received (€403 million), the outstanding liability amounts to €228 million, of which:
- €177 million for invoices of foreign suppliers to foreign branches for which the payment schedule is as follows: €170 million within 1 month and €7 million payable no later than 6 months;
- €37 million non-Group for which the payment schedule is as follows: €7 million due on December 31, 2019 and €30 million payable no later than January 31, 2020;
- €14 million to the Group for which the payment schedule is as follows: €13 million due on December 31, 2019 and €1 million payable no later than January 31, 2020.

(c) Including €402 million in 2020 and €345 million in 2019 related to affiliates.
(d) Due in 12 months or less.

NOTE 12 Currency translation adjustments

The application of the foreign currency translation method outlined in NOTE 1, currency translation adjustments asset and liability resulted in a net currency translation adjustment of €333 million as of December 31, 2020, mainly due to the revaluation of US dollar loans.

NOTE 13 Sales

(M€)	France	Rest of Europe	North America	Africa	Middle East & Rest of the world	Total
FISCAL YEAR ENDED DECEMBER 31, 2020	**213**	**2,288**	**33**	**801**	**625**	**3,960**
Hydrocarbon and oil products	–	1,901	–	–	2	1,903
Technical support fees	213	387	33	801	623	2,057
FISCAL YEAR ENDED DECEMBER 31, 2019	**303**	**4,654**	**48**	**753**	**579**	**6,337**
Hydrocarbon and oil products	–	4,305	–	–	2	4,307
Technical support fees	303	349	48	753	577	2,030

NOTE 14 Net operating expenses

(M€)	2020	2019
Purchase cost of goods sold	(1,731)	(3,938)
Other purchases and external expenses	(1,691)	(1,692)
Taxes	(29)	(50)
Personnel expenses	(1,253)	(1,250)
TOTAL	**(4,704)**	**(6,931)**

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NOTE 15 Operating depreciation, amortization and allowances

(M€)	2020	2019
Depreciation, valuation allowance and amortization on		
– Property, plant and equipment and intangible assets	(43)	(37)
– Employee benefits	(182)	(284)
– Other operating expenses	(1)	(101)
– Current assets	–	–
SUBTOTAL 1	**(226)**	**(422)**
Reversals		
– Property, plant and equipment and intangible assets	–	–
– Employee benefits	209	222
– Other operating expenses	11	2
– Current assets	3	–
SUBTOTAL 2	**223**	**224**
TOTAL (1+2)	**(3)**	**(198)**

NOTE 16 Financial expenses and income

(M€)	2020	2019
Financial expenses		
Interest expenses and other	(526)	(615)
Losses on investments and loans to subsidiaries and affiliates	(279)	(8)
SUBTOTAL 1[(a)]	**(805)**	**(623)**
Financial income		
Net gain on sales of marketable securities and interest on loans to subsidiaries and affiliates	–	36
Interest on short-term deposits and other	206	328
SUBTOTAL 2[(b)]	**206**	**364**
TOTAL (1+2)	**(599)**	**(259)**

(a) Including €(182) million as of December 31, 2020 and €(294) million as of December 31, 2019 related to affiliates.
(b) Including €7 million as of December 31, 2020 and €161 million as of December 31, 2019 related to affiliates.

NOTE 17 Dividends

(M€)	2020	2019
Exploration-Production	953	258
Integrated Gas, Renewables & Power	93	75
Marketing & Services	711	719
Refining & Chemicals	807	605
Corporate	6,697	6,606
TOTAL	**9,261**	**8,263**

NOTE 18 Net financial allowances and reversals

(M€)	2020	2019
Exploration-Production	(830)	(442)
Integrated Gas, Renewables & Power	5	(76)
Marketing & Services	–	9
Refining & Chemicals	(339)	55
Corporate	(3)	(18)
TOTAL	**(1,167)**	**(472)**

NOTE 19 Other financial expenses and income

This net profit of €26 million is entirely composed of foreign exchange profits.

NOTE 20 Non-recurring income

Non-recurring income is a loss of €28 million and it is mainly composed of:

- Loss on disposals amounting to €4 million.
- Scholarships and grants payment for €17 million.
- Indemnity for €8 million due to an early refunding of bonds.

NOTE 21 Basis of taxation

TOTAL SE is subject to French corporation tax according to the ordinary rules of law, i.e. based on the principle of territoriality of tax stipulated in the French Tax Code (Article 209-I). It is also taxed outside France on income from its direct operations abroad.

Moreover, since January 1, 1992, TOTAL SE has elected the 95%-owned French subsidiaries tax regime provided for by Articles 223 A et seq. of the French Tax Code (*Régime de l'intégration fiscale*). In accordance with the integration agreement signed between TOTAL SE and its consolidated subsidiaries, the losses realized by these subsidiaries during the consolidation period are definitively acquired by the parent company.

The tax group consists of the parent Company and 214 subsidiaries owned for more than 95% whose main contributors to the consolidated taxable income at December 31, 2020 are:

- Total SE;
- Total Raffinage France;
- Total Finance;
- Total Marketing Services;
- Total Marketing France;
- Total Treasury.

The French tax rate consists of the standard corporation tax rate (31% for companies with sales in excess of €250 million), plus additional contributions applicable in 2020, which brings the overall income tax rate to 32.02%.

TOTAL SE does not record deferred tax in its statutory financial statements; however, the main temporary differences are as follows:

As of December 31, *(M€)*	2020	2019
Pension, benefits and other benefits	224	195
Net currency translation adjustment	333	369
Other, net	183	166
TOTAL (ASSETS) NET LIABILITIES	**740**	**730**

NOTE 22 Foreign exchange and counterparty risk

The commercial foreign exchange positions are systematically covered by the purchase or sale of the corresponding currencies, mainly with cash transactions and sometimes on forward market. Regarding long-term assets in foreign currencies, the Company tries to reduce the corresponding exchange risk by associating them, as far as possible, with financing in the same currency.

An independent department from the dealing room monitors the status of the financial instruments, especially through marked-to-market valuations and sensitivity estimations. Counterparty risk is monitored on a regular basis against limits set by the Group's senior management.

NOTE 23 Off-balance sheet commitments

As of December 31, *(M€)*	2020	2019
Commitments given		
Guarantees on custom duties	1,136	1,136
Bank guarantees	10,936	12,143
Guarantees given on other commitments[(a)]	24,373	28,816
Guarantees related to confirmed lines of credit	29	55
Short-term financing plan[(b)]	16,799	18,803
Bond issue plan[(b)]	46,054	45,130
TOTAL OF COMMITMENTS GIVEN	**99,327**	**106,083**
Commitments received		
Guarantees related to confirmed lines of credit	9,172	10,312
Guarantees on confirmed authorized bank overdrafts	–	–
Other commitments received	169	253
TOTAL OF COMMITMENTS RECEIVED	**9,341**	**10,565**

(a) This item mainly includes the following commitments: shareholder agreements, financing guarantees, payment guarantees, and reservation of oil and gas transport and storage capacity guarantees.
(b) Guarantees of bond issues and short-term financing plans incurred by Total Capital, Total Capital International & Total Capital Canada. On the overall plan amount of €62,853 million, €53,048 million were incurred as of December 31, 2020 compared with €51,930 million as of December 31, 2019.

Portfolio of financial derivative instruments

The off-balance sheet commitments related to financial derivative instruments are set forth below.

As of December 31, *(M€)*	2020	2019
Issue swaps		
Notional value[(a)]	978	1,068
Market value, accrued coupon interest[(b)]	(12)	(66)
Call options[(c)]		
Notional value[(a)]	978	1,068
Market value	16	66

(a) These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.
(b) This value has been determined on an individual basis by discounting future cash flows with the market curves existing at year-end.
(c) Purchase of call options to hedge the economic exposure of TOTAL SE to the indexation of the repaid principal amount of the cash-settled convertible to the TOTAL share price.

NOTE 24 Average number of employees

	2020	2019
Managers	4,886	4,805
Supervisors	1,319	1,355
Technical and administrative staff	145	170
TOTAL	**6,350**	**6,330**

NOTE 25 Share subscription or purchase option plans, performance share plans

25.1 TOTAL share subscription or purchase option plans

	2010 Plan	2011 Plan	Total	Weighted average exercise price
Date of the shareholders' meeting	5/21/2010	5/21/2010		
Award date[(a)]	9/14/2010	9/14/2011		
Strike price	€38.20	€33.00		
Expiry date	9/14/2018	9/14/2019		
Number of options				
Existing options as of January 1, 2018	**1,950,372**	**490,568**	**2,440,940**	**€37.15**
Granted	–	–	–	–
Cancelled[(b)]	(79,139)	–	(79,139)	€38.20
Exercised	(1,871,233)	(225,338)	(2,096,571)	€37.64
Existing options as of January 1, 2019	**–**	**265,230**	**265,230**	**€33.00**
Granted	–	–	–	–
Cancelled[(b)]	–	(1,000)	(1,000)	€33.00
Exercised	–	(264,230)	(264,230)	€33.00
Existing options as of January 1, 2020	**–**	**–**	**–**	**n/a**
Granted	–	–	–	n/a
Cancelled[(b)]	–	–	–	n/a
Exercised	–	–	–	n/a
EXISTING OPTIONS AS OF DECEMBER 31, 2020	**–**	**–**	**–**	**N/A**

(a) The grant date is the date of the Board meeting awarding the share subscription or purchase options.
(b) Out of the options cancelled in 2018 and 2019, (i) 79,139 options that were not exercised expired on September 14, 2018 due to expiry of 2010 plan and (ii) 1,000 options that were not exercised expired on September 14, 2019 due to expiry of 2011 plan.

Options granted in 2010 and 2011 were exercisable, subject to a presence condition, after a 2-year period from the date of the Board meeting awarding the options and have expired eight years after this date. The underlying shares were not transferable during four years from the date of grant. The transfer restriction period did not apply to employees of non-French subsidiaries as of the date of the grant, who may have transferred the underlying shares after a 2-year period from the date of the grant.

The Combined General Meeting of May 29, 2020 authorised the Board of Directors, for a period of thirty-eight months to grant share subscription or purchase options. Since the 2011 Plan, the Board of Directors has not decided any new grant of TOTAL share subscription or purchase option plan. All the option plans have expired.

25.2 TOTAL performance shares plans

	2015 Plan	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	Total
Date of the shareholders' meeting	5/16/2014	5/24/2016	5/24/2016	5/24/2016	6/1/2018	6/1/2018	
Award date	7/28/2015	7/27/2016	7/26/2017	3/14/2018	3/13/2019	3/18/2020	
Date of the final award (end of the vesting period)	7/29/2018	7/28/2019	7/27/2020	3/15/2021	3/14/2022	3/20/2023	
Transfer authorized as from	7/29/2020	7/29/2021	7/28/2022	3/16/2023	3/15/2024	3/21/2025	
Number of performance shares							
Outstanding as of January 1, 2018	**4,697,305**	**5,607,100**	**5,679,039**	**–**	**–**	**–**	**15,983,444**
Notified	–	–	–	6,083,145	–	–	6,083,145
Cancelled	(621,568)	(61,840)	(26,640)	(12,350)	–	–	(722,398)
Finally granted	(4,075,737)	(2,040)	(1,480)	–	–	–	(4,079,257)
Outstanding as of January 1, 2019	**–**	**5,543,220**	**5,650,919**	**6,070,795**	**–**	**–**	**17,264,934**
Notified	–	–	–	–	6,447,069	–	6,447,069
Cancelled	–	(1,267,392)	(41,220)	(41,260)	(39,246)	–	(1,389,118)
Finally granted	–	(4,275,828)	(1,840)	(1,100)	(180)	–	(4,278,948)
Outstanding as of January 1, 2020	**–**	**–**	**5,607,859**	**6,028,435**	**6,407,643**	**–**	**18,043,937**
Notified	–	–	–	–	–	6,727,352	6,727,352
Cancelled	–	–	(1,313,687)	(55,830)	(44,289)	(18,691)	(1,432,497)
Finally granted	–	–	(4,294,172)	(10,740)	(10,890)	(1,773)	(4,317,575)
OUTSTANDING AS OF DECEMBER 31, 2020	**–**	**–**	**–**	**5,961,865**	**6,352,464**	**6,706,888**	**19,021,217**

The performance shares, which are bought back by the TOTAL SE on the market, are finally granted to their beneficiaries after a 3-year vesting period, from the date of the grant. The final grant is subject to a continued employment condition as well as:

- two performance conditions for the 2015 to 2018 Plans;
- three performance conditions for the 2019 Plan; and
- four performance conditions for the 2020 Plan.

Moreover, the transfer of the performance shares finally granted will not be permitted until the end of a 2-year holding period from the date of the final grant.

2020 Plan

On March 18, 2020, the Board of Directors granted performance shares to certain employees and executive directors of the Company or Group companies, subject to the fulfilment of the continued employment condition and four performance conditions.

The presence condition applies to all shares.

The performance conditions apply differently depending of the capacity of the beneficiaries. If all shares granted to senior executives are subject to performance share, the grant of the first 150 shares to non-senior executive are not subject to the performance condition abovementioned, which will, nonetheless, apply to any shares granted above this threshold.

The definitive number of granted shares will be based on the TSR (Total Shareholder Return), the annual variation of the net cash flow by share in dollars, the pre-dividend organic cash breakeven, as well as the change in the greenhouse gas emissions (GHG) on operated oil & gas facilities, for fiscal years 2020, 2021 and 2022, applied as follows:

- for 1/4 of the shares, the Company will be ranked against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) each year during the three vesting years (2020, 2021 and 2022) based on the TSR criterion of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- for 1/4 of the shares, the Company will be ranked each year against its peers (ExxonMobil, Royal Dutch Shell, BP and Chevron) during the three vesting years (2020, 2021 and 2022) using the annual variation in net cash flow per share criterion expressed in dollar.

Based on the ranking, a grant rate will be determined for each year for these two first criteria:

Ranking	Grant rate
1st place	180%
2nd place	130%
3rd place	80%
4th and 5th places	0%

- for 1/4 of the shares, the pre-dividend organic cash breakeven criterion will be assessed during the three vesting years (2020, 2021 and 2022) as follows. The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes covers the organic investments. The ability of the Group to resist to the variations of the Brent barrel price is measured by this parameter.
  - the maximum grant rate will be reached if the breakeven is less than or equal to \$30/b.
  - the grant rate will be zero if the breakeven is greater than or equal to \$40/b.
  - the interpolations will be linear between these two points of reference.
- for 1/4 of the shares, the change in the GHG on operated oil & gas facilities will be assessed each year as regard to the achievement of the target to reduce the GHG emissions set for fiscal years 2020, 2021 and 2022 and corresponding to 43 Mt CO_2e for 2020, 42.4 Mt CO_2e for 2021 and 41.8 Mt CO_2e for 2022.
  - the maximum grant rate will be reached if the GHG emissions (Scope 1 & and Scope 2) target has been achieved.
  - the grant rate will be zero if the GHG emissions of the year considered are 1 Mt CO_2e above the set target.
  - the interpolations will be linear between these points of reference.

A grant rate will be determined for each year.

For each of the four criteria, the average of the three grant rates obtained (for each of the three fiscal years for which the performance conditions are assessed) will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%) and capped at 100%.

Each criterion will have a weight of 1/4 in the definitive grant rate. The definitive grant rate will also be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%). The number of shares definitively granted, after confirmation of the performance conditions, will be rounded up to the nearest whole number of shares in case of a fractional share.

NOTE 26 Others

Compensation for the administration and management bodies

The aggregate amount of direct and indirect compensation accounted by the French and foreign affiliates of the Company, for all executive officers of TOTAL as of December 31 and for the members of the Board of Directors who are employees of the Group, is detailed below.

During the fiscal year 2020, the Company, taking into account the definition used by the US regulations applicable to Executive Officers and in the interest of harmonization, has chosen to reduce the list of its Executive Officers to the members of the Executive Committee in order to align this list with the list of "Persons Discharging Managerial Responsibilities" (PDMR) within the meaning of Article 19.5 of Regulation (EU) No. 596/2014 on Market Abuse ("Regulation"). For the purposes of this Regulation, PDMRs are defined as the persons referred to in Article L. 621-18-2 (a) of the French Monetary and Financial Code (the "Directors") and the persons referred to in Article L. 621-18-2 (b) of the same code that TOTAL SE has defined as the members of the TOTAL Executive Committee ("COMEX").

As of December 31, 2020, the main Group executive officers are the members of the Executive Committee, i.e. eight people.

As of December 31, 2019, the main Group executive officers included the members of the Executive Committee and the four directors of the corporate functions members of the Group Performance Management Committee (Communication, Legal, Health, Safety and Environment, Investor relations), and the Group Treasurer, i.e. thirteen people.

There are three employee members of the Board of Directors on December 31, 2020. They were two on December 31, 2019. The increase in the number of employee members results from the appointment of a second director representing employees on the Board of Directors in accordance with the Pacte law of May 22, 2019.

For the year ended December 31, *(M€)*	2020	2019
Number of people	11	15
Direct or indirect compensation	11.05[(a)]	13.41

(a) Including €10.84 million for the members of the Executive Committee. The variable bonus has represented 53.23% of this overall amount of €10.84 million.

The benefits provided for executive officers of the Group and the members of the Board of Directors, who are employees of the Group, include severance to be paid upon retirement, supplementary pension schemes and insurance plans, which represent €105.2 million provisioned as of December 31, 2020 (against €100.8 million as of December 31, 2019).

Restating the 2019 data, to the scope of the main Group of executive officers as defined in 2020, the detail of the compensation is as follows:

For the year ended December 31, *(M€)*	2020	2019
Number of people	11	10
Direct or indirect compensation	11.05	10.76

The compensation allocated to members of the Board of Directors for directors' fees totaled €1.26 million in 2020 against €1.40 million in 2019.

Legal proceedings

All legal proceedings involving TOTAL SE are included in NOTE 12.2 – Other risks and commitments – to the Consolidated Financial Statements attached to the Universal Registration Document.

NOTE 27 Post closing events

There was no post closing event.

10.4 Other financial information concerning the parent company

10.4.1 Subsidiaries and affiliates

As of December 31, 2020 *(M€)*	% of share capital owned by the company	Share capital	Other shareholders' equity	Book value of investments		Loans & advances	Sales	Net income	Dividends allocated	Commitments & contingencies
				gross	net					
Subsidiaries										
Chartering and Shipping Services S.A.	100.0	11	170	92	92	–	1,778	54	–	–
Omnium Reinsurance Company S.A.	100.0	33	1,361	114	114	–	–	119	72	–
Saft Groupe S.A.	100.0	27	864	975	975	–	694	(5)	25	–
Total China Investment Co Ltd	100.0	161	134	140	140	–	369	39	62	–
Total DE – Centrale él. Pont-sur-Sambre	100.0	30	80	126	126	–	100	13	15	–
Total DE – Centrale él. Toul Power	100.0	35	68	98	98	–	80	13	15	–
Total Direct Energie S.A.	92.3	5	465	2,002	2,002	–	3,013	(41)	–	–
Total E&P Angola Block 25	100.0	230	(240)	228	–	–	–	–	–	–
Total E&P Angola Block 39	100.0	126	(126)	148	–	–	–	–	–	–
Total E&P Angola Block 40	100.0	230	(258)	228	–	–	–	–	–	–
Total E&P Cote d'Ivoire CI-514	100.0	96	–	96	–	–	–	–	–	–
Total E&P Danmark A/S	100.0	24	4,042	4,339	4,339	57	–	309	–	–
Total E&P Holding Ichthys	100.0	89	(406)	84	–	–	–	(39)	–	–
Total E&P Iraq	100.0	14	37	67	67	–	102	15	–	–
Total E&P Maroc	100.0	75	–	75	–	–	–	–	–	–
Total E&P Nigeria Deepwater G Ltd.	100.0	–	6	147	–	–	–	–	–	–
Total E&P Nurmunai	100.0	120	(118)	120	–	–	–	–	–	–
Total E&P South East Mahakam	100.0	101	(83)	101	–	–	–	–	–	–
Total Eren Holding	33.9	526	118	268	268	–	–	28	–	132
Total Gasandes	100.0	–	7	148	1	–	–	–	–	–
Total Gestion USA	100.0	4,759	1,346	4,759	4,759	–	–	35	–	–
Total Holdings Europe	53.2	65	9,510	4,446	4,446	–	–	1,034	900	–
Total Holdings S.A.S.	100.0	2,889	32,085	46,905	46,905	–	–	(3,014)	5,706	–
Total Marketing Services	100.0	324	3,117	6,204	6,204	–	33	651	648	80
Total Qatar	100.0	–	37	2,855	2,807	–	59	4	–	–
Total Raffinage Chimie	100.0	934	13,060	13,171	13,171	–	–	1,607	800	–
Total Raffinage France	60.2	191	(820)	3,188	134	–	10,124	(1,470)	–	212
Total Refining & Chemicals Saudi Arabia S.A.S.	100.0	80	49	80	80	505	1	(3)	–	–
Total Renewables	100.0	206	22	315	243	–	16	16	–	–
Total Oil Trading S.A.	100.0	5	8,054	9,900	9,900	–	49,703	1,319	–	–
Others[c]	–	–	–	2,010	1,566	16,361[a]	–	–	1,018	78,279[b]
TOTAL				**103,429**	**98,437**	**16,923**			**9,261**	**78,703**

(a) Including Total Finance for €5,287 million and Total Treasury for €10,369 million.
(b) Including €62,853 million concerning Total Capital, Total Capital International and Total Capital Canada for bond issue and short-term financing plans.
(c) This item covers subsidiaries and affiliates whose gross value does not exceed 1% of the share capital.

10.4.2 Five-year financial data

Share capital at year-end *(M€)*	**2020**	**2019**	**2018**	**2017**	**2016**
Share capital	6,633	6,505	6,602	6,322	6,076
Number of common shares outstanding	2,653,124,025	2,601,881,075	2,640,602,007	2,528,989,616	2,430,365,862
Number of future shares to issue:					
– share subscription options	–	–	265,230[(c)]	2,440,940	5,285,618

Operation and income for the year *(M€)*	**2020**	**2019**	**2018**	**2017**	**2016**
Net commercial sales	1,903	4,307	5,493	5,146	4,942
Employee profit sharing	49	54	52	38	51
Net income	7,238	7,039	5,485	6,634	4,142
Retained earnings before appropriation	13,332	13,222	14,424	14,156	16,035
Income available for appropriation	20,570	20,261	19,909	20,790	20,177
Dividends (including interim dividends)	6,984	7,016	6,898	6,665	6,104
Retained earnings	13,586	13,245	13,011	14,125	14,073

Earnings per share *(€)*	**2020**	**2019**	**2018**	**2017**	**2016**
Income after tax, before depreciation, amortization and provisions[(a)]	3.18	2.96	2.61	2.54	1.73
Income after tax and depreciation, amortization and provisions[(a)]	2.73	2.71	2.06	2.66	1.73
Net dividend per share	2.64	2.68	2.56	2.48	2.45

Employees *(M€)*	**2020**	**2019**	**2018**	**2017**	**2016**
Average number of employees during the year[(b)]	6,350	6,330	6,225	6,304	6,902
Total payroll for the year	935	924	921	896	963
Social security and other staff benefits	334	340	327	335	363

(a) Earnings per share are calculated based on the fully-diluted weighted-average number of common shares outstanding during the year, excluding treasury shares and shares held by subsidiaries.
(b) Including employees on end-of-career leave or taking early retirement (dispensations from work, 130 people in 2016, 168 people in 2017, 183 people in 2018, 185 people in 2019 and 151 in 2020).
(c) Amended data.

10.4.3 Proposed allocation of 2020 income

(Net dividend proposed: €2.64 per share) *(€)*	
Income for the year	7,237,793,880
Retained earnings before appropriation	13,331,931,018
TOTAL AVAILABLE FOR ALLOCATION	**20,569,724,898**
2020 dividends: €2.64 per share	6,968,548,100
Retained earnings	13,601,176,798
TOTAL ALLOCATED	**20,569,724,898**

10.4.4 Statement of changes in share capital for the past five years

For the year ended *(M€)*		Cash contributions		Successive amounts of nominal capital	Cumulative number of common shares of the Company
		Par value	Premiums		
2016	**CHANGES IN CAPITAL**				
	Exercise of share subscription options	6	85	6,106	2,442,295,801
	Capital increase by dividend paid in shares	221	3,126	6,327	2,530,697,130
	Capital reduction by cancellation of treasury shares	(251)	(4,514)	6,076	2,430,365,862
2017	**CHANGES IN CAPITAL**				
	Exercise of share subscription options	7	97	6,083	2,433,015,170
	Capital increase reserved for Group Employees	24	332	6,106	2,442,547,360
	Capital increase by dividend paid in shares	216	3,492	6,322	2,528,989,616
2018	**CHANGES IN CAPITAL**				
	Exercise of share subscription options	5	74	6,328	2,531,086,187
	Issuance of shares in remuneration for the acquisition of Maersk Olie og Gas A/S	244	3,962	6,572	2,628,608,780
	Capital increase reserved for Group Employees	23	317	6,595	2,637,963,669
	Capital increase by dividend paid in shares	118	2,219	6,713	2,685,192,706
	Capital reduction by cancellation of treasury shares	(111)	(2,178)	6,602	2,640,602,007
2019	**CHANGES IN CAPITAL**				
	Exercise of share subscription options	1	8	6,603	2,640,866,237
	Capital increase reserved for Group Employees	25	369	6,628	2,650,913,574
	Capital increase by dividend paid in shares	40	751	6,668	2,666,990,510
	Capital reduction by cancellation of treasury shares	(163)	(2,989)	6,505	2,601,881,075
2020	**CHANGES IN CAPITAL**				
	Capital increase reserved for Group Employees	33	306	6,538	2,615,060,337
	Capital increase by dividend paid in shares	95	1,001	6,633	2,653,124,025

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Additional reporting information

TOTAL considers transparency as a principle of action to provide a clear picture to investors, regulators and the public at large. In 2020, TOTAL decided to adopt the SASB standards and started using SASB's EM-EP Oil & Gas Exploration & Production standard.

TOTAL also supports the World Economic Forum's initiative to propose common ESG metrics for all companies (see the white paper titled "Measuring Stakeholder Capitalism – Towards common metrics and consistent reporting" published in September 2020) and started to report on the WEF's proposed core metrics in 2020.

11.1 SASB Report

The reporting below presents a set of sustainable development indicators at Group level, based on the American SASB EM-EP standard (Oil & Gas – Exploration & Production). This report includes some of the elements of the consolidated non-financial performance statement (chapter 5), whose scope and reporting methodologies are presented in point 5.11 of chapter 5.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Greenhouse Gas Emissions			
EM-EP-110a.1	Gross global Scope 1 emissions	Yes	**Operational control: 36 Mt CO_2e** **Equity interest share: 52 Mt CO_2e** (Source: 2020 URD, §5.6.4)
	Scope 1, percentage of methane	Yes	**1.6 Mt CO_2e, i.e. 4%** 64 kt CH_4 (Source: 2020 URD, §5.6.4)
	Scope 1, percentage covered under emissions-limiting regulations	Yes	**21 Mt CO_2e in 2020, i.e. 60%**
EM-EP-110a.2	Amount of gross global Scope 1 emissions from flared hydrocarbons	Yes	**5 Mt CO_2e**
	Amount of gross global Scope 1 emissions from other combustion	Yes	**23 Mt CO_2e**
	Amount of gross global Scope 1 emissions from process emissions	Yes	**7 Mt CO_2e**
	Amount of gross global Scope 1 emissions from other vented emissions	Yes	**0.5 Mt CO_2e**
	Amount of gross global Scope 1 emissions from fugitive emissions	Yes	**0.5 Mt CO_2e**

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Greenhouse Gas Emissions			
EM-EP-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Yes	TOTAL has set targets and introduced a number of indicators to steer its performance. **Targets** **2030 targets for oil & gas operations worldwide (Scopes 1 & 2)** – Reduce GHG emissions (Scopes 1 & 2) on the Group's operated oil & gas facilities of 46 Mt CO_2e in 2015 to less than **40 Mt CO_2e** by 2025 (a 15% decrease). By 2030, the target is a reduction of at least 40% of the net emissions[1] compared to 2015 for its operated oil & gas activities – Reduce routine flaring[2] by **80%** on operated facilities between 2010 and 2020 in order to eliminate it by 2030 – Improve by an average of **1%** per year the energy efficiency of the Group's operated facilities since 2010 – Maintain the intensity of methane emissions for Upstream hydrocarbons activities below **0.2%** of commercial gas produced at all operated oil and gas facilities, and below **0.1%** of commercial gas produced on operated gas facilities – Maintain the intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities under **20 kg CO_2e/boe** **2030 worldwide targets (Scope 3)** – Reduce the average carbon intensity of the energy products used by the Group's customers worldwide by more than **20%** between 2015, the date of the Paris Agreement, and 2030 (Scopes 1, 2, 3) – Achieve in 2030, a level of worldwide emissions (Scope 3)[3] lower in absolute terms than in 2015 **2030 Europe target (Scopes 1, 2, 3)** – Reduce by at least **30%** by 2030 the indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3)[4] in Europe[5] in absolute terms compared to 2015. This 30% reduction target is extended to all the Scopes 1, 2, 3 emissions in Europe **Facts** – A GHG emission reduction (Scopes 1 & 2) of the operated oil & gas facilities from 46 Mt CO_2e to **35.8 Mt CO_2e** (39 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020 – More than **90%** reduction in routine flaring between 2010 and 2020 – **10%** improvement in energy efficiency between 2010 and 2020 – Methane intensity for Upstream hydrocarbons activities of **0.15%** of commercial gas produced for operated oil and gas facilities in 2020, and of less than **0.1%** for operated gas facilities – An intensity of CO_2e emissions from operated facilities for Upstream hydrocarbons activities of **18 kg CO_2e/boe** in 2020 – A decrease of the carbon intensity of **10%** (8% excluding COVID-19 effect) between 2015 and 2020 – A reduction of indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3) in Europe from 256 Mt CO_2e to **190 Mt CO_2e** (215 Mt CO_2e excluding COVID-19 effect) between 2015 and 2020 – A decrease in GHG emissions (Scopes 1, 2, 3) in Europe of **24%** (12% excluding COVID-19 effect) between 2015 and 2020. It should be noted that the decrease in the Group's GHG emissions (Scopes 1, 2, 3) in 2020 is partly related to the impact of the COVID-19 pandemic on the TOTAL's activities, hence the mentioned evaluation of the decrease excluding the COVID-19 effect. (Source: 2020 URD, §5.6.4)
Air Quality			
EM-EP-120a.1	Air emissions of the following pollutants: NO_X (excluding N_2O)	Yes	**64 kt** (Source: 2020 URD, §5.5.3)
	Air emissions of the following pollutants: SO_X	Yes	**34 kt** (Source: 2020 URD, §5.5.3)
	Air emissions of the following pollutants: volatile organic compounds (VOCs)	Yes	**69 kt** (Source: 2020 URD, §5.5.3)
	Air emissions of the following pollutants: particulate matter (PM_{10})	No	Not aggregated at Group level. Reported locally if required by regulation.

(1) The calculation of net emissions takes into account natural carbon sinks like forests, regenerative agriculture and wetlands.
(2) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(3) Indirect GHG emissions related to the use by customers of the energy products sold for end use (Scope 3).
(4) The volumes taken into account include liquid products sold by Marketing & Services and Refining bulk sales (oil products, biofuels), sales of LNG from shares of production of TOTAL, as well as commercial sales of natural gas by iGRP.
(5) Europe refers to the European Union, Norway, the United Kingdom and Switzerland.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Water Management			
EM-EP-140a.1	Total fresh water withdrawn	Yes	**105,000 megaliters** (Source: 2020 URD, §5.5.3)
	Percentage of fresh water withdrawn in regions with High or Extremely High Baseline Water Stress	Yes	**50%** (Source: 2020 URD, §5.5.3)
	Total fresh water consumed	Yes	**75,000 megaliters** (Source: 2020 URD, §5.5.3)
	Percentage of fresh water consumed in regions with High or Extremely High Baseline Water Stress	Yes	**50%**
EM-EP-140a.2	Volume of produced water and flowback generated	Yes	**121,517 megaliters**
	Percentage discharged	Yes	**50%**
	Percentage injected	Yes	**50%**
	Percentage recycled	Yes	**0%**
	Hydrocarbon content in discharged water	Partially	**Offshore: 12.8 mg/l** **Onshore: 1.9 mg/l** (Source: 2020 URD, §5.5.3)
EM-EP-140a.3	Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	Yes	**100%**
EM-EP-140a.4	Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	Yes	**0%**
Biodiversity Impacts			
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	"The planet's rich biodiversity is under threat. TOTAL's inclusion of biodiversity goes back some time, but the current degradation of the environment is a reality that requires us all to make a major change, collectively and individually. For this reason, TOTAL is now stepping up its biodiversity ambition and commitments, and this will contribute to the Group's ambition to be the company of responsible energies," **Patrick Pouyanné, Chairman and Chief Executive Officer, TOTAL.** Aware of the need to protect the nature on which humanity depends, TOTAL ensures that biodiversity is taken into account in all its operations, based on its Health, Safety, Environment and Quality Charter. [...] In 2020, TOTAL has set itself a new biodiversity ambition to coincide with the preparation of the United Nations' global biodiversity plan, which aims to protect global biodiversity and updates its public commitments in this field (sustainable-performance.total.com). This ambition is based on four core principles: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing sites and sites ceasing their activities, (4) promoting biodiversity. This new Ambition was incorporated in the One MAESTRO framework of the Group. This ambition is currently being rolled out. An internal and external communications plan has been drawn up and deployed in the Group business segments and R&D. A series of webinars open to all of the Group's HSE personnel has been held in order to raise awareness about the new Ambition. A number of specific meetings to present this Ambition to the Group's external partners have been held and allowed their viewpoints and recommendations to be heard. An overview of the steps already taken under the four main areas of the new biodiversity Ambition is provided in the table below.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)	
Biodiversity Impacts				
			Biodiversity Ambition	
			1. Voluntary exclusion zones: – the Group has made a commitment to recognize the universal value of UNESCO's world natural heritage sites, by not conducting oil and gas exploration or production activity in these areas. – TOTAL has also made a commitment not to conduct any exploration activity in oil fields under sea ice in the Arctic.	**What has been accomplished:** – This commitment is respected. – The Group publishes a list of its licenses in the Arctic on its website sustainable-performance.total.com. In 2020, the Group did not conduct any exploration activity in oil fields under sea ice in the Arctic.
EM-EP-160a.1	Description of environmental management policies and practices for active sites	Yes	**2.** New projects: A biodiversity action plan (BAP) is developed for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in a IUCN Protected area I or II or a Ramsar area, the Group commits to implement measures to produce a net positive impact (gain) on biodiversity.	**What has been accomplished:** A biodiversity action plan has been put in place for all operated production sites located in the most sensitive protected areas, corresponding to the IUCN I to IV and Ramsar areas, some of which have a target of a net gain. In 2020, this concerned six projects, two of which are aligned with the performance standards of the World Bank's International Finance Corporation. These are: – The BAP for the existing oil terminal in Djeno (Republic of the Congo), located in a Ramsar area, was developed in 2015 and is continuing to be rolled out . – The BAP for the existing onshore oil terminal in Tempa Rossa (Italy), for which the concession partly overlaps an IUCN II area, was developed in 2019 and is continuing to be rolled out. – The BAP with net gain for the Tilenga project (oil production, Uganda), partly located in an IUCN II area, is 100% complete and implementation is due to begin following the final investment decision. Some measures have already been taken proactively. – The BAP with net gain for the EACOP pipeline project (oil transportation, Tanzania), crossing an IUCN II area is under completion and implementation is due to begin following the final investment decision associated with the decision for the Tilenga project. Some measures have already been taken proactively, such as actions relating to protecting chimpanzees. This BAP has a target of a net gain as it is aligned with the performance standards of the World Bank's International Finance Corporation. – Preparation of the BAP for the existing Eole La Perrière onshore wind farm (Reunion Island, France) has begun as part of the site's redevelopment. – Preparation of the BAP for the existing Helio La Perrière onshore solar field (Reunion Island, France) has begun as part of the site's redevelopment.
			3. Existing sites: A biodiversity action plan will be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant site (Exploration & Production production sites, refineries, petrochemicals sites, gas-fired power stations) which is ISO14001 certified. TOTAL will report on its deployment to the various stakeholders. When a site stops its operations, TOTAL is also committing to considering the development of a dedicated area rich in biodiversity (e.g. rare species habitats, biodiversity sanctuaries, etc.) as one of the options for its rehabilitation.	**What has been accomplished:** Planning of the program is under way, particularly with regard to the preparation of the 14 biodiversity diagnostics exercises expected in 2022. Concerning the creation of biodiversity-rich zones (habitats for rare species, biodiversity sanctuaries etc.) as one of the options for restoring sites that have ceased to operate, an initial zone has been created with a reptile habitat on the banks of the river Garonne. Around ten other sites have been identified and will be subject to a similar process.

<table>
<tr><th>SASB code</th><th>Metrics</th><th>Reported</th><th colspan="2">TOTAL's disclosures (2020)</th></tr>
<tr><td colspan="5">Biodiversity Impacts</td></tr>
<tr><td rowspan="2">EM-EP-160a.1</td><td rowspan="2">Description of environmental management policies and practices for active sites</td><td rowspan="2">Yes</td><td>4. Promotion of biodiversity:
– As part of the Total Foundation's Climate, Coastal and Oceans program, TOTAL wish to support biodiversity-related awareness programs, youth education and research actions.
– TOTAL also commits to sharing biodiversity data collected as part of environmental studies on Group projects with the scientific community and the general public.</td><td>What has been accomplished: Total Foundation supports the IUCN's Blue Natural Capital Financing Facility (BNCFF) general interest initiative. The aim of the BNCFF initiative is to improve coastal conservation projects in order to achieve environmental, social and economic benefits.

In order to continue sharing its biodiversity data and tools with the scientific community, the Group has joined the international Global Biodiversity Information Facility (GBIF). The first input data concerns the Group's projects in Angola and Guyane Maritime. The data published by TOTAL has been downloaded more than 400 times, with a total of 84,000 single data views, and in mid-2020 this data was already cited in three scientific publications. TOTAL is the first major to join GBIF.

In addition, Oxford University in the United Kingdom (Long Term Ecology Laboratory), TOTAL and Equinor launched a collaboration program in 2018 with the aim of developing a tool for screening of marine biodiversity sensitivities. The tool has now been finalized and is available online for industry, the public sector and NGOs[1].</td></tr>
<tr><td colspan="2">Lastly, the Group has a number of R&D programs relating to biodiversity. These include the development with UNEP WCMC[2] of a biodiversity impact indicators methodology that can be consolidated at Group level, the development of an operational catalogue for nature-based solutions, work on mapping areas vulnerable to climate change and opportunities offered by the Group's sites in terms of ecological corridors.

(Source: 2020 URD, §5.5.4)</td></tr>
<tr><td rowspan="5">EM-EP-160a.2</td><td>Number of hydrocarbon spills</td><td>Yes</td><td colspan="2">50
(Source: 2020 URD, §5.5.2)</td></tr>
<tr><td>Volume of hydrocarbon spills</td><td>Yes</td><td colspan="2">1,000 m³
(Source: 2020 URD, §5.5.2)</td></tr>
<tr><td>Spills: volume in Arctic</td><td>Yes</td><td colspan="2">0 m³</td></tr>
<tr><td>Volume impacting shorelines with ESI rankings 8-10</td><td>Yes</td><td colspan="2">0 m³</td></tr>
<tr><td>Volume recovered</td><td>Partially</td><td colspan="2">Following the rupture of the Île-de-France Pipeline (PLIF) in Autouillet in 2019, remediation works were completed in 2020. The topsoil has been reconstituted using agronomically compatible regional mineral and vegetal soil and sewn with selected seeds in order to restructure the soil and prevent the establishment of invasive species while waiting for crops to regrow following a recovery period of one or two years. In spring 2020, vegetation returned to the streambanks equivalent to that present before the incident. The various areas are subject to regular environmental monitoring in order to check the biological and chemical quality over time.

(Source: 2020 URD, §5.5.2)</td></tr>
<tr><td>EM-EP-160a.3</td><td>Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat</td><td>Yes</td><td colspan="2">2.6%
of proved reserves are operated reserves located in or near sites with protected conservation status or endangered species habitat</td></tr>
</table>

(1) LEFT Marine (Local Ecological Footprint Tool).
(2) This nature conservation monitoring center is a United Nations agency that forms part of the United Nations Environment Program (UNEP) and is in charge of biodiversity within the United Nations.

<table>
<tr><th>SASB code</th><th>Metrics</th><th>Reported</th><th>TOTAL's disclosures (2020)</th></tr>
<tr><td colspan="4">Security, Human Rights & Rights of Indigenous Peoples</td></tr>
<tr><td>EM-EP-210a.1</td><td>Percentage of (1) proved and (2) probable reserves in or near areas of conflict</td><td>Yes</td><td>11.5%
(proved reserves)</td></tr>
<tr><td>EM-EP-210a.2</td><td>Percentage of (1) proved and (2) probable reserves in or near indigenous land</td><td>Yes</td><td>1.5%
of proved reserves are operated reserves located in or near indigenous land</td></tr>
<tr><td>EM-EP-210a.3</td><td>Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict</td><td>Yes</td><td>The main challenges associated with the effects of the Group's activities in terms of respect for human rights have been identified using the methodology set out in the United Nations Guiding Principles on business and human rights (UNGP) Reporting Framework relating to the "salient issues", that is to say, the human rights at risk of the most severe negative impact through the Company's activities or business relationships.

This analysis has led the Group to identify six salient risks subdivided across three key areas:
– human rights in the workplace of TOTAL's employees as well as of the employees of its suppliers and other business partners:
– forced labor and child labor;
– discrimination;
– just and favorable conditions of work and safety.
– human rights and local communities:
– access to land;
– the right to health and an adequate standard of living.
– respect for human rights in security-related activities:
– the risk of misuse of force.

Strong commitments
TOTAL's human rights approach is based on strong and formalized commitments. It is supported by a dedicated organization, and embedded in an awareness-raising and training program, as well as evaluation and follow-up mechanisms aiming at measuring the effectiveness of the Group's actions.

TOTAL is committed in particular to respecting internationally recognized human rights and standards, wherever the Group operates, in particular the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

Since 2016, the Group has published a Human Rights Briefing Paper, which is updated regularly, in accordance with the recommendations of the United Nations Guiding Principles Reporting Framework. In 2016, TOTAL was the first company in the oil and gas industry to do this. The 2016 and 2018 publications are available on sustainable-performance.total.com.

(Source: 2020 URD, §5.7)</td></tr>
<tr><td colspan="4">Community Relations</td></tr>
<tr><td>EM-EP-210b.1</td><td>Discussion of process to manage risks and opportunities associated with community rights and interests</td><td>Yes</td><td>Recruiting local people and supporting the development and creation of local businesses
In addition to contributing directly to job creation in the countries where the Group operates (refer to point 5.3 of this chapter), the Group is committed to recruiting local people and subcontractors, if its operational imperatives so permit.

Each of the Group's major industrial projects with high potential local content is part of an industrial strategy that aims to maximize the impact on the host country measured in terms of new jobs and local value creation. This strategy is based on analysis of all local industrial and human capacities available as well as those still to be developed. This forms the basis for the establishment of a specific action plan comprising training initiatives defined with the aim of ensuring a possible transfer of skills to the rest of the economy, and business development initiatives defined and implemented with the involvement of project suppliers, such as incentives to create local partnerships, transfers of technology and expertise and the creation of business training centers.

For Egina in Nigeria, a large project operated by the Group, the production of which began in December 2018, the implementation of this strategy of developing local content has entailed:
– the development of local industrial capacity made concrete by the production of 60,000 tons of equipment and the assembly of 75% of wellheads locally;
– the delivery of 560,000 hours of training;
– 24 million working hours by Nigerian citizens representing 77% of project hours.

This approach is also being rolled out in full across projects currently being developed by the Group: Tilenga in Uganda, EACOP (East African Crude Oil Pipeline) in Uganda and Tanzania, and Mozambique LNG.</td></tr>
</table>

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Community Relations			
EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Yes	Supporting the reindustrialization of the Group's platforms TOTAL implements a specific approach to support the conversion of its industrial sites through two additional projects carried out at the same time: – a project for the future is carried out by the segment concerned, taking into account analysis of market developments. The objective is to adapt industrial facilities in order to make the Group's industrial sites competitive over the long term and respond to the challenges of the energy and ecological transition; – a Voluntary Agreement for Economic and Social Development (CVDES) is implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change. In this way, TOTAL restates its responsibility towards the employment basins in which the Group operates as well as its commitment to maintain a strong and lasting industrial presence. **On the Carling industrial platform (France)**, following the shutdown of the second steam cracker in 2015, TOTAL led a project for the future without any job losses and in keeping with its contractual commitments to its customers and partner companies. The CVDES relating to Carling's site was ended in 2018 with a final commitment of €12 million in grants from TOTAL for four industrial projects representing €125 million of investment and 143 jobs planned. Total Développement Régional (TDR) also committed to support these industrial projects until the effective start-up of the production units. The Metabolic Explorer unit is currently under construction and is expected to begin operation in the first half of 2021, while construction of the AFYREN unit began in late 2020. **The reconversion of the La Mède refinery (France)**, entailing an initial investment of more than €275 million, is underway with the first French biorefinery and an Adblue[(1)] production unit is expected to begin operation in July 2019. The site also has an 8 MW solar farm, which was commissioned in 2018, and a training center, OLEUM, which started up in 2017. This project has been carried out without any lay-offs. The CVDES signed for La Mède for 2016-2019 was extended to 2020. TDR is supporting the subcontractors and putting the Group's commitments into action. From 2018 to 2020, TDR also financially supported nine industrial projects and one industrial demonstrator to create 389 new jobs. **On the Lacq platform (France)**, a TDR unit, hosted by Sobegi, the platform's controller, researches and examines third-party industrial projects that could join the platform in partnership with the Nouvelle-Aquitaine region, the Pau-Béarn Chamber of Commerce and Industry (CCI), the Chemparc public interest group, the Lacq-Orthez district authority and Sobegi. The installation in the Lacq region of an industrial project for biogas production led by the company Fonroche Biogaz[(2)] was confirmed in late 2018. In August 2020, the installation close to the Induslacq platform of a green chemicals project by Alpha Chitin was decided in order to optimize its industrial base thanks to utilities and services that are already available. **On the Grandpuits platform (France)**, TDR also plans to support the project to convert the site into a "zero-crude" platform as announced in September 2020 and representing an investment of €500 million. More generally, TDR supports SMEs in France by proposing various measures that contribute to creating and securing jobs in the long term, such as financial support for the creation, development or takeover of SMEs in the form of zero-interest loans, support for setting up industrial projects with parties involved in local development and public authorities, or support for exports and international development. Between 2018 and 2020, loans were granted to more than 460 SME projects, amounting to a total of more than 27 million euros, and more than 10,500 jobs were supported. In the context of the COVID-19 pandemic and since the start of the lockdown, TDR decided to suspend, for the second quarter of 2020, repayment of the principal amount of loans granted to beneficiaries of the scheme requesting to do so, and, more generally, opted to provide personalized support for borrowers in collaboration with its partners. In addition, some beneficiaries of the scheme have been able to launch new production lines to cope with the crisis, such as serological tests, divider screens, hand hygiene products and masks. (Source: 2020 URD, §5.9)
EM-EP-210b.2	Number and duration of non-technical delays	No	Not aggregated at Group level.

(1) Fuel additive intended for road transport and designed to lower nitrogen oxide (NO_x) emissions.
(2) On January 11, 2021, TOTAL announced the acquisition of Fonroche Biogaz.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Workforce Health & Safety			
EM-EP-320a.1	Total recordable incident rate (TRIR)	Yes	TRIR: number of recorded injuries per million hours worked – All Personnel: 0.74 Group employees: 0.63 Contractors' employees: 0.87 which corresponds to: TRIR All personnel: **0.15** (per 200,000 hours worked) TRIR Group employees: **0.13** (per 200,000 hours worked) TRIR Contractors' employees: **0.17** (per 200,000 hours worked) Note: these rates do not include work-related illnesses (Source: 2020 URD, §5.4.2) Number of occupational illnesses recorded in 2020 for Group employees: **136** (Source: 2020 URD, §5.4.4)
	Fatality rate	Yes	**0.26** (per 100 million hours worked) which corresponds to: **0.0005** (per 200,000 hours worked) (Source: 2020 URD, §5.4.2)
	Near miss frequency rate (NMFR)	Yes	Number of near miss and anomalies reported: around 600,000 Number of hours worked: 389 million Which correspond to a NMFR (per 200,000 hours worked) of around: **300** (Source: 2020 URD, §5.4.2)
	Average hours of health, safety, and emergency response training for full-time employees	Yes	Number of average training days per employee: **2.4** Percentage of training dedicated to HSE: **25%** (Source: 2020 URD, §5.3.2)
	Average hours of health, safety, and emergency response training for contract employees	No	Not available. We don't define training needs by individual contract status and categories of employees.
	Average hours of health, safety, and emergency response training for short-service employees	No	Not available. We don't define training needs by individual contract status and categories of employees.
EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Yes	As part of the **policy for preventing** workplace accidents, TOTAL has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Group employees and contractors working on sites operated by the Group. In order to continually move its practices forward, TOTAL also implements a process for analyzing accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event. By way of example, a near miss with a high severity potential is treated as a severe accident, and its analysis is considered essential factor of progress. Depending on its relevance to other Group entities, it will trigger a safety alert and, depending on the circumstances, the circulation of lessons learned and updating of the reference framework. The reporting of anomalies and near misses (approximately 600,000 in 2020) is strongly encouraged and is permanently monitored. The involvement of each employee in identifying anomalies and dangerous situations is an indicator of employees' vigilance in accident prevention and reflects the safety culture within the Group. The Group's HSE division includes a division of specialists in high-risk operations (work at height, lifting, electricity, excavations, high-pressure cleaning etc.) which consolidates in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for subsidiaries to improve their safety culture upon their request. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors of a work situation and defining appropriate measures. In 2020, a digital platform was created to host these tools, as well as examples of how to apply them, factsheets and information about the fundamental concepts of Organizational and Human Factors. In addition to its One MAESTRO reference framework, in 2010 the Group introduced "Safety at Work: TOTAL's Twelve Golden Rules". This has been widely circulated within the Group and brings together the fundamental rules which must be scrupulously observed by all personnel, whether employees or the staff of contractors, in all the countries and business segments in which the Group is active. The aim of the Golden Rules is to set out simple, easy-to-remember rules that cover a large number of occupational accidents. The Stop Card system, which was set up in 2015, also enables any employee of the Group or a contractor to intervene if, for example, any of the Golden Rules are not being followed. Between 2019 and 2020, the Group also rolled out the "Our lives first: zero fatal accidents" program, comprising the introduction of joint safety tours with contractors, the incorporation into the permit to work process of a ritual to be performed prior to undertaking work at the Group's operated sites (Safety Green Light), and tools to step up on-site checks and assess compliance with safety rules for eight high-risk activities (working at height, lifting operations, work on process or powered systems, working in confined spaces, hot work, excavation work, manual cleaning using high pressure jets and Industrial cleaning using mobile pump and vacuum truck).

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Workforce Health & Safety			
EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Yes	The correct implementation of the One MAESTRO reference framework, and more generally, of all the Group's occupational safety programs, is verified with site visits and **audits**. Contractors' HSE commitment is also monitored by means of a **qualification** and **company selection** process. The reference framework states that for a contractor to be authorized to carry out high-risk work on a site operated by a Group subsidiary, its HSE management system needs to be certified by a recognized third-party body or be inspected for compliance. Since 2016, for contractors with a high number of hours worked, a Safety Contract Owner can be appointed from among the senior executives of Group segments or members of Executive Committees of Group subsidiaries to initiate high-level dialogue with the contractor's management and increase the level of commitment and visibility on HSE issues. Preventive actions in the field of health, safety and the environment require all employees to adhere to the Group's HSE policies. To this end, the Group provides **training intended for various groups** (new arrivals, managers, senior executives and directors) in order to establish a broad-based, consistent body of knowledge that is shared by everyone: – Safety Pass: these safety induction courses were started on January 1, 2018, for new arrivals within the Group. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical first-aid training sessions; – HSE for Managers is aimed at current or future operational or functional managers within one of the Group's entities. This training program was revised in 2020. Four sessions were held in 2020 under the new format to train around 100 managers; – Safety Leadership for Executives is intended for the Group's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Two sessions were held in 2020 to train around 40 of the Group's senior executives, representing around 15% of their total number. These sessions also included input from contractors' senior executives to facilitate the sharing of best practices and encourage the convergence of viewpoints on the most important aspects of safety culture. In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. More than 120 evaluations were carried out in 2020. In addition to training measures, the HSE division hosts **regular events on HSE-related topics**, with experts and specialists communicating a set of rules and good practices, internal and external, each month. The annual World Day for Safety is another key event. The theme in 2020 was "Our lives first: Joint safety tours with contractors". In addition, TOTAL encourages and promotes its subsidiaries' safety initiatives. Each year, a safety contest is organized and a prize is awarded to the best HSE initiative by a subsidiary. Finally, safety, as a core value of TOTAL, has been a component of **the Group's employee compensation policy** since 2011 at all levels of the Group (refer to point 5.3.1.2 of this chapter). In terms of **security**, the Group's policy aims to ensure that the Group's people, property and information assets are protected from malicious intent or acts. To achieve this, TOTAL relies on its Security department, which develops the Group's reference framework, oversees the security situation in the countries in which it operates in order to determine general security measures to be adopted (such as authorization to travel) and provides support for subsidiaries, particularly in the event of a crisis. The Group's security reference framework applies to all subsidiaries it controls. It provides that the security management system for subsidiaries must include the following stages: analysis of the threat, risk assessment, choice of a security posture, implementation of preventive or protective measures, control and reporting and then regular reviews. It must also comply with the requirements of local regulations. The framework requires each subsidiary to develop a security plan, operating procedures and an action plan. Within the framework of developing new activities, the Group's Security department specifies the organization and resources to be deployed in connection with the business segments. In each country in which TOTAL operates, the Country Chair is responsible for the security of operations in the country. The Country Chair ensures the deployment of measures and resources, with the support of a Country Security Officer and subsidiaries' CEOs. Subsidiaries' management systems and security plans are checked on a regular basis by the Group's Security department or the Country Chair. Familiarization and training programs and a centralized system for reporting security events are organized by the Group's Security department. (Source: 2020 URD, §5.4.2)

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Reserves Valuation & Capital Expenditures			
EM-EP-420a.1	Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	Yes	**Resilience of the organization's strategy** Regulations designed to gradually limit fossil fuel use may, depending on the GHG emission limits and time horizons set, negatively and significantly affect the development of projects, as well as the economic value of certain of the Group's assets. As part of the annual preparation of its long-term plan, TOTAL makes long-term energy demand forecasts (oil, gas and electricity). In September 2020, the Group presented the update of its Total Energy Outlook, available on total.com. TOTAL performs sensitivity tests to assess the ability of its asset portfolio to withstand an increase in the price per ton of CO_2. In 2020, these tests show that a long-term CO_2 price of $40/t[1] applied worldwide would have an estimated negative impact of around 6% on the discounted present value of the Group's assets (upstream and downstream). In addition, the average reserve life of the Group's proved and probable reserves is 18 years and the discounted value of proved and probable reserves beyond 18 years is estimated at 15% of the discounted value of the Group's upstream assets. In keeping with its aim to reach carbon neutrality (net zero emissions) by 2050, TOTAL has reviewed its oil assets that can be qualified as "stranded", meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects concerned are the Fort Hills and Surmont oil sands projects. TOTAL has decided to take into account only proved reserves for impairment testing on these two assets – contrary to general practice which considers proved and probable reserves. In addition, TOTAL has announced that it will not approve any new projects to increase capacity on the Canadian oil sands assets. (Source: 2020 URD, §5.6.2)
EM-EP-420a.2	Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves	Yes	**4 Gt CO_2e**
EM-EP-420a.3	Amount invested in renewable energy, revenue generated by renewable energy sales	Yes	TOTAL is continuing its integrated expansion across the electricity value chain, from power generation – from renewables or natural gas – to storage and sale to end-customers. Since 2015, TOTAL has allocated more than 10% of its investment to renewables and electricity[2], representing $1.5 billion per year, and it plans to increase this to more than 20% a year between 2021 and 2025. In 2018, the Group made strategic acquisitions, including Direct Énergie and its subsidiary Quadran, respectively renamed Total Direct Énergie and Total Quadran, thereby stepping up its presence in renewables (wind,solar, hydropower and biogas). In 2020, TOTAL acquired EDP's residential power operations in Spain and created a solar power distribution joint venture with the Adani Green Energy Limited (AGEL) in India. In January 2021, TOTAL announced the acquisition of a 20% stake in AGEL, thereby strengthening TOTAL's strategic alliance with the Adani group in the Indian market and the Group's positioning in renewable energies. The Group confirms its objective to invest in order to have a gross power generation capacity from renewables of 35 GW in 2025 and will continue its development to become a major international player in renewable energies with the ambition to have developed a gross capacity of 100 GW by 2030. At year-end 2020, gross production installed capacity of renewable electricity totaled 7 GW, compared with 3 GW at year-end 2019 and less than 1 GW at year-end 2017. This growth is the result of accelerated projects in 2020, with more than 5 GW of wind power projects in France, the United Kingdom and South Korea, more than 2 GW of solar power assets in operation in India, more than 5 GW of solar power projects in Spain and a giant 0.8 GW solar farm in Qatar. In addition, the Group aims to be carbon neutral (net zero emissions) in all electricity purchasing for operated facilities in Europe by 2025. The electricity needs of these sites are covered by renewable electricity produced by TOTAL. (Source: 2020 URD, §5.6.2)

(1) $40/t as from 2021, or the current price in a given country if it is higher than $40/t.
(2) Including gas for power generation.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Reserves Valuation & Capital Expenditures			
EM-EP-420a.4	Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	Yes	The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, therefore, TOTAL has factored this development into its strategy and set itself the ambition to achieve carbon neutrality (net zero emissions) by 2050, from its production to the use of the energy products sold to its customers (Scopes 1, 2, 3) together with society. TOTAL actively supports policies in favor of carbon neutrality, including carbon pricing, and mobilizes its resources not only to achieve its own ambitions but also to support countries and its customers in achieving carbon neutrality as well. TOTAL is committed to working alongside its customers to provide for the decarbonization of energy consumption offering an energy mix with an increasingly lower carbon intensity. To accompany this development and achieve its carbon neutrality ambition (net zero emissions) in 2050 or sooner, for all its worldwide activities, TOTAL acts based on three main axes and commits to targets for 2030 for each of them: – Achieve in 2050 or sooner carbon neutrality (net zero emissions) for TOTAL's worldwide operated activities (Scopes 1 & 2) with interim targets to reduce GHG emissions (Scopes 1 & 2) of its operated oil & gas facilities from 46 Mt CO_2e in 2015 to less than 40 Mt CO_2e by 2025 (a 15% decrease), then for 2030, to reduce by at least 40% compared to 2015 the net emissions(1) for the oil & gas operated activities; – Achieve carbon neutrality (net zero emissions) worldwide for indirect GHG emissions related to the use by its customers of energy products sold for end use (Scope 3) in 2050 or sooner. This axis requires for TOTAL working actively with its customers, since this means they will reduce their direct emissions (Scopes 1 & 2) that correspond to TOTAL's indirect Scope 3 emissions and that they are also targeting carbon neutrality. TOTAL has set itself targets for 2030 that the average carbon intensity of energy products used worldwide Climate change-related challenges (as per TCFD recommendations) by TOTAL customers is reduced by more than 20% compared to 2015 and that the level of the worldwide emissions of Scope 3 related to the use by its customers of energy products sold for end use is lower in absolute terms compared to the level of 2015, despite the growth in its energy production in the coming decade. TOTAL is the only major actor to date to have undertaken such a commitment. – Achieve carbon neutrality (net zero emissions) in Europe(2) from the production to the use by its customers of energy products sold for end use in 2050 or sooner (Scopes 1, 2, 3). Given that, for the Company, Europe currently accounts for about 60% of TOTAL's indirect GHG emissions related to the use by its customers of energy products sold by the Group for end use (Scope 3) and that Europe has set ambitious targets for 2030 towards carbon neutrality, TOTAL wants to actively contribute to this ambition for Europe. The Group has set the interim target of cutting indirect Scope 3 emissions related to the use by customers of the energy products sold for end use, in Europe by at least 30% by 2030, in absolute terms, compared to 2015, which represents a major step to being carbon neutral in 2050. This 30% reduction target is extended to all the Scopes 1, 2, 3 emissions in Europe. To structure its approach, the Group is focusing on four levers: acting on emissions, acting on products, acting on customer demand and developing carbon sinks. (Source: 2020 URD, §5.6.2)
Business Ethics & Transparency			
EM-EP-510a.1	Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Yes	**9.7%** (proved reserves)
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	It is a major player in the energy sector where public authorities regularly play a role and where the amounts invested may be very high. In addition, the Group is present in more than 130 countries, some of which have a high perceived level of corruption according to the index drawn up by Transparency International. Aware that it is highly exposed to the risk of corruption, TOTAL applies a principle of zero tolerance. To prevent risks of corruption, TOTAL has implemented a robust, regularly updated anti-corruption compliance program that has been rolled out throughout the Group. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Group's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Group to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party. The commitment of the entire Group and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. This program is drawn up by a dedicated organization acting at the Group and business segment levels, namely the Compliance and Legal Risk Management Department, headed by the Chief Compliance Officer, and the Branch Compliance Officers. They coordinate a network of more than 360 Compliance Officers in charge of rolling out and running the program at the subsidiary level. This structured organization lies in close proximity to operational activities while having its own dedicated reporting line. TOTAL's anti-corruption compliance program is based primarily on the following seven pillars: management commitment or "tone at the top", risk assessment, adoption of internal standards, awareness raising and training of employees, feedback of information, including the whistleblowing system, mechanisms for assessing and monitoring implementation of the program, and imposition of disciplinary sanctions in the event of misconduct.

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Europe refers to the European Union, Norway, the United Kingdom and Switzerland.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Business Ethics & Transparency			
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	**5.8.1.1 Management commitment** The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Group's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. The sixth Business Ethics Day in December 2020 was dedicated, like the previous year, to the theme of "Speak-Up". A live chat with the Chairman and Chief Executive Officer, as well as compliance, ethics and human rights managers, allowed employees to ask questions, particularly concerning reporting any potential breaches of the Code of Conduct. The commitment of the management bodies is also expressed externally by TOTAL joining anti-corruption initiatives and supporting collaborative and multipartite approaches. TOTAL joined the Partnering Against Corruption Initiative (PACI)[1] in 2016, thereby adhering to the PACI Principles for Countering Corruption. TOTAL's Chairman and Chief Executive Officer became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TOTAL is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)[2] since its launch in 2002. **5.8.1.2 Risk assessment** To regularly adapt the compliance program to the risks to which TOTAL is exposed, these must first be identified and assessed. In addition to the Group's risk mapping, which includes the risk of corruption, specific corruption risk mapping is produced on the basis of a methodology formalized in a rule adopted in early 2020. This rule provides for two-tier mapping: that of entities coordinated by the Compliance Officer and that of business segments coordinated by the Branch Compliance Officers. At the business segment level, the assessment needs to examine the main types of risk (purchasing, sales, conflicts of interest, gifts and hospitality, human resources, representatives dealing with public officials, mergers and acquisitions, joint-ventures, donations and sponsoring, and influence peddling). This two-tier analysis is aimed at establishing action plans that are appropriate to the risks identified and the realities on the ground. In addition, particularly when assessing corruption risks, employees are provided with tools that help them identify the risk of corruption, e.g. the Typological guide of corruption risks. Measures are taken to manage the risks identified and specific rules are regularly adopted and incorporated into the Group's reference framework. **5.8.1.3 Internal standards** As an essential element of the Group reference framework, the Code of Conduct sets out the behavior to be adopted, in particular with regard to the question of integrity. It prohibits corruption, including influence peddling, and advocates zero tolerance in this area. The Code of Conduct is complemented by a regularly updated set of anti-corruption standards. The Anti-Corruption Compliance Directive, which was updated in 2016, recalls the main principles and organizes the roll-out of the anti-corruption program. It deals, among others, with commitment, training and awareness raising, accounting and bookkeeping, the assessment system and whistleblowing mechanisms. This directive is complemented by rules that deal with more specific subjects in order to prevent the various risks identified. In January 2020, the Group adopted a single rule to standardize the anti-corruption due diligence processes, to be performed before entering into business relations with third parties (suppliers, representatives dealing with public officials, agents with a commercial activity, beneficiaries of donations, contributions or sponsorship, counterparties in corporate transactions, etc.). In addition, an IT supplier qualification tool, which incorporates the due diligence process, has been gradually deployed since 2019. Due diligence involves collecting information, identifying any risks of corruption and taking the appropriate mitigation measures. This process is performed by the relevant business persons with support from their Compliance Officer, who may call on the Branch Compliance Officer if necessary. In early 2020, a rule was also adopted to deal with the recording and accounting of expenses covered by the anti-corruption compliance rules. Other standards deal with high-risk areas, such as gifts and hospitality, which have to be registered and approved by the line manager above given thresholds; conflicts of interest, which must be reported to the line manager and addressed; anti-corruption measures implemented within joint-ventures; and human resources-related processes such as recruitment. **5.8.1.4 Awareness raising and training** Awareness raising actions are carried out toward all employees. The Group's intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled Prevention and fight against corruption. Poster campaigns communicating the key messages in the risk areas are held on a regular basis; a campaign on the "Speak-Up" theme, among other things, was held before the Business Ethics Day. An initial anti-corruption e-learning course was rolled out in 2011 and a more in-depth e-learning module in 2015. This module is accessible to all employees and mandatory for the targeted personal (almost 43,000 employees) and new hires. At year-end 2020, season one of the anti-corruption e-learning course had been followed by approximately 41,000 people and season two by approximately 39,000 people.

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Business Ethics & Transparency			
EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Yes	More targeted training courses are also provided for the functions viewed as highly exposed (such as procurement and human resources), whether by the corporate or segment Compliance teams or by the Compliance Officers in the subsidiaries. Several online and face-to-face training sessions are held every year for the Compliance Officers. In 2020, despite the health crisis, these sessions continued and were held remotely. **5.8.1.5 Feedback of information** The feedback of information is ensured primarily through an annual reporting process. This is performed by the Compliance Officers, reviewed by their Branch Compliance Officer and sent to the Chief Compliance Officer. This reporting helps to monitor the roll-out and implementation of the anti-corruption program, through quantitative indicators on key elements of the program, such as the number of training courses or due diligences performed. The consolidated data resulting from this reporting, which reflects the results of the implemented policies, is presented once a year to the Executive Committee and the Board of Directors via the Governance and Ethics Committee. This presentation provides an opportunity to report the results of the actions undertaken at the very highest level and to review the roadmap aligned with the identified areas of improvement. In addition, TOTAL takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication and a rule was adopted in late 2020 to formalize the procedure for collecting integrity alerts (corruption, fraud and influence peddling); it reminds the various existing alert channels: employees, depending on the option they feel is most appropriate, can contact any manager, human resources, the Compliance Officers or Ethics Officers, or the Group Ethics Committee. Both employees and third parties can refer to this Committee by writing to ethics@total.com. The Group will not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality. **5.8.1.6 Assessment and monitoring** The anti-corruption program is monitored at the first level by business persons, as well as their line managers and the Compliance Officers who are in charge of ensuring the day-to-day implementation of the rules. At the second level, controls are performed by the Compliance function, in particular through assessment missions (referred to as compliance reviews) that are undertaken by a dedicated team within the Group's Compliance and Legal Risk Management Department. In addition, the Group's Audit and Internal Control Division performs an annual off-site inspection to verify the quality of the reporting performed by the Compliance Officers, as well as missions to check the self-assessment by the entities subject to the Sarbanes-Oxley regulations of their internal control framework. At the third level, Group Audit also helps monitor the anti-corruption program through audits called "assurance audits" performed according to a framework that includes compliance topics. This system is described in full in a guide on control of implementation of the anti-corruption program published in late 2020, which also requires the adoption of an "Anti-Corruption Control Plan" within each business segment. **5.8.1.7 Disciplinary action** In line with the principle of zero tolerance and in application of the Code of Conduct and the Anti-Corruption Directive, any infringement of the anti-corruption standards must give rise to disciplinary action, up to dismissal. The Group's resolve in this matter is recalled in communication media intended for employees as well as on the intranet. This resolve, which results from management commitment, contributes, with the other pillars described above, to the robustness of the anti-corruption compliance program. (Source: 2020 URD, §5.8.1)
Management of the Legal & Regulatory Environment			
EM-EP-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Partially	**Sector initiatives and international framework** TOTAL is committed to various sector initiatives on the main challenges raised by climate change. Indeed, tackling climate change requires cooperation between all actors, from both public and private sectors. In terms of carbon pricing, in 2014, TOTAL joined the U.N. Global Compact's Paying for Carbon and Caring for Climate call, which encourages companies to consider a CO_2 price internally and publicly support the importance of such a price via regulation mechanisms suited to the local context. In particular, TOTAL advocates the emergence of a balanced, progressive international agreement that prevents the distortion of competition between industries or regions of the world. Drawing attention to future constraints on GHG emissions is crucial to changing the energy mix. TOTAL is therefore encouraging the setting of a worldwide price for each ton of carbon emitted, while ensuring fair treatment of "sectors exposed to carbon leakage" (as defined by the EU). In addition, TOTAL is working with the World Bank as part of the Carbon Pricing Leadership Coalition (CPLC). In June 2017, TOTAL became a founding member of the Climate Leadership Council, an initiative that calls for the introduction of a "carbon dividend", with a redistribution mechanism to the US population. In terms of sector initiatives, in 2014 TOTAL was actively involved in launching and developing the Oil & Gas Climate Initiative (OGCI), a global industry partnership. At year-end 2020, this initiative involved 12 major international energy players. Its purpose is to develop solutions for a sustainable low emissions future. Launched in 2017, the OGCI Climate Investments fund, which has access to over $1 billion over ten years, invests in technology that significantly cuts emissions. Examples of investments include a large-scale industrial CO_2 capture and storage project (Net Zero Teesside Project), methane emission detection and measurement services by satellite (GHGSat), by aircraft (Kairos Aerospace) and by drone (SeekOps Inc.) and a technology that incorporates CO_2 as a feedstock in the production of polyols used in polyurethanes, which are plastics that have multiple uses (Econic Technologies). (Source: 2020 URD, §5.6.2)

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Management of the Legal & Regulatory Environment			
EM-EP-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Partially	The Group also plays a role in various international initiatives that involve the private and the public sectors to bring about (non-exhaustive list): – the end of routine flaring of gas associated with oil production within the World Bank's Zero Routine Flaring by 2030 initiative; – greater transparency, while taking into account the recommendations of the G20 Financial Stability Board on climate, and of the Task Force on Climate-related Financial Disclosures (TCFD); and – the development of new state-of-the-art energy companies, since 2017, within the Breakthrough Energy Coalition (BEC), a group of investors created by Bill Gates in 2015, and since 2016 within the Breakthrough Energy Ventures, a $1 billion fund created in 2016 by the BEC. The list of trade associations of which TOTAL is a member and the lobbying Ethics Charter that governs these memberships are published on the total.com website. The Group cooperates with these associations mainly on technical and scientific matters, but certain associations sometimes take public stances on climate change. TOTAL assesses the main trade associations to which it belongs in order to check that they are in line with the Group's stance on the climate. This alignment is reviewed according to six key points: their scientific position, the Paris Agreement, carbon pricing, the role of natural gas, the development of renewables and the development of CCS. Following the reviews in 2019 and 2020, TOTAL decided not to renew its membership of the American Petroleum Institute, the *American Fuel & Petrochemical Manufacturers* and the Canadian Association of Petroleum Producers. TOTAL also actively participates in the debate on climate issues, thanks especially to its long-term partnerships with university chairs, such as the Climate Economics Chair at Paris-Dauphine University, the climate change research program of Massachusetts Institute of Technology (MIT)[1], and Toulouse School of Economics. TOTAL offers training and makes presentations at several universities, thereby taking part in the debate. (Source: 2020 URD, §5.6.2)
Critical Incident Risk Management			
EM-EP-540a.1	Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1)	Yes	Tier 1 PSE rate per 200,000 hours worked is then equal to **0.015**. (Source: 2020 URD, §5.4.1 and 5.4.2)
EM-EP-540a.2	Description of management systems used to identify and mitigate catastrophic and tail-end risks	Yes	To prevent the occurrence of a major industrial accident such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or damage to property, TOTAL implements suitable risk management policies and measures which apply to the Group's operated activities that are exposed to such risks. The Major Risks division of the Group's HSE division provides support in the application of this policy. At year-end 2020, in addition to its drilling and pipeline transport operations, the Group had 186 operated sites and operating zones exposed to such risks. These correspond to all activities relating to hydrocarbon production, whether offshore or onshore, as well as Seveso-classified industrial sites (upper and lower tier) and their equivalents outside of the European Union. This number of sites has increased compared to year-end 2019, when 180 sites were listed. The number of these sites is stable for the Refining & Chemicals segment and slightly increasing for the Exploration & Production, Integrated Gas, Renewables & Power, and Marketing & Services segments. The Group's policy for the management of major industrial accident risks applies from the facilities design stage in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for the analysis of the risks related to the Group's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures and may be technical or organizational in nature. These analyses are updated periodically, at least every five years, or when facilities are modified. Training on major accident risks is organized by the Group at head office and at subsidiary sites for operating staff. **With regard to the design and construction of facilities**, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Group's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Group's rules define the management process to be adopted. **With regard to the management of operations and integrity of facilities**, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedbacks. For specific works, the preliminary risk analysis may lead to the establishment of a permit to work, the process of which, from preparation through to closure, is defined. The Group's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. These rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings. (Source: 2020 URD, §5.4.1)

EM-EP-540a.1:

	2020	2019	2018
Loss of primary containment (Tier 1)	30	26	30
Million of hours worked – All Personnel	389	467	456

(1) The Joint Program on the Science and Policy of Global Change.

SASB code	Metrics	Reported	TOTAL's disclosures (2020)
Critical Incident Risk Management			
EM-EP-540a.2	Description of management systems used to identify and mitigate catastrophic and tail-end risks	Yes	In order to manage any major industrial accident efficiently, TOTAL has implemented a **global crisis management system** that is based primarily on an on-call system available 24/7, as well as a dedicated crisis management center at head office that makes it possible to manage two simultaneous crises. The framework provides that subsidiaries draw up plans and procedures for interventions in the event of leaks, fires or explosions and to test these at regular intervals. The intervention teams at subsidiaries and at head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. In 2020, in the context of the COVID-19 pandemic and working from home as a result of this situation, the Group confirmed its resilience by testing out procedures and methodologies using remote crisis management exercises. In addition, in order to maintain the Group's training capacity regardless of how the situation developed, training for internal crisis management individuals was maintained and provided remotely. In 2020, 187 individuals have been trained in crisis management in subsidiaries and at head office. TOTAL also continued to roll out its *Incident Management System* (IMS) at subsidiaries operating hydrocarbon or gas exploration and production sites within the Exploration & Production and Integrated Gas, Renewables & Power segments. The IMS is a harmonized system for the management of emergency situations. It is described in an IPIECA good practices guide and is being progressively adopted by the majors. At year-end 2020, 385 individuals had been trained or made aware of the IMS. (Source: 2020 URD, §5.4.1) For its sea and river shipment requirements, TOTAL only charters ships and barges that meet the highest international standards. The Group has an internal policy that lays down the process and criteria by which ships and barges are selected (known as vetting). These criteria are based, in particular, on the regulations, the best practices and recommendations of the OCIMF[1] and, in Europe, on the European Barge Inspection Scheme (EBIS). Tankers and barges are vetted by a single centralized Group entity. The average age of the TOTAL Shipping division's time-chartered fleet is approximately seven years. The Group's operated marine terminals have completed the consolidation of their physical characteristics in the global database that forms part of the OCIMF's Marine Terminal Information System (MTIS), which will make it easier to assess ships' compatibility with ports of call. Additionally, TOTAL encourages all operated terminals to use the Marine Terminal Management and Self-Assessment (MTMSA), the framework recommended by the industry to terminal operators to ensure continuous improvement in the safety of their operations. A training course on checking safety conditions of the ship/shore interface (SSSCL – Ship Shore Safety Check List) and cargo transfer operations was made a requirement of the One MAESTRO reference framework in October 2020. At year-end 2020, 90% of operated terminals had operators who had already undergone this training. In order to manage a major accidental spill efficiently, TOTAL has implemented a global crisis management system that is described in point 5.4.1 of this chapter. For the sites operated by the Group exposed to the risk of accidental spills that reach the surface water, this system is supplemented by requirements of the One MAESTRO reference framework. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Group recommendations. The Group companies can call on in-house human and material resources (Fast Oil Spill Team, FOST) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbon spills. For the oil and gas Exploration & Production activities, since 2014, subsea capping and subsea containment equipment that can be transported by air has been strategically positioned at various points of the world (South Africa, Brazil, Norway and Singapore). This equipment provides access to solutions that are more readily available in the event of oil or gas blowout in deep offshore drilling operations. From these locations, the equipment can benefit TOTAL's operations worldwide. This equipment was developed by a group of nine oil companies, including TOTAL, and is managed by Oil Spill Response Ltd (OSRL), a cooperative dedicated to the response to marine pollution by hydrocarbons. Since 2018, equipment to facilitate shallow water capping operations, Offset Installation Equipment (OIE), has been positioned in Trieste, Italy. Managed by OSRL, it can be transported by air or boat to anywhere in the world as necessary. TOTAL has also designed and developed its own capping system ("Subsea Emergency Response System") to stop potential blow-out in drilling or production operations as quickly as possible. Since 2015, equipment has been installed in Angola and the Republic of Congo, covering the entire Gulf of Guinea region. (Source: 2020 URD, §5.5.2)
Activity Metrics			
EM-EP-000.A	Production of oil	Yes	**1,298 kboe/d** (Source: 2020 URD, §2.3)
	Production of natural gas	Yes	**1,573 kboe/d** (Source: 2020 URD, §2.3)
	Production of synthetic oil	Yes	**0 boe/d**
	Production of synthetic gas	Yes	**0 boe/d**
EM-EP-000.B	Number of offshore sites	Yes	**67** (Assets with entitled production in 2020)
EM-EP-000.C	Number of terrestrial sites	Yes	**41** (Assets with entitled production in 2020)

(1) OCIMF (Oil Companies International Marine Forum): An industry forum including the leading international oil companies. This organization manages the Ship Inspection Report (SIRE) Program, which holds and provides access to tanker and river barge inspection reports (Barge inspection Questionnaire – BIQ).

11.2 World Economic Forum (WEF/IBC) Core ESG metrics

The following table uses the core metrics proposed by the World Economic Forum in the white paper titled "Measuring Stakeholder Capitalism – Towards common metrics and consistent reporting" published in September 2020.

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
PRINCIPLES of GOVERNANCE		
Governing Purpose		
Setting purpose The company's stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders.	Yes	TOTAL's *raison d'être* is to supply to as many people as possible a more affordable, more available and cleaner energy. As a supporting component of society's evolutions, energy is a fundamental resource for economic, social and human development, which currently faces a twofold challenge: satisfying the energy needs of an ever-growing world population while reducing global warming. The Group's *raison d'être* is rooted in that challenge. TOTAL's intention in becoming a broad energy company is to help meet that challenge in a responsible way. (Source: 2020 URD, §1.2 and 5.1)
Quality of Governing Body		
Board composition Composition of the highest governance body and its committees by: competencies relating to economic, environmental and social topics; executive or non-executive; independence; tenure on the governance body; number of each individual's other significant positions and commitments, and the nature of the commitments; gender; membership of under-represented social groups; stakeholder representation.	Partially	**1.7.1 A fully committed Board of Directors** Comprising 13 directors as of March 17, 2021, including eight independent members, the Board of Directors reflects the diversity and complementary experience, expertise, nationalities and cultures that are critical to addressing the interests of all of the Group's shareholders and stakeholders. The Board of Directors defines TOTAL's strategic vision and supervises its implementation in accordance with its corporate interest by taking into consideration the social and environmental challenges of its business activities. It approves investments or divestments for amounts greater than 3% of shareholders' equity and it is informed of those greater than 1%. The Board may address any issue related to the company's operations. It monitors the management of both financial and non-financial matters and ensures the quality of the information provided to shareholders and financial markets. The Board of Directors is assisted by the four committees it has created: Audit, Governance & Ethics, Compensation, and Strategy & CSR. **Refer to** the URD Chapter 4.1: "*Administration and management bodies*". Information provided on gender only, no details on other under-represented social groups. (Source: 2020 URD, §1.7.1 and 4.1)
Stakeholder Engagement		
Material issues impacting stakeholders A list of the topics that are material to key stakeholders and the company, how the topics were identified and how the stakeholders were engaged.	Partially	Response is provided by listing the main challenges identified at the beginning of each DPEF sub-chapter. But the Company hasn't disclosed a detailed materiality analysis. (Source: 2020 URD, §5.1 and 5.3 to 5.10)
Ethical Behaviour		
Anti-corruption 1. Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region a. Total number and nature of incidents of corruption confirmed during the current year, but related to previous years; and b. Total number and nature of incidents of corruption confirmed during the current year, related to this year. 2. Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption.	Partially	To prevent risks of corruption, TOTAL has implemented a robust, regularly updated anti-corruption compliance program that has been rolled out throughout the Group. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Group's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Group to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party. The commitment of the entire Group and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. […] The commitment of the management bodies is also expressed externally by TOTAL joining anti-corruption initiatives and supporting collaborative and multipartite approaches. TOTAL joined the *Partnering Against Corruption Initiative* (PACI)(1) in 2016, thereby adhering to the PACI Principles for Countering Corruption. TOTAL's Chairman and Chief Executive Officer became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TOTAL is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)(2) since its launch in 2002. […] Awareness raising actions are carried out toward all employees. The Group's intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled Prevention and fight against corruption. Poster campaigns communicating the key messages in the risk areas are held on a regular basis; a campaign on the "Speak-Up" theme, among other things, was held before the Business Ethics Day. An initial anti-corruption e-learning course was rolled out in 2011 and a more in-depth e-learning module in 2015. This module is accessible to all employees and mandatory for the targeted personal (almost 43,000 employees) and new hires. At year-end 2020, season one of the anti-corruption e-learning course had been followed by approximately 41,000 people and season two by approximately 39,000 people. (Source: 2020 URD, §5.8.1)

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
Ethical Behaviour		
Protected ethics advice and reporting mechanisms A description of internal and external mechanisms for: 1. seeking advice about ethical and lawful behaviour, and organizational integrity; 2. reporting concerns about unethical or unlawful behaviour, and organizational integrity.	Yes	**3.6.3.1** The Group has a three-tier organization: Corporate, business segments and operational entities. Each tier is involved in and accountable for identifying and implementing measures in the Vigilance Plan deemed appropriate within the scope of the entity in question. The Action Principles are driven by the Executive Committee. The **Ethics Committee** is the guarantor of the implementation of the Code of Conduct. Its chairman, who reports to the Chairman and Chief Executive Officer of TOTAL, presents an annual ethics report to the Governance and Ethics Committee. **5.7** The Ethics Committee is an independent structure where representatives of all TOTAL's business segments sit. Its key role is one of listening and support. Both employees and external stakeholders can refer matters to the Ethics Committee by sending an email to ethics@total.com. The Committee ensures the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. **5.8.1.5** In addition, TOTAL takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication and a rule was adopted in late 2020 to formalize the procedure for collecting integrity alerts (corruption, fraud and influence peddling); it reminds the various existing alert channels: employees, depending on the option they feel is most appropriate, can contact any manager, human resources, the Compliance Officers or Ethics Officers, or the Group Ethics Committee. Both employees and third parties can refer to this Committee by writing to ethics@total.com. The Group will not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality. (Source: 2020 URD, §3.6.3.1, 5.7 and 5.8.1.5)
Risk and Opportunity Oversight		
Integrating risk and opportunity into business process Company risk factor and opportunity disclosures that clearly identify the principal material risks and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes. These opportunities and risks should integrate material economic, environmental and social issues, including climate change and data stewardship.	Yes	Information disclosed in the 2020 URD, Chapter 3. (Source: 2020 URD, §3.1)

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
PLANET		
Climate change		

Greenhouse Gas (GHG) emissions

For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F gases etc.), report in metric tonnes of carbon dioxide equivalent (tCO_2e) GHG Protocol Scope 1 & Scope 2 emissions.

Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.

Reported: Yes

Indicators related to climate[a]

GHG emissions		2020	2019	2018	2015
SCOPE 1 OPERATED					
Direct GHG emissions at operated sites	Mt CO_2e	**36 *(38*)***	**41**	**40**	**42**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	21 *(22*)*	24	24	22
BREAKDOWN BY SEGMENT					
Upstream hydrocarbons activities[i]	Mt CO_2e	16	18	18	19
Integrated Gas, Renewables & Power, excluding upstream gas operations	Mt CO_2e	3	3	2	–
Refining & Chemicals[ii]	Mt CO_2e	17	20	21	22
Marketing & Services[iii]	Mt CO_2e	<1	<1	<1	<1
BREAKDOWN BY GHG TYPE					
CO_2	Mt CO_2e	34	39	38	39
CH_4	Mt CO_2e	2	2	2	2
N_2O	Mt CO_2e	<1	<1	<1	<1
SCOPE 2 OPERATED[iv]					
Indirect emissions from energy use at operated sites	Mt CO_2e	**3 *(3*)***	**4**	**4**	**4**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	2 *(2*)*	2	2	2
SCOPES 1 & 2 FROM OPERATED OIL & GAS FACILITIES [(i)+(ii)+(iii)+(iv)]	Mt CO_2e	**35.8 *(39*)***	**41.5**	**42**	**46**
SCOPE 1 EQUITY SHARE					
Direct GHG emissions based on equity share	Mt CO_2e	52	55	54	50
SCOPE 3[b]					
Other indirect emissions – Use by customers of products sold for end use	Mt CO_2e	**350 *(400*)***	**410**	**400**	**410**
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO_2e	190 (215*)	232	231	256

Methane emissions		2020	2019	2018	2015
Methane emissions from Group operated activities	kt CH_4	64	68	79	94
Intensity of methane emissions from operated oil and gas facilities for Upstream hydrocarbons activities	%	0.15	0.16	0.19	0.23
Intensity of methane emissions from operated gas facilities for Upstream hydrocarbons activities	%	<0.1	<0.1	<0.1	<0.1

Carbon intensity indicators		2020	2019	2018	2015
Carbon intensity of energy products used by the Group's customers (71 g CO_2e/MJ in 2015)	Base 100 in 2015	**90 *(92*)***	**94**	**95**	**100**[c]
Intensity of GHG emissions (Scopes 1 & 2) at operated sites for Upstream hydrocarbons activities	kg CO_2e/bep	18	19	20	21

Other indicators		2020	2019	2018	2015
Net primary energy consumption (operated scope)	TWh	147	160	143[d]	153
Group energy efficiency indicator (GEEI)	Base 100 in 2010	90.2[e]	88.0	88.4	90.8
Flared gas (Upstream hydrocarbons activities operated scope) (including safety flaring, routine flaring and non-routine flaring)	Mm³/d	4.2	5.7	6.5	7.2
Of which routine flaring	Mm³/d	0.6	0.9	1.1	2.3[f]

* Valuation of these indicators excluding the COVID-19 effect.
(a) Refer to point 5.11 of this chapter for the scope of reporting.
(b) The Group usually follows the oil industry reporting guidelines published by IPIECA which are conform to the GHG Protocol methodologies. In this document, only item 11 of scope 3 (use of sold products), which is the most significant, is reported. Emissions for this item are calculated based on sales of finished products for which the next stage is end use, in other words, combustion of the products to obtain energy. A stoichiometric emission factor is applied to these sales (oxidation of molecules to carbon dioxide) to obtain an emission volume.
(c) Indicator developed in 2018, with 2015 as the baseline year.
(d) Excluding primary energy consumption of Direct Énergie gas power plants
(e) The change in this indicator between 2019 and 2020 can be explained by a lower refinery utilization.
(f) Volumes estimated upon historical data.

(Source: 2020 URD, §5.6.4)

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
Climate change		
TCFD implementation Fully implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation. Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement – to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C – and to achieve net zero emissions before 2050.	Yes	Non-financial performance statement aligned with TCFD recommendations, climate report responds to TCFD recommendations. (Source: 2020 URD, §5.6)
Nature Loss		
Land use and ecological sensitivity Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/or key biodiversity areas (KBA).	Yes	2.6% of TOTAL's proved reserves are operated reserves located close to or in protected areas or areas rich in biodiversity(1). Furthermore, 109 sites operated by the Group representing 3,318 hectares are located in or close to protected areas or key areas for biodiversity(2).
Fresh Water Availability		
Water consumption and withdrawal in water stressed areas Report for operations where material: megalitres of water withdrawn, megalitres of water consumed and the percentage of each in regions with high or extremely high baseline water stress, according to WRI Aqueduct water risk atlas tool. Estimate and report the same information for the full value chain (upstream and downstream) where appropriate.	Yes	In order to identify its facilities exposed to the risk of water stress, TOTAL records the withdrawal and discharge of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI(3) Aqueduct tool. In 2020, the Group's sites withdrew 105 million m^3 of fresh water, with net consumption of 75 million m^3. Half this volume was withdrawn in areas of high or extremely high water stress according to the WRI definition, i.e. areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. According to the CDP Water definition, these withdrawals represent 9.6% of the overall Group's water withdrawals (including brackish water and seawater). For priority sites defined as those located in water stress areas and withdrawing more than 500,000 m^3 per year, TOTAL assesses water resources risk levels using, in particular, the Local Water Tool (LWT) for Oil & Gas from the Global Environmental Management Initiative (GEMI). This tool also helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary. This risk assessment establishes that the activities of the sites operated by the Group only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TOTAL sites for which the water supply could be cut in order to maintain access to water for priority users. In 2020, TOTAL responded to the CDP Water survey for the 2019 period and was, for the third consecutive year, graded A-. The main indicator used in this reporting is fresh water withdrawal. (Source: 2020 URD, §5.5.3)

(1) In accordance with the IFC reference framework.
(2) In accordance with the GRI reference framework.
(3) World Resources Institute.

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
PEOPLE		
Dignity and Equality		
Diversity and inclusion Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g. ethnicity).	Yes	Through its activities, diversity is integral to the Group's identity and key to its success. The Group has long been committed to promoting equal opportunity and diversity, and strives to promote an environment that allows every employee to express and develop his or her potential. The diversity of its employees and management is crucial to the Group's competitiveness, appeal, acceptability and capacity for innovation. TOTAL aims to develop its employees' skills and careers while prohibiting any discrimination related to origin, gender, sexual orientation or identity, disability, age or affiliation with a political, labor or religious organization, or membership in a minority group. This policy is supported at the highest levels and promoted by the Diversity Council, which is chaired by a member of the Group's Executive Committee. The Diversity Council is also charged with making specific recommendations on issues identified each year by the Executive Committee. (Source: 2020 URD, §5.3.3.1) N.B. Tables of employees available in §5.3.1.1: – Breakdown by employment contact – Breakdown by age bracket – Total number of managers Breakdown by gender available in §5.3.1.1: – Among all employees – Among employees with permanent contacts (CDI).
Pay equality Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas.	Partially	The Group's compensation policy applies to all companies in which TOTAL SE holds the majority of voting rights. That policy has several aims: to ensure external competitiveness and internal fairness, reinforce the link to individual performance, increase employee share ownership and implement the Group's corporate social responsibility commitments. A large majority of employees are covered by laws that guarantee a minimum wage, and, whenever that is not the case, the Group's policy ensures that compensation is above the local minimum wage. Regular benchmarking is used to assess compensation based on the external market and the entity's competitive environment. Each entity's positioning relative to its reference market is assessed by the human resources division within each business segment, which monitors evolutions in payroll, turnover and consistency with the market. Fair treatment is ensured within the Group through the widespread use of weighting for management positions (JL ≥ 10)(1) via the Hay method, which is used to assign a salary range to each job level. Performance reviews for Group employees, covering actual versus targeted results, skills assessment and overall job performance, are conducted during an annual individual review and formally issued in accordance with the same principles and guidelines across the entire organization. The compensation structure for the Group's employees is based on the following components, depending on the country: – **a base salary**, which is subject to individual and/or general salary-raise campaigns each year. The merit-based salary-raise campaigns are intended to compensate employees' individual performance according to the targets set during the annual individual review, including at least one HSE (Health, Safety, Environment) target; and – **an individual variable compensation** starting at a certain level of responsibility. This is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2020, 87.4% of the Group's entities (WHRS scope) included HSE criteria in the variable compensation. (Source: 2020 URD, §5.3.1.2) **With regard to compensation**, TOTAL has been adopting specific measures to prevent and compensate for discriminatory wage differentials since 2010. Regular audits are conducted during salary-raise campaigns to ensure equal pay among men and women holding positions with the same level of responsibility. Since 2019, consistent with the French Act of September 5, 2018, on the freedom to choose one's professional future, the Group has published an index in France for its three units of economic and employee interest (UESs) on wage differentials and the steps taken to eliminate them. That index, based on a score of 100, reflects five indicators: wage differentials, pay raise differentials excluding promotions, promotion rate differentials, percentage of female employees who received a pay raise in the year they returned from maternity leave, number of employees of the underrepresented gender among the ten employees who received the highest compensation. (Source: 2020 URD, §5.3.3.1) N.B. The index table is available in §5.3.3
Wage level 1. Ratios of standard entry level wage by gender compared to local minimum wage. 2. Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO.	Partially	A large majority of employees are covered by laws that guarantee a minimum wage, and, whenever that is not the case, the Group's policy ensures that compensation is above the local minimum wage. Regular benchmarking is used to assess compensation based on the external market and the entity's competitive environment. Each entity's positioning relative to its reference market is assessed by the human resources division within each business segment, which monitors evolutions in payroll, turnover and consistency with the market. (Source: 2020 URD, §5.3.1.2) N.B. Compensation ratios are available in §4.3.2.1

(1) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager *(cadre débutant)* (≥ 300 Hay points).

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
Risk for incidents of child, forced or compulsory labor An explanation of the operations and suppliers considered to have significant risk for incidents of child labour, forced or compulsory labour. Such risks could emerge in relation to: a. type of operation (such as manufacturing plant) and type of supplier; and b. countries or geographic areas with operations and suppliers.	Yes	Forced and child labor have been identified as risks of severe negative impacts from our activities on human rights, notably in the supply chain, and mentioned as such in the DPEF – Human rights section. The new supplier qualification process is presented in the Non-financial performance statement – Procurement section. (Source: 2020 URD, §5.7.1 and 5.10)
Health and well being		
Health and safety 1. The number and rate of fatalities as a result of work related injury; high consequence work related injuries (excluding fatalities); recordable work related injuries; main types of work related injury; and the number of hours worked. 2. An explanation of how the organization facilitates workers' access to non occupational medical and healthcare services, and the scope of access provided for employees and workers.	Yes	**1. Indicators:** Number of fatalities as a result of work related injury: **1** Rate of fatalities as a result of work related injury: **0.26** (per 100 million hours worked) High consequence work related injuries (excluding fatalities): **11** Recordable work related injuries: **0.74** (per 1 million hours worked) Main types of work related injury: In 2020, of the 289 lost time injuries reported, 280 relate to accidents at the workplace. 78% of these occurred, in decreasing order of the number accidents, when walking, handling loads or objects, using portable tools or working with powered systems or lifting systems. Number of hours worked: **389 million** (Source: 2020 URD, §5.4.2) **2. Explanations:** The Group has a policy for preventing occupational accidents that applies to all employees of Group subsidiaries and employees of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework. The indicators monitored by the Group include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TOTAL has set itself the target of continuously reducing the TRIR indicator and, for 2020, of keeping it below 0.80 for all personnel of the Group and its contractors. In terms of **medical monitoring**, the referential framework requires that each Group entity offers all employees a medical checkup at least every two years and sets out a formal medical monitoring procedure taking into account the requirements under local law (frequency, type of examination, etc.) and the level of exposure of its personnel to the various risks. Medical monitoring of employees is conducted at a health department, which may be internal (occupational health departments in France, clinics in five countries in Africa) or external. Furthermore, in view of its activities and exposure, TOTAL has an international medical department that designs, coordinates and supervises operational medical logistics abroad. It is the decision-making level in terms of medical safety of expatriate and national employees. It ensures the organization of aptitude assessments and medical monitoring of employees and their families living abroad, medical support for subsidiaries, audits of medical structures in countries where the Group operates, as well as issuing recommendations and coordinating medical evacuations. To complement this program, TOTAL has set up an employee health observation committee to monitor the health of a sample of employees in order to identify the emergence of certain illnesses and, if applicable, suggest appropriate preventive measures. The data is gathered anonymously during medical examinations worldwide. At the corporate level, TOTAL also has a Medical Advisory Committee that meets regularly to discuss key health issues relating to the Group's activities. It decides whether there is a need for additional health protection strategies to be implemented. It consists of external scientific experts and the Group's senior executives and stakeholders concerned by these issues. The theme for 2020 was the COVID-19 pandemic and in particular the measures taken by the Group while managing the crisis. On a broader level, TOTAL also supports the **promotion of individual and collective health programs** in the countries where it operates, including vaccination campaigns and screening programs for certain diseases (AIDS, cancer, malaria, etc.) for employees, their families and local communities. It also develops employee benefit programs (refer to point 5.3.1.2 in this chapter), and regularly takes action to raise awareness of lifestyle risks (anti-smoking and anti-drinking campaigns, etc.). Every year, in order to share information on progress in the area of Industrial Hygiene, TOTAL holds a technical day of discussions on different subjects with the relevant business segments. In 2020, this event did not take place because of the COVID-19 pandemic. (Source: 2020 URD, §5.4.4) The Group provides **pension and employee benefit programs** (health and death) that meet the needs of the subsidiaries as well as the Group's standards, designed to ensure that each employee can: – in case of illness, receive coverage that is at least equal to the median amount for the national industrial market; – participate in a savings or supplementary retirement plan; – arrange for the protection of family members in the event of the employee's death, via insurance that provides for the payment of a benefit recommended to equal two years' gross salary. These programs, which are regularly reviewed and, if necessary, adjusted, are administered by the subsidiaries and supplement any programs provided under local law. (Source: 2020 URD, §5.3.1.2) N.B. Tables are available in §5.4.4: – Percentage of employees with specific occupational risks benefiting from regular medical monitoring – Number of occupational illnesses recorded in the year. (Source: 2020 URD, §5.4.4)

Sub-items, proposed metrics and disclosures	Reported	TOTAL's disclosures (2020)
Skills for the future		
Training provided 1. Average hours of training per person that the organization's employees have undertaken during the reporting period, by gender and employee category (total number of trainings provided to employees divided by the number of employees). 2. Average training and development expenditure per full time employee (total cost of training provided to employees divided by the number of employees).	Yes	The technical and business know-how of employees and their ability to manage large projects underpin the Group's operational excellence and are essential assets for the Group's development. TOTAL therefore offers ongoing, customized training programs aimed at enhancing employees' skills and employability. These training courses reflect a commitment to skills enhancement and career support, including for employees moving between business segments and/or geographical regions. (Source: 2020 URD, §5.3.2) N.B. Tables are available in §5.3.2: – Average number of training days/year per employee – Breakdown by gender – Average training cost per employee (€ thousands).
PROSPERITY		
Employment and Wealth Generation		
Absolute number and rate of employment 1. Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region. 2. Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region.	Yes	Attracting and retaining the talent the Group needs is a key factor in carrying out the company project. To succeed in that task, the Group carefully manages its hires and departures (…) (Source: 2020 URD, §5.3.1) N.B. Tables available in §5.3.1.1: Total number hired on permanent contracts (CDI) – Women/Men – French/Other nationalities – Breakdown by region Total departures/ total employees – Women/Men – Breakdown by region.
Economic Contribution 1. Direct economic value generated and distributed (EVG&D), on an accruals basis, covering the basic components for the organization's global operations, ideally split out by: – Revenues – Operating costs – Employee wages and benefits – Payments to providers of capital – Payments to government – Community investment. 2. Financial assistance received from the government: total monetary value of financial assistance received by the organization from any government during the reporting period.	Partially	Calculation of EVG&G not done as such, but some elements are available. (Source: 2020 URD, §1.1.3, 1.8.1 and 8.7)
Financial investment contribution Total capital expenditures (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy. Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders.	Yes	Information provided in the URD. (Source: 2020 URD, §1.4.1)

<table>
<tr><th>Sub-items, proposed metrics and disclosures</th><th>Reported</th><th>TOTAL's disclosures (2020)</th></tr>
<tr><td colspan="3">Innovation in better products and services</td></tr>
<tr><td>Total R&D expenses
Total costs related to research and development.</td><td>Yes</td><td>1.5.1 R&D at the heart of our strategy
Based on the various scenarios studied by TOTAL, the goal of achieving carbon neutrality (net zero emissions) by 2050 entails more than large-scale deployment of proven technologies such as photovoltaic solar power, wind power and biofuels. It also requires technological game-changers and the development of completely new industrial value chains, such as hydrogen, synthetic fuels, and carbon capture and storage.

The Group's transformation from an oil and gas company into a broad energy group calls for agile R&D that is firmly committed to innovation. At the heart of the Group's strategy, R&D is focusing on its teams and partners who specialize in the electricity and renewables value chain, and technology for shrinking our environmental footprint. The Group's research projects are defined by the principles that underpin its strategy and its goal of carbon neutrality: acting on emissions, acting on products and acting on demand.

These R&D programs are organized around on five priorities:
– Safety and the environment, including satellite-based emissions monitoring and research into plastics and product recycling.
– A low-carbon energy mix, including optimization of the natural gas (and particularly LNG) value chain; renewables and power storage solutions (hydrogen, etc.); hybrid systems; gains in energy efficiency; carbon capture, utilization and storage; and bioproducts.
– Operational efficiency, including programs aimed at combining productivity gains, lower operating costs and carbon emissions reductions through the use of digital technology and electrification.
– New products, including ecodesign, biosourcing and the development of products with special properties, such as high-performance fluids for electric motors.
– Digital technology, which is embedded in every program, including advanced research into high-performance computing technology and the use of artificial intelligence for industrial applications.

These research programs may be led by a business segment on behalf of its business lines or those of other segments; or, when they involve topics with broad relevance, they may be coordinated at Group level in order to establish synergies, capitalize on expertise and pool knowledge and infrastructure.

In addition to the Group's five R&D priorities, some subsidiaries may conduct R&D centered on their own businesses. At Hutchinson, for example, research activities focus on three main issues connected with mobility of the future: weight reduction and energy efficiency, electrification, and smart objects.

R&D is also investigating forward-looking topics with the aim of evaluating the potential of new technology for the Group's businesses, such as nanotechnologies, robotics, hydrogen and new mobility solutions.

With an R&D workforce of more than 4,000 employees, the Group invested $895 million in R&D in 2020 (versus $968 million in 2019 and $986 million in 2018). The Group's investment for the future – including developments in the field of digital technology and carbon capture and storage industrial projects, as well as investments led by Total Carbon Neutrality Ventures (TOTAL's venture capital fund, which focuses solely on carbon neutrality businesses and expects to invest a total of $400 million dollars by 2023) – has risen to more than $1.1 billion.

The Group carries out its R&D projects with an open innovation approach, drawing on its talent pool, research infrastructure, pilot sites and R&D centers worldwide, as well as start-ups and top-ranked academic partners. The Group operates 12 R&D centers and six techcenters across the globe, and has signed roughly 1,000 agreements with its partners.

In addition, the Group implements an active intellectual property policy to protect its innovations, maximize their use and differentiate its technology. In 2020, the Group filed more than 200 patent applications.

(Source: 2020 URD, §1.5.1)</td></tr>
<tr><td colspan="3">Community and social vitality</td></tr>
<tr><td>Total tax paid
Total tax paid by the group, including corporate income taxes, property taxes, non creditable VAT and other sales taxes, employer paid payroll taxes, and other taxes that constitute costs to the company, by category of taxes.</td><td>Partially</td><td>In 2020, TOTAL incurs $2,450 million of corporate income taxes, $3,768 million of production taxes for its extractive operations, $2,178 million of employer social security contributions and collects $20,981 million of excise duties.

(Source: 2020 URD, § 1.1.3)

In addition, TOTAL discloses each year a report on the payments made to Governments by the Group's Extractive Companies, notably including payments of taxes by country and by Project.

(Source: 2020 URD, § 9.3)</td></tr>
</table>

Glossary

Abbreviations

€:	euro
$ or dollar:	US dollar
ADR:	American depositary receipt (evidencing an ADS)
ADS:	American depositary share (representing a share of a company)
AMF:	*Autorité des marchés financiers* (French Financial Markets Authority)
API:	American Petroleum Institute
CO_2:	carbon dioxide
CNG:	compressed natural gas
DACF:	debt adjusted cash flow (refer to definition of operating cash flow before working capital changes without financial charges below)
EV:	electric vehicle
FLNG:	floating liquefied natural gas
FPSO:	floating production, storage and offloading
FSRU:	floating storage and regasification unit
GHG:	greenhouse gas
HSE:	health, safety and the environment
IFRS:	International Financial Reporting Standards
IPIECA:	International Petroleum Industry Environmental Conservation Association
LNG:	liquefied natural gas
LPG:	liquefied petroleum gas
NGL:	natural gas liquids
NGV:	natural gas vehicle
OML:	oil mining lease
PPA:	Power Purchase Agreement
ROE:	return on equity
ROACE:	return on average capital employed
SEC:	United States Securities and Exchange Commission
VCM:	variable cost margin – Refining Europe

Units of measurement

b = barrel(1)

B = billion

Bcm = billion of cubic meters

boe = barrel of oil equivalent

btu = British thermal unit

cf = cubic feet

CO_2e = carbon dioxide equivalent

/d = per day

$GtCO_2$ = billion of CO_2 tons

GW = gigawatt

GWh = gigawatt hour

k = thousand

km = kilometer

m = meter

m^3 = cubic meter(1)

M = million

MW = megawatt

PJ = petajoule

t = (Metric) ton

toe = ton of oil equivalent

TWh = terawatt hour

W = watt

Wac = AC watt

Wp = watt-peak or watt of peak power

/y = per year

Conversion table

1 acre ≈ 0.405 hectares

1 b = 42 US gallons ≈ 159 liters

1 b/d of crude oil ≈ 50 t/y of crude oil

1 Bm/y ≈ 0.1 Bcf/d

1 km ≈ 0.62 miles

1 m^3 ≈ 35.3 cf

1 Mt of LNG ≈ 48 Bcf of gas

1 Mt/y of LNG ≈ 131 Mcf/d of gas

1 t of oil ≈ 7.5 b of oil (assuming a specific gravity of 37° API)

1 boe = 1 b of crude oil ≈ 5,399 cf of gas in 2020(2) (5,395 cf in 2019 and 5,387 cf in 2018)

(1) Liquid and gas volumes are reported at international standard metric conditions (15°C and 1 atm).

(2) Natural gas is converted to barrels of oil equivalent using a ratio of cubic feet of natural gas per one barrel. This ratio is based on the actual average equivalent energy content of TOTAL's natural gas reserves during the applicable periods and is subject to change. The tabular conversion rate is applicable to TOTAL's natural gas reserves on a Group-wide basis.

A

AC watt (Wac)

Refers to the output power achieved by a solar module to the grid. Generally equals to the watt of peak power multiplied by the DC/AC inverter efficiency.

acreage

Areas in which mining rights are exercised.

adjusted results

Results using replacement cost, adjusted for special items, excluding the impact of changes for fair value.

API degree

Scale established by the API to measure oil density. A high API degree indicates light oil from which a high yield of gasoline can be refined.

appraisal (delineation)

Work performed after a discovery for the purpose of determining the boundaries or extent of an oil or gas field or assessing its reserves and production potential.

asset retirement (site restitution)

Companies may have obligations related to well-abandonment, dismantlement of facilities, decommissioning of plants or restoration of the environment. These obligations generally result from international conventions, local regulations or contractual obligations.

associated gas

Gas released during oil production.

association/consortium/joint-venture

Terms used to generally describe a project in which two or more entities participate. For the principles and methods of consolidation applicable to different types of joint arrangements according to IFRS, refer to Note 1 to the Consolidated Financial Statements.

B

barrel

Unit of measurement of volume of crude oil equal to 42 US gallons or 159 liters.

barrel of oil equivalent (boe)

Conventional unit for measuring the energy released by a quantity of fuel by relating it to the energy released by the combustion of a barrel of oil.

biochemical conversion

Conversion of carbonaceous resources through biological transformation (reactions involving living organisms). Fermentation of sugar into ethanol is an example.

biofuel

Liquid or gaseous fuel that can be used for transport, produced from biomass, and meeting criteria of reducing GHG compared to the fossil reference.

biogas (power generation from)

Combustion of gas produced by the fermentation of non-fossil organic matter (biomass).

biomass

All organic matter from vegetal or animal sources.

bitumen

Sometimes referred to as natural bitumen, is petroleum in a solid or semi-solid state in natural deposits. In its natural state, it usually contains sulfur, metals, and other non-hydrocarbons. Bitumen has a viscosity greater than 10,000 centipoise measured at the temperature in the deposit and the atmospheric pressure.

Brent

Quality of crude oil (38° API) produced in the North Sea, from Brent and neighboring fields.

brownfield project

Project concerning developed existing fields.

C

capacity of treatment

Annual crude oil treatment capacity of the atmospheric distillation units of a refinery.

carbon capture, use and storage (CCUS)

Technologies designed to reduce GHG emissions by capturing (C) CO_2 and then compressing and transporting it either to use (U) it for various industrial processes (e.g., enhanced recovery of oil or gas, production of chemical products), or to permanently store (S) it in deep geological formations.

carbon sinks

Natural reservoir (e.g. vegetation, oceans) or artificial reservoir (e.g. CCUS) that stores carbon in different forms.

catalysts

Substances that increase a chemical reaction speed. During the refining processes, they are used in conversion units (reformer, hydrocracker, catalytic cracker) and desulphurization units. Principal catalysts are precious metals (platinum) or other less noble metals such as nickel and cobalt.

cogeneration

Simultaneous generation of electrical and thermal energies from a combustible source (gas, fuel oil or coal).

coker (deep conversion unit)

Unit that produces light products (gas, gasoline, diesel) and coke through the cracking of distillation residues.

combined cycle power plant

A combined-cycle power plant uses both a heat and a steam turbine together to produce up to 50% more electricity from the same fuel than a traditional simple-cycle plant.

commercial gas

Gas produced by the upstream facilities and sent directly or indirectly to the gas market.

concession contract

Exploration and production contract under which a host country grants to an oil and gas company (or a consortium) the right to explore a geographic area and develop and produce potential reserves. The oil and gas company (or consortium) undertakes the execution and financing, at its own risk, of all operations. In return, it is entitled to the entire production.

condensate

Light hydrocarbon products produced with natural gas that exist – either in a gaseous phase or in solution – in the oil and gas under the initial pressure and temperature conditions in the reservoir, and which are recovered in a liquid state in separators, on-site facilities or gas treatment units.

condensate splitter

Unit that distillates condensates upstream of refining or petrochemical units.

consortium

Refer to the definition above of "association/consortium/joint-venture".

conversion

Refining operation aiming at transforming heavy products (heavy fuel oil) into lighter or less viscous products (e.g., gasoline, jet fuels).

co-processing

Refers to the simultaneous conversion of biogenic residues and intermediate petroleum distillates in existing petroleum refineries to produce renewable hydrocarbon fuels. In contrast to the blending of biofuels into the finished petroleum product, co-processing makes use of biomass within the processing of petroleum. Suitable feedstocks for co-processing are biogenic feedstocks, such as wood pyrolysis oil or triglycerides such as vegetable oils, used cooking oils etc.

cost oil/gas

In a production sharing contract, the portion of the oil and gas production made available to the contractor (contractor group) and contractually reserved for reimbursement of exploration, development, operation and site restitution costs ("recoverable" costs). The reimbursement may be capped by a contractual stop that corresponds to the maximum share of production that may be allocated to the reimbursement of costs.

cracking

Refining process that entails converting the molecules of large, complex, heavy hydrocarbons into simpler, lighter molecules using heat, pressure and, in some cases, a catalyst. A distinction is made between catalytic cracking and steam cracking, which uses heat instead of a catalyst. Cracking then produces ethylene and propylene, in particular.

crude oil

A mixture of compounds (mainly pentanes and heavier hydrocarbons) that exists in a liquid phase at original reservoir temperature and pressure and remains liquid at atmospheric pressure and ambient temperature.

D

Dated Brent

A market term representing the minimum value of physical cargoes of Brent, Forties, Oseberg or Ekofisk crude oil, loading between the 10th and the 25th day forward. Dated Brent prices are used, directly and indirectly, as a benchmark for a large proportion of the crude oil that is traded internationally.

debottlenecking

Change made to a facility to increase its production capacity.

desulphurization unit

Unit in which sulphur and sulphur compounds are eliminated from mixtures of gaseous or liquid hydrocarbons.

development

Operations carried out to access the proved reserves and set up the technical facilities for extraction, processing, transportation and storage of the oil and gas: drilling of development or injection wells, platforms, pipelines, etc.

distillates

Products obtained through the atmospheric distillation of crude oil or through vacuum distillation. Includes medium distillate such as aviation fuel, diesel fuel and heating oil.

E

effective tax rate

(Tax on adjusted net operating income)/(adjusted net operating income – income from equity affiliates – dividends received from investments – impairment of goodwill + tax on adjusted net operating income).

effect of changes in fair value

The effect of changes in fair value presented as an adjustment item reflects, for some transactions, differences between internal measures of performance used by TOTAL's Executive Committee and the accounting for these transactions under IFRS. IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices. Furthermore, TOTAL, in its trading activities, enters into storage contracts, the future effects of which are recorded at fair value in the Group's internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TOTAL enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

energy mix

The various energy sources used to meet the demand for energy.

ethane

A colorless, odorless combustible gas of the alkanes class composed of two carbon atoms found in natural gas and petroleum gas.

ethanol

Also commonly called ethyl alcohol or alcohol, ethanol is obtained through the fermentation of sugar (beetroot, sugarcane) or starch (grains). Ethanol has numerous food, chemical and energy (biofuel) applications.

ethylene/propylene

Petrochemical products derived from cracking naphtha or light hydrocarbons and used mainly in the production of polyethylene and polypropylene, two plastics frequently used in packaging, the automotive industry, household appliances, healthcare and textiles.

F

fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in a transaction under normal conditions between market participants at the measurement date.

farmdown

Partial sale to a third party of an interest in an asset.

farm-in (or farm-out)

Acquisition (or sale) of all or part of a participating interest in an oil and gas mining property by way of an assignment of rights and obligations in the corresponding permit or license and related contracts.

farnesane

A hydrocarbon molecule containing 15 carbon atoms, which can be used to produce fuel or chemical compounds.

FEED studies (front-end engineering design)

Studies aimed at defining the project and preparing for its execution. In the TOTAL process, this covers the pre-project and basic engineering phases.

FLNG (floating liquefied natural gas)

Floating unit permitting the liquefaction of natural gas and the storage of LNG.

fossil energies

Energies produced from oil, natural gas and coal.

FPSO (floating production, storage and offloading)

Floating integrated offshore unit comprising the equipment used to produce, process and store hydrocarbons and offload them directly to an offshore oil tanker.

FSRU (floating storage and regasification unit)

Floating unit permitting the storage of LNG and the regasification.

G

gearing ratio

Net debt / (Net debt + shareholders equity Group share + Non-controlling interests).

gearing ratio excluding leases commitments

Net debt excluding leases commitments / (Net debt excluding leases commitments + shareholders equity Group share + Non-controlling interests).

greenfield project

Project concerning fields that have never been developed.

gross capacity

Capacity expressed on a 100% basis regardless of the ownership share in the asset.

gross investments

Investments including acquisitions and increases in non-current loans.

H

hydraulic fracturing

Technique that involves fracturing rock to improve its permeability.

hydrocarbons

Molecules composed principally of carbon and hydrogen atoms. They can be solid such as asphalt, liquid such as crude oil or gaseous such as natural gas. They may also include compounds with sulphur, nitrogen, metals, etc.

hydrocracker

A refinery unit that uses catalysts and extraordinarily high pressure, in the presence of surplus hydrogen, to convert heavy oils into lighter fractions.

I

inventory valuation effect

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its competitors. In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differentials between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost.

J

joint-venture

Refer to the definition above of “association/consortium/joint-venture”.

L

lignocellulose

Lignocellulose is the main component of the wall of plant cells. It can be sourced from agricultural and farming wastes or by-products of wood transformation as well as dedicated plantations and constitutes the most abundant renewable carbon source on the planet. This abundance and its composition (very rich in polymerized sugars) makes it an excellent choice to produce biofuels. As a result, its conversion, whether by thermochemical (e.g., gasification) or biochemical techniques, is widely studied.

liquids

Liquids consist of crude oil, bitumen, condensates and NGL.

LNG (liquefied natural gas)

Natural gas which has been liquefied by cooling to a temperature of approximately -160°C which allows its volume to be reduced by a factor of almost 600 in order to transport it.

LNG bunkering

Specific type of operation where the LNG is transferred from a determined distribution source (e.g., bunkering ship, LNG terminal) to an LNG-fueled vessel.

LNG production capacity

LNG production average capacity expressed in millions of tons per year on a 100% basis, taking into account temperature variations over the year and without considering facilities availability. The **nameplate capacity** which corresponds to the facilities design, defined in project phase is different from the **actual capacity** which corresponds to capacity tests on existing facilities.

LNG train

Installation forming part of a liquefaction plant and allowing the separation of natural gas from other gases such as acid gases and LPG, to then liquefy it and finally store it, before loading on to the LNG carriers.

LNG carrier

Vessel specially designed for the transport of LNG and equipped with tanks which enable to minimize thermal losses in order to maintain the LNG in a liquid state.

LPG (liquefied petroleum gas)

Light hydrocarbons (comprised of butane and propane, belonging to the alkanes class and composed of three and four carbon atoms respectively) that are gaseous under normal temperature and pressure conditions and that are kept in liquid state by increasing the pressure or reducing the temperature. LPG is included in NGL.

M

microgrid

Small power grids designed to provide a reliable and better-quality power supply to a small number of consumers. They combine multiple local and diffuse production facilities (micro-turbines, fuel cells, small diesel generators, photovoltaic panels, wind turbines, small hydropower), consumption facilities, storage facilities, and supervision and monitoring tools to manage demand.

mining interests

Rights to explore for and/or produce oil and gas in a specific area for a fixed period. Covers the concepts of "permit", "license", "title", etc.

N

naphtha

Heavy gasoline used as a base in petrochemicals.

natural gas

Mixture of light gaseous hydrocarbons extracted from underground reservoirs. It is mainly composed of methane, but can also contain ethane up to 10%, one or two carbon atoms, and other compounds in small quantities.

natural gas liquids (NGL)

A mixture of light hydrocarbons that exist in the gaseous phase at room temperature and pressure and are recovered as liquid in gas processing plants. NGL include very light hydrocarbons (ethane, propane and butane).

nature-based solutions

Sustainable management and use of nature for tackling socio-environmental challenges. Solutions are inspired and supported by nature, cost-effective, provide environmental, social and economic benefits, and help build resilience to environmental challenges.

net cash flow

Cash flow from operating activities before working capital changes at replacement cost – net investments (including other transactions with non-controlling interests).

net financial debts

Non-current financial debts, including current portion, current borrowings, other current financial liabilities less cash and cash equivalents and other current financial assets.

net investments

Organic investments + net acquisitions.

O

offshore wind

The use of wind farms constructed in bodies of water, usually in the ocean, to harvest wind energy to generate electricity. Higher wind speeds are available offshore compared to on land, so offshore wind power's electricity generation is higher per amount of capacity installed.

oil

Generic term designating crude oil, condensates and NGL.

oil and gas

Generic term which includes all hydrocarbons (e.g., crude oil, condensates, NGL, bitumen and natural gas).

oil sands

sandstones containing natural bitumen.

olefins

Group of products (gas) obtained after cracking of petroleum streams. Olefins are ethylene, propylene and butadiene. These products are used in the production of large plastics (polyethylene, polypropylene, PVC, etc.), in the production of elastomers (polybutadiene, etc.) or in the production of large chemical intermediates.

OPEC

Organization of the Petroleum Exporting Countries.

operated oil & gas facilities

Facilities operated by the Group for the Upstream hydrocarbons activities as well as the activities of the Refining & Chemicals and Marketing & Services segments. They do not include power generation facilities based on renewable sources or natural gas such as combined-cycle natural gas power plants.

operated production

Total quantity of oil and gas produced on fields operated by the Group.

operating cash flow before working capital changes

Cash flow from operating activities before changes in working capital at replacement cost excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020).

operating cash flow before working capital changes without financial charges (DACF)

Cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts, including capital gain from renewable projects sale (effective first quarter 2020) and without financial charges.

operator

Partner of an oil and gas joint-venture in charge of carrying out the operations on a specific area on behalf of the partners within a joint-venture. A refinery is also said to be operated by a specific partner when the operations are carried out by the partner on behalf of the joint-venture that owns the refinery.

organic investments

Net investments, excluding acquisitions, asset sales and other operations with non-controlling interests.

P

permit

Area contractually granted to an oil and gas company (or a consortium) by the host country for a defined period to carry out exploration work or to exploit a field.

petcoke (or petroleum coke)

Residual product remaining after the improvement of very heavy petroleum cuts. This solid black product consists mainly of carbon and can be used as fuel.

polymers

Molecule composed of monomers bonded together by covalent bonds, such as polyolefins obtained from olefins or starch and proteins produced naturally.

Power Purchase Agreement (PPA)

Long-term agreement for the supply of electricity produced from renewable sources.

pre-dividend organic cash breakeven

Brent price for which the operating cash flow before working capital changes covers the organic investments.

price effect

The impact of changing hydrocarbon prices on entitlement volumes from production sharing contracts and on economic limit dates.

production costs

Costs related to the production of hydrocarbons in accordance with FASB ASC 932-360-25-15.

production plateau

Expected average stabilized level of production for a field following the production build-up.

production sharing contract/agreement (PSC/PSA)

Exploration and production contract under which a host country or, more frequently, its national company, transfers to an oil and gas company (the contractor) or a consortium (the contractor group) the right to explore a geographic area and develop the fields discovered. The contractor (or contractor group) undertakes the execution and financing, at its own risk, of all operations. In return, it is entitled to a portion of the production, called cost oil/gas, to recover its expenditures and investments. The remaining production, called profit oil/gas, is then shared between the contractor (contractor group), and the national company and/or host country.

project

As used in this document, “project” may encompass different meanings, such as properties, agreements, investments, developments, phases, activities or components, each of which may also informally be described as a “project”. Such use is for convenience only and is not intended as a precise description of the term “project” as it relates to any specific governmental law or regulation.

proved permit

Permit for which there are proved reserves.

proved reserves (1P reserves)

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with a reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

proved developed reserves

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

proved undeveloped reserves

Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered with new investments (new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion, surface facilities).

proved and probable reserves (2P reserves)

Sum of proved reserves and probable reserves. 2P reserves are the median quantities of oil and gas recoverable from fields that have already been drilled, covered by E&P contracts and for which technical studies have demonstrated economic development in a long-term price environment. They include projects developed by mining.

R

refining

The various processes used to produce petroleum products from crude oil (e.g., distillation, reforming, desulphurization, cracking).

regasification

Before the gas is transported from the terminal to the distribution networks, the LNG is regasified: its temperature is raised from -160°C to 0°C under high pressure.

renewable diesel

Premium-quality diesel fuel that is made completely from renewable and sustainable biomass, including vegetable oils and wastes and residues from animal fat as well as used cooking oils. Thanks to its specific production process, renewable diesel has an identical chemical composition than diesel and, as a result, can be used in high concentrations and even as a standalone product in any diesel-powered vehicle without any change in infrastructure. The greenhouse gas emission of renewable diesel are strongly reduced (more than 50%) compared to those of fossil diesel and the use of renewable diesel also improves quality of local air with particle and nitrogen oxide reduction.

renewable energies

An energy source the inventories of which can be renewed or are inexhaustible, such as solar, wind, hydraulic, biomass and geothermal energy.

reserve life

Synthetic indicator calculated from data published under ASC 932. Ratio of the proved reserves at the end of the period to the production of the past year.

reserves

Estimated remaining quantities of oil and gas and related substances expected to be economically producible, as of a given date, by application of development projects to known accumulations.

reservoirs

Porous, permeable underground rock formation that contains oil or natural gas.

resource acquisitions

Acquisition of a participating interest in an oil and gas mining property by way of an assignment of rights and obligations in the corresponding permit or license and related contracts, with a view to producing the recoverable oil and gas.

return on average capital employed (ROACE)

Ratio of adjusted net operating income to average capital employed at replacement cost between the beginning and the end of the period.

return on equity (ROE)

Ratio of adjusted consolidated net income to average adjusted shareholders' equity (after distribution) between the beginning and the end of the period. Adjusted shareholders' equity for a given period is calculated after distribution of the dividend (subject to approval by the Shareholders' Meeting).

Risked service contract

Service contract where the contractor bears the investments and the risks. The contractor usually receives a portion of the production to cover the refund of the investments and the related interests, and a monetary remuneration linked to the performance of the field.

S

seismic

Method of exploring the subsoil that entails methodically sending vibration or sound waves and recording their reflections to assess the type, size, shape and depth of subsurface layers.

shale gas

Natural gas in a source rock that has not migrated to a reservoir.

shale oil

Oil in a source rock that has not migrated to a reservoir.

shipping

Transport by sea. LNG is carried out on board LNG carriers (see definition).

sidetrack

Well drilled from a portion of an existing well (and not by starting from the surface). It is used to get around an obstruction in the original well or resume drilling in a new direction or to explore a nearby geological area.

silicon

The most abundant element in Earth's crust after oxygen. It does not exist in a free state but in the form of compounds such as silica, which has long been used as an essential element of glass. Polysilicon (or crystalline silicon), which is obtained by purifying silicon and consists of metal-like crystals, is used in the construction of photovoltaic solar panels, but other minerals or alloys may be used.

special items

Due to their unusual nature or particular significance, certain transactions qualifying as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. In certain instances, transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to recur in following years.

steam cracker

A petrochemical plant that turns naphtha and light hydrocarbons into ethylene, propylene, and other chemical raw materials.

T

technical costs

Ratio (Production costs* + exploration expenses + DD&A*)/production of the year. *Excluding non-recurrent items.

thermochemical conversion

Conversion of carbonaceous resources (gas, coal, biomass, waste, CO_2) through thermal transformation (chemical reactions controlled by the combined action of temperature, pressure and often of a catalyst). Gasification is an example.

tight gas

Natural gas trapped in very low-permeable reservoir.

turnaround

Temporary shutdown of a facility for maintenance, overhaul and upgrading.

U

unconventional hydrocarbons

Oil and gas that cannot be produced or extracted using conventional methods. These hydrocarbons generally include shale gas, coal bed methane, gas located in very low-permeable reservoirs, methane hydrates, extra heavy oil, bitumen and liquid or gaseous hydrocarbons generated during pyrolysis of oil shale.

unitization

Creation of a new joint-venture and appointment of a single operator for the development and production as single unit of an oil or gas field involving several permits/licenses or countries.

unproved permit

Permit for which there are no proved reserves.

Upstream hydrocarbons activities

The Group Upstream hydrocarbons activities include the oil and gas exploration and production activities of the Exploration & Production and the Integrated Gas, Renewables & Power segments. They do not include power generation facilities based on renewable sources or natural gas such as combined-cycle natural gas power plants.

V

variable cost margin, Refining Europe

This indicator represents the average margin on variable costs realized by TOTAL's European refining business. It is equal to the difference between the sales of refined products realized by TOTAL's European refining and the crude purchases as well as associated variable costs, divided by refinery throughput in tons.

The previous ERMI indicator was intended to represent the margin after variable costs for a hypothetical complex refinery located around Rotterdam in Northern Europe that processes a mix of crude oil and other inputs commonly supplied to this region to produce and market the main refined products at prevailing prices in this region.

W

watt-peak or watt of peak power (Wp)

Refers to the output power achieved by a solar module under full solar radiation (under Standard Test Conditions).

Cross-reference lists

Universal Registration Document cross-reference list, for use in identifying the information required by Annex 1 to the Commission Delegated Regulation (EU) 2019/980 dated March 14, 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Commission Regulation (EC) No 809/2004

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1.2	**Certification of the persons responsible**	**p 1**	**p 1**
1.3	**Statements by experts and declarations of any interest**	**n/a**	**n/a**
1.4	**Third party information**	**n/a**	**n/a**
1.5	**Statement of approval by the competent authority**	**n/a**	**n/a**
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3.	**Risk factors**	**3**	**3.1**
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4.2	**Place of registration, registration number and legal entity identifier (LEI)**	**1** **7**	**1.7.3** **7.2.1**
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5.4	**Strategy and objectives**	**1**	**1.3** **1.8**
5.5	**Dependence on certain patents or licences, industrial, commercial or financial contracts or new manufacturing processes**	**2** **3**	**2.1 to 2.5** **3.1.2 and 3.1.5**
5.6	**Competitive position**	**1** **2** **3**	**1.1.1** **2.1 to 2.5** **3.1.6**
5.7	**Investments**	**1**	**1.4**
5.7.1	Material investments over the last three fiscal years	1	1.4.1
5.7.2	Material investments in progress or for which commitment have already been made	1	1.4.2
5.7.3	Information relating to the joint-ventures and undertakings in which the issuer holds a proportion of the capital likely to have significant effect on the assessment of its own assets and liabilities, financial position or profits and losses	2	2.1 to 2.5
5.7.4	Environmental issues affecting the most significant tangible fixed assets	3 5	3.1.2 and 3.4 5.5 and 5.6
6.	**Organizational structure**	**1**	**1.7.3**
6.1	**Issuer's position within the Group**	**1**	**1.7.3**
6.2	**List of the significant subsidiaries**	**1** **8**	**1.7.3** **8.7 (Note 18)**
7.	**Operating and financial review**		
7.1	**Financial condition**		
7.1.1	Financial condition	1	1.8.1.1

Information required by Annex 1 of Delegated Regulation (EU) 2019/980		2020 Universal Registration Document Relevant chapters	 Relevant paragraphs
7.1.2	Likely future development and activities in the field of research and development	1	1.5
7.2	**Operating results**	**1 8 10**	**1.8.1.1 8.2 10.2.1**
7.2.1	Significant factors materially affecting income from operations	1 8	1.8.1.1 and 1.8.1.4 8.7 (Notes 3, 4 and 5)
7.2.2	Narrative description of changes in net sales or revenues over the last three fiscal years	1 8	1.8.1.1 8.7 (Notes 3, 4 and 5)
8.	**Capital resources**		
8.1	**Information concerning capital resources (both short and long term)**	**1**	**1.8.1.2**
8.2	**Sources, amounts and narrative description of cash flows**	**1 8**	**1.8.1.2 8.5**
8.3	**Borrowing requirements and funding structure**	**1**	**1.8.1.2**
8.4	**Restrictions on the use of capital resources that have materially affected, or could materially affect, operations**	**1**	**1.8.1.2**
8.5	**Anticipated sources of funds needed for the principal future investments and major encumbrances on the most significant tangible fixed assets or for which firm commitments have already been made**	**1 8**	**1.4.3 and 1.8.1.2 8.7 (Note 7)**
9.	**Regulatory environment**	**1 2 3**	**1.8.1.3 and 1.8.1.4 2.3.5 3.1.4**
10.	**Trend information**		
10.1	**Most significant trends in production, sales and inventory and costs and selling prices since the end of the last fiscal year**	**1**	**1.8.1.1 and 1.8.1.4**
10.2	**Known trends, uncertainties, demands, commitments or events that are likely to have a material effect on prospects for the current fiscal year**	**1 3**	**1.8.1.3 and 1.8.1.4 3.1, 3.4 and 3.5**
11.	**Profit forecasts or estimates**	**n/a**	**n/a**
12.	**Administrative, management and supervisory bodies and senior management**		
12.1	**Information about members of the administrative and management bodies**	**4**	**4.1**
12.2	**Conflicts of interests, understandings relating to nominations, restrictions on the disposal of holdings in the issuer's securities**	**4**	**4.1.1.2**
13.	**Remuneration and benefits**		
13.1	**Remuneration paid and benefits in kind granted by the issuer and its subsidiaries**	**4**	**4.3**
13.2	**Amounts set aside or accrued to provide pension, retirement or similar benefits**	**4 8 10**	**4.3.2 8.7 (Notes 8.4, 9 and 10) 10.3 (Note 26)**
14.	**Board practices**		
14.1	**Date of expiration of the current term of office and date of commencement in office**	**4**	**4.1.1**
14.2	**Contracts with the issuer or any of its subsidiaries providing for benefits upon termination of such contracts**	**4**	**4.3.2**
14.3	**Information about the issuer's audit committee and remuneration committee**	**4**	**4.1.2.3**
14.4	**Compliance with the Corporate Governance regime applicable to the issuer**	**4**	**4.2**
14.5	**Potential material impacts on the corporate governance**	**4**	**4.1**
15.	**Employees**		
15.1	**Number of employees at the end of the last three fiscal years; breakdown by geographic location and category of activity**	**1 5 8**	**1.1.1 5.3 8.7 (Note 10)**
15.2	**Shareholdings and stock options**	**4 6**	**4.3.4 6.4.2**
15.3	**Arrangements for involving employees in the capital of the issuer**	**4 5**	**4.3.4 5.3**

Information required by Annex 1 of Delegated Regulation (EU) 2019/980		2020 Universal Registration Document Relevant chapters	Relevant paragraphs
16.	**Major shareholders**		
16.1	**Interests held above the threshold for notification (known interests) as at the date of the URD or appropriate statement to the effect that no such person exists**	**6**	**6.4.1**
16.2	**Major shareholders' voting rights in excess of their share in the share capital**	**7**	**7.2.4**
16.3	**Control of the issuer by one or more shareholders**	**n/a**	**n/a**
16.4	**Arrangements, known to the issuer, the operation of which may at a subsequent date result in a change in control of the issuer**	**n/a**	**n/a**
17.	**Related party transactions**	**4** **8**	**4.4.1** **8.7 (Note 8)**
18.	**Financial information concerning the issuer's assets and liabilities, financial position and profits and losses**		
18.1	**Historical financial information**		
18.1.1	Audited historical financial information	7	7.3
18.1.2	Change of accounting reference date	n/a	n/a
18.1.3	Accounting standard	8	8.7 (Note 1)
18.1.4	Change of accounting framework	8	8.7
18.1.5	Financial information audited according to national accounting standards	7 8	7.3 8.1
18.1.6	Consolidated annual financial statements	8	8.2 to 8.7
18.1.7	Age of financial information		December 31, 2020
18.2	**Interim and other financial information**		
18.2.1	Quarterly or half yearly financial information published since the date of the last audited financial statements	n/a	n/a
18.2.2	Interim financial information covering the first six months of the fiscal year after the end of the last audited fiscal year	n/a	n/a
18.3	**Auditing of historical annual financial information**		
18.3.1	Auditing of the historical financial information	7 8 10	7.3.3 8.1 10.1
18.3.2	Other information in the Universal Registration Document that has been audited by the auditors	4 10	4.5 10.1
18.3.3	Source of the financial information in the Universal Registration Document that is not extracted from the issuer's audited financial statements	7 9	7.3.4 9.1 to 9.4
18.4	**Pro forma financial information**	**n/a**	**n/a**
18.5	**Dividend policy**	**1** **6**	**1.8.1.1** **6.2**
18.6	**Legal and arbitration proceedings**	**3**	**3.5**
18.7	**Significant change in the issuer's financial position**	**1**	**1.8.1.4**
19.	**Additional information**		
19.1	**Share capital**		
19.1.1	Issued capital and authorized capital	7 8 10	7.1 8.7 (Note 9) 10.3 (Note 7) and 10.4.2
19.1.2	Shares not representing capital	n/a	n/a
19.1.3	Shares held by the issuer or its subsidiaries	6 8 10	6.3.2.4 8.7 (Note 9) 10.3 (Note 7) and 10.4.1
19.1.4	Securities granting future access to the issuer's share capital	4 7	4.4.2 7.1.3
19.1.5	Terms of any acquisition rights and/or obligations over capital issued but not paid, or any capital increase	n/a	n/a
19.1.6	Capital of any member of the Group which is under option	n/a	n/a

Information required by Annex 1 of Delegated Regulation (EU) 2019/980		2020 Universal Registration Document Relevant chapters	2020 Universal Registration Document Relevant paragraphs
19.1.7	History of the issuer's share capital over the last three fiscal years	7 8 10	7.1.4 8.7 (Note 9) 10.3 (Note 7)
19.2	**Memorandum and Articles of Association**		
19.2.1	Issuer's objects and purposes, registration number	7	7.2.1 and 7.2.2
19.2.2	Rights, preferences and restrictions attached to each class of the existing shares	7	7.2.4
19.2.3	Provisions of the issuer's statutes, charter or bylaws that would have the effect of delaying, deferring or preventing a change in control of the issuer	4 7	4.4.4 7.2.4
20.	**Material contracts** (other than contracts entered into in the ordinary course of business)	**n/a**	**n/a**
21.	**Documents available**	**6**	**6.6.1**

Universal Registration Document cross-reference list, for use in identifying the information contained in the annual financial report

The cross-reference list below is used to identify the information in this Universal Registration Document contained in the annual financial report pursuant to Article L. 451-1-2 of the French Financial and Monetary Code and Article 222-3 of the General Regulation of the French Financial Markets Authority.

Annual financial report	2020 Universal Registration Document Relevant chapters/ Relevant paragraphs
Annual financial statements	Chapter 10 / 10.2 and 10.3
Consolidated Financial Statements	Chapter 8 / 8.2 to 8.7
Management report (minimum information pursuant to the Article 222-3 of the French Financial Markets Authority's General Regulation)	Financial report cross-reference list hereafter
Declaration of persons responsible for the annual financial report	p 1
Reports of the statutory auditors on the statutory financial statements and Consolidated Financial Statements	Chapter 8 / 8.1 Chapter 10 / 10.1

Cross-reference list of Board of Directors' management report mentioned in Article L. 225-100 of the French Commercial Code, to which are attached the report on corporate governance and the statement of non-financial performance

In order to facilitate the reading of this Universal Registration Document, the cross-reference list is used to identify the information to be contained in the management report.

N°	Required elements	Reference texts	Relevant chapters/ Relevant paragraphs
1	**Information regarding the position and activities of the Company and Group**		
1.1	Position of the Company during the last fiscal year and objective and comprehensive analysis of changes in the business, results and financial position of the Company and Group, and in particular the debt position, in light of the volume and complexity of the business	Articles L. 225-100-1, I., 1°, L. 232-1-II, L. 233-6 and L. 233-26 of the French Commercial Code	Chapter 1 / 1.8.1.1 and 1.8.1.2 Chapter 8 / 8.7 (Note 2)
1.2	Key financial performance indicators	Article L. 225-100-1, I, 2° of the French Commercial Code	Chapter 1 / 1.1.1 Chapter 2 / 2.5.1
1.3	Key non-financial performance indicators relating to the specific activities of the Company and Group, and in particular information regarding environmental and social issues	Article L. 225-100-1, I, 2° of the French Commercial Code	Chapter 1 / 1.1.1 Chapter 5 / 5.3 to 5.11
1.4	Significant changes between the end of the fiscal year and the establishment of the Management Report	Articles L. 232-1, II and L. 233-26 of the French Commercial Code	Chapter 1 / 1.8.1.4 Chapter 8 / 8.7 (Note 17)
1.5	Identity of the major shareholders and voting rights holders in shareholders' meetings, and changes occurred during the fiscal year	Article L. 233-13 of the French Commercial Code	Chapter 6 / 6.4.1
1.6	Company's existing branch offices	Article L. 232-1, II of the French Commercial Code	Chapter 1 / 1.7.3
1.7	Significant acquisitions of shares in companies with registered offices in France	Article L. 233-6 para. 1 of the French Commercial Code	Chapter 1 / 1.7.3
1.8	Disposal of reciprocal shareholdings	Articles L. 233-29, L. 233-30 and R. 233-19 of the French Commercial Code	n/a

N°	Required elements	Reference texts	Relevant chapters/ Relevant paragraphs
1.9	Company and Group foreseeable trends and outlooks	Articles L. 232-1, II and L. 233-26 of the French Commercial Code	Chapter 1 / 1.8.1.3 Chapter 8 / 8.7 (Note 2)
1.10	Research and development activities	Articles L. 232-1, II and L. 233-26 of the French Commercial Code	Chapter 1 / 1.5
1.11	Table of results of the Company for each of the last five fiscal years	Article R. 225-102 of the French Commercial Code	Chapter 10 / 10.4.2
1.12	Information about payment terms of suppliers or customers	Article D. 441-4 of the French Commercial Code	Chapter 5 / 5.10
1.13	Amount of inter-company loans made by the Company and statutory auditors' declaration	Articles L. 511-6 and R. 511-2-1-3 of the French Monetary and Financial Code	n/a
2	**Internal control and risk management**		
2.1	Description of the principal risks and uncertainties faced by the Company and Group companies	Article L. 225-100, I, 3° of the French Commercial Code	Chapter 1 / 1.8.1.3 and 1.8.1.4 Chapter 3 / 3.1
2.2	Information on the financial risks related to the effects of climate change and overview of measures adopted by the Company to reduce them and implement a low carbon strategy in all the components of its activity	Article L. 22-10-35, 1° of the French Commercial Code	Chapter 3 / 3.1 and 3.3 Chapter 5 / 5.6
2.3	Main characteristics of the internal control and risk management procedures put in place relating to the preparation and processing of accounting and financial information	Article L. 22-10-35, 2° of the French Commercial Code	Chapter 3 / 3.3
2.4	Information on the Company's objectives and policy relating to the hedging of each of the main categories of planned transactions for which hedge accounting is used	Article L. 225-100-1, I, 4° of the French Commercial Code	
	Exposure to price, credit, liquidity and cash flow risks		Chapter 3 / 3.3
	Information on the Company's use of financial instruments		Chapter 1 / 1.4.2
2.5	Anti-corruption measures	Law n°2016-1691 of December 9, 2016	Chapter 5 / 5.8.1
2.6	Vigilance plan relating to the Company's activities and all of the subsidiaries or companies controlled by the Company and report on its effective implementation	Article L. 225-102-4 of the French Commercial Code	Chapter 3 / 3.6
3	**Report on corporate governance**		
Information regarding the compensation			
3.1	Description of the compensation policy of the corporate officers (*mandataires sociaux*) in all the component of the fixed and variable compensation, of the decision process which is followed for its determination, its review and its implementation	Article L. 22-10-8 (formerly L. 225-37-2) of the French Commercial Code	Chapter 4 / 4.3.1.1 and 4.3.2.2
3.2	Global compensation (including in-kind benefits) paid by the Company to each corporate officers (*mandataires sociaux*) of TOTAL SE during the 2020 fiscal year	Article L. 22-10-9, I, 1° (formerly L. 225-37-3, I, 1°) of the French Commercial Code	Chapter 4 / 4.3.1.2 and 4.3.2.1
3.3	Relative proportion of the fixed and variable compensation	Article L. 22-10-9, I, 2° (formerly L. 225-37-3, I, 2°) of the French Commercial Code	Chapter 4 / 4.3.1.2 and 4.3.2.1
3.4	Use of the possibility to ask for the restitution of a variable compensation	Article L. 22-10-9, I, 3° (formerly L. 225-37-3, I, 3°) of the French Commercial Code	n/a
3.5	Mention of all commitments taken by TOTAL SE for his corporate officers (*mandataires sociaux*) corresponding to the components of compensation, of indemnities, of in-kind benefits due or that may be due because of the beginning, the termination or the changing of functions or after those happened, notably the pension commitment and other lifetime benefit	Article L. 22-10-9, I, 4° (formerly L. 225-37-3, I, 4°) of the French Commercial Code	Chapter 4 / 4.3.1.2 and 4.3.2.1
3.6	Compensation paid or attributed by a company included in the scope of consolidation pursuant to the Article L. 233-16 of the French Commercial Code	Article L. 22-10-9, I, 5° (formerly L. 225-37-3, I, 5°) of the French Commercial Code	n/a

N°	Required elements	Reference texts	Relevant chapters/ Relevant paragraphs
3.7	Ratios between the compensation level of each corporate officer and the average and median compensation of the Company's employees	Article L. 22-10-9, I, 6° (formerly L. 225-37-3, I, 6°) of the French Commercial Code	Chapter 4 / 4.3.2.1
3.8	Annual trend of the compensation, of the Company's performances, of the average compensation based on full time employee of the Company, other than the executives, and the ratios, for the last five fiscal years at least	Article L. 22-10-9, I, 7° (formerly L. 225-37-3, I, 7°) of the French Commercial Code	Chapter 4 / 4.3.2.1
3.9	Explanation as regard to the fact that the global compensation respect for the adopted compensation policy, including the way it contributes to the long term performance of the Company, and the way the performance criteria were applied	Article L. 22-10-9, I, 8° (formerly L. 225-37-3, I, 8°) of the French Commercial Code	Chapter 4 / 4.3.1.2 and 4.3.2.1
3.10	Way the vote of the last ordinary shareholders' meeting pursuant to the I of the Article L. 22-10-34 (formerly L. 225-100) of the French Commercial Code was taken into consideration	Article L. 22-10-9, I, 9° (formerly L. 225-37-3, I, 9°) of the French Commercial Code	Chapter 4 / 4.3.2.1
3.11	Difference compared to the implementation process of the compensation policy and all applied derogation in accordance with the second paragraph of the III of Article L. 22-10-8 (formerly L. 225-37-2) of the French Commercial Code, including the explanation of the nature of extraordinary circumstances and the indication of specific elements to which it is derogated	Article L. 22-10-9, I, 10° (formerly L. 225-37-3, I, 10°) of the French Commercial Code	Chapter 4 / 4.3.2.1
3.12	Mention, if needed, of the application of the provisions of the second paragraph of Article L. 225-45 of the French Commercial Code	Article L. 22-10-9, I, 11° (formerly L. 225-37-3, I, 11°) of the French Commercial Code	n/a
3.13	Granting and retention of the options by the corporate officers (*mandataires sociaux*)	Articles L. 22-10-57, L. 22-10-58 and L. 225-185 of the French Commercial Code	Chapter 4 / 4.3.4
3.14	Free shares granted to the directors and corporate officers (*dirigeants mandataires sociaux*) and retention by the latter	Articles L. 225-197-1, L. 22-10-59 and L. 22-10-60 of the French Commercial Code	Chapter 4 / 4.3.4
3.15	List of all of the directorships and functions held at any company by each corporate officers (*mandataires sociaux*) during the 2020 fiscal year	Article L. 225-37-4, 1° of the French Commercial Code	Chapter 4 / 4.1.1.1
3.16	Agreements made, directly or through an intermediary, between, on the one hand, any corporate officers (*mandataires sociaux*) or shareholder holding more than 10% of TOTAL SE's voting rights and, on the other hand, a company of which TOTAL SE directly or indirectly owns more than half of the capital, other than agreements related to its ordinary course of business and signed under normal conditions	Article L. 225-37-4, 1° of the French Commercial Code	Chapter 4 / 4.4.1
3.17	Summary table of valid delegations granted by the Shareholders' Meeting with respect to capital increases, pursuant to Articles L. 225-129-1 and L. 225-129-2 of the French Commercial Code, showing the use made of such delegations during the 2020 fiscal year	Article L. 225-37-4, 3° of the French Commercial Code	Chapter 4 / 4.4.2
3.18	Statement of the choice made between the two forms of management set out in Article L. 225-51-1 of the French Commercial Code	Article L. 225-37-4, 4° of the French Commercial Code	Chapter 4 / 4.1.5.1
3.19	Composition and preparation and organization of the work of the Board of Directors	Article L. 22-10-10, 1° (formerly L. 225-37-4, 5°) of the French Commercial Code	Chapter 4 / 4.1.1 and 4.1.2
3.20	Description of the diversity policy applied to members of the Board of Directors' principle with regard to criteria such as age, sex or qualifications and professional experience, as well as a description of this policy, its terms and conditions of implementation and results achieved during the past fiscal year. Information on how the Company seeks a balanced representation of men and women on the executive committee and on results regarding diversity in the 10% of the highest management positions	Article L. 22-10-10, 2° (formerly L. 225-37-4) of the French Commercial Code	Chapter 4 / 4.1.1.5 and 4.1.5 Chapter 5 / 5.3.3.1
3.21	Limits set by the Board of Directors concerning the powers of the Chief Executive Officer, if any	Article L. 22-10-10, 3° (formerly L. 225-37-4) of the French Commercial Code	Chapter 4 / 4.1
3.22	Declaration regarding the Corporate Governance Code to which the Company voluntarily refers, and, if applicable, the reasons why any provision thereof has been set aside	Article L. 22-10-10, 4° (formerly L. 225-37-4) of the French Commercial Code	Chapter 4 / 4.2

N°	Required elements	Reference texts	Relevant chapters/ Relevant paragraphs
3.23	Particular conditions regarding shareholders' participation in the Shareholders' Meeting or provisions of the bylaws setting out such conditions	Article L. 22-10-10, 5° (formerly L. 225-37-4) of the French Commercial Code	Chapter 4 / 4.4.3 Chapter 7 / 7.2.6
3.24	Description of the process implemented by the Company in accordance with the second paragraph of Article L. 22-10-12 (formerly L. 225-39) of the French Commercial Code and its implementation	Article L. 22-10-10, 6° (formerly L. 225-37-4) of the French Commercial Code	Chapter 4 / 4.4.1
3.25	Information regarding factors likely to have an impact in the event of a public takeover or exchange offer	Article L. 22-10-11 (formerly L. 225-37-5) of the French Commercial Code	Chapter 4 / 4.4.4
4	**Shareholders and share capital**		
4.1	Identity of any individual or legal entity directly or indirectly holding more than one twentieth, one tenth, three twentieths, one fifth, one quarter, one third, one half, two thirds, eighteen twentieths or nineteen twentieths of the share capital or voting rights at the Shareholders' Meetings of the Company	Article L. 233-13 of the French Commercial Code	Chapter 6 / 6.4
	Information on changes during the fiscal year	Article L. 233-13 of the French Commercial Code	Chapter 6 / 6.4.1
	Statement of the names of any controlled companies holding treasury shares and the share of the Company's capital that they own	Article L. 233-13 of the French Commercial Code	n/a
4.2	Number of shares purchased and sold during the fiscal year pursuant to Articles L. 225-208, L. 22-10-62 (formerly L. 225-209), L. 225-209-2, L. 228-12 and L. 228-12-1 of the French Commercial Code, average purchase and sale price, amount of trading costs, number of shares held in the name of the Company at the end of the fiscal year and the value thereof at the purchase price, together with the par value thereof for each purpose, number of shares used, any reallocations thereof, and the fraction of the share capital they represent	Article L. 225-211 of the French Commercial Code	Chapter 6 / 6.3
4.3	Statement of employee shareholding on the last day of the fiscal year (proportion of share capital represented)	Article L. 225-102, 1st paragraph of the French Commercial Code	Chapter 1 / 1.1.1 Chapter 6 / 6.4
4.4	Statement of conversion adjustments and adjustments to terms of issue or exercise of stock options or securities granting access to the share capital	Articles R. 228-90 and R. 228-91 of the French Commercial Code	n/a
4.5	Summary of transactions in the Company's stock carried out by the directors and persons mentioned in Article L. 621-18-2 of the French Monetary and Financial Code during the last fiscal year	Article L. 621-18-2 of the French Financial and Monetary Code	Chapter 4 / 4.1.6
4.6	Amounts of dividends distributed in the last three fiscal years and amount of distributed income in those fiscal years	Article 243 bis of the French General Tax Code	Chapter 6 / 6.2
5	**Statement of non-financial performance (consolidated statement)**		
5.1	Business model of the Company and of the Group	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 1 / 1.1.3 Chapter 2 / 2.1 to 2.5
5.2	Description of the principal risks related to the activities of the Company and Group, including the risks created by the business relations, the goods and services when it turns out relevant and proportionate	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 3 / 3.1
5.3	Information on how the Company takes into account the social and environmental consequences of its activities, as well as the effects of those activities with regard to respect for human rights and fighting corruption and tax evasion (description of the policies applied and due diligence procedures carried out to prevent, identify and mitigate the principal risks related to the activities of the Company and Group	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 3 / 3.3.3 Chapter 5 / 5.3, 5.4, 5.7, 5.8 and 5.11
5.4	Results of the policies applied by the Company or the Group, including key performance indicators	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 1 / 1.8.2 Chapter 5
5.5	Social information (employment, labor organization, health and safety, social relations, training, equal treatment)	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 5 / 5.3
5.6	Information about the impact on climate change of the Company's activity and the use of the goods and services that it produces	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 5 / 5.6

N°	Required elements	Reference texts	Relevant chapters/ Relevant paragraphs
5.7	Societal commitments in order to promote sustainable development and the circular economy, prevent food waste and food poverty or promote animal welfare and responsible, fair and sustainable food	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 5 / introduction and 5.5.5
5.8	Information related to the fight against corruption	Articles L. 225-102-1, L. 22-10-36 and R. 225-105, II, B, 1° of the French Commercial Code	Chapter 5 / 5.8
5.9	Information related to the actions in favor of human rights	Articles L. 225-102-1, L. 22-10-36 and R. 225-105, II, B, 2° of the French Commercial Code	Chapter 5 / 5.7
5.10	Specific information: – Company's industrial accident risk prevention policy – Company's ability to cover its civil liability vis-à-vis property and people due to the operation of such facilities – means provided by the Company to manage the compensation of victims in the event of an industrial accident for which it is liable	Article L. 225-102-2 of the French Commercial Code	Chapter 3 / 3.3 and 3.4 Chapter 5 / 5.5
5.11	Information on collective agreements within the Company and their impacts on the Company's economic performance as well as on employees' working conditions, on actions aimed at fighting discrimination and promoting diversity, and the measures taken in favor of people with disabilities	Articles L. 225-102-1, L. 22-10-36 and R. 225-105 of the French Commercial Code	Chapter 5 / 5.3
5.12	Independent third party body's declaration on information present in the statement of non-financial performance	Articles L. 225-102-1, L. 22-10-36 and R. 225-105-2 of the French Commercial Code	Chapter 5 / 5.12
6	**Other information**		
6.1	Additional fiscal information	Articles 223 *quater* and 223 *quinquies* of the French General Tax Code	Chapter 10 / 10.3
6.2	Statement of injunctions or penalties for antitrust practices ordered by the French Competition Authority	Article L. 464-2 of the French Commercial Code	n/a
6.3	Amounts of all incidental loans with a term of less than three years made by the Company to microbusinesses, SMEs or intermediate-sized enterprises with which the Company has financial links that justify such a loan	Article L. 511-6 of the French Financial and Monetary Code	n/a
6.4	Statutory auditors' declaration attached to the management report	Article L. 511-6 of the French Financial and Monetary Code	n/a
6.5	Disposal of shares by a company pursuant to Articles L. 233-29 and L. 233-30 of the French Commercial Code to adjust reciprocal shareholdings	Articles L. 233-29, L. 233-30 and R. 233-19 of the French Commercial Code	n/a
6.6	Changes made to the method of presentation of the annual financial statements	Article 243 bis of the French General Tax Code	Chapter 8 / 8.7 Chapter 10 / 10.3 (Note 1)
6.7	Observations made by the French Financial Markets Authority on proposed appointments and renewals of statutory auditors	Article 243 bis of the French General Tax Code	n/a
6.8	Report on payments made to the benefit of governments	Article L. 22-10-37 (formerly L. 225-102-3) of the French Commercial Code	Chapter 9 / 9.3

Disclaimer

In this Universal Registration Document, unless otherwise stated, the terms "TOTAL" and "Group" as used in this document refer to TOTAL SE collectively with all of its direct and indirect consolidated companies located in or outside of France. The term "Company" as used in this document exclusively refers to TOTAL SE, which is the parent company of the Group.

References to websites mentioned in this document are not incorporated by reference, unless otherwise stated.

This document may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, notably with respect to the financial condition, results of operations, business activities and industrial strategy of TOTAL. This document may also contain statements regarding the perspectives, objectives, areas of improvement and goals of the Group, including with respect to climate change and carbon neutrality (net zero emissions). An ambition expresses an outcome desired by the Group, it being specified that the means to be deployed do not depend solely on TOTAL. These forward-looking statements may generally be identified by the use of the future or conditional tense or forward-looking words such as "envisions", "intends", "anticipates", "believes", "considers", "plans", "expects", "thinks" "targets", "aims" or similar terminology. Such forward-looking statements included in this document are based on economic data, estimates and assumptions prepared in a given economic, competitive and regulatory environment and considered to be reasonable by the Group as of the date of this document.

These forward-looking statements are not historical data and should not be interpreted as assurances that the perspectives, objectives or goals announced will be achieved. They may prove to be inaccurate in the future, and may evolve or be modified with a significant difference between the actual results and those initially estimated, due to the uncertainties notably related to the economic, financial, competitive and regulatory environment, or due to the occurrence of risk factors, such as, notably, the price fluctuations in crude oil and natural gas, the evolution of the demand and price of petroleum products, the changes in production results and reserves estimates, the ability to achieve cost reductions and operating efficiencies without unduly disrupting business operations, changes in laws and regulations including those related to the environment and climate, currency fluctuations, as well as economic and political developments, changes in market conditions, loss of market share and changes in consumer preferences, or pandemics such as the COVID-19 pandemic. Additionally, certain financial information is based on estimates particularly in the assessment of the recoverable value of assets and potential impairments of assets relating thereto.

Neither TOTAL nor any of its subsidiaries assumes any obligation to update publicly any forward-looking information or statement, objectives or trends contained in this document whether as a result of new information, future events or otherwise. The information on risk factors that could have a significant adverse affect on the Group's business, financial condition, including its operating income and cash flow, reputation, outlook or the value of financial instruments issued by TOTAL, is provided in chapter 3 in this document.

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TOTAL. In addition to IFRS measures, certain alternative performance indicators are presented, such as performance indicators excluding the adjustment items described below (adjusted operating income, adjusted net operating income, adjusted net income), return on equity (ROE), return on average capital employed (ROACE), gearing ratio, operating cash flow before working capital changes, the shareholder rate of return. These indicators are meant to facilitate the analysis of the financial performance of TOTAL and the comparison of income between periods. They allow investors to track the measures used internally to manage and measure the performance of the Group.

These adjustment items include:

(i) Special items

Due to their unusual nature or particular significance, certain transactions qualified as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred within prior years or are likely to occur again within the coming years.

(ii) Inventory valuation effect

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its competitors.

In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differentials between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost.

(iii) Effect of changes in fair value

The effect of changes in fair value presented as an adjustment item reflects, for some transactions, differences between internal measures of performance used by TOTAL's management and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

TOTAL, in its trading activities, enters into storage contracts, whose future effects are recorded at fair value in Group's internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TOTAL enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

The adjusted results (adjusted operating income, adjusted net operating income, adjusted net income) are defined as replacement cost results, adjusted for special items, excluding the effect of changes in fair value.

Euro amounts presented for the fully adjusted-diluted earnings per share represent dollar amounts converted at the average euro-dollar (€-$) exchange rate for the applicable period and are not the result of financial statements prepared in euros.

Cautionary Note to US Investors – The SEC permits oil and gas companies, in their filings with the SEC, to separately disclose proved, probable and possible reserves that a company has determined in accordance with SEC rules. We may use certain terms in this document, such as “potential reserves” or “resources”, that the SEC’s guidelines strictly prohibit us from including in filings with the SEC. US investors are urged to consider closely the disclosure in the Form 20-F of TOTAL, File N° 1-10888, available from us at 2, place Jean Millier – Arche Nord Coupole/Regnault – 92078 Paris-La Défense Cedex, France, or at our website total.com. You can also obtain this form from the SEC by calling 1-800-SEC-0330 or on the SEC’s website sec.gov.

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see you on
total.com

TOTAL SE
Registered Office:
2, place Jean Millier – La Défense 6
92400 Courbevoie – France
Share capital: 6 574 599 040 euros
542 051 180 RCS Nanterre

Reception: +33 (0)1 47 44 45 46
Investor Relations: +44 (0)207 719 7962
North American Investor Relations: +1 (173) 483-5070