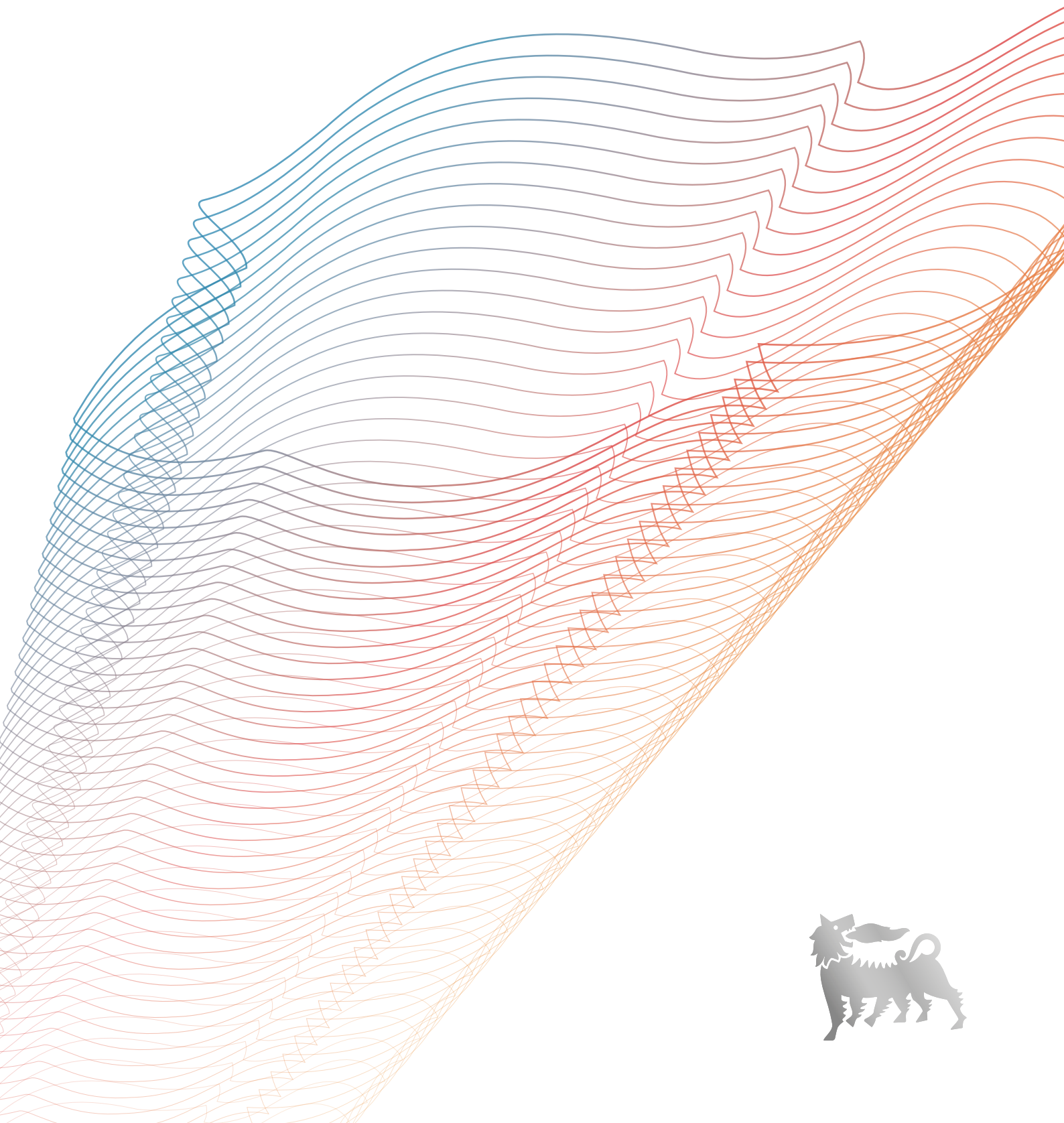
Eni

Annual Report 2018



FINANCIAL HIGHLIGHTS

		2018	2017	2016
Net sales from operations	(€ million)	75,822	66,919	55,762
Operating profit (loss)		9,983	8,012	2,157
Adjusted operating profit (loss)[a]		11,240	5,803	2,315
Adjusted net profit (loss)[a][b]		4,583	2,379	(340)
Net profit (loss)[b]		4,126	3,374	(1,051)
Net profit (loss) - discontinued operations[b]				(413)
Group net profit (loss)[b] (continuing and discontinued operations)		4,126	3,374	(1,464)
Net cash flow from operating activities		13,647	10,117	7,673
Capital expenditure		9,119	8,681	9,180
of which: exploration		*463*	*442*	*417*
development of hydrocarbon reserves		*6,506*	*7,236*	*7,770*
Dividend to Eni's shareholders pertaining to the year[c]		2,989	2,881	2,881
Cash dividend to Eni's shareholders		2,954	2,880	2,881
Total assets at year end		118,373	114,928	124,545
Shareholders' equity including non-controlling interests at year end		51,073	48,079	53,086
Net borrowings at year end		8,289	10,916	14,776
Net capital employed at year end		59,362	58,995	67,862
of which: Exploration & Production		*50,358*	*49,801*	*57,910*
Gas & Power		*3,143*	*3,394*	*4,100*
Refining & Marketing and Chemicals		*7,371*	*7,440*	*6,981*
Share price at year end	(€)	13.8	13.8	15.5
Weighted average number of shares outstanding	(million)	3,601.1	3,601.1	3,601.1
Market capitalization[d]	(€ billion)	50	50	56

(a) Non-GAAP measures.
(b) Attributable to Eni's shareholders.
(c) The amount of dividend for the year 2018 is based on the Board's proposal.
(d) Number of outstanding shares by reference price at year end.

SUMMARY FINANCIAL DATA

		2018	2017	2016
Net profit (loss)				
- per share[a]	(€)	*1.15*	*0.94*	*(0.29)*
- per ADR[a][b]	($)	*2.72*	*2.12*	*(0.65)*
Adjusted net profit (loss)				
- per share[a]	(€)	*1.27*	*0.66*	*(0.09)*
- per ADR[a][b]	($)	*3.00*	*1.49*	*(0.20)*
Cash flow				
- per share[a]	(€)	*3.79*	*2.81*	*2.13*
- per ADR[a][b]	($)	*8.95*	*6.35*	*4.72*
Adjusted Return on average capital employed (ROACE)	(%)	8.5	4.7	0.2
Leverage		16	23	28
Gearing		14	18	22
Coverage		10.3	6.5	2.4
Current ratio		1.4	1.5	1.4
Debt coverage		164.6	92.7	51.9
Net Debt/EBITDA adjusted		45.2	80.6	144.7
Dividend pertaining to the year	(€ per share)	0.83	0.80	0.80
Total Share Return (TSR)	(%)	4.8	(5.6)	19.2
Pay-out		72	85	(197)
Dividend yield[c]		5.9	5.7	5.4

(a) Fully diluted. Ratio of net profit/cash flow and average number of shares outstanding in the period. Dollar amounts are converted on the basis of the average EUR/USD exchange rate quoted by Reuters (WMR) for the period presented.
(b) One American Depositary Receipt (ADR) is equal to two Eni ordinary shares.
(c) Ratio of dividend for the period and the average price of Eni shares as recorded in December.

EMPLOYEES

	(number)	2018	2017	2016
Exploration & Production		11,645	11,970	12,494
Gas & Power		3,040	4,313	4,261
Refining & Marketing and Chemicals		11,136	10,916	10,858
Corporate and other activities		5,880	5,735	5,923
Group		**31,701**	**32,934**	**33,536**

INNOVATION

		2018	2017	2016
R&D expenditure	(€ million)	197	185	161
First patent filing application	(number)	43	27	40

HEALTH, SAFETY AND ENVIRONMENT

		2018	2017	2016
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.35	0.33	0.35
of which: Exploration & Production		0.30	0.28	0.34
employees		*0.29*	*0.23*	*0.34*
contractors		*0.30*	*0.30*	*0.34*
Gas & Power		0.56	0.37	0.29
employees		*0.34*	*0.45*	*0.28*
contractors		*0.99*	*0.23*	*0.31*
Refining & Marketing and Chemicals		0.56	0.62	0.38
employees		*0.49*	*0.56*	*0.44*
contractors		*0.62*	*0.69*	*0.32*
Corporate and other activities		0.53	0.41	0.50
employees		*0.55*	*0.21*	*0.40*
contractors		*0.48*	*1.00*	*0.76*
Direct GHG emissions	(mmtonnes CO_2eq)	43.35	43.15	42.15
of which: CO_2 equivalent from combustion and process		*33.89*	*33.03*	*32.39*
CO_2 equivalent from flaring		*6.26*	*6.83*	*5.40*
CO_2 equivalent from venting		*2.12*	*2.15*	*2.35*
CO_2 equivalent from methane fugitive emissions		*1.08*	*1.14*	*2.01*
Direct GHG emissions - Exploration & Production		24.06	24.02	22.46
Direct GHG emissions - Gas & Power		11.08	11.30	11.17
Direct GHG emissions - Refining & Marketing and Chemicals		8.19	7.82	8.50
Volumes of hydrocarbon sent to flaring - upstream	(bcm)	1.9	2.3	1.9
Total volume of oil spills (> 1 barrel)	(barrels)	6,362	6,559	5,913
of which: due to sabotage and terrorism		*3,697*	*3,236*	*4,682*
operational		*2,665*	*3,323*	*1,231*
% produced water reinjected - upstream	(%)	60	59	58
Groundwater treated or used in production or reinjected	(mmcm)	4.8	4.2	3.2
% of groundwater used in production/reinjected vs. total treated groundwater	(%)	21	21	17
Electricity produced from renewable sources	(GWh)	19.3	16.1	13.5
% of recovered waste vs. recoverable waste (Syndial)	(%)	58	48	30

OPERATING DATA

		2018	2017	2016
EXPLORATION & PRODUCTION				
Hydrocarbon production	(kboe/d)	1,851	1,816	1,759
Net proved reserves of hydrocarbons	(mmboe)	7,153	6,990	7,490
Average reserve life index	(years)	10.6	10.5	11.6
Organic reserve replacement ratio	(%)	100	103	193
Profit per boe[a]	($/boe)	9.3	8.7	2.0
Opex per boe[b]		6.8	6.6	6.2
Finding & Development cost per boe[c]		10.4	10.4	13.2
GAS & POWER				
Worldwide gas sales	(bcm)	76.71	80.83	86.31
of which: Italy		*39.03*	*37.43*	*38.43*
outside Italy		*37.68*	*43.40*	*47.88*
LNG sales		10.3	8.3	8.1
Installed capacity power plants	(GW)	4.7	4.7	4.7
Electricity produced	(TWh)	21.62	22.42	21.78
Electricity sold		37.07	35.33	37.05
REFINING & MARKETING AND CHEMICALS				
Retail sales of petroleum products in Europe	(mmtonnes)	8.39	8.54	8.59
Retail market share in Italy	(%)	24.0	24.3	24.3
Service stations in Europe at year end	(number)	5,448	5,544	5,622
Refinery throughputs on own account	(mmtonnes)	23.23	24.02	24.52
Average throughput of service stations in Europe	(kliters)	1,776	1,783	1,742
Balanced capacity of refineries	(kbbl/d)	548	548	548
Capacity of biorefineries	(ktonnes/year)	360	360	360
Production of biofuels	(ktonnes)	219	206	191
Production of petrochemical products	(ktonnes)	9,483	8,955	8,809
Average petrochemical plant utilization rate	(%)	76	73	72

(a) Related to consolidated subsidiaries.
(b) Includes Eni's share in joint ventures and equity-accounted entities.
(c) Three-year average.

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Eni Annual Report 2018

Disclaimer

This Annual Report contains certain forward-looking statements in particular under the section "Outlook" regarding capital expenditures, dividends, allocation of future cash flow from operations, financial structure evolution, future operating performance, targets of production and sale growth and the progress and timing of projects. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that will or may occur in the future. Actual results may differ from those expressed in such statements, depending on a variety of factors, including the timing of bringing new oil and gas fields on stream; management's ability in carrying out industrial plans and in succeeding in commercial transactions; future levels of industry product supply; demand and oil and natural gas pricing; operational problems; general macroeconomic conditions; political stability and economic growth in relevant areas of the world; changes in laws and governmental regulations; development and use of new technology; changes in public expectations and other changes in business conditions; the actions of competitors. "Eni" means the parent company Eni SpA and its consolidated subsidiaries.

Ordinary Shareholders' Meeting of May 14, 2019.
The extract of the notice convening the meeting was published on April 5, 2019.

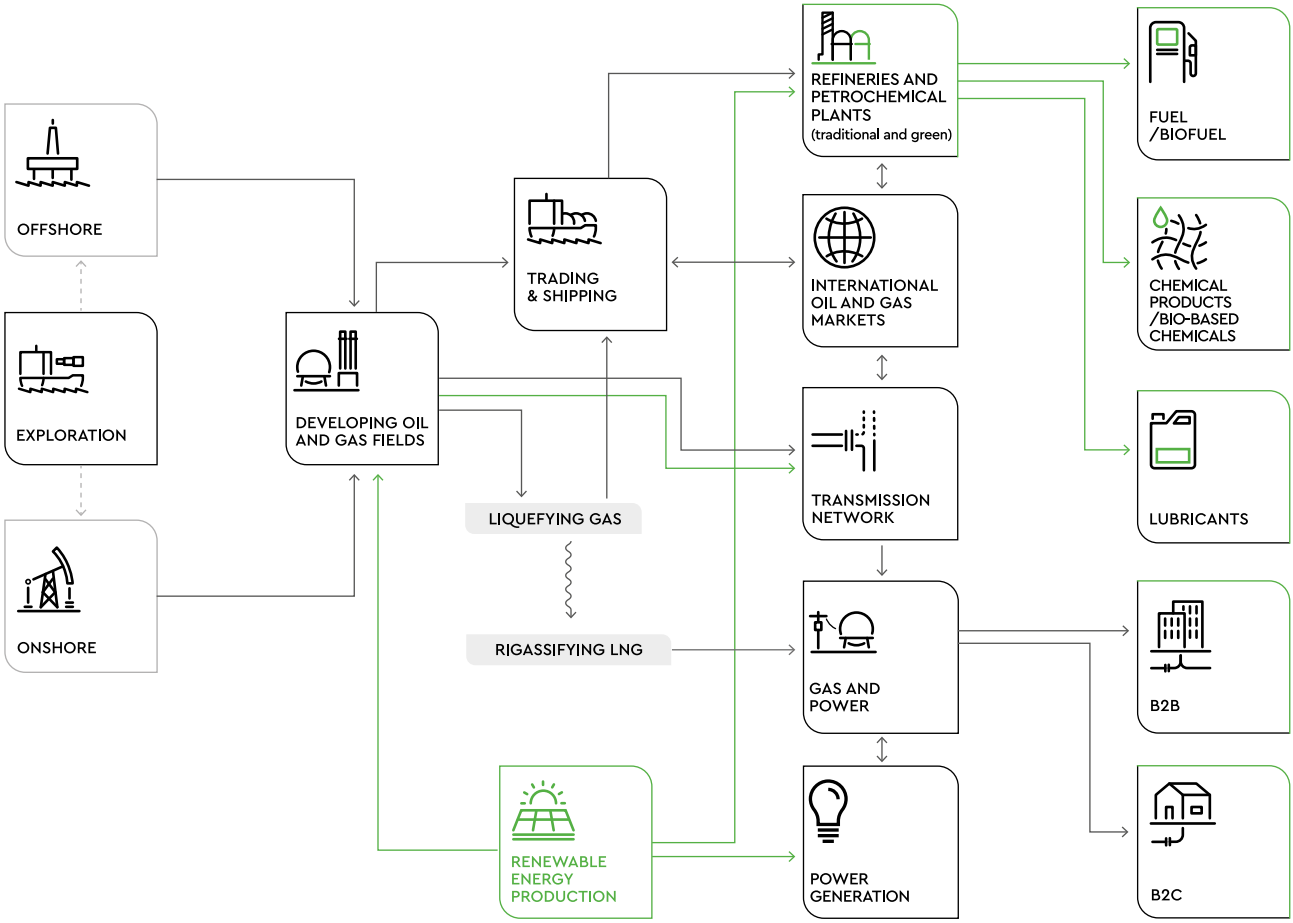
Mission

We are an energy company.
We are working to build a future
where everyone can access
energy resources efficiently and sustainably.
Our work is based on passion and innovation,
on our unique strengths and skills,
on the quality of our people and in recognising
that diversity across all aspects
of our operations and organisation
is something to be cherished.
We believe in the value of long term partnerships
with the countries and communities where we operate.

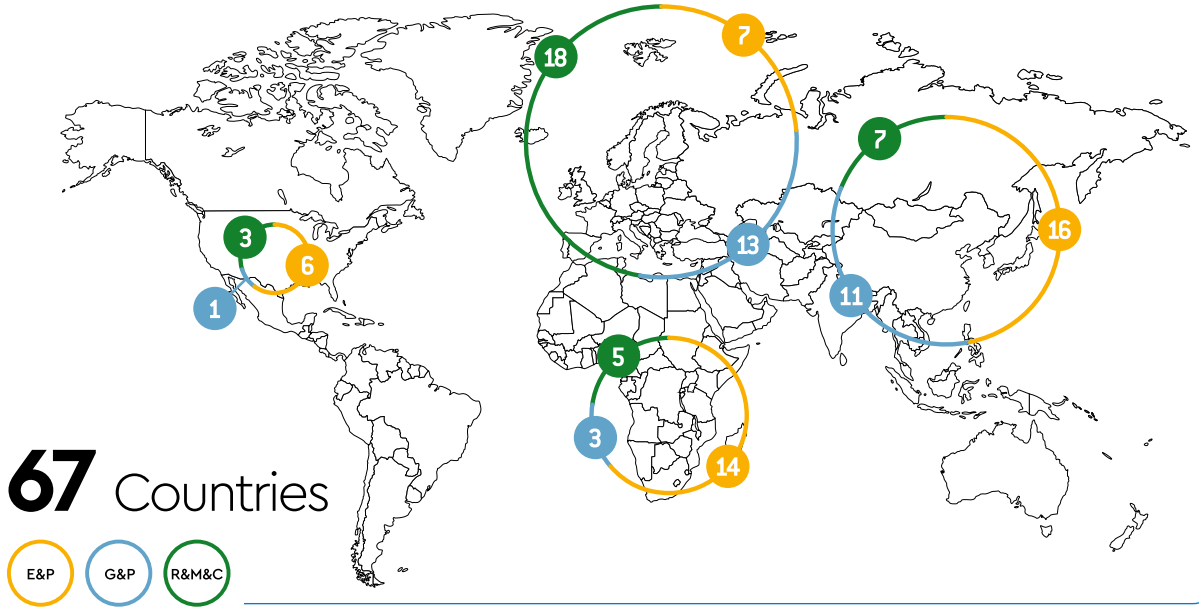
ACTIVITIES

Eni engages in oil and natural gas exploration, fields development and production, mainly in Italy, Algeria, Angola, Congo, the United Arab Emirates, Egypt, Ghana, Libya, Mozambique, Nigeria, Norway, Oman, Kazakhstan, the UK, and the United States, for overall 43 Countries.

Eni sells gas, electricity, LNG and oil products in the European and extra-European markets, also leveraging on trading activities. Products availability is ensured by oil and gas production in the upstream business, long-term gas supply contracts, CCGT power plants, Eni's refinery system as well as by Versalis' chemical plants. The supply of commodities is optimized through trading activity. Integrated business units enable the company to capture synergies in operations and reach cost efficiencies.



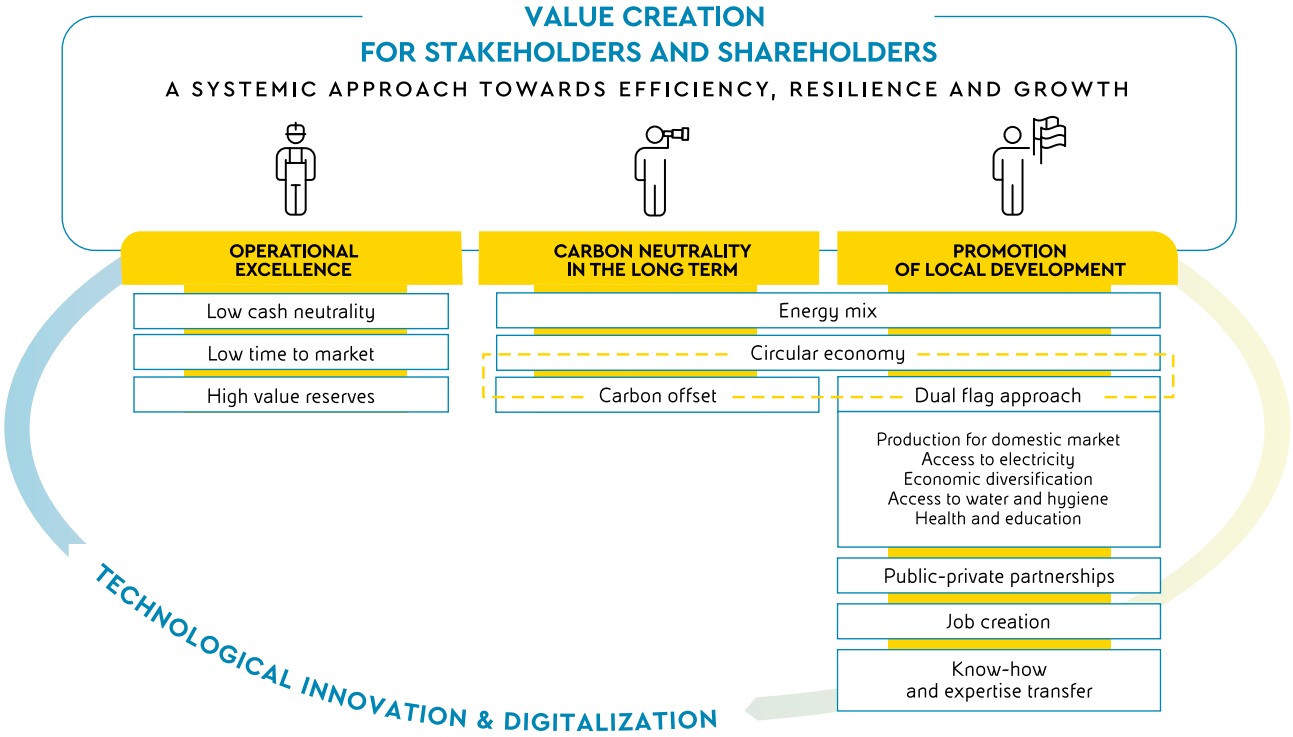
ENI WORLDWIDE PRESENCE



BUSINESS MODEL

Eni's business model is focused on creating value for its stakeholders and shareholders. Eni recognizes that the main challenge in the energy sector is providing efficient and sustainable access of local communities to energy resources, while combating climate change. This challenge may trigger new paradigms of development affecting patterns of consumption and supply, as well as on industrial processes. In this framework, Eni has adopted a systemic approach to pursue efficiency, resilience and growth, which organically integrates sustainability to make it business, incorporates emerging trends of decarbonisation and inclusive development including them in its industrial plan and in the operating model. Eni, therefore, adopts a business model, fuelled by the application of own innovative technologies and the digitalization process, leveraging on the following levers:

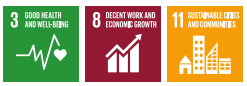
1 **operational excellence,**
2 **carbon neutrality in the long term,**
3 **promotion of local development.**



Efficiency and integration are the strategic drivers leading Eni's business towards **operational excellence**.
This allows the achievement of low cash neutrality, a low time-to-market and a high value resource portfolio, resilient also in low carbon scenario.
The excellence of the operating model is also characterized by a steady commitment to minimize risks and create opportunities all along the value chain through the valorization of human resources, the safeguard of health and safety, the environmental protection, respect and promotion of human rights and focus on transparency and anti-corruption.
Secondly, Eni's business model envisages a path to decarbonisation with the ambition to lead the Company to become **carbon neutral** in the long term, aiming at maximize efficiency and reduce direct emissions through the compensation of residual emissions, promoting an energy mix with a low carbon impact.
In the long term, Eni supports a change of energy paradigm and a conversion of the current consumption pattern towards a more sustainable and rational one, leveraging on the principles of circular economy, pursuing a path to conversion by exploiting the group's expertise and positioning in the downstream business.
Promotion of local development in Eni's Countries of activities is the third lever of the business model.
First of all, we supply our gas production to the local market, expanding access to electricity and by promoting a large portfolio of initiatives addressed to local communities: from local economies diversification, to projects for health, education, access to water and hygiene.
This "Dual Flag" approach leverages on the collaboration with institutions, cooperation agencies and local stakeholders in order to identify actions to satisfy the needs of communities in accordance with the national development plans and the 2030 UN Agenda.
Eni is also committed to create job opportunities and transfer its know-how and expertise to the local partners.

RESPONSIBLE AND SUSTAINABLE APPROACH

The responsible and sustainable approach represents for Eni the logic for creating value in the medium and long term for the company and all stakeholders, combining financial solidity with social and environmental sustainability. This approach is fundamental to operate in the complex current context and respond to the crucial challenge of the energy sector: the transition to a low carbon future and access to energy resources for a growing world population. The 17 Sustainable Development Goals (SDGs) of Agenda 2030, promoted by the United Nations, are a reference framework for Eni, to guide activities and seize new business opportunities, also in partnership with various national and international organizations to share knowledge and resources and contribute to the achievement of development goals.

	COMMITMENT	PERFORMANCE	SDGs
OPERATIONAL EXCELLENCE MODEL			
PEOPLE	Eni focuses on the growth, enhancement and training of its people, recognizing diversity as a resource	• 31,701 employees at year end • 23.3% women • Over 1 million of training hours (+5% vs. 2017)	
SAFETY	Eni considers safety in the workplace an essential value to be shared between employees, contractors and local communities	• TRIR 0.35 • TRIR down by 51% vs. 2014	
ENVIRONMENTAL IMPACT REDUCTION	Eni promotes the efficient use of natural resources and the safeguard of protected areas that are relevant to biodiversity, identifying potential impacts and mitigation actions	• 87% of freshwater reused • -2% of freshwater withdrawals vs. 2017 • Recovered waste equal to 40% of disposed waste from production activities • -20% operational oil spills vs. 2017 • 60% of reinjected production water	
HUMAN RIGHTS	Eni is committed to respect human rights in its operations and to promote their respect towards partners and stakeholders	• Published Eni's Statement on respect for human rights • 91% of employees trained on human rights • 90% of security contracts containing clauses on human rights • 100% of new suppliers screened using social criteria	
TRANSPARENCY AND ANTI-CORRUPTION	Eni carries out its business activities with loyalty, fairness, transparency, honesty and integrity and in compliance with the laws	• Membership of EITI[(a)] since 2015 • 8 Countries where Eni supports EITI's local Multi Stakeholder Groups • 32 audit actions on risk of corruption activities	
PATH TO DECARBONIZATION			
COMBATING CLIMATE CHANGE	Eni has defined a clear decarbonization strategy developing short, medium and long term actions to promote the energy transition	• -20% of GHG emission intensity index (upstream) vs. 2014 • -16% of volumes of hydrocarbons sent to flaring vs. 2014 • -66% upstream methane fugitive emissions vs. 2014 • Net zero carbon footprint on direct emissions of upstream activities (in equity) at 2030	
PROMOTION OF LOCAL DEVELOPMENT: COOPERATION MODEL			
LOCAL DEVELOPMENT THROUGH PUBLIC-PRIVATE PARTNERSHIP	To support local development, Eni promotes access to energy, economic diversification, education and training, access to water and hygiene, health also through public-private partnerships	• €94.8 million on community investment in 2018 • Partnerships signed with UNDP and FAO	
TECHNOLOGICAL INNOVATION	Eni invests in new solutions that can increase the efficiency and sustainability of activities, reducing costs and environmental impact	• €197 million invested for research and technological development (+7% vs. 2017) • 43 first patent filing applications of which 13 filed on renewable sources	

(a) Extractive Industries Transparency Initiative: Global initiative to promote a responsible and transparent use of financial resources generated in the mining sector.

CONSOLIDATED DISCOLOSURE OF NON-FINANCIAL INFORMATION

This Annual Report includes the consolidated disclosure of non-financial information (NFI), prepared in accordance with Legislative Decree No. 254/2016, relating to the following topics:

- environment;
- social;
- people;
- human rights;
- anti-corruption.

The disclosure on these topics and KPIs included in this report are defined in accordance with the "Sustainability Reporting Standards" published by the Global Reporting Initiative (GRI Standards).

INTEGRATED ANNUAL REPORT

Eni's 2018 Annual Report is prepared in accordance with principles included in the "International Framework", published by International Integrated Reporting Council (IIRC). It is aimed at representing financial and sustainability performance, underlining the existing connections between competitive environment, group strategy, business model, integrated risk management and a stringent corporate governance system.

THE GLOBAL GOALS

Global goals for a sustainable development

The 2030 Agenda for Sustainable Development, presented in September 2015, identifies the 17 Sustainable Development Goals (SDGs) which represent the common targets of sustainable development on the current complex social problems. These goals are an important reference for the international community and Eni in managing activities in those Countries in which it operates.

LETTER TO SHAREHOLDERS

EMMA MARCEGAGLIA
Chairman

CLAUDIO DESCALZI
Chief Executive Officer and General Manager

In 2018, Eni made outstanding progress both at optimizing the existing asset portfolio and at strengthening it for the future.
These results owed to the process of transformation of our business model started in 2014 in anticipation of the oil downturn, at the end of which Eni has become more financially sustainable and resilient to the volatile scenario as it has never been in the past.

Several drivers have underpinned our transformation: a track record of exploration successes coupled with the dual exploration strategy which allowed us to early monetize discoveries, the optimization of the time-to-market of hydrocarbon reserves, the operational efficiency, the restructuring of our downstream businesses aimed at reducing the breakeven and financial discipline in investment decisions. Synergies within our businesses have been optimized and our commitment at empowering local communities and at preserving the environment has become a driver of our business model.
At the core of our progress are our intangible assets: technologies, skills and know-how.
Leveraging on these drivers, we have built a new Eni based on efficiency, integration, deployment of new technologies and an optimized asset portfolio. With a view to the future we strengthened and geographically diversified our upstream portfolio, expanding our growth prospects with the building of a significant presence in the Middle East, while keeping costs low and maintaining a high level of profitability by means of the creation of a strategic equity-accounted joint venture with the ADNOC oil State company in Abu Dhabi.
In these years, we have consistently delivered on strategy guidelines leading to excellent results in terms of growth, returns and a healthy balance sheet: 2018 marked a record in hydrocarbon production at 1.85 million boe/d, the cash neutrality for funding capex and the floor dividend lowered to 52 $/bbl, which compares well to the 2014 baseline of 114 $/bbl, net borrowings declined to €8.3 billion, with a leverage at 0.16, the lowest level of the last twelve years and among the best of the industry, after having paid a total of €16.2 billion of dividends in the last five years in a challenging oil scenario.
In these years, exploration was at the core of our growth and cash generation. For the fourth consecutive year, Eni has been nominated best exploration company in the oil business. This demonstrates the excellence of our discoveries and the effectiveness of the dual exploration model, whereby Eni has elected to acquire high working interest in exploration leases to achieve fast monetization of the discovered resources through the dilution of participation interests, while retaining operatorship.
Since 2013, the dual exploration model allowed us to cash in approximately $10 billion mainly by diluting Eni's interest in the giant gas projects Zohr in Egypt and Area 4 in Mozambique. Leveraging the dual exploration model, a number of strategic partnerships have been signed as well as the agreements signed in March 2018 to divest a 10% interest in the Zohr field and the concurrent acquisition of interests in the producing concession agreements Lower Zakum (5%) and Umm Shaif and Nasr (10%) located offshore the United Arab Emirates (UAE).

In the last five years, we have discovered some 5 billion boe of resources, of which 620 million in 2018 at competitive costs, replacing more than 130% of our cumulative production with proved reserves.
Growth has been driven by a strengthened Exploration & Production portfolio. We aimed at diversifying our geographical footprint by building a strong presence in the Middle East through strategic alliances such as the one in Abu Dhabi, which was complemented with the assignment to Eni of a 25% interest in the offshore Ghasha concession, a huge gas project where we were appointed technical operator with expected start-up by the end of the plan period and a production target of 1.5 bcf/d.
We enhanced the producing platform in Norway, by merging our subsidiary Eni Norge with Point Resources, and setting up the joint venture Vår Energi (Eni's interest 69.6%), an independent company, leader in the upstream segment in Norway. Hydrocarbon production is expected to target 250 kboe/d in 2023.
The reloading of the exploration asset portfolio was made with the objective of expanding the geographic reach of our operations, targeting material assets with high working interests located in strategic areas. In the Middle East we acquired seven high-potential, low-risk exploration leases totaling approximately 70 thousand square kilometers of new acreage, notably in Abu Dhabi we were awarded Blocks 1/2 in the offshore area, promising synergies with the project in Ghasha, onshore Oman with the signing of an EPSA on the Block 47, in the Sharjah Emirate with the entry in three onshore blocks and in Bahrain, with the acquisition of Block 1, located in an offshore unexplored basin.
In 2018, we acquired other exploration assets of great interest in Lebanon, Mexico, Alaska, Morocco, Indonesia and Mozambique where Eni was awarded mineral interests on an offshore area of 5 thousand square kilometers balancing these acquisitions with the swap of exploration licenses in Mexico with Lukoil (farm-in of 40% interest in Area 12 PSC) and the dilution of the interest in the exploration block located offshore Nour in Egypt (45% to BP/Mubadala).
In 2018, hydrocarbon production set a new record at 1.85 million boe/d (up by 2.5% vs. 2017 at constant prices) thanks to the five scheduled start-ups for the year – Wafa compression and Bahr Essalam phase 2 in Libya, OCTP gas phase in Ghana and Ochigufu and Vandumbu in Angola –, the highest plateau on record in Iraq and, above all, the extraordinary success in the ramp-up of Zohr field where we reached the first production target to more than 2.1 bcf/d, nine months ahead the schedule and we revised the target to 3.2 bcf/d. Overall, in the year start-ups and ramp-ups of fields started up in 2017 added approximately 300 kboe/d to the full year plateau.
Future production growth will be fuelled by the six FIDs made in the year related to projects in Area 1 in Mexico targeting the development of 2.1 billion of boe in place, Merakes in Indonesia, in synergy with the Jangkrik producing field, Cassiopea in Italy, Baltim South West in Egypt, Nenè phase 2 in Congo and Cabaca in Angola.
Finally, relevant progress was made towards the FID on the first phase of the giant Rovuma LNG project, which includes the design and construction of two trains for the liquefaction of natural gas with a capacity of 7.6 million tonnes of LNG each, thanks to the LNG long-term purchase commitments obtained by the partners of Area 4.
Results obtained in the development activity leveraged on our strategy of reducing the time-to-market of the reserves based on the parallelization of different stages of the project (exploration, pre-fid activity and construction), control of the project risks through the insourcing of critical phases (such as detailed engineering, construction supervision and commissioning) as well as applying a phased approach which allow to reduce idle capital and financial debt.
We replaced with new organic proved reserves the 100% of the production thanks to new discoveries and progress in maturing reserves. On an all sources base, the RRR stood at 124%, while the three-year average organic RRR reached 131%. At year end, total proved reserves amounted to 7.2 billion of boe, with a life index of 11 years.
Our leadership in the exploration, the reduction in time-to-market, the effectiveness of the phase-development activity and opex control contributed to reduce Eni's development projects breakeven overall at $25/boe.
In 2018, adjusted operating profit of the E&P segment was €10.85 billion, more than doubling y-o-y, with a Brent price increasing by 31%. A larger portion of more valuable barrels boosted the cash flow per barrel to $22.5, well ahead of our guidance set for 2022.
The downstream businesses reported robust results driven by the finalization of the turnaround implemented in these five years, which made these businesses sustainable also in an unfavorable environment.
The Gas & Power segment reported an adjusted operating profit of €0.54 billion, more than doubling 2017 results and significantly better than the announced guidance. This performance was due to the restructuring the portfolio of long-term gas contracts, leveraging on the associated flexibilities to capture scenario upsides, the optimizations in the power business, trading and logistics as well as the growth in the LNG business with 8.8 MTPA of contracted volumes (up by 70% compared to 2017). All along the value chain we leveraged on the integration with the upstream segment contributing to the acceleration of FIDs at gas reserves development projects. The retail business performed strongly, driven by value creation at the European customer portfolio which reached 9.2 million clients, efficiency gains from the operations, digitalization programs and automatization of post-selling activities and working capital monitoring.
In the oil downstream, technological innovation was the driver of the turnaround, which allowed Eni to revamp certain unprofitable plants, thus reducing the exposure to the volatility of the oil feedstock. Today we are proud to announce the

start of a new growth phase in our refining business. The strategic acquisition of a 20% interest in the Ruwais refinery in Abu Dhabi for a consideration of $3.3 billion gives us the possibility to deal with one of the better opportunity to expand our presence in the market in terms of efficiency and profitability. This acquisition will allow us to increase by approximately 35% our refinery capacity and to significantly improve the profitability outlook by reducing the breakeven margin from 3 $/bbl to 2.7 $/bbl by 2020 and till to 1.5 $/bbl by completing the refinery upgrading, with a conversion capacity of 1.1 million bbl/d at 2023.

Further value will be extracted by the set-up of a trading joint venture in partnership with the partners of the refinery, aiming at catching marketing opportunities in Europe, the Middle and Far East and Africa.

In 2018, on the back of an unfavorable scenario, the Refining & Marketing reported an adjusted operating profit of €390 million and a surplus of cash flow after funding capex for the year, thanks to excellent results of the marketing activity, the contribution of margins of green throughputs and optimization actions and feedstock flexibility.

Also in Versalis the technological driver was the engine of the value creation with the development of the green chemical business and specialties, by reducing the incidence of plastic commodities in the Company's portfolio, which are subject to the volatility of the oil cycle. In line with this strategic guideline, in 2018 a new production unit of high range of elastomers EPDM for the automotive industry was started up.

Furthermore, was finalized the acquisition of the activities of the Mossi & Ghisolfi Group, focused on biochemical technologies and processes based on the use of renewable sources from biomasses and the establishment of a joint venture with Mazrui Energy Services in the Middle East to market specialties based on Versalis' technology for the Oil & Gas industry. In 2018, in a particularly unfavourable petrochemical scenario, Versalis targeted the breakeven in profitability, leveraging on business' restructuring.

Integration is on the base of the renewable segment development. This is managed by the New Energy Solutions division which in 2018 completed and started up three photovoltaic plants (Assemini in Sardinia, a unit in Gela and one in the Green Data Center) among the "Italia Project" which includes certain initiatives aimed to create sustainable value in the reclaimed industrial areas, mainly in the Southern region of Italy.

Outside Italy, we started up a solar plant in Algeria with a capacity of 10 MW at the Bir Rebaa North oil field, jointly operated by Eni and Sonatrach, which will make the upstream activity energy self-sufficient. Furthermore, we started the project to build a 50 MW wind farm at Badamsha in Kazakhstan, to supply renewable energy to the Country.

Our businesses growth is even more focused on the long-term sustainability. Climate change is a pillar of our industrial strategies and is also factored in the evaluation of our projects which have to be sustainable also in a low carbon scenario.

Progress achieved so far in the evolution of our business model is based on a clear decarbonization strategy focused on a constant commitment to achieving increasing operational efficiency and finding innovative and technological solutions to foster energy transition and reduce emissions, thus also leveraging projects of circular economy and carbon offset.

In 2018, we achieved significant results on E&P GHG emission intensity index reporting 21.44 $tCO_2eq/kboe$, a 20% reduction compared to the baseline 2014 and in line with the target at 2025 declared to the market, a 43% reduction.

Also the downstream business turnaround is a founding part of this long-term growth strategy. It is based on the "green" conversion of the least competitive sites, extending their life in low carbon optics, through the use of renewable feedstock and raw materials such as food waste, urban waste and secondary, alternative commodities to the traditional feedstocks and in line with the principles of the circular economy.

In order to optimize resources all along the life cycle, Eni has launched eco-design projects. We are also engaged in developing technologies for the chemical-physical and mechanical recycling of polymers at the end of use, such as the reuse of expanded polystyrene for thermal insulation. These projects leverage both on internal research and on partnership and collaboration with associations/consortia. Broad partnerships have been established with Pertamina, the state oil company of Indonesia, and in Italy with Coldiretti for large-scale applications of the Eni's technologies for the enhancement of biomasses and waste.

At the heart of our values is the commitment to promote and improve access to energy mainly in Africa according to the "dual flag" business model, such as the OCTP project in Ghana providing the supply of the gas equity produced by our investment in the Country, contributing to the local socio-economic development.

Our future plans in Africa will be supported and developed by leveraging on the prestigious collaboration with UNDP (United Nations Development Programme). In September 2018, Eni and UNDP signed a partnership to improve access to sustainable energy in Africa and to contribute to accomplishing the United Nations Sustainable Development Goals (SDGs). The first phase of the cooperation will involve ten African Countries in order to promote sustainable energy contributing to the achievement of four of the SDGs of the United Nations, in particular the number 7 on accessible and clean energy. This partnership is the first signed between the UNDP and a global energy company, and underpins the credibility of our strategies.

Finally, our performance on safety continued on its track record of results within the industry's low average range, with a Total Recordable Injury Rate (TRIR) of 0.35 in 2018.

Our financial results for 2018 were excellent. Adjusted operating profit was €11.24 billion and adjusted net profit €4.58 billion,

both almost doubled compared to 2017, supported by a better trading environment with Brent prices increasing by 31%, which showed the ability of our business model to create extra-value in a favorable market scenario.
The drivers of these results were the robust performance of the E&P segment (up by 110%) and the recovery in the G&P (up by 154%). Also the downstream oil and chemical businesses reported a positive contribution notwithstanding a challenging trading environment. At the Brent price scenario of 71 $/barrel, in 2018 cash flow from operations was €13.45 billion. Other positive cash flows were associated with positive changes in receivables and payables associated with investing activities (mainly including the cash-in of the deferred price of the Zohr disposals made in 2017), which amounted to €0.9 billion. These inflows funded the reassessed amount of capital expenditures of €7.94 billion and the dividend of €2.95 billion, leaving a surplus of around €3.5 billion.
Consequently, on the basis of the Group's cash flow sensitivity to the Brent scenario which assumes a change of approximately €0.19 billion in cash flow for each one-US dollar change in the Brent price, the cash neutrality for funding the capital expenditure for the year and the floor dividend would have been achieved at 52 $/barrel. This is re-determined in 55 $/barrel when excluding from cash inflows the deferred tranches of the consideration on the disposal of Eni's interests in Zohr made in 2017 (€450 million), being this the unique non-organic components of the cash flow. Net borrowings reduced to €8.3 billion with a leverage of 16%, seven percentage points lower than in 2017; return on average capital employed almost doubled to 8.5% (compared to 4.7%).

STRATEGIES AND TARGETS

Considering a volatile trading environment, we will retain a financially-disciplined approach to capital spending. At the long-term Brent scenario of 70 $/barrel, in the next four years we plan to invest approximately €33 billion, a slight increase compared to the previous plan. Approximately 80% is allocated to the exploration and production of hydrocarbon reserves. 9% of group capex will be devoted to growing the green business, in particular by increasing the installed capacity to generate power from renewables, decarbonization projects and circular economy initiatives designed to produce advanced biofuels, renewable chemicals and new products from waste and biomasses as well as to extend the useful life of abandoned and decommissioned industrial sites.
The strategic guidelines of the E&P segment are to monetize and enhance the exploration portfolio and to maximize cash generation driven by production growth.
We forecast to grow production organically at an annual average rate of 3.5% till 2022, to reach a plateau of 2.13 million boe/d. New projects start-ups and the ramp-ups of producing fields will contribute about 660 thousand boe per day in 2022.
New projects are geographically well balanced: Mexico with the start-up of Area 1, Indonesia with Merakes, Italy, upgradings/new phases of producing areas in Egypt, Algeria, Congo and Angola, initiatives in Norway and, at the end of the plan period, the start-ups of giant gas projects such as Coral in Mozambique and the first development of Ghasha in the UAE. The visibility of our production target is excellent because the expected increases are tied to the ramp-up of several operated fields which are currently performing, and the projects sanctioned in 2018.
The other drivers of cash generation will be integration with G&P to extract value from the equity gas, strict control on drilling and field operations risks and asset integrity with a view of minimizing production losses due to unplanned downtime.
In exploration we intend to adopt a disciplined approach with planned capex of $0.9 billion/year relating to initiatives in frontiers areas or in high-equity, conventional basins also looking for a possible deployment of our dual exploration model, as well as initiatives in proven and near field areas with short time-to-market to contribute rapidly to production increases and cash flow. Our exploration campaign will be focused offshore Mexico, in the Middle East and in mature and high potential areas close to existing facilities in Norway, Angola, Ghana and Egypt. We expect to discover 2.5 billion boe in the plan period at the unit cost of below $2/barrel, contributing to expand the geographical reach of our operations.
In the Gas & Power segment we confirm the structural sustainability in the plan period and we expect a significant contribution to cash generation notwithstanding a challenging trading environment, characterized by the continuing pressure on gas and power spreads. The main driver will be the enhanced synergies with all Eni's businesses in order to optimize the trading of oil and products to capture market upsides, as well as to develop the LNG portfolio by increasing contracted volumes from 8.8 MTPA in 2018 to 14 MTPA by 2022 and 16 MTPA by 2025, capitalizing on equity gas and maximizing margins all along the value chain. Long-term gas contracts will be de-risked and continuously renegotiated with suppliers to align prices at market conditions. In the retail business we will deliver a robust profitability leveraging on the development and full monetization of the customer portfolio, which will be increased to reach 12 million customers. Growth will also be pursued through focused and synergic acquisitions, while margin expansion will leverage on the contribution of extra-commodity products and services and continuous focus on efficiency. We reaffirm the G&P financial targets of an adjusted operating profit of €0.7 billion in 2022 and a cumulative organic free cash flow of €2.3 billion over the plan.
In the R&M business we intend to target the breakeven margin of 3 $/bbl at our legacy refineries, with full operability of our refineries, by maximizing plant reliability, optimizing setup and supply and by increasing the licensing of proprietary technologies.

The integration of Eni's 20% interest in ADNOC Refining will leverage on technological synergies and will allow to halve the breakeven margin to 1.5 $/bbl by delivering on the identified projects for plant upgrading.
The bio-refining segment is expected to grow thanks to the start-up and full operation of the Gela plant and the upgrading of Venice. Our green diesel production will grow to 1 million tonnes per year by 2021.
In the Marketing activity we target robust results fuelled by quality and innnovation in our services, the contribution of premium products' margins and the development of the non-oil segment and the sustainable mobility.
Versalis' strategy is focused to make the business more resilient to the volatility of the trading environment by shifting the product portfolio towards high-value specialties and green chemicals, by using proprietary technologies to sustain margin expansion and international growth, and by executing a number of optimization initiatives such as better vertical integration, increasing feedstock flexibility and reduction in variable production costs.
In addition, these initiatives will contribute to the accomplishment of the Company's targets on the development of the circular economy and decarbonization.
In addition to the already stated target of 43% reduction compared to the 2014 baseline of the upstream intensity emission rate by 2015 through zero gas flaring projects and methane fugitive emissions (the 80% reduction target compared to the 2014 baseline by 2025), we intend to achieve zero net carbon footprint in our upstream business by 2030. We will do this by increasing efficiency to minimize direct upstream CO_2 emissions, maximizing decarbonization initiatives and developing forestry initiatives offsetting residual upstream emissions, while providing benefits to local communities.
The identified strategic guidelines include also the acceleration in growing low carbon sources such as gas and bio-fuels and the development of power generation capacity from renewable sources (solar photovoltaic, wind and other) leveraging on synergies with Eni's business up to 1.6 GW of installed capacity to 2022 and 5 GW to 2025, with the ambition to reach more than 10 GW at 2030.
Another lever of our strategy is the development of circular economy initiatives aiming to exploiting waste and biomasses to extract new energy, new products or materials and give new life to decommissioned or reclaimed assets. On these activities, Eni intends to invest more than €950 million ranging from the recovery of biomasses and waste, to the recycling of polymers and processes of eco-design, up to the extension of the useful life of the assets and products from a low carbon side. Further €220 million will be addressed to research and development as well as to technological innovation.
On these bases and given the constant reduction of breakeven of new development projects, we believe that our portfolio will be resilient also under severe decarbonization scenarios. Another driver of our sustainability is the empowerment of the communities in the Countries where we operate, in line with our dual flag approach and consistently with the national Development Plans on the 2030 Agenda of the United Nations.
All in all, while being aware of the magnitude of our efforts during the downturn in terms of growth, efficiency and sustainability, we intend to make even more robust Eni's competitive position and its resilience to the oil scenario.
We will accomplish this by leveraging on asset portfolio which is geographically better diversified and more balanced along the entire hydrocarbon value chain and on the planned initiatives from now to the first half of the next decade.
Our medium-term objectives are to reduce the cash neutrality to 50 $/barrel, to ensure a growing remuneration to shareholders and to enhance the Company's contribution to the achievement of the SDGs of the United Nations.
We are extremely proud of the global Eni team. Without the women and men of Eni, we would not have been able to transform the business over the past five years to drive the Company to those achievements.
On the basis of 2018 results, we will propose the payment of a dividend of €0.83 per share, of which €0.42 already paid, at the Annual Shareholders meeting to be held on 14 May. Our strong outlook underpins our progressive shareholder remuneration that envisage, for 2019, a 3.6% dividend increase to €0.86 per share and the start of a four-year buyback programme with an initial capital allocation of €400 million in 2019. In the following three years, assuming a leverage steadily below 20%, the annual capital allocation will amount either to €400 million in a $60-65 per barrel Brent scenario or €800 million with a Brent scenario above $65 per barrel.

March 14, 2019

In representation of the Board of Directors

Emma Marcegaglia
Chairman

Claudio Descalzi
Chief Executive Officer and General Manager

ENI AT A GLANCE

2018: year of outstanding financial and industrial results achieved thanks to the fast implementation of our strategy.

2018 results were driven by our successful exploration activity supported by the "dual exploration" strategy allowing Eni to early monetize discoveries, to achieve efficiency through the optimization of hydrocarbon reserves time-to-market, the breakeven decrease in downstream businesses and the financial discipline on spending.
The optimization of existing portfolio, the geographical diversification strategy and the improved balance of assets portfolio along the value chain through a robust growth in the Middle East, together with our commitment in promoting local development, in environmental protection and in fostering Eni's expertise and technologies enabled Eni to seize synergies and growth opportunities.
Public-private partnerships started-up in 2018 will enable us to share resources, know-how and expertise with the United Nations Development Programme (UNDP) for sustainable development and to aim at achieving SDGs, in particular the universal access to energy by 2030, the actions to combat climate changes and the protection, restoration and sustainable use of the earth's ecosystem and with the Food and Agricultural Organization (FAO) for clean and safe water access in Nigeria.

€11.24 BLN
up by 94% vs. 2017
GROUP ADJUSTED OPERATING PROFIT

€13.45 BLN
up by 35% vs. 2017
ADJUSTED NET CASH FLOW FROM OPERATIONS

€8.29 BLN
down by 24% vs. 2017
NET BORROWINGS

BRENT DATED ($/barrel)

2018	71.04
2017	54.27
2016	43.69

SERM ($/barrel)

2018	3.7
2017	5.0
2016	4.2

AVERAGE EUR/USD EXCHANGE RATE

2018	1.181
2017	1.130
2016	1.107

PSV vs. TTF (€/kmc)

2018	17
2017	28
2016	20

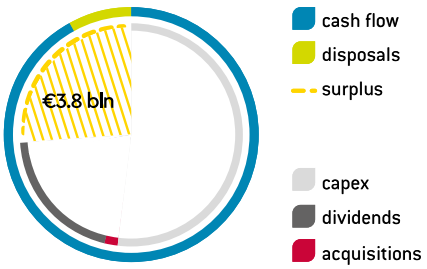
The outstanding financial results of the year were achieved against a backdrop of highly volatile Brent prices, due to signs of weakening global growth, oversupply, uncertainty tied to the commercial dispute between the USA and China, the Brexit, as well as geopolitical issues.

ENI GROUP		2018	2017	2016	
Operating profit (loss)	(€ million)	9,983	8,012	2,157	▲ +25%
Adjusted operating profit (loss)		11,240	5,803	2,315	▲ +94%
Net cash from operations		13,647	10,117	7,673	▲ +35%
TRIR (Total recordable injury rate)	(total recordable injuries/ worked hours) x 1,000,000	0.35	0.33	0.35	▼ +6%
Leverage		0.16	0.23	0.28	▲ -0.07

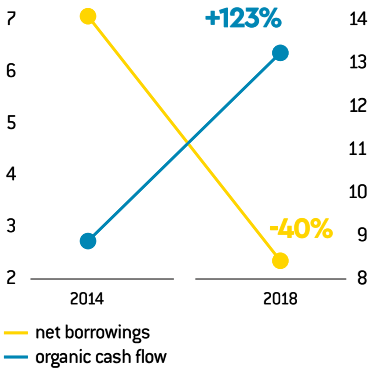
-6% vs. 2017
UPSTREAM GHG INTENSITY INDEX

0.35 TRIR
AMONG THE LOWEST LEVEL COMPARED TO THE AVERAGE OF THE INDUSTRY

2018 SOURCES AND USES (€ bln)



ORGANIC CASH FLOW VS. NET BORROWINGS (€ bln)



0.16 leverage
THE LOWEST LEVEL IN THE LAST 12 YEARS

52$/barrel
2018 CASH NEUTRALITY

EXPLORATION & PRODUCTION

		2018	2017	2016
Adjusted operating profit (loss)	(€ million)	10,850	5,173	2,494
Hydrocarbon production	(kboe/d)	1,851	1,816	1,759
Opex per boe	($/boe)	6.8	6.6	6.2
Profit per boe		9.3	8.7	2.0
GHG emissions/100% operated hydrocarbon gross production	(mmtonnes CO_2eq/kboe)	21.44	22.75	23.56

1.85
million boe/d
NEW RECORD IN HYDROCARBON PRODUCTION

+110% vs. 2017
UPSTREAM PROFITABILITY

GAS & POWER

		2018	2017	2016
Adjusted operating profit (loss)	(€ million)	543	214	(390)
Worldwide gas sales	(bcm)	76.71	80.83	86.31
LNG sales		10.3	8.3	8.1
GHG emissions/kWheq (EniPower)	(gCO_2eq/kWheq)	402	395	398
Retail customers in Italy	(million)	7.74	7.65	7.68

+154% vs. 2017
G&P PROFITABILITY

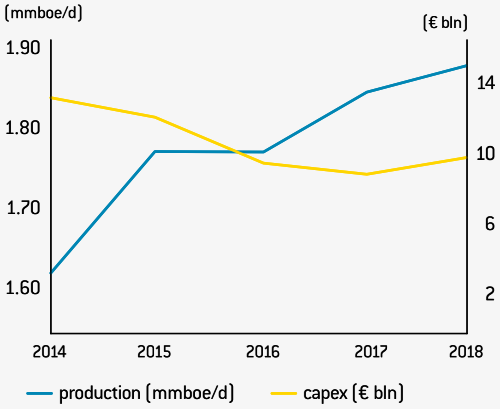
REFINING & MARKETING AND CHEMICALS

		2018	2017	2016
Adjusted operating profit (loss)	(€ million)	380	991	583
Retail sales of petroleum products in Europe	(mmtonnes)	8.39	8.54	8.59
Refinery throughputs on own account		23.23	24.02	24.52
GHG emissions/products (crude oil and semifinished) processed in refineries	(tonnes CO_2eq/kt)	253	258	278
Sales of petrochemical products	(ktonnes)	4,938	4,646	4,745

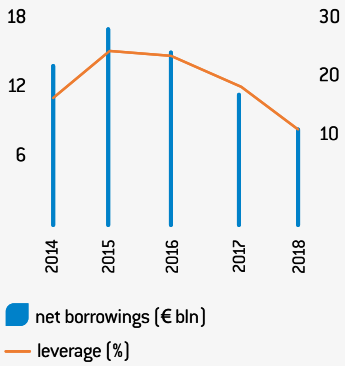
€380 MLN
R&M and Chemicals
ADJUSTED OPERATING PROFIT

Thanks to the deep transformation process started in 2014, Eni today, after years of oil market downturn, owns a sustainable financial structure and is resilient to the volatility of scenario as never before. Through the strict implementation of our strategic guidelines Eni was able to combine growth, profitability and soundness of financial position, achieving record hydrocarbon production at 1.85 million boe/d in 2018, reducing net borrowings to €8.3 billion, with a leverage of 0.16, the lowest level in the last 12 years, among the best in the industry, thus distributing €16.2 billion of dividend in last five years, on the backdrop of a challenging trading environment.

PRODUCTION VS. CAPEX



FINANCIAL SOUNDNESS



DIVIDENDS PAID

STAKEHOLDERS ENGAGEMENT

Our stakeholders are first and foremost people who live in the areas where Eni works: their knowledge and sharing of their concerns and expectations are the basis of our commitment to build lasting relationships in order to contribute, together, to a sustainable development. The direct involvement of stakeholders in each phase of the activities, the promotion and sharing of common principles and dialogue are at the basis of the creation of long-term value. Eni is present in 67 Countries, characterized by social, economic and cultural contexts, which may also be very different from one another: in carrying out the activities, the daily and proactive dialogue, in place with different stakeholders, is essential in order to establish a solid and transparent relationship of trust, which can be a promoter for shared development processes.
For this reason, Eni has set up an IT platform called the Stakeholder Management System (SMS) dedicated to support the management of the complex network of relationships in the territories, monitoring the expectations of the populations and the results of development projects.

Topics arisen from the dialogue with stakeholders

This tool allows to survey and visualize, through a map, the relations with each category of stakeholder, highlighting any areas for improvement, with the possibility of better investigating the potential impacts on human rights, tracing the presence of vulnerable groups and the presence of areas of naturalistic and/or cultural value around the areas of activity, enabling a more conscious management of the operational realities.

Main stakeholder engagement activities during the year

PU ENI'S PEOPLE AND NATIONAL AND INTERNATIONAL LABOUR UNIONS

- → Internal communication plan focused on strategy, targets, Eni's results through events and meetings on strategic issues
- → Integrating skills and experiences (best practices sharing, storytelling, support to organization and communication of defined initiatives)
- → Sample climate analysis
- → Meeting with national and international labour unions, in the field of Global Framework Agreement, finalized to a dialogue on certain social and working situations in Countries of worker representatives' origin

LC LOCAL COMMUNITIES & COMMUNITY BASED ORGANIZATIONS

- → Involvement of over 200 communities in the territories in which Eni operates
- → Consultation activities with authorities and local communities for new exploration activities or for the development of new projects
- → Collaboration with the authorities and the local communities for planning, management and realization of initiatives for the community (Congo: CATREP[a] project; Mozambique: educational and agro-livestock development projects; Ghana: Livelihood Restoration Plan and water access project; Iraq: educational projects)

SP CONTRACTORS, SUPPLIERS AND COMMERCIAL PARTNERS

- → Involvement of suppliers with Human Rights Assessment
- → Communication, feedback and improvement plans
- → Sharing the draft of the Supplier Code of Conduct on Eni's values of sustainability
- → Participation in the IPIECA[b] WG: Forum on Oil & Gas Sustainability best practices
- → Green sourcing project: identification of the levers in the supply chain for the reduction of environmental impacts

FC FINANCIAL COMMUNITY

- → Launch of the 2018 strategic plan in London, Milan and New York
- → Road-show of top management and of the President on governance issues
- → Conference call on quarterly results
- → Participation of top management in thematic conferences organized by financial institutions
- → Engagement with investors about industrial topics, financial and ESG themes also relating to Shareholders' Annual meetings

CC CUSTOMERS AND CONSUMERS

- → Meetings and workshops with Presidents and managers of the energy sector of national and local CA[c] on topics such as sustainability, circular economy, reclamation and environmental remediation
- → Sponsorization of CA initiatives on the issues of sustainability and the circular economy to which Eni's senior officials have taken part, bearing witness to our initiatives in this regard
- → Territorial meetings organized with the Customers' Associations of the CNCU[d]

II DOMESTIC, EUROPEAN AND INTERNATIONAL INSTITUTIONS

- → Meetings with local, national and international political and institutional members on energy and climate issues
- → Active participation in technical-institutional worktables, mixed commissions on energy opportunities of dialogue promoted by Government and the Italian Parliament
- → Meetings with national and local institutional delegations during State visits and at industrial sites

UR UNIVERSITIES AND RESEARCH CENTRES

- → Meetings with representatives of Universities, Research Centers and third-party companies with which Eni collaborates or interfaces for the development of innovative technologies concerning the topics of greatest interest
- → Collaborations with institutions with which Eni has a framework agreement, such as the Polytechnic of Milan and Turin, University of Bologna, MIT, CNR, INSTM, ENEA and INGV[e]
- → Collaborations for the development of impact assessment models (Columbia University and Milan Polytechnic)

OA VOLUNTARY PARTECIPATION IN ORGANIZATIONS AND CATEGORY ASSOCIATIONS

- → Membership and participation to OGCI, IPIECA, WBCSD, UN Global Compact, CIDU, EITI[f]
- → Collaboration with DIHR[g] and IHRB[h]
- → Conventions, debates, seminars and training initiatives on sustainability issues: creation of guidelines and sharing of best practices
- → Participation to associative organism and specialized worktables
- → Meetings with local business associations on the supplier qualification process

CD ORGANIZATIONS FOR COOPERATION AND DEVELOPMENT

- → Promotion of public-private partnerships to carry out projects in line with Country development plans
- → Sharing of internationally adopted policies and methodologies
- → Capacity building activities carried out with institutions

a) Centre d'Appui Technique et de Ressources Professionnelles.
b) Oil & Gas Association active in environmental and social issues.
c) Consumers' Association.
d) Italian National Council of Consumers and Users.
e) Massachusetts Institute of Technology; National Research Council (Consiglio Nazionale delle Ricerche); National Interuniversity Consortium for Materials Science and Technology (Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali); National agency for new technologies, energy and sustainable economic development (Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile); National Institute of Geophysics and Volcanology (Istituto nazionale di geofisica e vulcanologia).
f) Oil and Gas Climate Initiative; World Business Council for Sustainable Development; Comitato Interministeriale Diritti umani; Extractive Industries Transparency Initiative.
g) The Danish Institute for Human Rights.
h) Institute for Human Rights and Business.

SCENARIO AND STRATEGY

The reference market and the competitive environment

Transition towards a low carbon energy mix

Companies operating in the energy sector are facing with two challenges: satisfy growing energy needs, guaranteeing everyone an adeguate access to energy and limit their emissions in the atmosphere, contributing to the gradual path to decarbonization, in accordance with the decision taken in COP, starting from Paris 2015.
In 2040 worldwide population is expected to grow from 7.5 billion to 9 billion and the energy demand will increase by approximately 30%. There will be also a geographical shift in energy consumption and the additional total demand will come from non-OECD Countries, representing in 2040 approximately 85% of worldwide population.
In this context, natural gas represents an opportunity for a strategic repositioning of the oil companies thanks to lower carbon intensity and the possible integration with renewable sources in the electricity production. There is a growing awareness on the needs to promote policies aimed at replacing coal in electricity generation.

Recovery and volatility

2018 was characterized by a sharp increase in oil prices, supported by production cuts of the OPEC and non-OPEC Countries, the announcement of new sanctions to Iran and a robust growth in demand. This trend was stopped at the end of the year when signs of a new surplus emerged. The decline of exports from Iran, combined with the Venezuelan crisis, pushed large producers to compensate losses in the market. The record productions of USA, Russia and Saudi Arabia generated a perception of oversupply. At the same time, concern of a slowdown in demand increased, particularly in emerging economies, while Trump urged lower prices in order to support US consumers. The Brent price stands on an average of 71 $/barrel (up by 17 $/barrel vs. 2017), with a decrease of 30% from October to December, boosted by heavy speculative sales on future markets.

2019, not only OPEC

The decision of new cuts taken at the end of 2018, the geopolitical losses in Iran and Venezuela and a slowed-down US growth, due to logistics and financial constraints, contribute to ensure a measured supply in 2019. Despite an expected declining economic growth, oil demand is still expected robust. In the second half of the year, the IMO which will be effective since January 2020 will require worldwide ships to use lower sulphur fuels (0.5%) is expected to be a strong discontinuity driver which could generate higher crude oil prices and refining margins.

New challenges for refining industry

The refining industry has moved from significant overcapacity to a rebalancing phase thanks to the rationalization and the closing of plants in the 2009-2015 period.
The rationalization phase slowed down in 2016-2017 to stop in 2018. In 2018 and 2019 a new wave of refining capacity restarted, particularly in Asia and the Middle East, with an impact on assets in the less competitive regions, not only in Europe but particularly in Latin America and Africa. In Europe, following the 2018 start-up of the new refinery in Turkey, the capacity is expected to remain stable. The IMO impact at 2020 will foster the profitability of complex refineries in place of simple ones subject at risk of shut-down. However, European refiners could be less penalized because of already achieved capacity reduction.

New challenge for sustainability

The environmental, social and governance performance are more crucial on the evaluation of a company, in particular large companies are requested to contribute to the achievement of the Sustainable Development Goals (SDGs) including access to energy and contrast to climatic changes. Relating to the energy access (SDG 7), IEA estimates that people without access to energy (now estimated at 990 million) in 2030 will be still 650 million, with a large part located in Africa, while those without access to clean sources for cooking will be 2.2 billion (today 2.7 billion).
Facing with challenges of this magnitude, the achievement of the SDGs requires an unprecedented cooperation between public and private sectors, involving organizations representing both civil society and businesses.
Particular responsibility in public-private partnerships (PPP) is assigned to multinational companies, whose involvement, together with different players as bilateral and multilateral governmental institutions and NGOs, opens a new perspective relating to operational effectiveness and allocation of the necessary resources for financing development projects.
Respect of Human Rights is a relevant issue for companies, in particular the gradual integration of the Guideline principles of the United Nations for the Human Rights and Enterprise (UN Guiding Principles on Business and Human Rights, 2011) in the main company's processes, which are supported at country level by the National Action Plans on Corporations and Human Rights and various legislative initiatives (i.e. laws against modern forms of slavery in the United Kingdom, 2015 and Australia, 2018).

Industrial Plan

In a strongly volatile scenario, Eni completed the deep transformation process of its businesses, which allowed to continue to grow by strengthening the financial structure. This transformation has been successfully achieved thanks to the speed of action based on skills, know-how and technologies, by placing at the heart of the strategy the sustainability of Eni's business model. Now, Eni is an integrated and flexible company with all the businesses able to contribute to long-term value creation.

The 2019-2022 plan gives a new input to growth and consolidates the integration of the sustainability in the business model. The plan consists in the following strongly synergic strategic levers:

EFFICIENT AND RESILIENT GROWTH (operating model)

The **efficient and resilient growth** will be supported by a strategy aimed at increasing integration of businesses, geographic diversification of the activities and rebalancing of the upstream vs. mid-downstream business through those actions already taken or characterized by an advanced maturity level and soundness.
The main planned actions are: replacement of resources through exploration, start-up/ramp-up of producing fields or of new projects, the sanctioning of projects to support medium and long-term growth, the renegotiations of gas supply contracts, the development of the global LNG portfolio, the enhancement and growth of gas and power retail customers also through portfolio activities, the reduced breakeven of refining activity and international development, the integration and specialization of chemical business.
These actions will be pursued leveraging on the operating model which assumes the continuous commitment to minimize risk and the central role of human capital, environment and security.
The balanced development of activities portfolio will allow to contain cash neutrality and maintain a solid financial structure.

AMBITION TO CARBON NEUTRALITY

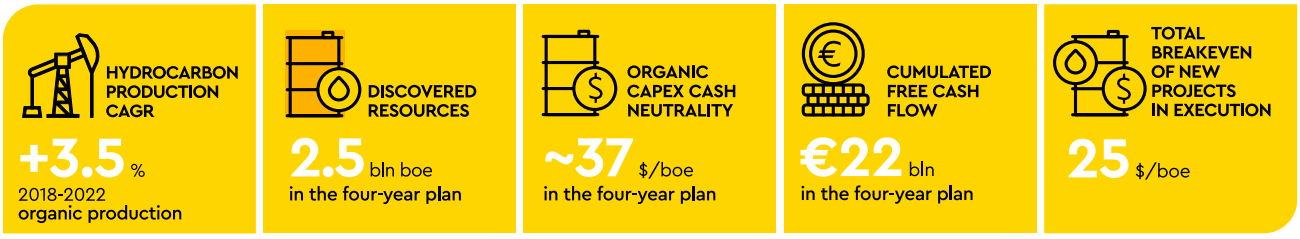
Eni also pursues a strategy targeted to the long-term **carbon neutrality** through a defined path that includes: (i) actions on energy mix and maximization of energy efficiency and reduction of direct emissions; (ii) development of forest conservation, reforestation or afforestation projects to increase CO_2 absorption capacity in the atmosphere, with positive effects on local communities; (iii) development of circular economy initiatives aiming at the valorization of waste and biomass and the recovery of disused or reclaimed assets.

PROMOTION OF LOCAL DEVELOPMENT (cooperation model)

Eni, confirming its tradition, will also continue to **promote local development** leveraging on the cooperation model (dual flag approach), focused on supporting Countries in their social and economic development, involving all the stakeholders. Development will be reached by promoting access to electricity and water, developing health, education and hygiene projects, as well as know-how sharing.

Drivers of the integrated model for a sustainable growth will be the innovation and the spread of digital technology which will allow to improve safety at the workplace and to catch new opportunities of development and efficiency

Upstream



Valorization and growth of the exploration portfolio, with the target to discover 2.5 billion boe and contribute to the geographical diversification.

- Exploration with operatorship on conventional assets and high-equity according to the "Dual Exploration Model".
- Focus on near-field exploration with reduced time-to-market and rapid cash flow in Countries with operated infrastructures.
- Build-up of exploration activities in "high risk-high reward" areas.
- Drilling of more than 140 wells located in more than 25 Countries.

Cash generation growth with a cumulative free cash flow at €22 billion in the 2019-2022 period.

- Production growth at an average annual rate of 3.5% in the 2018-2022 period focusing on value, leveraging on the ramp-ups at fields started up in 2018 and new planned production in the next four years with a level of cash flow per boe higher than the portfolio average and sustainable even at lower Brent prices.
- Start-up and strengthening of integration with the Gas & Power segment to monetize gas equity.
- Strengthened phasing and design-to-cost approach in projects execution enabling the Company to reduce financial exposure and execution risks.
- Optimizing efficiency by means of several initiatives to reduce operating costs and "Non-Productive Time".
- Use of Digital Transformation to support asset integrity and operational efficiency.

Mid-downstream

GAS & POWER

Growth in economic and financial results in the four-year plan: adjusted operating profit expected at €0.7 billion in 2022; cumulated organic free cash flow at €2.3 billion in the 2019-2022 period.

- Growth in LNG business benefitting from the development of the Asian market, the entry in the new markets and the greater integration with upstream business for the enhancement and monetization of gas equity; LNG contracted volumes to 14 MTPA in 2022 and 16 MTPA in 2025.
- Ongoing restructuring of Eni supply portfolio and reduction of logistic costs, through contracts renegotiations.
- Increasing integration with other Eni's businesses, in particular in LNG and Trading.
- Growth and enhancement of the retail business' customer base also by developing new products/services and implementing transformation initiatives leveraging on accelerating channels and digitalization. In 2022 customers will increase to around 12 million, up by 22% vs. 2019.
- Geographical rebalancing in Italy in the retail business leveraging on acquisitions, catching the opportunities arising from the market consolidation process.

REFINING & MARKETING

Sustainable financial results in the four-year plan with a cumulated organic free cash flow at €2.6 billion in the 2019-2022 period.

- Geographical rebalancing of the refining activities, leveraging on opportunities from Countries characterized by competitive profitability, in particular the Middle East with the acquisition of ADNOC Refining share (Abu Dhabi, up by 35% vs. 2018 capacity).
- Breakeven refining margin at 2.7 $/barrel by 2020, following Ruwais acquisition, maximization of asset integrity and logistic optimizations. In the long-term breakeven refining margin at 1.5 $/barrel.
- Ongoing development of green projects (start-up of the Gela biorefinery and increase of the Venice biorefinery performance), final market diversification and development of projects of waste conversion based on circular economy.
- In marketing business, consolidation of market position in Italy combined with a selective growth abroad, development of sustainable mobility (increase of alternative fuels offer and enhanchment in "enjoy" activity).
- Increasing integration with other businesses.

CHEMICALS

Adjusted operating profit to €0.3 billion in 2022; cumulated cash flow from operations expected at €1.1 billion in the four-year plan.

- Consolidation of resilience to scenario fluctuations, by increasing balance of the ethylene-polyhethylene supply chain and higher integration among productive sites.
- Focus of portfolio on differentiated products with higher value added, through the enhancement of production processes.
- Development of circular economy projects and bio-tech to react to legislative challenges and market requests on sustainability issues.
- Reduction of GHG emissions in the production processes, increasing energy efficiency and flexibility of cracker feedstock.
- Development of international presence in the low-cost feedstock areas, to increase resilience of the industrial system and in areas with higher growing rates, leveraging on technological driver.

Dividend policy

Eni is committed to a progressive remuneration policy linked to our underlying earnings and free cash flow growth. In light of the achieved performance and the expected growth in all businesses, Eni intends to increase the 2019 cash dividend by 3.6% to €0.86 per share. In addition, in 2019 we start a buyback programme with an initial capital allocation of €400 million.
In the following years, assuming a leverage steadily below 20%, the annual capital allocation will amount either to €400 million in a $60-65 Brent scenario or €800 million with a Brent scenario above $65/barrel.

Focus on decarbonization

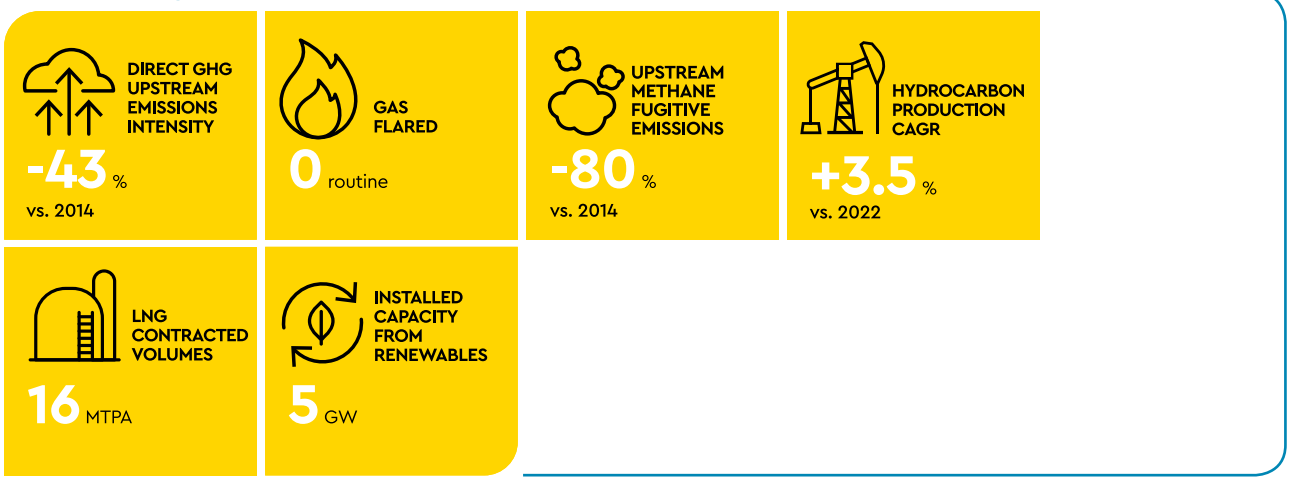
Eni defined a clear strategy to decarbonization integrated in the business model based on short, medium and long-term actions. Research and development will play a key role in our decarbonization strategy and in finding the innovative solutions to promote energy transition.

In the **short term**, Eni's strategy is based on the following levers:

- **increase of efficiency and reduction of direct GHG emissions**: by 2025 we target to reduce the upstream emission intensity of Eni's operated assets by 43% compared to 2014 through projects aiming at zero gas flaring, reduction of methane fugitive emissions and the realization of projects based on energy efficiency;
- **"low carbon" and resilient Oil & Gas portfolio**: Eni's portfolio is characterized by a high share of natural gas (more than 50%), a bridge towards reduced future emissions. The main upstream projects in execution present an average breakeven at a Brent price of approximately 25 $/barrel, resilient to low carbon scenario;
- **development of renewable sources and green business**: the promotion of renewable sources targets an installed power capacity of approximately 5 GW by 2025.
Relating to green business, the second phase of Venice biorefinery will be completed by 2021 with an increase of capacity to 560 kton/year (compared to the current value of 360 kton/year) and the start-up, by 2019, of the Gela plant, with a capacity of 720 kton/year. The consolidation of green chemicals is confirmed by the acquisition in 2018 of the Mossi & Ghisolfi Group bio-activities and by the development of recycling and recovering projects.

In the **medium term**, Eni targets the net zero carbon footprint by 2030, relating to direct emissions of the upstream equity assets, by maximizing the decarbonization initiatives and developing forestry projects offsetting residual upstream emissions. A central role will be played by those solutions addressed to capture, store and reuse CO_2. Another lever of our decarbonization path is the devolopment of circular economy initiatives aimed at waste and bio-mass valorization in order to extract new energy, new products or materials and revitalized dismissed or decommissioned assets.

2025 targets



INTEGRATED RISK MANAGEMENT

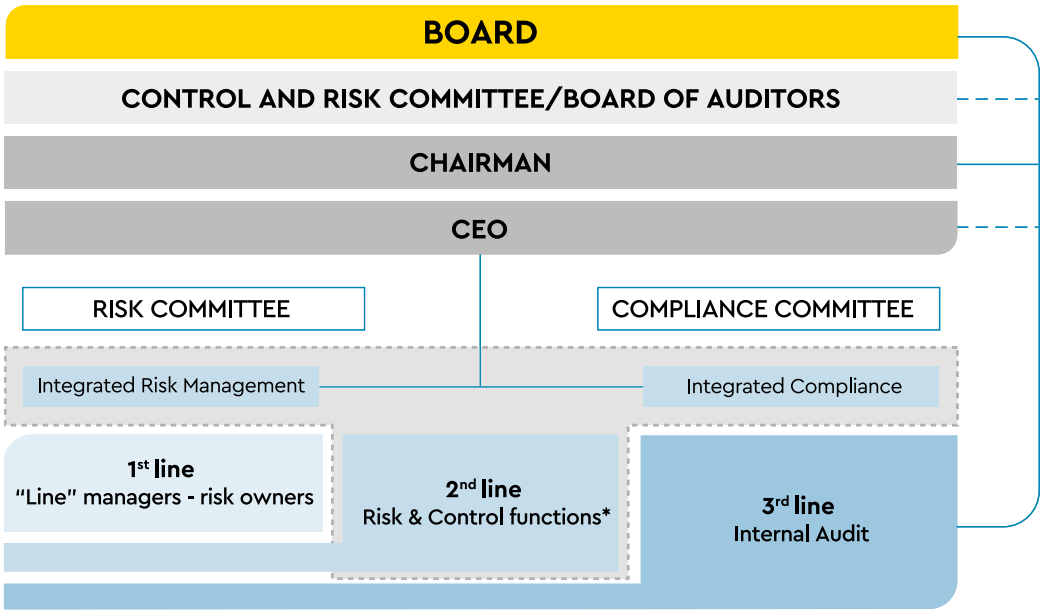
The integrated risk management (IRM) process is aimed at ensuring that management takes risk-informed decisions, with adequate consideration of actual and prospective risks[1], including medium and long-term ones, within the framework of an organic and comprehensive vision. IRM Model also aims to strengthen the organization awareness, at any level, that suitable management and evaluation risk may impact the delivery of corporate targets and value.

Integrated Risk Management Model

The IRM Model is characterized by a structured approach, based on international best practices and considering the guidelines of the Internal Control and Risk Management System (see page 29), that is structured on three control levels. Risk Governance attributes a central role to the Board of Directors (BoD) which defines the nature and level of risk in line with strategic targets, including in evaluation process all those risks that could be consistent for the sustainability of the business in the medium-long term. The BoD, with the support of the Control and Risk Committee, outlines the guidelines for risk management, so as to ensure that the main corporate risks are properly identified and adequately assessed, managed and monitored.

For this purpose, Eni's CEO, through the IRM process, presents every three months a review of the Eni's main risks to the Board of Directors. The analysis is based on the scope of the work and risks specific of each business area and processes aiming at defining an integrated risk management policy; the CEO also ensures the evolution of the IRM process consistently with business dynamics and the regulatory environment. Furthermore, the Risk Committee, chaired by the CEO, holds the role of consulting body for the latter with regards to major risks. For this purpose, the Risk Committee evaluates and expresses opinions, at the instance of CEO, related to the main results of the IRM process.

INTEGRATED RISK MANAGEMENT MODEL



(*) Including Integrated Risk Management function.

(1) Potential events that can affect Eni's activities and whose occurance could hamper the achievement of the main corporate objectives.

Integrated Risk Management Process

The IRM Model is implemented through a process of integrated management which is both continuous and dynamic and leverages on the risk management systems already adopted by each business unit and corporate processes, promoting harmonization with methodologies and specific tools of the IRM Model. The process, regulated by the "Management System Guideline (MSG) Integrated Risk Management" published on July 2016, has been revised and broadened to strengthen the integration with the decision-making process. The IRM process includes six sub-processes: (i) risk management guidelines, (ii) risk strategy, (iii) risk assessment & treatment, (iv) risk monitoring, (v) risk reporting, and (vi) risk culture. It takes a top-down and risk-based approach, starting from the definition of Eni's Strategic Plan (risk strategy), by identifying specific de-risking targets, the analysis of the underlying risk profile of the Plan, also through stress test for economic-financial resiliency vs. strategic targets, as well as the identification of strategic treatment actions. These activities, performed coherently and integrated with the strategic planning process, support the Board's assessments regarding the acceptability of the risk profile of the Strategic Plan subject to his approval. The process continues with the periodic cycles of risk assessment & treatment and monitoring, the profile analysis on specific risks of the relevant transactions, as well as the integrated analysis on the risks in common with certain business and/or functions. The risk evaluation is carried out through metrics considering both potential quantitative (financial-economic or operations) and qualitative (like environment, health and safety, social, reputation, etc.) aspects. The prioritization is based on a multidimensional arrays that allows to obtain the risk level as combination of probability cluster and impact cluster. All risks are evaluated and expressed following an inherent and a residual level (taking into account the implemented actions of mitigation). Eni's top risks portfolio consists of 18 risks classified in: (i) external risks, (ii) strategic risks and, finally, (iii) operational risks (see Objectives, risks and treatment actions on the following pages). In 2018, two assessment sessions were performed: the Annual Risk Profile Assessment performed in the first half of the year, involving 80 subsidiaries in 27 Countries and the Interim Top Risk Assessment performed in the second half of the year, relating to the update of the evaluation and treatment of Eni's top risks and the main business risks. The two assessment results were submitted to Eni's management and control bodies in July and December 2018. In addition, three monitoring processes were performed on top risks. The monitoring of such risks and the relevant treatment plans allow to analyze the risks evolution (through update of appropriate indicators) and the progress in the implementation of specific treatment measures decided by management. The top risks monitoring results were submitted to the management and control bodies in March, July and October 2018.

INTEGRATED RISK MANAGEMENT PROCESS

The risk culture develops a common language and spread an appropriate risk management culture across all organizational levels to build awareness that suitably identifying, assessing and managing various types of risk can affect the achievement of objectives and the value of the company. Risk culture, moreover, promotes a greater inclusion of risk management in the company's processes to ensure consistency in methodology, and in general, in management tools and in risk control.

Targets, risks and treatment measures

COUNTRY

EXTERNAL RISK

MAIN RISK EVENTS	Political and social instability in Eni's Countries of operations may lead to acts of internal conflicts, civil unrests, violence, sabotage and attacks, with consequent production interruptions and losses as well as interruptions in gas supplies via pipe. Global security risk relates to actions or fraudulent events which may negatively affect people and material and immaterial assets.
TREATMENT MEASURES	• Geographic diversification of asset portfolio since the exploration phase and business diversification; • Reduction of the exposure through the Dual Exploration Model; • Keeping efficient and long-lasting relationships with producing Countries and local stakeholders through local social development and sustainability projects in order to enhance local content and welfare promotion within local communities (production for domestic market, access to energy, economic diversification, local development, health and education); • Implementation of the security management system supported by specific site's analysis of the preventive measures. → Ref. pages 94-96

CLIMATE CHANGE

STRATEGIC RISK

MAIN RISK EVENTS	Climate change referred to the possibility of change in scenario/climatic conditions which may generate phisical risks and connected to energy transition (legislative, market, technological and reputational risks) on Eni's businesses in the short, medium and long term.
TREATMENT MEASURES	• Decarbonization strategy integrated in Eni's business model based on: carbon footprint reduction, resilient Oil & Gas portfolio, development of renewables and green energy businesses, commitment in R&D and climate partnership; • Structured governance on climate with a central role of the Board in managing main issues connected with climate change; presence of specific committees to support the Board; establishment of the Advisory Board and Eni's programs focused on climate change issues; • Inclusion of targets related to "climate strategy" in incentive plan for managers, consistent with guidelines of Eni's Strategic Plan; • Leadership on climate-related financial disclosures and other initiatives: joining in the Task Force on Climate-related Financial Disclosures (TCFD) of Financial Stability Board and in "TCFD European Oil & Gas Preparers' Forum" for drawing up industry guidelines to support the implementation of the Recommendations issued by TCFD and participation in different initiatives at international level. → Ref. pages 99-100

ACCIDENTS

OPERATIONAL RISK

MAIN RISK EVENTS	Blow-out risks and other relevant accidents affecting the upstream assets, refineries and petrochemical plants, as well as the transportation of hydrocarbons by sea and land (i.e. fires, explosions, etc.) with impact on people and assets damages, company profitability and reputation.
TREATMENT MEASURES	• Upgrading methodology to classify complex wells (Well Complexity & Economic Index) and geologic "Real time monitoring" of well drilling phases; • Asset Integrity Management, Maintenance Management; • BART (Baseline Assessment Risk Tool) implementation, Simultaneous Operations Operating Plans; • Process Safety Reinforcement Plan, Emergency Preparedness and Response Plans; • Identification of Safety Critical Equipment and use of the "risk based inspection" methodology (API 581 standard) and Fitness for Service (API 579 standard) for the definition of the optimum inspection programmes and the identification of the intervention priorities of preventive maintenance on the basis of identified defects and of the plant components executability; • Development of innovative digital tools and big data analystics to improve operational performance and asset integrity. Particularly, the implementation of the Digital Lighthouse project from Val d'Agri to other upstream and downstream top value assets (e.g. centralized room for real time monitoring of productive assets, smart operators, integrated operating centres, strategic equipment modelling and integrated competence centre); • Specific technological development and emergency management plans; specific HSE audit and plants monitoring; • Involvement of First Parties to strengthen the culture of security in joint-control JV; • Management and continuous monitoring of shipping operation through third operators, vetting activities. → Ref. pages 89-94

Eni's target → Company profitability | Corporate Reputation | Relationship with Stakeholders, Local development

COUNTRY/COUNTERPARTY

Upstream Credit and Financing risk related to the credit proceeds delay or cost recovery from National Oil Companies (credit) or joint venture partners (financing).

UPSTREAM
- Finalization of specific agreements on repayment plans of third parties receivables;
- Securitization package with in-kind withdrawals and/or utilization of dedicated escrow account;
- Mitigation collaterals (sovereign guarantees, parent company guarantees, credit letters);
- Carry agreement negotiations and offsetting with the NOC's through debt positions in the Country.

→ Ref. page 101

EVOLUTION IN G&P LEGISLATION

Potential deteriorating legislative/regulatory, national and international environment, in the Gas & Power segment with potential impacts to corporate profitability.

- Control of legislative and regulatory framework evolution in order to simplify/mitigate impacts on business;
- Recovery/optimization actions on logistical costs through asset backed trading activities and contractual revision on capacity.

→ Ref. pages 97-98

STAKEHOLDER

Relationships with local and international stakeholders on Oil & Gas industry activities, with impacts also in the media.

- Integration of targets and sustainability projects (i.e. Community Investment) within the Strategic Plan and incentive program;
- Focused communication plan and communication initiatives aimed at spreading Eni's strategy and activities, also through social media with a mainly institutional target;
- Meeting and dialogue with stakeholders initiatives and strenghtening of presence in the critical areas in order to intensify the relationship management with local authorities and territories;
- Development of measurement instruments and monitoring of corporate reputation (RepLab) for all stakeholders categories.

→ Ref. pages 94-96

LONG-TERM GAS CONTRACTS

Potential differences between the cost of supply and the minimum off take obligations in take-or-pay long-term gas supply contracts compared to current market conditions and management of arbitrations/ negotiations with gas suppliers.

- Prolonged supply portfolio restructuring process through the renegotiation of price-volume conditions;
- Portfolio balancing by the sale to hubs of volumes not intended to commercial segments, both in Italy and in Northern Europe;
- Continuous control of arbitration management and negotiations by dedicated units.

→ Ref. pages 96-97

INVESTIGATIONS AND PROCEEDINGS

Environmental and health proceedings as well as evolution in HSE legislation may trigger contingent liabilities, impact on company profitability (costs for remediation activities and/or plant implementation), operating activities and corporate reputation. Involvement in anti-corruption investigations and proceedings.

- Continuous monitoring of regulatory developments and constant evaluation of the adequacy of existing presidium and control models;
- Internal training activities at all levels on the topics of interest;
- Monitoring of relations with the Public Administration and definition of routes for the management of relevant problems and for the development of the territory;
- Continuous monitoring of the efficacy and efficiency of reclamation activities;
- Focused communication initiatives;
- Specialized assistance supporting Eni SpA and Italian and foreign subsidiaries;
- Audit activities on compliance with anti-corruption regulations and 231 Legislative Decree.

→ Ref. page 100

CYBER SECURITY

Cyber Security and industrial Espionage.

- Centralized governance model of Cyber Security, with units dedicated to cyber intelligence and prevention, monitoring and management of cyber attacks;
- Rules dedicated to IT security management and information protection;
- Operating plans aimed at increasing security of industrial sites (in Italy and abroad), training and awareness initiatives dedicated to Eni's employees;
- Evolution of methodology aimed at evaluation of Cyber Security risk for a more efficient and effective management of cyber risk, in particular through a model review of economic and operational estimated impact and risk exposure for each asset.

→ Ref. pages 101-102

GOVERNANCE

Integrity and transparency are the principles that have inspired Eni in designing its corporate governance system[1], a key pillar of the Company's business model. The governance system, flanking our business strategy, is intended to support the relationship of trust between Eni and its stakeholders and to help achieve business goals, creating sustainable value for the long-term. Eni is committed to building a corporate governance system founded on excellence in our open dialogue with the market and all stakeholders. Ongoing, transparent communication with stakeholders is an essential tool for better understanding their needs. It is part of our efforts to ensure the effective exercise of shareholders' rights. With this in mind, recognising the need for a deeper dialogue with the market and in continuity with initiatives undertaken since 2013, on January 30, 2018, Eni organised a "corporate governance roadshow" in London involving the Chairman of the Eni Board of Directors and the main institutional investors of Eni to present among other things the main initiatives Eni has undertaken, with a focus on the internal control and risk management system, the Advisory Board and the Company's commitment (from the Board on down) to an even stronger compliance culture and to climate change actions.

The Eni Corporate Governance

Eni corporate governance model

Eni's Corporate Governance structure is based on the traditional Italian model, which – without prejudice to the role of the Shareholders' Meeting – assigns the management of the Company to the Board of Directors, supervisory functions to the Board of Statutory Auditors and statutory auditing to the Audit Firm.

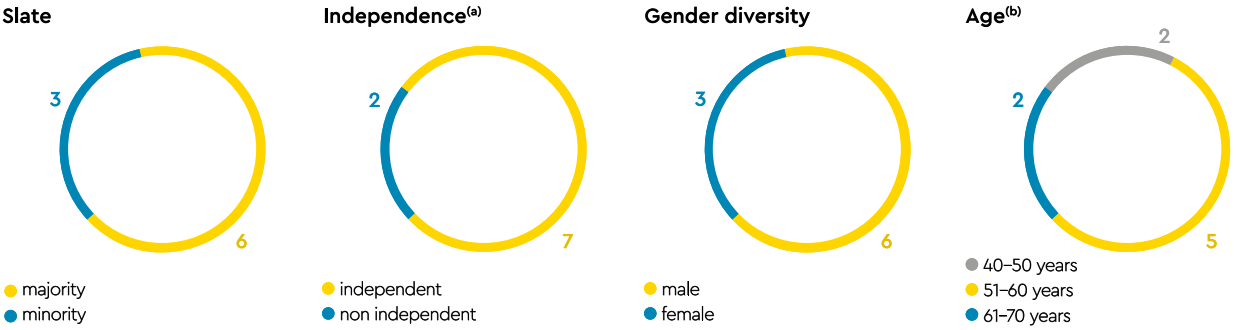
Appointment and composition of corporate bodies

Eni's Board of Directors and Board of Statutory Auditors, and their respective Chairmen, are elected by the Shareholders' Meeting. To ensure the presence of Directors and Statutory Auditors selected by non-controlling shareholders a slate voting mechanism is used. Eni's Board of Directors and Board of Statutory Auditors, whose term runs from April 2017 until the Shareholders' Meeting called to approve the 2019 financial statements, are made up of 9 and 5 members, respectively. Three directors and two standing statutory auditors, including the Chairman of the Board of Statutory Auditors, are elected by non-controlling shareholders, thereby giving minority shareholders a larger number of representatives than that provided for under law. In deciding the composition of the Board of Directors, the Shareholders' Meeting was able to take account of the guidance provided to investors by the previous Board with regard to diversity, professionalism, management experience and international representation. The outcome was a balanced and diversified Board of Directors. The composition of the Board of Directors and of the Board of Statutory Auditors is also more diversified in gender terms, in accordance with the provisions of applicable law and the By-laws. Moreover, the number of independent directors on the Board of Directors (7[2] of the 9 serving directors, of whom 8 are non-executive directors) remains greater than the number provided for in the By-laws and in the Corporate Governance Code.

The structure of the Board of Directors

The Board of Directors appointed a Chief Executive Officer and established four internal committees with advisory and recommendation functions: the Control and Risk Committee[3],

COMPOSITION OF THE BOARD OF DIRECTORS



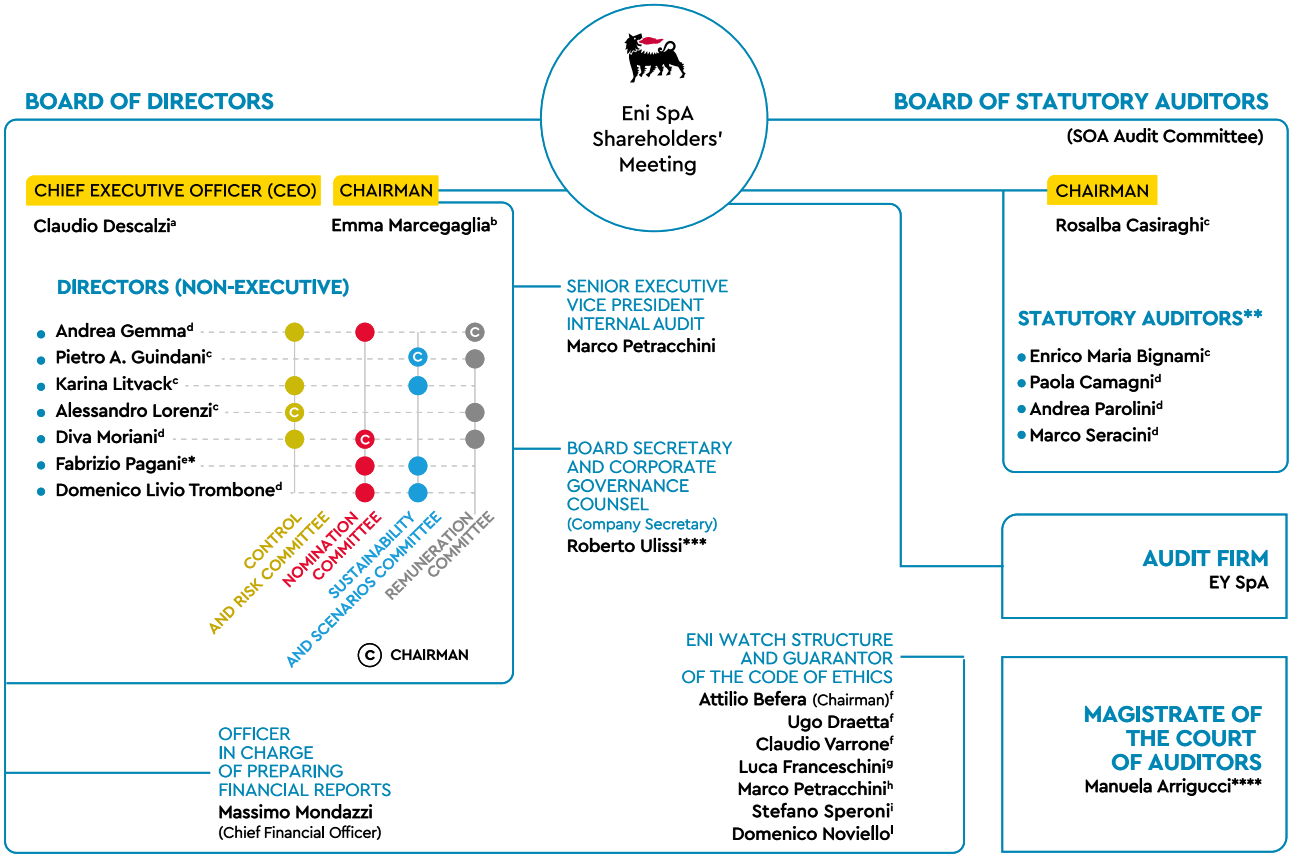
(a) Independence as defined by applicable law.
(b) Figures at December 31, 2018.

(1) For more detailed information on the Eni Corporate Governance system, please see the Corporate Governance and Shareholding Structure Report, which is published on the Company's website in the Governance section.
(2) Independence as defined by applicable law, to which the Eni By-laws refer. Under the Corporate Governance Code, 6 of the 9 serving directors are independent.
(3) As regards the composition of the Control and Risk Committee, Eni requires that at least two members shall have appropriate experience with accounting, financial or risk management issues, exceeding the requirements of the Corporate Governance Code, which recommends only one such member. In this regard, on April 13, 2017 the Eni Board of Directors determined that 3 of the 4 members of the Committee, including the Chairman, have the appropriate experience. The level of experience of the Committee members therefore exceeds that provided for in the Committee Rules.

the Remuneration Committee[4], the Nomination Committee and the Sustainability and Scenarios Committee. The Committees report, through their Chairmen, on the main issues they address at each meeting of the Board of Directors.

The Board of Directors also retained the Chairman's major role in internal controls, with specific regard to the Internal Audit unit. The Chairman proposes the appointment and remuneration of its Head and the resources available to it, and also directly manages relations with the unit on behalf of the Board of Directors (without prejudice to the unit's functional reporting to the Control and Risk Committee and the Chief Executive Officer, as the director in charge of the internal control and risk management system). The Chairman is also involved in the appointment of the primary Eni officers responsible for internal controls and risk management, including the officer in charge of preparing financial reports, the members of the Watch Structure, the Head of Integrated Risk Management and the Head of Integrated Compliance. Finally, the Board of Directors, acting on a recommendation of the Chairman, reappointed the Secretary, keeping his role as Corporate Governance Counsel, charged with providing assistance and advice to the Chairman, the Board of Directors and the individual directors, reporting periodically to the Board of Directors on the functioning of Eni's corporate governance system. This report enables the periodic monitoring of the governance model adopted by the Company, designed on the basis of the most prominent studies in this field, the choices of our peers and the corporate governance innovations incorporated in the corporate governance codes of other Countries and in the principles issued by leading international bodies, identifying any strengths and areas for additional improvement in the Eni system. In view of this role, the Secretary, who reports to the Board of Directors itself and, on its behalf, to the Chairman, must also meet appropriate independence and other requirements[5].

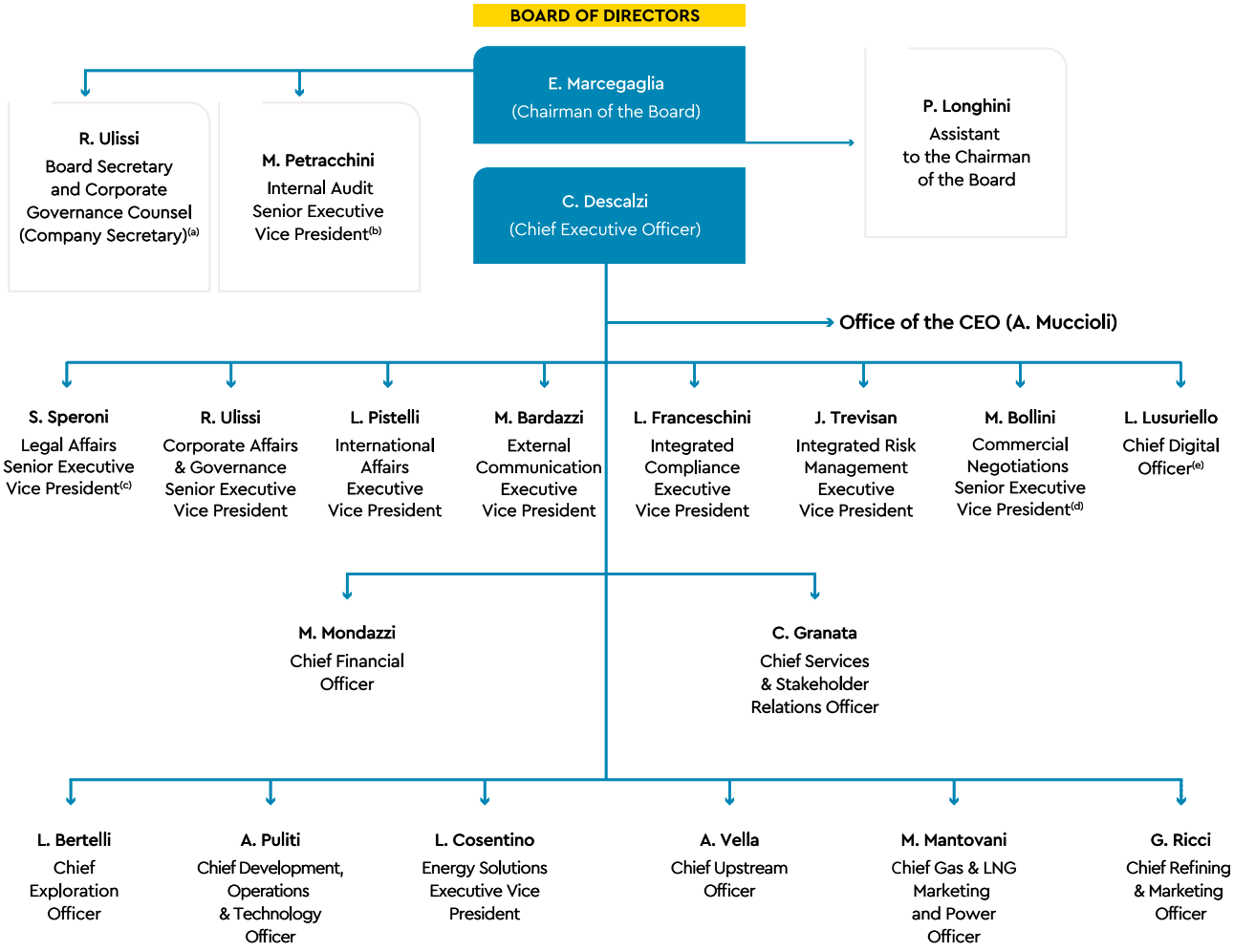
The following chart summarises the Company's corporate governance structure at March 14, 2019:



a Member appointed from the majority list.
b Member appointed from the majority list non-executive and independent pursuant to law.
c Member appointed from the minority list and independent pursuant to law and Corporate Governance Code.
d Member appointed from the majority list and independent pursuant to law and Corporate Governance Code.
e Member appointed from the majority list, non-executive and non independent.
f External member.
g Executive Vice President Integrated Compliance.
h Senior Executive Vice President Internal Audit.
i Senior Executive Vice President Legal Affairs. Until December 31, 2018 Marco Bollini.
l Executive Vice President Labour Law and Dispute.
* The Advisory Board is chaired by Director Fabrizio Pagani and composed of leading international energy experts: Ian Bremmer, Christiana Figueres, Philip Lambert and Davide Tabarelli.
** The following are Alternate Auditors:
Stefania Bettoni - Member appointed from the majority list.
Claudia Mezzabotta - Member appointed from the minority list.
*** Also Senior Executive Vice President Corporate Affairs and Governance.
**** Adolfo Teobaldo De Girolamo until February 28, 2019.

(4) The Rules of the Remuneration Committee require that at least one member shall have adequate expertise and experience in finance or compensation policies. These qualifications are assessed by the Board of Directors at the time of appointment. In this regard, on April 13, 2017 the Eni Board of Directors determined that 3 of the 4 members of the Committee have the appropriate expertise and experience. The level of expertise and experience of the Committee members therefore exceeds that provided for in the Committee Rules.
(5) The Charter of the Board Secretary and Corporate Governance Counsel (Company Secretary) is available on the Eni website, in the Governance section.

The following is a chart setting out the current macro-organizational structure of Eni SpA at March 14, 2019:



(a) The Board Secretary and Corporate Governance Counsel (Company Secretary) reports hierarchically and functionally to the Board of Directors and, on its behalf, to the Chairman.
(b) The Senior Executive Vice President Internal Audit reports hierarchically to the Board of Directors and, on its behalf, to the Chairman, without prejudice to its functional reporting to the Control and Risk Committee and to the CEO in his capacity as Director in charge of the Internal Control and Risk Management System.
(c) In office since January 1st, 2019.
(d) From January 1st, 2019. Until 31 December 2018, Senior Executive Vice President Legal Affairs.
(e) Since September 18, 2018.

Decision making

The Board of Directors entrusts the management of the Company to the Chief Executive Officer, while retaining key strategic, operational and organizational powers for itself, especially as regards governance, sustainability[6], internal control and risk management.

Organizational arrangements

In recent years, the Board of Directors has devoted special attention to the Company's organizational arrangements, with a number of important measures being taken with regard to the internal control and risk management system and compliance. More specifically, the Board decided that the Integrated Risk Management function reports directly to the Chief Executive Officer and created an Integrated Compliance Department, also reporting to the Chief Executive Officer, separate from the Legal Department. Among the Board of Directors' most important duties is the appointment of people to key management and control positions

(6) More specifically, the Board of Directors has reserved for itself decisions concerning the establishment of sustainability policies, the results of which are reported together with financial results in an integrated manner in the Annual Report, as well as the examination and approval of reports covering areas not included in the integrated reporting framework. For more information concerning non-financial disclosures, please see the section of the Report on the Consolidated Disclosure of Non-Financial Information (NFI), pursuant to Legislative Decree No. 254/2016.

in the Company, such as the officer in charge of preparing financial reports, the Head of Internal Audit, the members of the Watch Structure and the Guarantor of the Eni Code of Ethics. In performing these duties, the Board of Directors may draw on the support of the Nomination Committee.

Reporting flows

In order for the Board of Directors to perform its duties as effectively as possible, the directors must be in a position to assess the decisions they are called upon to make, possessing appropriate expertise and information. The current members of the Board of Directors, who have a diversified range of skills and experience, including on the international stage, are well qualified to conduct comprehensive assessments of the variety of issues they face from multiple perspectives. The directors also receive timely complete briefings on the issues on the agenda of the meetings of the Board of Directors. To ensure this operates smoothly, Board meetings are governed by specific procedures that establish deadlines for providing members with documentation and the Chairman ensures that each director can contribute effectively to Board discussions. The same documentation is provided to the Statutory Auditors. In addition to meeting to perform the duties assigned to the Board of Statutory Auditors by Italian law, including in its capacity as the "Internal Control and Audit Committee", and by US law in its capacity as the "Audit Committee", the Statutory Auditors also participate in the meetings of the Board of Directors and the Control and Risk Committee to ensure the timely exchange of key information for the performance of their respective duties within the Company's internal control and risk management system.

Ongoing training and self-assessment

On an annual basis, the Board of Directors, with the support of an external advisor and the oversight of the Nomination Committee, conducts a self-assessment (the Board Review)[7], for which benchmarking against national and international best practices and an examination of Board dynamics are essential elements, also with a view to provide shareholders with guidance on the most appropriate professional profiles for members of the Board. Following the Board Review, the Board of Directors develops an action plan, if necessary, to improve the operation of the Board and its Committees. In addition, in determining the procedures for the performance of the Board Review, the Eni Board also assesses whether to perform a Peer Review of the Directors, in which each director expresses his or her view of the contribution made by the other Directors to the work of the Board. The Peer Review, which has been conducted four times in the last seven years, most recently in February 2018 in conjunction with the Board Review, is a best practice among Italian listed companies. Eni was among the first Italian companies to perform one, starting in 2012. The Board of Statutory Auditors also conducted its own self-assessment in 2018. For a number of years now, Eni has supported the Board of Directors and the Board of Statutory Auditors with an induction programme, which involves the presentation of the activities and organization of Eni by top management. Moreover, in order to improve the understanding of Eni's industrial processes, the Board Induction is accompanied by an ongoing training programme with visits to sites in Italy and abroad. In 2018, in continuity with previous initiatives, additional training sessions were held with visits to labs in the upstream and renewables operational areas, as well as to the Zohr plant in Egypt on the occasion of a meeting of the Board held abroad.

The governance of sustainability

Eni's governance structure reflects the Company's willingness to integrate sustainability into its business model.
The Board of Directors has a central role in defining sustainability policies and strategies, acting upon proposal of the CEO, in the identification of annual, four-year and long-term objectives shared between functions and subsidiaries and in verifying the related results, which are also presented to the Shareholders' Meeting.
In detail, a central theme in which the Board of Directors plays a key role is challenge related to the process of energy transition to a low carbon future. The Board of Directors plays a key role in these issues, approving strategic initiatives and long-term objectives on the matter both for the CEO and for Eni management.

During 2018, Eni ensured its contribution at the World Economic Forum (WEF) "Climate Governance"[8] initiative, with the participation of Eni's Board of Directors.
Another central theme that the Board of Directors oversees is the respect for Human Rights. Indeed, in December 2018, the Board of Directors of Eni SpA approved the Eni Statement on respect for human rights. This document renews the Company's commitment, aligning it with the main international standards on Human Rights and Business, starting from the United Nations Guiding Principles, highlighting also the priority areas on which this commitment is concentrated.

(7) For more information on the Board Review process, see the section devoted to that process in the Corporate Governance and Shareholding Structure Report 2018.
(8) The initiative seeks to increase the level of Board awareness on climate-related issues, also in the light of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

THE MAIN SUSTAINABILITY ISSUES ADDRESSED BY THE BOARD IN 2018

- 2017 financial statements[9], including the Consolidated Non-Financial Statement;
- the Remuneration Report, including sustainability targets in the definition of performance plans;
- 2017 HSE Performance;
- Voluntary Eni Report on Sustainability (so called "Eni for");
- Sustainability scenario;
- Update of the Statement in compliance with the UK Modern Slavery Act;
- Eni's Statement on respect for human rights;
- Climate Governance.

The Sustainability and Scenarios Committee
In performing its duties in the field of sustainability, the Board is supported by the Sustainability and Scenarios Committee, established for the first time in 2014 by the Board itself, which provides advice and recommendations on scenario and sustainability issues. The Committee plays a key role in addressing the sustainability issues integrated into the Company's business model[10].

The Advisory Board
At its meeting of July 27, 2017, the Eni Board of Directors established an Advisory Board[11], chaired by the Director Fabrizio Pagani and composed of international experts (Ian Bremmer, Christiana Figueres, Philip Lambert and Davide Tabarelli).
The Advisory Board is charged with analysing major geopolitical, technological and economic trends, including issues associated with decarbonization, to support the Board itself and the Chief Executive Officer. In 2018, the Advisory Board met three times, in April, June and September, to address matters related to geopolitical developments, Eni's strategic positioning in a decarbonization scenario, energy market developments, the energy industry transformation and renewable energy.

Remuneration Policy

Eni's Remuneration Policy for its Directors and top management is established in accordance with the Governance model adopted by the Company and the recommendations of the Corporate Governance Code. The Policy seeks to attract, motivate and retain high-level professionals and skilled managers and to align the interests of management with the priority objective of creating value for shareholders over the medium/long-term.
For this purpose, the remuneration of Eni's top management is established on the basis of the position and the responsibilities assigned, with due consideration given to market benchmarks for similar positions in companies similar to Eni in dimension and complexity.
Under Eni Remuneration Policy, considerable importance is given to the variable component, also on a per-share basis, which is linked to the achievement of certain results, through incentive plans connected to the fulfilment of preset, measurable and complementary targets which represent the main Company's priorities in line with the Company's Strategic Plan and the expectations of shareholders and stakeholders, in order to promote a strong focus on results and combine the operating, economic and financial soundness with social and environmental sustainability, coherently with the long-term nature of the business and the related risk profiles.
With regard to sustainability issues, the CEO objectives set for the year 2019 are focused on environmental matters as well as on human capital aspects.
The objectives of the Chief Officers of Eni business segments and other Managers with strategic responsibilities are assigned on the basis of those assigned to top management focused on stakeholders' perspectives, as well as on individual objectives assigned in relation to the responsibilities inherent the single managerial position, under the provisions of Company's Strategic Plan. The Remuneration Policy is described in the first section of the Remuneration Report, available on the Company's website (www.eni.com) and is presented, on an annual basis, for an advisory vote at the Shareholders' Meeting.

(9) This is an integrated report that enables Eni's stakeholders, including non-investors, to understand the connections between financial performance and the outcomes of actions in the environmental and social fields, in accordance with Eni's integrated business model.
(10) For more information on the Committee activities in 2018, please see the relevant section in the Corporate Governance and Shareholding Structure Report 2018.
(11) For more information, please see the Eni website, in the Governance section.

2018 TARGETS FOR THE 2019 SHORT-TERM INCENTIVE PLAN WITH DEFERRAL

ECONOMIC AND FINANCIAL RESULTS (25%)	OPERATING RESULTS AND SUSTAINABILITY OF ECONOMIC RESULTS (25%)	ENVIRONMENTAL SUSTAINABILITY AND HUMAN CAPITAL (25%)	EFFICIENCY AND FINANCIAL STRENGTH (25%)
INDICATORS Earning Before Tax (12.5%) Free Cash Flow (12.5%)	INDICATORS Hydrocarbon production (12.5%) Exploration resources (12.5%)	INDICATORS CO_2 emissions (12.5%) Severity Incident Rate (12.5%)	INDICATORS ROACE adjusted (12.5%) Net Debt/EBITDA adjusted (12.5%)
LEVERAGE Upstream expansion Strengthen Gas & Power operations Resilience in downstream Green business	LEVERAGE Fast track approach Expanding exploration acreage Diversification	LEVERAGE Decarbonization HSE and sustainability	LEVERAGE Financial discipline Efficiency of operating costs and G&A Optimisation of working capital

The internal control and risk management system[12]

Eni has adopted an integrated and comprehensive internal control and risk management system at different levels of the organizational and corporate structure, based on reporting tools, organizational units, regulations, corporate rules and reporting flows between the various control levels and to the management and control bodies of the Company and its subsidiaries. The internal control and risk management system is also based on Eni's Code of Ethics (as an essential part of the Company's Model 231), which sets out the rules of conduct for the appropriate management of the Company's business and which must be complied with by all the members of the Board, as well as of the other corporate bodies and all Eni personnel. Eni has adopted rules for the integrated governance of the internal control and risk management system, the guidelines of which, approved by the Board, set out the duties, responsibilities and procedures for coordinating between the primary system actors. At its meeting of October 25, 2018, the Board updated these guidelines, also to reflect recent developments in internal organization and rules concerning Integrated Compliance. Indeed, in 2018 Eni completed the definition of the reference model for Integrated Compliance, which together with Model 231 and the Code of Ethics, is aimed at ensuring that all Eni personnel who are contributing to the achievement of business objectives operate in full compliance with the rules of integrity and applicable laws and regulations in an increasingly complex national and international regulatory framework, defining a comprehensive process, developed using a risk-based approach, for managing activities to prevent non-compliance. With this in mind, risk assessment methodologies were developed aimed at modulating controls, calibrating monitoring activities and planning training and communication activities based on the compliance risk underlying the various cases, to maximize their effectiveness and efficiency. The Integrated Compliance process was designed to stimulate integration between those who work in the business activities and the corporate functions that oversee the various compliance risks, both internal or external to the Integrated Compliance Department.

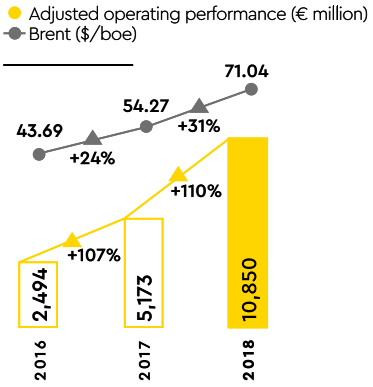
Furthermore, in October 2018, acting on the proposal of the Chief Executive Officer, having obtained a favourable opinion from the Control and Risk Committee, the Board of Directors of Eni approved the internal rules concerning the Market Information Abuse (Issuers). These, by updating the previous Eni rules for the aspects relating to "issuers", incorporate the amendments introduced by Regulation No. 596/2014/EU of April 16, 2014 and the associated implementing rules, as well as the national regulations, taking account of Italian and foreign institutional guidelines on the matter. The updated internal rules lay down principles of conduct for the protection of confidentiality of corporate information in general, to promote maximum compliance, as also required by Eni's Code of Ethics and corporate security measures. Eni recognizes that information is a strategic asset to be managed in such a way as to ensure the protection of the interests of the company, shareholders and the market.

An integral part of the Eni internal control system is the internal control system for financial reporting, the objective of which is to provide reasonable certainty of the reliability of financial reporting and the ability of the financial report preparation process to generate such reporting in compliance with generally accepted international accounting standards. Eni's CEO and Chief Financial Officer (CFO) are responsible for planning, establishing and maintaining the internal control system for financial reporting. The CFO also serves as the officer in charge of preparing financial reports. A central role in the Company's internal control and risk management system is played by the Board of Statutory Auditors, which in addition to the supervisory and control functions provided for in the Consolidated Law on Financial Intermediation, also monitors the financial reporting process and the effectiveness of the internal control and risk management systems, consistent with the provisions of the Corporate Governance Code, including in its capacity as the "Internal Control and Audit Committee" pursuant to Italian law and as the "Audit Committee" under US law.

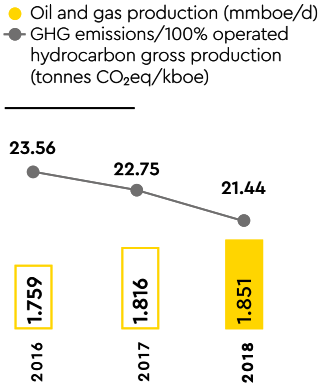
(12) For more information, please see the Corporate Governance and Shareholding Structure Report 2018.

EXPLORATION & PRODUCTION

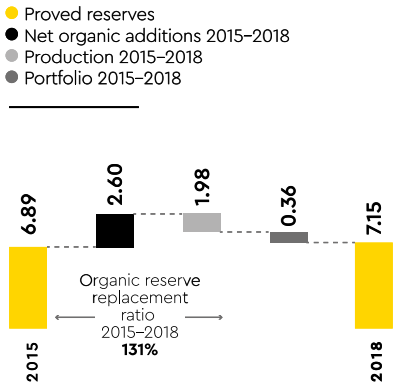
PERFORMANCE VS. BRENT



EXCELLENCE IN OPERATIONS



MOVEMENTS IN NET PROVED RESERVES (bboe)



Performance of the year

- Total recordable injury rate (TRIR) was 0.30, a level that is in the lowest range of the industry average; confirming Eni's commitment to awareness and dissemination of the safety culture, achieving a reduction of 46% compared to 2014.
- Emissions from flaring were down by 8% from 2017 due to the achievement of the zero flaring configuration in the Burun field in Turkmenistan and the reduction of emergency flaring. This result confirms that we are well on track on our long-term target of zero routine flaring in 2025. In 2018, capital expenditure of flaring down projects was €39 million, in particular in Nigeria and Libya.
- Upstream GHG intensity index was positive with a reduction of 6% from 2017 and 20% from 2014. We achieved these results leveraging on the reduction of emissions from flaring, the gas production of the Zohr field in Egypt and the Jangkrik field in Indonesia as well as an increase production of Goliat field in Norway, which is an asset with lower intensity emission than the upstream average. This performance is in line with the target of 43% reduction in 2025 compared to 2014.
- Water reinjection was 60% in 2018, leveraging on the ongoing programs in certain operational plants, in particular in Egypt and Ecuador.
- In 2018, the E&P segment recorded the best result of the last four years, with an adjusted operating profit more than doubled compared to 2017. This performance reflected more than proportionally strong trend registered in hydrocarbons price scenario in the first ten months of 2018 (a rise of 31% in price of the Brent market benchmark in dollar term) and production growth, which was boosted by a larger weight of barrels with a higher profit per boe.
- Oil and natural gas production was a record level of 1.851 million boe/d, up by 2.5% from 2017 net of price effects. Start-ups and ramp-ups added more than 300 kboe/d to the production level of 2018.
- Net proved reserves at December 31, 2018 amounted to 7.15 bboe based on a reference Brent price of $71.4 per barrel. The all sources replacement ratio was 124%, 100% of organic replacement ratio (105% net of price effects); 131% three-year average organic replacement ratio. The reserves life index was 10.6 years (10.5 years in 2017).

DISCOVERED RESOURCES
600 mmboe
at a unit cost of 1.5 $/boe

EXPANDING FOOTPRINT IN THE MIDDLE EAST
~400 kboe/d
production target in the long term

RECORD PRODUCTION
1.85 mmboe/d
+2.5% from 2017

CASH FLOW PER BOE
22.5 $/boe
achieved earlier than planned

Portfolio management

- Signed strategic agreements with the United Arab Emirates, Oman and Bahrain. In particular, the agreements reached in the United Arab Emirates and Oman include exploration, development and production of oil and gas fields, offshore and onshore. The agreement with Bahrain will create further exploration offshore opportunities. Technological innovation, scientific expertise, accelerated start-up and collaboration with host Countries allowed Eni to expand its footprint in a strategic area of the energy industry development:
  - signed two Concession Agreements related to the acquisition of a 5% participating interest in the Lower Zakum oil field and a 10% participating interest in the Umm Shaif and Nasr oil, condensates and natural gas fields, in the offshore of Abu Dhabi, with duration of 40 years;
  - awarded a 25% interest of the Ghasha offshore concession in the Abu Dhabi. The concession includes Hal, Ghasha, Dalma gas fields and certain offshore fields in the Al Dhafra area. Production start-up is expected in 2022. In January 2019, Eni was awarded the operatorship of the Block 1 and 2 with a 70% interest, located offshore of the Country;
  - awarded the offshore exploration Block 47 in Oman and signed a Head of Agreement for the exploration Block 77, located onshore of the Country. Eni will operate both blocks with a 90% interest and 50% interest, respectively;
  - signed a Memorandum of Understanding with the National Oil and Gas Authority of the Kingdom of Bahrain (NOGA). The agreement includes an exploration program for the offshore Block 1, an area still largely unexplored, located in the offshore northern territorial area of the Country;
  - awarded three onshore exploration concessions in the Emirate of Sharjah.
- Dual Exploration Model:
  - disposal of 10% interest of the Shorouk concession in Egypt, where is located the supergiant gas Zohr field, to Mubadala Petroleum, an United Arab Emirates oil company;
  - farm-out of part of Eni's interest in the Nour exploration license in Egypt to BP and Mubadala companies. These companies purchased a 25% interest and 20% interest, respectively;
  - finalized swap agreements of stake in explorations assets located in Mexico with Lukoil company;
  - signed an agreement to divest a 35% interest in the Area 1 license, where 2.1 billion of boe in place discovered, to Qatar Petroleum oil company.
- Strengthened the upstream activity in Norway with the the business combination between Eni Norge and Point Resources, leading to the creation of Vår Energi, an equity-accounted joint venture (Eni's interest 69.6%) that will develop the activities of the two partners in Norway targeting a production plateau of 250 kboe/d in 2023.

Exploration activity

- Exploration activity is also a distinctive approach of Eni's upstream model, ensuring a large amount of resources at low costs, flexibility in the short-term and fueling growth over the long term. In 2018 additions to the Company's reserve backlog were 620 million boe of new equity resources. Main discoveries or appraisal activities were in Egypt, Cyprus, Norway, Angola, Nigeria, Mexico and Indonesia. The overall commercial success rate was 66% net to Eni, best performance of the last eighteen years.
- Finalized an agreement with BP and National Oil Company in Libya to boost exploration activities in the Country. The agreement strengthened the parties' commitment to social development in the Country through the implementation of specific education and technical training programs.
- Awarded a 40% interest of the Blocks 4 and 9 located in the offshore Lebanon.
- Awarded a 100% interest of 124 exploration licenses located in the Eastern North Slope in Alaska with high mineral potential and nearby to existing production facilities.
- Signed the contract for the exploration and development rights of the offshore block A5-A, in the deep offshore of Zambesi. Eni was awarded the operatorship of the block with a 59.5% interest.
- Awarded a 65% interest in the Area 24 license and a 75% interst in the Area 28 license located in offshore Mexico. Eni operates both licenses.
- Replacing portfolio of exploration leases in the year, added approximately 29,300 square kilometers of new acreage.
- Exploration and appraisal activity was €750 million (€715 million in 2017) and included exploration expenditure and prospecting, geological and geophysical expenses in the year. Exploration and appraisal activity covered approximately 45% of total activity in 2018 and were conducted in particular in Indonesia, Norway, United States, Angola and Vietnam.
- In 2018 exploration expenses were €380 million (€525 million in 2017) and included the write-off of unsuccessful wells amounting to €93 million (€252 million in 2017), which also related to the write-off of unproved exploration rights, if any, associated to projects with negative outcome. The write-off of expenses related to unsuccesful drilling activities mainly concerned projects in Vietnam and Morocco. In addition, 80 exploratory drilled wells are in progress at year-end (40.3 net to Eni).

Development activity

- During the year production ramp-up was achieved earlier than scheduled at the giant project with a higher profit per boe such as the Zohr and Noroos fields in Egypt, the Jangkrik field in Indonesia, the OCTP project in Ghana as well as the Nenè Marine Phase 2 project in Congo. In addition as planned production started up at the Ochigufu, Vandumbu and UM8 fields in the operated Block 15/06 in Angola, the OCTP gas project to support domestic market in Ghana and the Bahr Essalam Phase 2 and the Wafa compression projects in Libya.

- The co-venturers of Area 4 secured long-term agreements for the purchase of LNG volumes, an important step towards making the final investment decision of the first phase of the Rovuma LNG Project, for the construction of two LNG trains with a capacity of 7.6 mmtonnes/y each and obtaining the project financing.

- Sanctioned the Cabaça North & Cabaça South-East UM4/5 development programs within the East Hub project in the Block 15/06 in Angola. Start-up is expected in 2021. Furthermore, Eni signed an amendment of the Block 15/06 PSA contract that defines an additional exploration acreage in the western area of the block. The agreement confirms Eni's strategy of the fast-track discoveries developments leveraging on the synergies with existing facilities.

- Sanctioned the operated projects of Area 1 in Mexico with the pilot project's planned start-up in 2019 and the Merakes discovery in Indonesia, leveraging on the synergy with the existing infrastructures of the Jangkrik field. Overall, in 2018, six projects were sanctioned (in addition to those previously mentioned, in Italy, Egypt and Congo).

- Signed an agreement to purchase of 70% interest and the operatorship of the Oooguruk field, where Eni already holds 30% interest. The Oooguruk field is already productive from 2008, in the Beaufort Sea of the North Slope in Alaska. Production facilities provide for safe and environmentally responsible operations. Additionally, Eni will leverage on the existing excellent relationships and cooperation with the local communities. This agreement will add immediately production and implement significant operational synergies and optimizations with the operated Nikaitchuq field.

- Approved ten-years extension of the Great Nooros Area's assets, the most rich basin in the Nile Delta in offshore Egypt. This lease extension strengthen Eni's gas portfolio and confirm the success of Eni's strategy of near field exploration which revamped production in the Nile Delta area. In addition, Egyptian Authorities approved five-years extension of the Ras Qattara concession. Following this agreement, a new exploration campaign will start-up to discover additional hydrocarbons reserves and will allow further exploration activities in the Western Desert Area.

- In March 2019, Eni signed an agreement to divest a 30% interest in the Tarfaya Offshore Shallow exploration license in Morocco to Qatar Petroleum, retaining the operatorship of the permit with a 45% interest. The agreement is subject to approval by the relevant Authorities.

- Signed a memorandum of understanding with the United Nations Development Programme (UNDP) to support sustainable development and help achieve the Sustainable Development Goals (SDGs), in particular access to energy by 2030, climate change initiatives and the protection, restoration and sustainable use of the ecosystem. The agreement confirmed Eni's commitment to support access to energy, particularly in Africa, and as integrated in our business model.

- Signed with the Food and Agriculture Organization (FAO) a collaboration agreement to promote access to safe and clean water in Nigeria, in particular in the northeast areas, by drilling boreholes, both for domestic use and irrigation purposes. In particular, FAO will support to identify the operations areas as well as technical and know-how collaboration while Eni drilling boreholes which will be powered by photovoltaic systems and will provides for training program of use and maintenance to sustainability in the long term.

- Net capex amounted to approximately €6 billion (€6 billion in 2017) and excluded the capex pertaining to a 10% divested interest in the Zohr project (€170 million) incurred from January 1, 2018 to the closing of the transaction (end of June 2018), which were reimbursed to Eni by the buyer and, as part of the financing agreements with the Egyptian partners relating to the Zohr project, the Company cashed in €280 million as an advance on future gas supplies to Egyptian state-owned companies.

- In 2018, overall R&D expenditure of the Exploration & Production segment amounted to €96 million (€83 million in 2017).

RESERVES

OVERVIEW

The Company has adopted comprehensive classification criteria for the estimate of proved, proved developed and proved undeveloped oil and gas reserves in accordance with applicable US Securities and Exchange Commission (SEC) regulations, as provided for in Regulation S-X, Rule 4-10. Proved oil and gas reserves are those quantities of liquids (including condensates and natural gas liquids) and natural gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, 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. Oil and natural gas prices used in the estimate of proved reserves are obtained from the official survey published by Platt's Marketwire, except when their calculation derives from existing contractual conditions. Prices are calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period. Prices include consideration of changes in existing prices provided only by contractual arrangements.

Engineering estimates of the Company's oil and gas reserves are inherently uncertain. Although authoritative guidelines exist regarding engineering criteria that have to be met before estimated oil and gas reserves can be designated as "proved", the accuracy of any reserve estimate is a function of the quality of available data and engineering and geological interpretation and evaluation. Consequently, the estimated proved reserves of oil and natural gas may be subject to future revision and upward and downward revisions may be made to the initial booking of reserves due to analysis of new information. Proved reserves to which Eni is entitled under concession contracts are determined by applying Eni's share of production to total proved reserves of the contractual area, in respect of the duration of the relevant mineral right. Proved reserves to which Eni is entitled under PSAs are calculated so that the sale of production entitlements should cover expenses incurred by the Group to develop a field (Cost Oil) and on the Profit Oil set contractually (Profit Oil). A similar scheme applies to service contracts.

RESERVES GOVERNANCE

Eni retains rigorous control over the process of booking proved reserves, through a centralized model of reserves governance. The Reserves Department of the Exploration & Production segment is in charge of: (i) ensuring the periodic certification process of proved reserves; (ii) continuously updating the Company's guidelines on reserves evaluation and classification and the internal procedures; and (iii) providing training of staff involved in the process of reserves estimation. Company guidelines have been reviewed by DeGolyer and MacNaughton (D&M), an independent petroleum engineering company, which stated that those guidelines comply with the SEC regulations[1]. D&M has also stated that the Company guidelines provide reasonable interpretation of facts and circumstances in line with generally accepted practices in the industry whenever SEC rules may be less precise. When participating in exploration and production activities operated by others entities, Eni estimates its share of proved reserves on the basis of the above guidelines.

The process for estimating reserves, as described in the internal procedure, involves the following roles and responsibilities: (i) the business unit managers (geographic units) and Local Reserves Evaluators (LRE) are in charge with estimating and classifying gross reserves including assessing production profiles, capital expenditure, operating expenses and costs related to asset retirement obligations; (ii) the Petroleum Engineering department and the Operations unit at the head office verify the production profiles of such properties where significant changes have occurred and operating expenses, respectively; (iii) geographic area managers verify the commercial conditions and the progress of the projects; (iv) the Planning and Control Department provides the economic evaluation of reserves; and (v) the Reserves Department, through the Headquarter Reserves Evaluators (HRE), provides independent reviews of fairness and correctness of classifications carried out by the above mentioned units and aggregates worldwide reserves data.

The head of the Reserves Department attended the "Università degli Studi di Milano" and received a Physics Degree in 1988. He has more than 30 years of experience in the oil and gas industry and more than 20 years of experience in evaluating reserves.

Staff involved in the reserves evaluation process fulfils the professional qualifications requested by the role and complies with the required level of independence, objectivity and confidentiality in accordance with professional ethics. Reserves Evaluators qualifications comply with international standards defined by the Society of Petroleum Engineers.

RESERVES INDEPENDENT EVALUATION

Eni has requested qualified independent oil engineering companies to carry out an independent evaluation[2] of part of its proved reserves on a rotational basis. The description of qualifications of the persons primarily responsible for the reserves audit is included in the third party audit report[3]. In the preparation of their reports, independent evaluators rely, upon information furnished by Eni without independent verification, with respect to property interests, production, current costs of operations and development, sale agreements, prices and other factual information and data that were accepted as represented by the independent evaluators. These data, equally used by Eni in its internal process, include logs, directional surveys, core and PVT (Pressure Volume Temperature) analysis, maps, oil/gas/water production/injection data of wells, reservoir studies, technical analysis relevant to field performance, development plans, future capital and operating costs.

In order to calculate the net present value of Eni's equity reserves, actual prices applicable to hydrocarbon sales, price

(1) The reports of independent engineers are available on Eni website eni.com section Publications/Integrated Annual Report 2016.
(2) From 1991 to 2002, DeGolyer and MacNaughton; from 2003, also Ryder Scott. In 2018, the SGS Company also provided an independent certification.
(3) The reports of independent engineers are available on Eni website eni.com section Publications/Annual Report 2018.

adjustments required by applicable contractual arrangements and other pertinent information are provided by Eni to third party evaluators. In 2018 Ryder Scott Company, DeGolyer and MacNaughton and Societé Generale de Surveillance (SGS) provide an independent evaluation of approximately 26% of Eni's total proved reserves at December 31, 2018[4], confirming, as in previous years, the reasonableness of Eni internal evaluation[5]. In the 2016-2018 three-year period, 95% of Eni total proved reserves were subject to independent evaluation. As at December 31, 2018, the M'Boundi field in Congo was the main Eni property, which did not undergo an independent evaluation in the last three years.

MOVEMENTS IN NET PROVED RESERVES

Eni's net proved reserves were determined taking into account Eni's share of proved reserves of equity-accounted entities. Movements in Eni's 2018 proved reserves were as follows:

(mmboe)	Consolidated subsidiaries	Equity-accounted entities	Total
Estimated net proved reserves at December 31, 2017	**6,430**	**560**	**6,990**
Extensions, discoveries, revisions of previous estimates and improved recovery, excluding price effect	813	(102)	711
Price effect	(41)	3	(38)
Reserve additions, total	772	(99)	673
Portfolio	(196)	362	166
Production of the year	(650)	(26)	(676)
Estimated net proved reserves at December 31, 2018	**6,356**	**797**	**7,153**
Reserves replacement ratio, all sources %			**124**
Reserves replacement ratio, organic			**100**
Organic reserves replacement ratio, net of price effect			**105**

Net proved reserves as of December 31, 2018 were 7,153 mmboe, of which 6,356 mmboe of consolidated subsidiaries. Net additions to proved reserves were 673 mmboe and derived from: (i) extensions and discoveries were up by 169 mmboe mainly due to the final investment decisions made for the operated projects of Area 1 in offshore Mexico, Merakes in Indonesia and Argo and Cassiopea offshore Italy; (ii) revisions of previous estimates were up by 491 mmboe and derived from progress in development activities at the Zohr and Nidoco NW projects in Egypt and at the Kashagan project in Kazakhstan; and (iii) improved recovery were up by 13 mmboe mainly reported in particular in Egypt and Iraq. These increases were partly offset the de-booking of 106 mmboe of proved undeveloped reserves at a certain project driven by a deteriorating local operational environment.
Net additions were impacted by unfavorable price effects, leading to a downward revision of 38 mmboe, due to an increased Brent price used in the reserves estimation process up to 71.4 $/bbl in 2018 compared to 54.4 $/bbl in 2017.

Portfolio transactions of 166 mmboe comprised: (i) the purchase of interests in the Concessions Agreements of Lower Zakum and Umm Shaif and Nasr in Abu Dhabi; (ii) the business combination between Eni Norge AS and Point Resources AS; and (iii) the disposal of a 10% interest in the Zohr project to Mubadala Petroleum and other minor assets.
The organic reserves replacement ratio[6] was 100% and all sources additions was 124%. These ratios include the de-booking of proved undeveloped reserves at a certain project (down 15 percentage points of reserves replacement ratio).
The reserves life index was 10.6 years (10.5 years in 2017).

PROVED UNDEVELOPED RESERVES

Proved undeveloped reserves as of December 31, 2018 totalled 2,309 mmboe, of which 1,127 mmbbl of liquids mainly concentrated in Africa and Asia and 6,458 bcf of natural gas mainly located in Africa. Proved undeveloped reserves of consolidated subsidiaries amounted to 975 mmbbl of liquids and 6,121 bcf of natural gas. Movements in Eni's 2018 proved undeveloped reserves were as follows:

(mmboe)	
Proved undeveloped reserves as of December 31, 2017	**2,629**
Reclassification to proved developed reserves	(777)
Extensions and discoveries	166
Revisions of previous estimates	278
Improved recovery	6
Purchases of minerals in place	280
Sales of minerals in place	(273)
Proved undeveloped reserves as of December 31, 2018	**2,309**

(4) Includes Eni's share of proved reserves of equity accounted entities.
(5) The reports of independent engineers are available on Eni website eni.com section Publications/Annual Report 2018.
(6) Organic ratio of changes in proved reserves for the year resulting from revisions of previously reported reserves, improved recovery, extensions and discoveries, to production for the year. All sources ratio includes sales or purchases of minerals in place. A ratio higher than 100% indicates that more proved reserves were added than produced in a year. The Reserves Replacement Ratio is not an indicator of future production because the ultimate development and production of reserves is subject to a number of risks and uncertainties. These include the risks associated with the successful completion of large-scale projects, including addressing ongoing regulatory issues and completion of infrastructure, as well as changes in oil and gas prices, political risks and geological and environmental risks.

In 2018, total proved undeveloped reserves decreased by 320 mmboe mainly due to: (i) progress in maturing PUDs to proved developed (down by 777 mmboe); (ii) extensions and discoveries (up by 166 mmBOE) due to the final investment decision made for the Area 1 project offshore Mexico and the Merakes project in Indonesia; (iii) revisions of previous estimates (up by 278 mmboe) mainly reported in Egypt due to the development activity of the Zohr project and included the de-booking of 106 mmboe of proved undeveloped reserves at a certain project driven by a deteriorating local operational environment; (iv) improved recovery (up by 6 mmboe) in particular in Iraq; (v) sales of minerals-in-place (down by 273 mmboe) related to disposals in Egypt and other minor assets as described above; and (vi) purchase of minerals-in-place (up by 280 mmboe) related to Abu Dhabi transaction and the business combination in Norway as above mentioned.

During 2018, Eni matured 777 mmboe of proved undeveloped reserves to proved developed reserves due to progress in development activities, production start-ups and project revisions. The main reclassifications to proved developed reserves related to the following fields/projects: Zohr (Egypt), Kashagan (Kazakhstan), Bahr Essalam and Wafa (Libya) and Sankofa (Ghana).

In 2018, capital expenditures amounted to approximately €6.2 billion and was made to progress the development of proved undeveloped reserves.

Reserves that remain proved undeveloped for five or more years are a result of several factors that affect the timing of the projects development and execution, such as the complex nature of the development project in adverse and remote locations, physical limitations of infrastructures or plant capacity and contractual limitations that establish production levels. The Company estimates that approximately 0.6 bboe of proved undeveloped reserves have remained undeveloped for five years or more at the balance sheet date and decreased 0.4 bboe from 2017 due to the progress in development activities made in Kazakhstan, Iraq and Libya as well as the de-booking of of proved undeveloped reserves at a certain project driven by a deteriorating local operational environment. The proved undeveloped reserves that have remained undeveloped for five years or more at the balance sheet date mainly related to: (i) the Kashagan project in Kazakhstan (0.1 bboe) due to the completion of ongoing development activity (for further information see Main exploration and development projects - Kashagan); (ii) the Zubair field in Iraq (0.1 bboe), where development of PUDs has been conditioned by the drilling of additional production and injection wells to be linked to the production facilities, which were already completed to achieve the full field production plateau of 700 kbbl/d; and (iii) certain Libyan gas fields (0.4 bboe) where development completion and production start-ups are planned according to the delivery obligations set forth in a long-term gas supply agreements currently in force. In order to secure fulfillment of the contractual delivery quantities, Eni will implement phased production start-up from the relevant fields which are expected to be put in production over the next several years.

Estimated net proved hydrocarbons reserves

Consolidated subsidiaries	Liquids (mmbbl)	Natural gas (bcf)	Hydrocarbons (mmboe)	Liquids (mmbbl)	Natural gas (bcf)	Hydrocarbons (mmboe)	Liquids (mmbbl)	Natural gas (bcf)	Hydrocarbons (mmboe)
	2018			2017			2016		
Italy	**208**	**1,199**	**428**	**215**	**1,131**	**422**	**176**	**977**	**354**
Developed	*156*	*980*	*336*	*169*	*987*	*350*	*132*	*845*	*287*
Undeveloped	*52*	*219*	*92*	*46*	*144*	*72*	*44*	*132*	*67*
Rest of Europe	**48**	**320**	**106**	**360**	**896**	**525**	**264**	**878**	**426**
Developed	*44*	*300*	*99*	*219*	*771*	*360*	*228*	*801*	*374*
Undeveloped	*4*	*20*	*7*	*141*	*125*	*165*	*36*	*77*	*52*
North Africa	**493**	**2,890**	**1,022**	**476**	**3,145**	**1,052**	**454**	**3,738**	**1,139**
Developed	*317*	*1,447*	*582*	*306*	*1,233*	*532*	*287*	*1,732*	*605*
Undeveloped	*176*	*1,443*	*440*	*170*	*1,912*	*520*	*167*	*2,006*	*534*
Egypt	**279**	**5,275**	**1,246**	**280**	**4,351**	**1,078**	**281**	**5,520**	**1,293**
Developed	*153*	*3,331*	*764*	*203*	*1,421*	*463*	*205*	*799*	*352*
Undeveloped	*126*	*1,944*	*482*	*77*	*2,930*	*615*	*76*	*4,721*	*941*
Sub-Saharan Africa	**718**	**3,506**	**1,361**	**764**	**3,660**	**1,436**	**809**	**2,767**	**1,317**
Developed	*551*	*1,871*	*895*	*546*	*1,693*	*856*	*507*	*1,651*	*809*
Undeveloped	*167*	*1,635*	*466*	*218*	*1,967*	*580*	*302*	*1,116*	*508*
Kazakhstan	**704**	**1,989**	**1,066**	**766**	**2,108**	**1,150**	**767**	**2,485**	**1,221**
Developed	*587*	*1,846*	*925*	*547*	*1,878*	*891*	*556*	*2,239*	*966*
Undeveloped	*117*	*143*	*141*	*219*	*230*	*259*	*211*	*246*	*255*
Rest of Asia	**476**	**1,217**	**700**	**232**	**1,065**	**427**	**307**	**1,003**	**491**
Developed	*252*	*822*	*403*	*81*	*862*	*238*	*124*	*280*	*175*
Undeveloped	*224*	*395*	*297*	*151*	*203*	*189*	*183*	*723*	*316*
Americas	**252**	**277**	**302**	**162**	**225**	**203**	**163**	**353**	**227**
Developed	*143*	*154*	*170*	*144*	*171*	*176*	*143*	*338*	*205*
Undeveloped	*109*	*123*	*132*	*18*	*54*	*27*	*20*	*15*	*22*
Australia and Oceania	**5**	**651**	**125**	**7**	**709**	**137**	**9**	**741**	**145**
Developed	*5*	*452*	*87*	*5*	*519*	*101*	*8*	*559*	*111*
Undeveloped		*199*	*38*	*2*	*190*	*36*	*1*	*182*	*34*
Total consolidated subsidiaries	**3,183**	**17,324**	**6,356**	**3,262**	**17,290**	**6,430**	**3,230**	**18,462**	**6,613**
Developed	***2,208***	***11,203***	***4,261***	***2,220***	***9,535***	***3,967***	***2,190***	***9,244***	***3,884***
Undeveloped	***975***	***6,121***	***2,095***	***1,042***	***7,755***	***2,463***	***1,040***	***9,218***	***2,729***
Equity-accounted entities									
Rest of Europe	**297**	**360**	**363**						
Developed	*154*	*276*	*205*						
Undeveloped	*143*	*84*	*158*						
North Africa	**11**	**14**	**14**	**12**	**14**	**14**	**13**	**15**	**14**
Developed	*11*	*14*	*14*	*12*	*14*	*14*	*13*	*15*	*14*
Undeveloped									
Sub-Saharan Africa	**12**	**310**	**68**	**12**	**349**	**75**	**15**	**368**	**82**
Developed	*8*	*57*	*17*	*6*	*83*	*20*	*8*	*104*	*26*
Undeveloped	*4*	*253*	*51*	*6*	*266*	*55*	*7*	*264*	*56*
Rest of Asia						**1**		**4**	**2**
Developed						*1*		*4*	*2*
Undeveloped									
Americas	**37**	**1,716**	**352**	**136**	**1,819**	**470**	**140**	**3,484**	**779**
Developed	*32*	*1,716*	*347*	*25*	*1,819*	*359*	*22*	*1,782*	*349*
Undeveloped	*5*		*5*	*111*		*111*	*118*	*1,702*	*430*
Total equity-accounted entities	**357**	**2,400**	**797**	**160**	**2,182**	**560**	**168**	**3,871**	**877**
Developed	***205***	***2,063***	***583***	***43***	***1,916***	***394***	***43***	***1,905***	***391***
Undeveloped	***152***	***337***	***214***	***117***	***266***	***166***	***125***	***1,966***	***486***
Total including equity-accounted entities	**3,540**	**19,724**	**7,153**	**3,422**	**19,472**	**6,990**	**3,398**	**22,333**	**7,490**
Developed	***2,413***	***13,266***	***4,844***	***2,263***	***11,451***	***4,361***	***2,233***	***11,149***	***4,275***
Undeveloped	***1,127***	***6,458***	***2,309***	***1,159***	***8,021***	***2,629***	***1,165***	***11,184***	***3,215***

DELIVERY COMMITMENTS

Eni, through consolidated subsidiaries and equity-accounted entities, sells crude oil and natural gas from its producing operations under a variety of contractual obligations. Some of these contracts, mostly relating to natural gas, specify the delivery of fixed and determinable quantities.
Eni is contractually committed under existing contracts or agreements to deliver in the next three years mainly natural gas to third parties for a total of approximately 536 mmboe from producing assets located mainly in Algeria, Australia, Egypt, Ghana, Indonesia, Libya, Nigeria, Norway and Venezuela.

The sales contracts contain a mix of fixed and variable pricing formulas that are generally indexed to the market price for crude oil, natural gas or other petroleum products. Management believes it can satisfy these contracts from quantities available from production of the Company's proved developed reserves and supplies from third parties based on existing contracts. Production is expected to account for approximately 88% of delivery commitments.
Eni has met all contractual delivery commitments as of December 31, 2018.

OIL AND GAS PRODUCTION

In 2018, oil and natural gas production averaged 1,851 kboe/d, the highest level ever achieved. This performance was driven by ramp-ups at fields started up in 2017, mainly in Egypt, Indonesia, Angola, Congo and Ghana and the 2018 start-ups (with a total contribution of over 300 kboe/d), higher productions at the Kashagan field, Goliat field in Norway and Val d'Agri in Italy, as well as the acquisition of the two Concession Agreements Lower Zakum (5%) and Umm Shaif and Nasr (10%) producing offshore in the United Arab Emirates. These positives were partly offset by negative price effects at PSAs contracts, lower-than-expected produced gas volumes due to the impact of exogenous factors in certain Countries, the decline of mature fields as well as certain one-off events (termination of the Intisar contract in Libya and unplanned shutdowns).
When excluding price effects (down approximately 10 kboe/d), hydrocarbon production increased by 2.5% in the full year.

Liquids production amounted to 887 kbbl/d. The ramp-ups of the period and the acquisition in the United Arab Emirates were partly offset by price effects and mature field declines.
Natural gas production amounted to 5,261 mmcf/d. Production ramp-ups and start-ups were offset by exogenous factors in certain Countries
Oil and gas production sold amounted to 625 mmboe. The 50.6 mmboe difference over production (675.6 mmboe in 2018) mainly reflected volumes of hydrocarbons consumed in operations (43.5 mmboe), changes in inventory levels and other variations. Approximately 70% of liquids production sold (320 mmbbl) was destined to Eni's mid-downstream business. About 20% of natural gas production sold (1,665 bcf) was destined to Eni's Gas & Power segment.

Annual oil and natural gas production[a][b]

Consolidated subsidiaries	Liquids (mmbbl)	Natural gas (bcf)	Hydrocarbons (mmboe)	Liquids (mmbbl)	Natural gas (bcf)	Hydrocarbons (mmboe)	Liquids (mmbbl)	Natural gas (bcf)	Hydrocarbons (mmboe)
	2018			2017			2016		
Italy	**22**	**155**	**50**	**19**	**161**	**49**	**17**	**172**	**49**
Rest of Europe	**41**	**162**	**71**	**37**	**174**	**69**	**40**	**184**	**73**
Croatia		4	1		6	1		10	2
Norway	33	88	49	29	97	47	31	95	48
United Kingdom	8	70	21	8	71	21	9	79	23
North Africa	**56**	**474**	**144**	**58**	**640**	**175**	**60**	**584**	**167**
Algeria	24	38	31	25	43	33	28	43	36
Libya	31	431	111	32	592	140	31	536	129
Tunisia	1	5	2	1	5	2	1	5	2
Egypt	**28**	**445**	**110**	**26**	**315**	**84**	**28**	**218**	**68**
Sub-Saharan Africa	**89**	**185**	**123**	**90**	**162**	**119**	**91**	**170**	**122**
Angola	41	31	46	43	17	46	40	18	43
Congo	24	55	34	23	41	30	26	54	36
Ghana	5	7	7	3	1	3			
Nigeria	19	92	36	21	103	40	25	98	43
Kazakhstan	**35**	**97**	**52**	**30**	**96**	**48**	**24**	**93**	**41**
Rest of Asia	**28**	**202**	**65**	**20**	**126**	**43**	**28**	**90**	**45**
China	1		1	1		1	1		1
Indonesia	1	137	26	1	69	14	1	18	4
Iraq	10	14	13	15	7	16	23	7	25
Pakistan		39	7		48	9		63	12
Turkmenistan	2	10	4	3	2	3	3	2	3
United Arab Emirates	14	2	14						
Americas	**19**	**43**	**27**	**23**	**71**	**36**	**25**	**94**	**43**
Ecuador	4		4	4		4	4		4
Trinidad & Tobago		13	2		20	4		26	5
United States	15	30	21	19	51	28	21	68	34
Australia and Oceania	**1**	**42**	**8**	**1**	**38**	**8**	**1**	**42**	**8**
Australia	1	42	8	1	38	8	1	42	8
	319	**1,805**	**650**	**304**	**1,783**	**631**	**314**	**1,647**	**616**
Equity-accounted entities									
Angola	1	32	7	1	32	8		11	2
Indonesia				1	4	1	1	7	2
Tunisia	1	2	1	1	2	1	1	2	2
Venezuela	3	81	18	4	99	22	5	93	22
	5	**115**	**26**	**7**	**137**	**32**	**7**	**113**	**28**
Total	**324**	**1,920**	**676**	**311**	**1,920**	**663**	**321**	**1,760**	**644**

(a) Includes Eni's share of equity-accounted equities.
(b) Includes volumes of hydrocarbons consumed in operations (43.5, 35.2 and 32.1 mmboe in 2018, 2017 and 2016, respectively).

Daily oil and gas production[a][b]

Consolidated subsidiaries	Liquids (kbbl/d)	Natural gas (mmcf/d)	Hydrocarbons (kboe/d)	Liquids (kbbl/d)	Natural gas (mmcf/d)	Hydrocarbons (kboe/d)	Liquids (kbbl/d)	Natural gas (mmcf/d)	Hydrocarbons (kboe/d)
	2018			2017			2016		
Italy	**60**	**426.2**	**138**	**53**	**441.6**	**134**	**47**	**471.2**	**133**
Rest of Europe	**113**	**444.9**	**194**	**102**	**476.4**	**189**	**109**	**501.8**	**201**
Croatia		11.4	2		16.9	3		26.5	5
Norway	89	241.8	134	81	265.4	129	86	258.3	133
United Kingdom	24	191.7	58	21	194.1	57	23	217.0	63
North Africa	**154**	**1,299.1**	**392**	**158**	**1,753.0**	**479**	**165**	**1,594.8**	**458**
Algeria	65	105.5	85	68	117.2	90	77	115.5	98
Libya	86	1,180.3	302	87	1,623.1	384	84	1,464.8	353
Tunisia	3	13.3	5	3	12.7	5	4	14.5	7
Egypt	**77**	**1,218.5**	**300**	**72**	**862.7**	**230**	**76**	**597.4**	**185**
Sub-Saharan Africa	**244**	**505.4**	**337**	**247**	**444.3**	**327**	**247**	**464.3**	**333**
Angola	111	84.2	127	119	45.9	126	108	49.0	118
Congo	65	150.3	92	63	112.6	83	71	148.5	98
Ghana	15	19.3	18	8	2.7	9			
Nigeria	53	251.6	100	57	283.1	109	68	266.8	117
Kazakhstan	**94**	**265.2**	**143**	**83**	**263.7**	**132**	**65**	**254.0**	**111**
Rest of Asia	**77**	**550.7**	**177**	**53**	**345.9**	**116**	**78**	**245.8**	**123**
China	1		1	2	0.1	2	2		2
Indonesia	3	376.5	71	3	188.8	38	3	48.5	12
Iraq	28	36.7	34	40	19.6	43	64	19.2	67
Pakistan		106.1	20		131.5	24		172.1	32
Turkmenistan	6	27.2	11	8	5.9	9	9	6.0	10
United Arab Emirates	39	4.2	40						
Americas	**52**	**118.9**	**75**	**63**	**194.0**	**99**	**69**	**256.4**	**116**
Ecuador	12		12	12		12	10		10
Trinidad & Tobago		35.7	7		55.4	10		69.7	13
United States	40	83.2	56	51	138.6	77	59	186.7	93
Australia and Oceania	**2**	**114.3**	**23**	**2**	**105.0**	**22**	**3**	**113.9**	**24**
Australia	2	114.3	23	2	105.0	22	3	113.9	24
	873	**4,943.2**	**1,779**	**833**	**4,886.6**	**1,728**	**859**	**4,499.6**	**1,684**
Equity-accounted entities									
Angola	3	89.2	19	3	89.0	20	1	29.1	6
Indonesia		2.2	1	1	11.0	3	1	18.8	4
Tunisia	3	4.4	4	3	4.1	4	3	4.9	4
Venezuela	8	221.7	48	12	270.5	61	14	254.8	61
	14	**317.5**	**72**	**19**	**374.6**	**88**	**19**	**307.6**	**75**
Total	**887**	**5,260.7**	**1,851**	**852**	**5,261.2**	**1,816**	**878**	**4,807.2**	**1,759**

(a) Includes Eni's share of equity-accounted equities.
(b) Includes volumes of hydrocarbons consumed in operations (119,97 and 88 kboe/d in 2018, 2017 and 2016, respectively).

PRODUCTIVE WELLS

In 2018, oil and gas productive wells were 8,170 (2,836.6 of which represented Eni's share). In particular, oil productive wells were 6,640 (2,070.1 of which represented Eni's share); natural gas productive wells amounted to 1,530 (766.5 of which represented Eni's share). The following table shows the number of productive wells in the year indicated by the Group and its equity-accounted entities in accordance with the requirements of FASB Extractive Activities - Oil and Gas (Topic 932).

Productive oil and gas wells[a]

	2018			
	Oil wells		Natural gas wells	
(units)	Gross	Net	Gross	Net
Italy	202.0	157.0	479.0	415.9
Rest of Europe	477.0	86.5	135.0	65.3
North Africa	592.0	242.8	116.0	63.2
Egypt	1,194.0	508.3	147.0	48.3
Sub-Saharan Africa	2,747.0	550.4	181.0	23.0
Kazakhstan	200.0	55.1		
Rest of Asia	955.0	336.7	167.0	62.0
Americas	270.0	132.1	284.0	81.7
Australia and Oceania	3.0	1.2	21.0	7.1
	6,640.0	**2,070.1**	**1,530.0**	**766.5**

(a) Includes 1,445 gross (420.8 net) multiple completion wells (more than one producing into the same well bore). Productive wells are producing wells and wells capable of production. One or more completions in the same bore hole are counted as one well.

DRILLING ACTIVITIES

EXPLORATION ACTIVITIES

In 2018, a total of 24 new exploratory wells were drilled (15.6 of which represented Eni's share), as compared to 25 exploratory wells drilled in 2017 (15.9 of which represent Eni's share) and 16 exploratory wells drilled in 2016 (10.2 of which represented Eni's share).

The following tables show the number of net productive, dry and in progress exploratory wells in the years indicated by the Group and its equity-accounted entities in accordance with the requirements of FASB Extractive Activities - Oil and Gas (Topic 932). The overall commercial success rate was 62% (66% net to Eni) as compared to 60% (52% net to Eni) in 2017 and 50% (50% net to Eni) in 2016.

Exploratory Well Activity

	Net wells completed[a]						Wells in progress at Dec. 31[b]	
	2018		2017		2016		2018	
(units)	productive	dry[c]	productive	dry[c]	productive	dry[c]	gross	net
Italy	1.8					1.0	1.0	0.5
Rest of Europe		0.5	1.2	1.3	0.1	0.4	12.0	3.5
North Africa		0.5	0.5		0.5	1.0	8.0	7.0
Egypt	1.7	1.5	2.5	5.4	5.5	0.8	11.0	8.9
Sub-Saharan Africa	0.4		2.9	0.3	0.1	1.1	31.0	15.1
Kazakhstan							6.0	1.0
Rest of Asia	2.2	2.6				0.9	8.0	2.5
Americas	4.0		0.5			1.0	2.0	1.5
Australia and Oceania							1.0	0.3
	10.1	**5.1**	**7.6**	**7.0**	**6.2**	**6.2**	**80.0**	**40.3**

(a) Includes number of wells in Eni's share.
(b) Includes temporary suspended wells pending further evaluation.
(c) A dry well is an exploratory, development, or extension well that proves to be incapable of producing either oil or gas sufficient quantities to justify completion as an oil or gas well.

DEVELOPMENT ACTIVITIES

In 2018, a total of 209 development wells were drilled (80.2 of which represented Eni's share) as compared to 178 development wells drilled in 2017 (90.7 of which represented Eni's share) and 296 development wells drilled in 2016 (118.7 of which represented Eni's share).

The drilling of 38 development wells (10.6 of which represented Eni's share) is currently underway.

The following tables show the number of net productive, dry and in progress development wells in the years indicated by the Group and its equity-accounted entities in accordance with the requirements of FASB Extractive Activities - Oil and Gas (Topic 932).

Development Well Activity

	Net wells completed[a]						Wells in progress at Dec. 31	
	2018		2017		2016		2018	
(units)	productive	dry[b]	productive	dry[b]	productive	dry[b]	gross	net
Italy	3.0		2.6		4.0			
Rest of Europe	2.8	0.3	2.7	0.2	5.6		16.0	1.3
North Africa	9.6	0.5	5.1		6.2	0.7	3.0	1.4
Egypt	30.7		49.7	2.3	32.4	0.5	5.0	2.1
Sub-Saharan Africa	7.3	0.1	8.6		21.2	0.2	6.0	2.5
Kazakhstan	0.9		1.2		4.6		1.0	0.3
Rest of Asia	21.9		15.0	0.2	31.6	0.5	7.0	3.0
Americas	2.3		3.1		9.9	1.3		
Australia and Oceania	0.8							
	79.3	**0.9**	**88.0**	**2.7**	**115.5**	**3.2**	**38.0**	**10.6**

(a) Includes number of wells in Eni's share.
(b) A dry well is an exploratory, development, or extension well that proves to be incapable of producing either oil or gas sufficient quantities to justify completion as an oil or gas well.

ACREAGE

In 2018, Eni performed its operations in 43 Countries located in five continents. As of December 31, 2018, Eni's mineral right portfolio consisted of 902 exclusive or shared rights of exploration and development activities for a total acreage of 406,505 square kilometers net to Eni (414,918 square kilometers net to Eni as of December 31, 2017). Developed acreage was 28,386 square kilometers and undeveloped acreage was 378,119 square kilometers net to Eni.

In 2018, main changes derived from: (i) new leases mainly in the United Arab Emirates, Indonesia, Lebanon, Morocco, Mexico, Norway and the United States for a total acreage of approximately 31,000 square kilometers; (ii) the total relinquishment of licenses mainly in Australia, China, Egypt, Indonesia, Morocco, Pakistan, Russia, the United Kingdom and Ukraine covering an acreage of approximately 35,000 square kilometers; (iii) interest increase mainly in Angola and Ireland for a total acreage of approximately 2,000 square kilometers; and (iv) partial relinquishment in Cyprus, Gabon and Indonesia or interest reduction mainly in Egypt, Norway and Pakistan for approximately 6,400 square kilometers.

In October 2018, Eni submitted to the relevant Authorities of Portugal the documentation required for voluntary release of exploration concessions, with effective date as of January 31, 2019.

Oil and natural gas interests

	December 31, 2017	December 31, 2018						
	Total net acreage[a]	Number of interest	Gross developed acreage[a][b]	Gross undeveloped acreage[a]	Total gross acreage[a]	Net developed acreage[a][b]	Net undeveloped acreage[a]	Total net acreage[a]
EUROPE	**51,206**	**317**	**13,757**	**58,376**	**72,133**	**9,409**	**36,923**	**46,332**
Italy	**16,380**	**140**	**9,962**	**8,871**	**18,833**	**8,303**	**6,684**	**14,987**
Rest of Europe	**34,826**	**177**	**3,795**	**49,505**	**53,300**	**1,106**	**30,239**	**31,345**
Croatia	987							
Cyprus	17,967	6		22,790	22,790		17,111	17,111
Greenland	1,909	2		4,890	4,890		1,909	1,909
Montenegro	614	1		1,228	1,228		614	614
Norway	2,117	106	2,886	9,630	12,516	492	2,136	2,628
Portugal	3,182	3		4,547	4,547		3,182	3,182
United Kingdom	5,805	57	909	3,719	4,628	614	3,404	4,018
Other Countries	2,245	2		2,701	2,701		1,883	1,883
AFRICA	**161,981**	**261**	**46,263**	**258,232**	**304,495**	**11,844**	**153,855**	**165,699**
North Africa	**25,797**	**64**	**8,846**	**48,760**	**57,606**	**3,640**	**30,292**	**33,932**
Algeria	1,141	42	3,283	187	3,470	1,124	31	1,155
Libya	13,294	11	1,963	24,673	26,636	958	12,336	13,294
Morocco	9,804	1		23,900	23,900		17,925	17,925
Tunisia	1,558	10	3,600		3,600	1,558		1,558
Egypt	**9,192**	**53**	**5,423**	**10,480**	**15,903**	**2,018**	**3,230**	**5,248**
Sub-Saharan Africa	**126,992**	**144**	**31,994**	**198,992**	**230,986**	**6,186**	**120,333**	**126,519**
Angola	4,367	58	8,200	13,241	21,441	1,064	4,239	5,303
Congo	1,471	25	1,430	1,320	2,750	843	628	1,471
Gabon	5,283	4		4,107	4,107		4,107	4,107
Ghana	579	3	226	1,127	1,353	100	479	579
Ivory Coast	2,905	3		4,010	4,010		2,905	2,905
Kenya	43,948	6		50,677	50,677		43,948	43,948
Liberia	585							
Mozambique	978	6		3,911	3,911		978	978
Nigeria	7,370	34	22,138	8,631	30,769	4,179	3,543	7,722
South Africa	26,202	1		65,505	65,505		26,202	26,202
Other Countries	33,304	4		46,463	46,463		33,304	33,304
ASIA	**184,029**	**61**	**13,024**	**285,289**	**298,313**	**3,368**	**178,046**	**181,414**
Kazakhstan	**1,543**	**7**	**2,391**	**3,890**	**6,281**	**442**	**1,101**	**1,543**
Rest of Asia	**182,486**	**54**	**10,633**	**281,399**	**292,032**	**2,926**	**176,945**	**179,871**
China	7,154	7	77	5,215	5,292	13	5,215	5,228
India	5,244	1		13,110	13,110		5,244	5,244
Indonesia	22,889	13	2,943	27,230	30,173	1,198	22,571	23,769
Iraq	446	1	1,074		1,074	446		446
Lebanon		2		3,653	3,653		1,461	1,461
Myanmar	13,558	4		24,080	24,080		13,558	13,558
Oman	77,146	1		90,760	90,760		77,146	77,146
Pakistan	7,401	12	3,390	11,486	14,876	872	4,914	5,786
Russia	20,862	2		53,930	53,930		17,975	17,975
Timor Leste	1,230	1		1,538	1,538		1,230	1,230
Turkmenistan	180	1	200		200	180		180
United Arab Emirates		3	2,949	5,020	7,969	217	1,255	1,472
Vietnam	23,132	5		30,777	30,777		23,132	23,132
Other Countries	3,244	1		14,600	14,600		3,244	3,244
AMERICAS	**6,641**	**252**	**4,419**	**12,543**	**16,962**	**3,056**	**6,247**	**9,303**
Ecuador	1,985	1	1,985		1,985	1,985		1,985
Mexico	1,146	8		4,387	4,387		3,000	3,000
Trinidad & Tobago	66							
United States	1,052	230	1,173	1,949	3,122	574	1,617	2,191
Venezuela	1,066	6	1,261	1,543	2,804	497	569	1,066
Other Countries	1,326	7		4,664	4,664		1,061	1,061
AUSTRALIA AND OCEANIA	**11,061**	**11**	**1,140**	**4,611**	**5,751**	**709**	**3,048**	**3,757**
Australia	11,061	11	1,140	4,611	5,751	709	3,048	3,757
Total	**414,918**	**902**	**78,603**	**619,051**	**697,654**	**28,386**	**378,119**	**406,505**

(a) Square kilometers.
(b) Developed acreage refers to those leases in which at least a portion of the area is in production or encompasses proved developed reserves.

Main producing assets (Group share in %) and the year in which Eni started operations

ITALY		(1926)	Operated	**Adriatic and Ionian Sea**	Barbara (100%), Cervia/Arianna (100%), Annamaria (100%), Clara NW (51%), Luna (100%), Angela (100%), Hera Lacinia (100%) and Bonaccia (100%)
				Basilicata Region	Val d'Agri (60.77%)
				Sicily Region	Gela (100%), Tresauro (45%), Giaurone (100%), Fiumetto (100%), Prezioso (100%) and Bronte (100%)
REST OF EUROPE	**Norway**[a]	(1965)	Operated		Goliat (45.24%), Marulk (13.92%), Balder & Ringhorne (69.6%) and Ringhorne East (53.85%)
			Non-operated		Åsgard (10.31%), Kristin (5.74%), Heidrun (3.60%), Mikkel (10.37%), Tyrihans (4.32%), Morvin (20.88%), Great Ekofisk Area (8.62%), Boyla (13.92%), Brage (8.53%) and Snorre (0.7%)
	United Kingdom	(1964)	Operated		Liverpool Bay (100%) and Hewett Area (89.3%)
			Non-operated		Elgin/Franklin (21.87%), Glenelg (8%), J Block (33%), Jasmine (33%) and Jade (7%)
NORTH AFRICA	**Algeria**[b]	(1981)	Operated		Blocks 403a/d (from 65% to 100%), Block ROM North (35%), Blocks 401a/402a (55%), Block 403 (50%) and Block 405b (75%)
			Non-operated		Block 404 (12.25%) and Block 208 (12.25%)
	Libya[b]	(1959)	Non-operated	**Onshore contract areas**	Area A (former concession 82 - 50%), Area B (former concession 100/ Bu-Attifel and Block NC 125 - 50%), Area E (El Feel - 33.3%), Area F (Block 118 - 50%) and Area D (Block NC 169 - 50%)
				Offshore contract areas	Area C (Bouri - 50%) and Area D (Blocco NC 41 - 50%)
	Tunisia	(1961)	Operated		Maamoura (49%), Baraka (49%), Adam (25%), Oued Zar (50%), Djebel Grouz (50%), MLD (50%) and El Borma (50%)
EGYPT[b][c]		(1954)	Operated		Shorouk (Zohr - 50%), Nile Delta (Abu Madi West/Nidoco - 75%), Sinai (Belayim Land, Belayim Marine and Abu Rudeis - 100%), Melehia (76%), North Port Said (Port Fouad - 100%), Temsah (Tuna, Temsah and Denise - 50%), Baltim (50%), Ras Qattara (El Faras e Zarif - 75%), West Abu Gharadig (Raml - 45%), Ashrafi (50%) and North Razzak (100%)
			Non-operated		Ras el Barr (Ha'py and Seth - 50%) and South Ghara (25%)
SUB-SAHARAN AFRICA	**Angola**	(1980)	Operated		Block 15/06 (36.84%)
			Non-operated		Block 0 (9.8%), Development Areas in the Block 3 and 3/05-A (12%), Development Areas in the Block 14 (20%), Lianzi Development Area in the Block 14 K/A IMI (10%) and Development Areas in the Block 15 (20%)
	Congo	(1968)	Operated		Nené Marine (65%), Litchendjili (65%), Zatchi (55.25%), Loango (42.5%), Ikalou (100%), Djambala (50%), Foukanda (58%), Mwafi (58%), Kitina (52%), Awa Paloukou (90%), M'Boundi (82%), Kouakouala (74.25%), Zingali (100%) and Loufika (100%)
			Non-operated		Pointe-Noire Grand Fond (35%) and Likouala (35%)
	Ghana	(2009)	Operated		Offshore Cape Three Points (44.44%)
	Nigeria	(1962)	Operated		OMLs 60, 61, 62 and 63 (20%), OML 125 (100%) and OPL 245 (50%)
			Non-operated[d]		OML 118 (12.5%) and OML 116 service contract
KAZAKHSTAN[b]		(1992)	Non-operated[e]		Karachaganak (29.25%)
			Non-operated		Kashagan (16.81%)
REST OF ASIA	**Indonesia**	(2001)	Operated		Jangkrik (55%)
	Iraq	(2009)	Operated[f]		Zubair (41.6%)
	Pakistan	(2000)	Operated		Bhit/Bhadra (40%) and Kadanwari (18.42%)
			Non-operated		Latif (33.3%), Zamzama (17.75%) and Sawan (23.7%)
	Turkmenistan	(2008)	Operated		Burun (90%)
	United Arab Emirates	(2018)	Non-operated		Lower Zakum (5%) and Umm Shaif and Nasr (10%)
AMERICAS	**United States**	(1968)	Operated	**Gulf of Mexico**	Allegheny (100%), Appaloosa (100%), Pegasus (85%), Longhorn (75%), Devils Towers (75%) and Triton (75%)
				Alaska	Nikaitchuq (100%)
			Non-operated	**Gulf of Mexico**	Europa (32%), Medusa (25%), Lucius (8.5%), K2 (13.4%), Frontrunner (37.5%) and Heidelberg (12.5%)
				Alaska	Oooguruk (30%)
				Texas	Alliance area (27.5%)
	Venezuela	(1998)	Non-operated		Perla (50%), Corocoro (26%) and Junín 5 (40%)

(a) Assets held by the Vår Energi equity-accounted entities (Eni's interest 69.6%).
(b) In certain extractive initiatives, Eni and the host Country agree to assign the operatorship of a given initiative to an incorporated joint venture, a so-called operating company. The operating company in its capacity as the operator is responsible of managing extractive operations. Those operating companies are not controlled by Eni.
(c) Eni's working interests (and not participating interests) are reported. Those include Eni's share of costs incurred on behalf of the first party accordingly to the terms of PSAs inforce in the Country.
(d) As partners of SPDC JV, Eni holds a 5% interest in 17 onshore blocks and in 1 conventional offshore block and with a 12.86% in 2 conventional offshore blocks.
(e) Eni and Shell are co-operators.
(f) Eni is leading a consortium of partners including international companies and the national oil company Missan Oil.

MAIN EXPLORATION AND DEVELOPMENT PROJECTS

Eni's exploration and production activities are conducted in many Countries and are therefore subject to a broad range of legislation and regulations. These cover virtually all aspects of exploration and production activities, including matters such as license acquisition, production rates, royalties, pricing, environmental protection, export, taxes and foreign exchange. The terms and condition of the leases, licenses and contracts under which these Oil & Gas interests are held vary from Country to Country. These leases, licenses and contracts are generally granted by or entered into with a government entity or state company and are sometimes entered into with private property owners. These contractual arrangements usually take the form of concession agreements or production sharing agreements:

Concessions contracts. Eni operates under concession contracts mainly in Western Countries. Concessions contracts regulate relationships between States and oil companies with regards to hydrocarbon exploration and production activity. Contractual clauses governing mineral concessions, licenses and exploration permits regulate the access of Eni to hydrocarbon reserves. The company holding the mining concession has an exclusive right on exploration, development and production activities, sustaining all the operational risks and costs related to the exploration and development activities, and it is entitled to the productions realized. As a compensation for mineral concessions, pays royalties on production (which may be in cash or in-kind) and taxes on oil revenues to the state in accordance with local tax legislation. Both exploration and production licenses are granted generally for a specified period of time (except for production licenses in the United States which remain in effect until production ceases): the term of Eni's licenses and the extent to which these licenses may be renewed vary by area. Proved reserves to which Eni is entitled are determined by applying Eni's share of production to total proved reserves of the contractual area, in respect of the duration of the relevant mineral right.

Production Sharing Agreement (PSA). Eni operates under PSA in several of the foreign jurisdictions mainly in African, Middle Eastern, Far Eastern Countries. The mineral right is awarded to the national oil company jointly with the foreign oil company that has an exclusive right to perform exploration, development and production activities and can enter into agreements with other local or international entities. In this type of contract, the national oil company assigns to the international contractor the task of performing exploration and production with the contractor's equipment (technologies) and financial resources. Exploration risks are borne by the contractor and production is divided into two portions: "Cost Oil" is used to recover costs borne by the contractor and "Profit Oil" is divided between the contractor and the national company according to variable schemes and represents the profit deriving from exploration and production. Further terms and conditions of these contracts may vary from Country to Country. Pursuant to these contracts, Eni is entitled to a portion of a field's reserves, the sale of which is intended to cover expenditures incurred by the Company to develop and operate the field. The Company's share of production volumes and reserves representing the Profit Oil includes the share of hydrocarbons which corresponds to the taxes to be paid, according to the contractual agreement, by the national government on behalf of the Company. As a consequence, the Company has to recognize at the same time an increase in the taxable profit, through the increase of the revenues, and a tax expense. Proved reserves to which Eni is entitled under PSAs are calculated so that the sale of production entitlements should cover expenses incurred by the Group to develop a field (Cost Oil) and recognize the Profit Oil set contractually (Profit Oil). A similar scheme applies to some service contracts.

ITALY

Development activities in the Adriatic offshore concerned: (i) maintenance and production optimization; and (ii) within the agreement with the Municipality of Ravenna, planned activities in the field of the environmental protection projects.

In addition, during the first half of 2018, as planned, school-work alternation projects and first-level apprenticeship were completed.

In the Val d'Agri concession (Eni operator with a 60.77% interest) a digital transformation program of the Viggiano Oil Center was launched. Leveraging on the digital technologies developed by Eni, the project plans to upgrade and increase monitoring processes of plant and environmental safety in site the to improve operational performance.

During the year, five projects were completed, reaching a total of 35 projects of the 42 planned projects as part of the 2014 Addendum to the agreement memorandum with the Basilicata Region, which provides environmental and social initiatives as well as sustainable development programs.

In the first half of the year, as planned, school-work alternation projects and first-level apprenticeship were completed.

Activities defined by the Gas Agreement progressed with a grant to support the energy consumption in the Municipalities of Val d'Agri and for energy efficiency programs.

Following the Memorandum of Understanding for the Gela area, signed with the Ministry of Economic Development in November 2014, the Argo and Cassiopea offshore (Eni's interest 60%) development projects progressed.

The optimized project, to reduce significantly the environmental impact, provides the transportation of natural gas produced by offshore wells through a pipeline to a new onshore treatment and compression plant, that will be realized in certain reclaimed area of the Gela Refinery.

In addition, within the framework of sustainable local development programs defined by Memorandum of Understanding and in agreement with the Municipality of Gela and the Sicily Region were: (i) school-work alternation projects, first-level apprenticeship, programs to reduce school drop-out as well as university scholarship progressed; and (ii) signed an agreement for the project "Safety food in Gela" to support vulnerable groups through a public-private partnership between Eni, the Municipality of Gela and the Rete del Banco Alimentare NGO.

REST OF EUROPE

Norway In December 2018 it was finalized the business combination between Point Resources AS and Eni Norge AS, fully-owned by HitecVision and Eni respectively, with the creation of Vår Energi AS, an equity-accounted joint venture. The exchange rate of shares was established so that Eni and the Point Reources shareholders would retain participation interests of 69.6% and 30.4% respectively, in the combined entity. The governance of the new entity is designed to establish joint control of the two shareholders over the combined entity.

The transaction intends to strengthen Eni's operational structure in the Country and the increase/diversification of the asset portfolios which will ensure a production growth higher than the current portfolio.
The combined entity will be a leading Norwegian exploration & production company, built on the existing organizations and leveraging on complementary strengths.
The portfolio of the combined company will have 17 producing oil and gas field with a wide geographical reach, from the Barents Sea to the North Sea, thanks to the entry of new assets, including the fields in production of Balder & Ringhorne (Eni's interest 69.6%), Ringhorne East (Eni's interest 53.85%), Boyla (Eni's interest 13.92%), Brage (Eni's interest 8.53%) and Snorre (Eni's interest 0.7%).
The company will have reserves and resources of more than 1,250 mmboe. Production is expected to achieve 250 kboe/d in 2023 after developing more than 500 mmboe in ten existing assets, with a breakeven price of less than 30 $/bbl.
In total, the company plans to invest more than $8 billion over the next five years to bring these projects on stream, revitalize older fields and explore for new resources.
Finally, Eni will retain a first offer right in case the Norwegian private equity funds, managed by HitecVision, decide to divest their interest in the venture.
In 2019 Vår Energi awarded 13 exploration licenses: (i) the operatorship of two licenses in the North Sea and of two licenses in the Barents Sea; and (ii) the interest of five licenses in the North Sea and of four licenses in the Norway Sea.
Exploration activities yielded positive results with: (i) delineation well of the Cape Vulture oil and gas discovery in the PL 128/128D license (Eni's interest 8%), nearby to the production facilities of the Norne field (Eni's interest 4.8%). The results of the well confirm the commerciality of the discovery with recoverable volumes between 50 and 70 million boe; (ii) new oil discovery in the PL 532 license (Eni's interest 20.88%). The well is located nearby to the Johan Castberg developing project in the area and Eni estimates the resources in place of oil and gas to be between 50 and 60 million boe; (iii) the Goliat West oil well in the PL 229 license (Eni's interest 45.24%), increasing the estimated reserves of the Goliat production field; and (iv) an oil and gas discovery in the PL 869 which is participated by Vår Energi AS with a 20% interest.
Development activities concerned: (i) the Trestakk project (Eni's interest 5,5%), with start-up expected in 2019 and a production of 4 million boe net to Eni; and (ii) the Johan Castberg development project which was sanctioned in June 2018. Start-up is expected in 2022.

NORTH AFRICA

Algeria In April 2018, Eni signed a framework agreement with Sonatrach to revamp exploration and development program in the Berkine area and to continue a collaboration in the R&D sector. In particular: (i) in July 2018 defined an agreement for upgrading existing facilities of the BRN fields in the Block 403 (Eni operator with a 50% interest) and of the MLE fields in the Block 405b (Eni operator with a 75% interest) leveraging on synergies with the new forthcoming facilities. The agreement also includes the construction of a pipeline to link the BRN fields with MLE assets, targeting to transform the area in a gas hub; and (ii) in October 2018 signed an agreement to assign to Eni a 49% interest in the Sif Fatima II, Zemlet El Arbi and Ourhoud II concessions, in the North Berkine basin. Management plans an exploration campaign and fast-track development of the estimated reserves of 75 mmboe net to Eni. The production start-up is planned in the third quarter of 2019 leveraging on the completion of the BRN-MLE pipeline that will link the BRN associated gas as well as associated gas and condensates of the Berkine North development project to the MLE treatment facilities.
In addition, Eni and Total signed two partnership agreements for an exploration campaign in the offshore Algeria. In particular, in December 2018, two exploration permits were assigned to launch a seismic data acquisition in 2019.
Development activities concerned: (i) production optimization at the ROM North (Eni's interest 35%) and ROD (Eni's interest 55%) operated fields as well as in the non-operated Block 404 (Eni's interest 12.25%); (ii) drilling activities in the Block 405b at the CAFC Oil and MLE projects, as well as upgrading activity of existing treatment facilities; and (iii) progress in the development program of the El Merk field in the Block 208 (Eni's interest 12.25%) with the drilling of production and water injection wells.

Libya In 2018, Eni finalized an agreement with NOC oil state company and BP to award a 42.5% interest and the operatorship in the BP contractual areas, in particular in the onshore areas A and B and in the offshore area C. The agreement provides for a revamp exploration and development activities in the Country leveraging on Eni's facilities existing in the areas. In addition, the agreement strengthens the partnership in the social development initiatives through implementation of education and training programs.
During the year, development activities concerned: (i) production start-up of the Bahr Essalam Phase 2 offshore project (Eni's interest 50%) where the planned activities progressed and the completion is expected in the second quarter of 2019. The development plan provided for drilling ten wells, out of which seven were completed and started up in 2018, as well as upgrading the existing facilities to increase production capacity; (ii) upgrading of gas treatment plants at the Mellitah area (Eni's interest 50%) and Sabratha platform (Eni's interest 50%); and (iii) production optimization plan in the Wafa field (Eni's interest 50%). The activity provided for drilling additional wells and the construction of new compression units. In particular, the infilling wells campaign started in 2018: a first gas well was completed in November 2018 and a second one in March 2019. The project is expected to be completed in 2019.
Following the Memorandum of Understanding signed in 2017 to promote health and education initiatives of local communities, two starting programs were defined: (i) support to the local Health Authorities, in particular with a renovation program of the hospital in the Jalo area, technical assistance and medical training initiatives; and (ii) the construction of a pipeline for the desalination plant in the Zuara area to provide drinking water to local communities.
In 2018, Eni signed a Memorandum of Understanding with the GECOL national power company and NOC oil state company that includes the start-up of a rehabilitation project for power plants to support access to energy for local communities. In addition, other Eni's programs to support local communities progressed. In particular: (i) initiatives in the field of health, water and access to energy nearby to the Bu-Attifel (Eni's interest 50%) and the El Feel (Eni's interest 33.3%) production areas; (ii) health and oil & gas training program; and (iii) renovation and construction of facilities for social purposes as well as drugs supplies.

EGYPT

In February 2019, Eni was awarded two onshore exploration blocks: (i) a 100% interest in the South East Siwa block in the western desert nearby to the South West Meleiha concession (Eni's interest 100%); and (ii) the operatorship with a 50% interest in the West Sherbean block in the onshore Nile Delta nearby to the operated Nooros producing fields (Eni's interest 75%). In case of exploration success, the development activities will benefit from the existing facilities.
Exploration activities yielded positive results with: (i) the Faramid-S1X gas well in the East Obayed concession (Eni's interest 100%); (ii) the A-2X and B1-X oil discoveries and the A-1X gas and condensates discovery in the South West Meleiha concession; and (iii) the Nour-1 gas well in the Nour exploration license.
In June 2018, Eni completed the disposal of a 10% interest of the Zohr project (Eni's interest 50%) to Mubadala Petroleum, for a cash consideration of $934 million.
In August 2018, Egyptian Authority approved the following agreements: (i) Eni was awarded an 85% interest in the Nour exploration license in the eastern offshore Nile Delta. In December 2018, Eni divested a 20% and 25% interest of Nour license to Mubadala Petroleum and BP, respectively. Currently Eni holds 40% interest; (ii) ten years extension from 2021 of the Nile Delta concession (Eni's interest 75%) which includes Abu Madi West concession with Nooros producing field; (iii) an extension of exploration campaign in the El Qar'a permit (Enis' interest 75%), which is located in the Great Nooros sizeable producing area; (iv) five years extension of the Ras Qattara concession (Eni's interest 75%) in the western desert; and (v) an extension of the Faramid development lease (Enis' interest 100%).
In September 2018, one-year earlier than scheduled, the Zohr project achieved the targeted production plateau of 365 kboe/d (110 kboe/d net to Eni) with the completion of the drilling activities and the construction and commisioning of the planned four gas treatment units onshore in addition to the one started at the end of 2017, which increased available treatment capacity to more than 2.1 bcf/d. Management plans to step up the production plateau to 3.2 bcf/d during 2019 by building and commissioning other three gas treatment units and by drilling three additional production wells to reach 13 production wells.
As of December 31, 2018, the aggregate development costs incurred by Eni for the Zohr project capitalized in the financial statements amounted to $4.3 billion (€3.8 billion at the EUR/USD exchange rate of December 31, 2018). The capital expenditures of the four-year plan for the production ramp-up at the Zohr field will be financed with the operating cash-flow at the Eni Brent marker scenario.
As of December 31, 2018, Eni's proved reserves booked for the Zohr field amounted to 782 mmboe.
Development activities concerned: (i) the Baltim South West project (Eni operator with a 55% interest) in the offshore of the Country. The project sanctioned in 2018 and start-up is expected during 2019; (ii) the completion and start-up of two additional productive wells of the Nooros field (Eni operator with a 75% interest) and the construction of a pipeline for transporting gas to the treatment plan of El Gamil. The completion of the activities is expected in 2019; and (iii) infilling activities and production optimization in the operated Sinai (Eni's interest 100%), Meleiha (Eni's interest 76%) and Ras Qattara (Eni's interest 75%) concessions. In particular, the water reinjection project is completed in the Sinai area, achieving the zero water discharge.
Within the social responsibility initiatives are currently being implemented the programs defined by the MoU signed in 2017. The agreement, which integrates the development activities of the Zohr project, defines two action programs, to be implemented in four years. The first included the renovation of the El Garabaa hospital, located nearby the Zohr onshore production facilities and the supply of necessary medical equipment. The planned activities were completed in May 2018. The second project, for an overall expense of $20 million, includes certain socio-economic and health programs to support local communities in the Zohr and Port Said areas. The program defined with the stakeholders and the the local Authorities three main areas: (i) aquaculture and fisheries, in particular the construction of a fish district. The activities started up during 2018; (ii) health care projects. A first project was defined in agreement with the Ministry of Health and includes the construction of a Primary Health Care Center which will provide health services to approximately 60,000 people in the Port Said area. The completion is expected in 2019. In addition, the project provides for the construction of the identified facilities and also further initiatives of health training and prevention; and (iii) programs to support youth, in particular the construction of a youth center with completion expected in 2019.

SUB-SAHARAN AFRICA

Angola Exploration activities yielded positive results with: (i) the Kalimba and Afoxé oil discoveries in the East Hub project area in the Block 15/06 (Eni operator with a 36.84% interest) with an estimated resources of 400-500 mmbbl of oil in place; and (ii) the Agogo oil discovery in the West Hub project area in the Block 15/06 with an estimated resources of 450-650 mmbbl of oil in place.
The development of the discoveries will leverage on synergies with existing facilities.
In November 2018, Eni signed an amendment of the Block 15/06 PSA contract that defines an additional exploration acreage in the western area of the block. The agreement confirms Eni's near-field strategy for a fast-track development of exploration successes leveraging on existing production facilities.
Development activities mainly concerned the two producing projects in the Block 15/06. In particular, activity of the West Hub project included: (i) production ramp-up of the Ochigufu field was achieved with a production plateau of 25 kbbl/d; and (ii) production start-up of the Vandumbu field. In the East Hub project development activities concerned: (i) production start-up of UM8 field with the linkage to existing FPSO in the area; (ii) upgrading of certain production facilities; and (iii) the Cabaça North & Cabaça South-East UM4/5 projects were sanctioned; the development plan provides for the drilling of three productive wells, two water injection wells and the connection to the existing production facilities in the area. Start-up is expected in 2021.
Planned drilling activities were completed at the Mafumeira Sul producing field in the Block 0 (Eni's interest 9.8%).
Eni also continues its commitment to support socio-economic development in the southern region of the Country, in Huila and Namibe area. In particular, activities progressed with: (i) access to energy from renewable sources and to water; (ii) health initiatives through awareness projects of local communities, staff training programs, energy supplies for the Health Centers and Hospitals, also in the Luanda area; and (iii) scholarship programs.
In 2018 activities concerned: (i) start-up of initiatives to support the agricultural development by means of the training centers; (ii) mine

removal programs of certain areas to increase safety, to guarantee land for agricultural use and to improve resilience and stability of the local communities; and (iii) the "Luanda refinery reliability improvement and gasoline production" project. The activities include the development of specific solutions to improve the reliability of the Luanda refinery, to increase the fuel production through the installation of new production units, processes optimization and staff training. During the year a first unplanned maintenance was performed and the training program started.

Congo Development activity carried out in 2018 was related to: (i) the Nené Marine Phase 2A producing project in the Marine XII block (Eni operator with a 65% interest) with the completion of drilling activities and the installation of a sealine for the connection to the Litchendjili field production platform in the Marine XII block; (ii) the completion of engineering activities of the Nené Marine Phase 2B project. The project was sanctioned in December 2018; (iii) activities to increase the power generation of the CEC plant (Eni's interest 20%) up to 170 MW. Additional gas supply will be ensured by the production of the Marine XII block; and (iv) the water reinjection project of the Loango (Eni's interest 42.5%) and Zatchi (Eni's interest 55.25%) operated production fields.
The activities of the second phase of the Project Integrated Hinda (PIH) progressed, aiming to improve life condition of local communities. The project includes several initiatives to support socio-economic development, access to water, access to energy, education and health service. In particular, in 2018, the programs concerned: (i) the completion of the CATREP agricultural development project with a training program of 14 agricultural cooperatives, that was supported also by the World Food Program; (ii) renovation and construction of multicultural centers; (iii) scholarship programs, in particular in the Pointe Noire area through the supply of educational material and renovation initiatives; and (iv) programs to strengthen the Primary Health Care services at the Health Centers and others operating in the area, in particular in the maternal and child sphere. In addition, the construction of a training and research center on renewable energy progressed in Oyo, in the north of the Country.

Ghana In 2018, the non-associated gas production started up at the operated Offshore Cape Three Points (OCTP) project (Eni's interest 44.44%). The gas production is sent to an onshore treatment plant to feed the national grid.
The OCTP project is the only non-associated gas development project in deep water entirely dedicated to the domestic market in Sub-Saharan Africa. This project will ensure at least 15 years of reliable gas supply with an affordable price, significantly supporting the access to energy and economic development of the Country. The project has been developed in compliance with the highest environmental requirements, zero gas flaring and produced water reinjection.
Eni progressed its commitment to improve the living condition of local communities, with training, economic diversification, acces to water and health services initiatives. In 2018, primary education, waste management and access to water projects started up in the western area of the Country. In particular, a well was drilled and a treatment and purification water-system was completed to supply water for approximately 5,000 people located in the Bakanta, Krisan and Sanzule communities.
Within the partnership with United Nations Development Programme, certain activities are being designed to reduce the CO_2 emissions in the medium-term by means of combating deforestation, access to energy and energy efficiency programs.

Mozambique In October 2018, Eni signed the contract for the exploration and development rights of the offshore block A5-A, in the deep offshore of Zambesi. Eni was awarded the operatorship of the block with a 59.5% interest.
In March 2019, Eni signed a farm out agreement with Qatar Petroleum to divest a 25.5% interest in the block A5-A. The transaction is subjected by approval of the relevant Authority.
The development activities of the Area 4 (Eni's interest 25%) in the offshore Mozambique concerned the Coral field, operated by Eni, and the Mamba Complex discoveries where Eni operates upstream development phase and Exxon Mobil lead the construction and operation of natural gas liquefaction facilities onshore.
Development activities of the Coral South project provide for the installation of a floating unit for the treatment, liquefaction and storage of natural gas (FLNG) with a capacity of approximately 3.4 mmtonnes/y fed by 6 subsea wells and start-up expected in 2022. The LNG produced will be sold by Eni and its partners in Area 4 (CNPC and Exxon Mobil via the Mozambique Rovuma Venture SpA operating company and others) to BP under a long-term contract for a period of twenty years with an additional ten years' option.
Within the Mamba Complex discoveries, the Rovuma LNG project provides for the development of the straddling reserves of Area 1 according to its independent industrial plan, coordinated with the operator of Area 1 (Andarko). The development project will include also a part of non-straddling reserves. The project provides the construction of two onshore LNG trains with capacity of approximately 7.6 mmtonnes/y each, feed by 24 subsea wells, the gas treatment, the liquefaction, the storage and the export of LNG.
In July 2018, the plan of development (PoD) was submitted to the relevant Authorities for their initial review. The activities progressed with the finalization of the PoD, of preliminary long-term agreements for the purchase of LNG volumes and the project financing. The Final Investment Decision (FID) is expected in 2019 with start-up in 2024.
In 2018 , Eni's programs to support the local communities of the Country progressed with, in partcicular: (i) the scholarship programs in Pemba, also by means of ordinary and extraordinary schools maintenance activities and training initiatives also with an oil & gas training programs; and (ii) health care initiatives, coordinated with the Country's health Authorities, in the Maputo, Pemba and Palma area, by means of specific initiatives on prevention, facilities constructions and medical equipment supplies, particularly in the Cabo Delgado area.

Nigeria Exploration activities yielded positive results with the EPU-05 deep offshore gas discovery in the Gbaran-Kolo Creek-Epu (Eni's interest 5%) area.
Development activities mainly included: (i) workover and rigless activities to support current production as well as maintenance and restoration of damaged facilities due to sabotage and bunkering in the operated OML 60, 61, 62 and 63 blocks (Eni's interest 20%); (ii) the completion of the water injection project of the Ebocha field in the OML 61 block, achieving a produced water reinjection capacity of approximately 30 kbbl/day; (iii) the phase 2 activities of Okpai

plant to double the installed power capacity in the OML 60 block; (iv) drilling activities to increase production and workover activities to mitigate mature field decline in the OML 118 block (Eni's interest 12.5%) and in the operated OML 125 block in the Abo field (Eni's interest 100%); and (v) associated gas program of Forkados Yokri Integrated Project in the OML 43 block (Eni's interest 5%) as well as Gbaran phase 2A/2B and SSAGS project in the OML 28 block (Eni's interest 5%). Gas production will be sold to the local market.
In February 2018, Eni signed with the Food and Agriculture Organization (FAO) a collaboration agreement to foster access to safe and clean water in Nigeria, mainly in the north-east areas, by drilling boreholes powered with photovoltaic systems, both for domestic use and irrigation purposes.
Eni's programs to support local communities progressed with: (i) acces to energy and to water initiatives; (ii) economic programs for diversification purposes, in particular with the Green River Project; (iii) professional training and scholarship programs; and (iv) renovation and construction of health centers and supply of medical equipment.
Eni holds a 10.4% interest in the Nigeria LNG Ltd joint venture, which runs the Bonny gas liquefaction plant located in the Eastern Niger Delta. The plant is operational, with a treatment capacity of approximately 1,236 bcf/y of feed gas and a production capacity of 22 mmtonnes/y of LNG.
Natural gas supplies to the plant are currently provided under a gas supply agreements from the SPDC JV (Eni's interest 5%), TEPNG JV and the NAOC JV (Eni's interest 20%). In 2018, the Bonny liquefaction plant processed approximately 1,130 bcf.
LNG production is sold under long-term contracts and exported to the United States, Asian and European markets by the Bonny Gas Transport fleet, wholly owned by Nigeria LNG.

KAZAKHSTAN

Kashagan In 2019, Experimental Program development of the Kashagan field (Eni's interest 16.81%) is expected to lead to plateau oil production capacity of about 370 kbbl/d, on a 100% basis. Additional phases of development are being studied, which contemplate increasing gas injection capacity, the conversion of production wells into injection wells and the upgrading of the existing facilities.
Within the agreements with local Authorities, training program progressed for Kazakh resources in the Oil & Gas sector, in addition to the realization of infrastructures with social purpose.
As of December 31, 2018, the aggregate costs incurred by Eni for the Kashagan project capitalized in the financial statements amounted to $9.9 billion (€8.6 billion at the EUR/USD exchange rate of December 31, 2018). This capitalized amount included: (i) $7.3 billion relating to expenditure incurred by Eni for the development of the oil field; and (ii) $2.6 billion relating primarily to accrued finance charges and expenditures for the acquisition of interests in the Consortium from exiting partners upon exercise of pre-emption rights in previous years.
As of December 31, 2018, Eni's proved reserves booked for the Kashagan field amounted to 614 mmboe, slightly decreased from 2017.

Karachaganak Within the gas treatment expansion projects of the Karachaganak field (Eni's interest 29.25%), the Karachaganak Process Center Debottlenecking project was sanctioned. Activities progressed with completion expected in 2020. Additional reinjection capacity will be ensured by installing a new reinjection facility in addition to the existing ones.
Eni continues its commitment to support local communities in the nearby area of the Karachaganak field. In particular, activities focused on: (i) professional training; and (ii) realization of kindergartens and schools, maintenance of bridges and roads, construction of sport centers.
As of December 31, 2018, Eni's proved reserves booked for the Karachaganak field amounted to 452 mmboe, reporting a decrease of 78 mmboe from 2017 mainly due to an increased marker Brent price used in the reserves estimation process.

REST OF ASIA

Indonesia Exploration activities yielded positive results with the Merakes East discovery in the operated East Sepinggan block (Eni's interest 85%).
In May 2018, Eni was awarded a 100% interest in the East Ganal exploration block in the deep offshore Kutei area nearby to the operated Muara Bakau block (Eni's interest 55%).
In 2018, within the portfolio rationalization, Eni divested entire interest in the Sanga Sanga permit.
Development activities concerned the offshore Merakes gas project in the operated East Sepinggan block. In December 2018, the development plan was sanctioned by the relevant Authorities. The project provides for the drilling of five subsea wells, which will be linked to the Floating Production Unit (FPU) of the Jangkrik producing field (Eni operator with a 55% interest). Natural gas production is processed by the FPU and then delivered by pipeline to the onshore plant, which is linked to the East Kalimantan transport system to feed Bontang liquefaction plant or will be sold on a spot basis in the domestic market. Start-up is expected in 2020.
Ongoing initiatives and projects progressed in the field of environmental protection, health care and educational system to support local communities located in the operated areas of the Eastern Kalimantan, Papua and North Sumatra.
In 2018, the following programs were launched: (i) to promote access to energy and to water for the local communities; and (ii) training agricultural activities. In addition, health initiatives were defined.

United Arab Emirates In 2018, assets acquisition campaign was launched by Eni targeting to expand footprint in the Country. In particular, the following acquisitions of exploration and production assets in Abu Dhabi were finalized: (i) in March 2018, Eni signed two Concession Agreements related to the acquisition of a 5% participating interest in the Lower Zakum oil field and a 10% participating interest in the Umm Shaif and Nasr oil, condensates and natural gas fields, in the offshore of Abu Dhabi, for a consideration of $875 million with duration of 40 years; (ii) in November 2018, Eni was awarded a 25% interest of the Ghasha offshore concession with duration of 40 years. The concession includes Hail, Ghasha, Dalma gas fields and certain offshore fields in the Al Dhafra area. Production start-up is expected in 2022; and (iii) in January 2019, Eni was awarded the operatorship of the Block 1 and 2 with a 70% interest, located offshore Abu Dhabi. The exploration commitment for the first phase consists in exploration studies for the Block 1 and the drilling of two exploration wells and two appraisal wells in the Block 2.
In January 2019 Eni was awarded three onshore exploration concessions in the Emirate of Sharjah: (i) the operatorship with a 75% interest in the concession Area A and C; and (ii) a 50% interest in the concession Area B. The exploration commitment of the first phase

includes the drilling of one exploration well and exploration studies in concessions Area A and B as well as exploration studies in Area C.

AMERICAS

Mexico In 2018, Eni signed the following agreements: (i) with the Lukoil company to swap interest in three exploration licenses. In particular, the agreement provides for Eni divests its 20% interest in Area 10 (Eni's interest 100%) and Area 14 (Eni's interest 60%) licenses and purchases a 40% interest in Area 12 license operated by Lukoil; and (ii) to divest its 35% interest of the Area 1 (Eni's interest 100%) to Qatar Petroleum Company.
The agreements are subject to approval by the relevant Authorities.
Furthermore, in 2018, Eni was awarded the operatorship with a 65% interest of the Area 24 license and with 75% of the Area 28 license.
In July 2018, the plan of development for the Amoca, Mitzón and Tecoalli discoveries, located in the Area 1, was approved by the Mexican Authorithies. The phased approach for the development plan includes an early production start-up in 2019 through the installation of a production platform and the realization of facilities to connect the platform to an onshore existing treatment plant, with a production of 8 kbbl/d. The full field development envisages a phased installation of three additional platforms and a FPSO, which will increase the production capacity up to 90 kbbl/d in 2021.
In 2018, certain initiatives to support local communities were implemented and held events with local stakeholders nearby to the license areas in development of Area 1. In addition, the first Local Development Plan was finalized, in agreement with the local Authorities, concerning the future programs to support the communities.

United States In August 2018, Eni was awarded a 100% interest of 124 licenses in Alaska. The licenses are located in the the Eastern North Slope of Alaska, a high mineral potential area, nearby to the existing production facilities.
In December 2018, Eni signed an agreement to purchase of a 70% interest and the operatorship of the Ooooguruk field, where Eni already holds 30% stake. The agreement has been finalized in 2019.
Development activities concerned the Lucius Subsequent Development project (Eni's interest 8.5%) with the drilling and completion of three submarine productive wells, which will be linked to the production platform of the Lucius field and upgrading of existing facilities.

CAPITAL EXPENDITURE

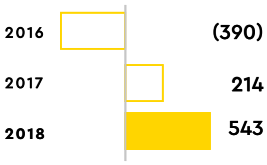
Capital expenditure of the Exploration & Production segment (€7,901 million) concerned mainly development of oil and gas reserves (€6,506 million) directed mainly outside Italy, in particular in Egypt, Ghana, Norway, Libya, Nigeria, Congo and Iraq. Development expenditure in Italy in particular concerned sidetrack and workover activities in mature fields.
Acquisition of proved and unproved properties of €869 million concerned the entry bonuses in the Concession Agreement of the Lower Zakum and Umm Shaif and Nasr producing fields as well as in the Ghasha offshore concession, in the United Arab Emirates.
Exploration expenditure (€463 million) concerned mainly the United States, Egypt, Mexico, the United Arab Emirates and Indonesia.
In 2018 overall expenditure in R&D amounted to €96 million (€83 million in 2017). A total of 10 new patents applications were filed.

Capital expenditure

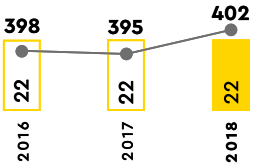
(€ million)	2018	2017	2016	Change	% Ch.
Acquisition of proved and unproved properties	**869**	**5**	**2**	**864**	**..**
Egypt			2		
Sub-Saharan Africa		5		(5)	..
Rest of Asia	869			869	..
Exploration	**463**	**442**	**417**	**21**	**4.8**
Italy	1	5		(4)	(80.0)
Rest of Europe	52	186	11	(134)	(72.0)
North Africa	20	55	42	(35)	(63.6)
Egypt	80	70	270	10	14.3
Sub-Saharan Africa	22	25	30	(3)	(12.0)
Kazakhstan		3		(3)	(100.0)
Rest of Asia	140	20	57	120	..
Americas	146	76	7	70	92.1
Australia and Oceania	2	2			
Development	**6,506**	**7,236**	**7,770**	**(730)**	**(10.1)**
Italy	380	260	407	120	46.2
Rest of Europe	600	399	590	201	50.4
North Africa	525	626	747	(101)	(16.1)
Egypt	2,205	3,030	1,700	(825)	(27.2)
Sub-Saharan Africa	1,635	1,852	2,176	(217)	(11.7)
Kazakhstan	193	197	707	(4)	(2.0)
Rest of Asia	550	666	1,213	(116)	(17.4)
Americas	381	195	220	186	95.4
Australia and Oceania	37	11	10	26	..
Other expenditure	**63**	**56**	**65**	**7**	**12.5**
TOTAL	**7,901**	**7,739**	**8,254**	**162**	**2.1**

GAS & POWER

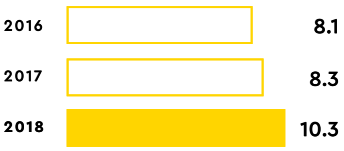
ADJUSTED OPERATING PROFIT
€ million



POWER PLANTS GHG EMISSIONS
GHG emissions/kWheq ($gCO_2eq/KWheq$)
Electricity produced (TWh)



LNG SALES
bcm



Performance of the year

- In 2018, the total recordable injury rate (TRIR) amounted to 0.56, increasing by 51.4% compared to 2017, as result of the higher number of accidents (+2 events) registered among the contractors, partly offset by the better performance in the employees.
- The greenhouse gas emissions (GHG) reported an improved performance, approximately 2%, due to lower power generation (down by 3.6% vs. 2017).
- GHG emissions/kWheq relating to electricity production slightly increased by 1.8% compared to the previous year due to the higher consumption of refinery gas in place of natural gas at the Ferrera Erbognone site.
- In 2018, the Gas & Power segment reported an adjusted operating profit of €543 million, more than doubled compared to 2017 following the restructuring of all business lines, in particular the growth in LNG sales, power optimizations and reduction of gas logistic costs, supported by a scenario which allowed to enhance the flexibility of the portfolio assets.
- Eni worldwide gas sales amounted to 76.71 bcm, down by 4.12 bcm or 5.1% compared to 2017. Eni's sales in Italy (39.03 bcm) increased by 4% compared to 2017.
- Electricity sales recorded an increase of 5% (up by 1.74 TWh) compared to 2017, due to higher volumes sold to the Italian power exchange.
- Capital expenditure amounting to €215 million mainly related the gas marketing activities and the power business.

Agreements for the purchase of LNG volumes

In order to strengthen the integration with upstream business Eni, obtained from the partners of Area 4 joint venture, long-term agreements for the purchase of LNG volumes. For more details see the "Mozambique" section in the Exploration & Production segment.

LNG CONTRACTED VOLUMES
8.8 MTPA
+70% vs. 2017

ELECTRICITY SOLD
37.07 TWh
+4.9% vs. 2017

GAS SALES IN ITALY
39.03 bcm
+4.3% vs. 2017

RETAIL CUSTOMERS IN ITALY AND EUROPE
9.2 million

Energy efficiency services

In January 2019, Eni through the subsidiary Eni gas e luce SpA, completed the acquisition of the controlling interest of SEA SpA, an energy service company operating in the field of services and solutions for energy efficiency. This transaction confirmed the strategy aiming to strengthen Eni's presence in the energy efficiency services market, through the growth of commercial offer with integrated and innovative solutions, mainly focused on the industrial segment and apartment buildings.

Portfolio optimization in Europe

Completed the sale of gas distribution activities in Hungary with a distribution network of about 33,700 kilometers and 1.2 million of delivery points. In July 2018, in line with the planned portfolio rationalization, Eni acquired the further 51% interest, reaching to 100% of the company "Gas Supply Company Thessaloniki-Thessalia SA", gas and electricity supplier in the retail market in Greece, with approximately 300,000 customers. In March 2018, the subsidiary Adriaplin finalized the acquisition of 100% of the company Mestni Plinovodi, which managed gas distribution and commercialization in 11 municipalities located in the central-north and north-eastern part of Slovenia. In May, Mestni Plinovodi was incorporated into Adriaplin to make fully operational the synergies between the two companies.

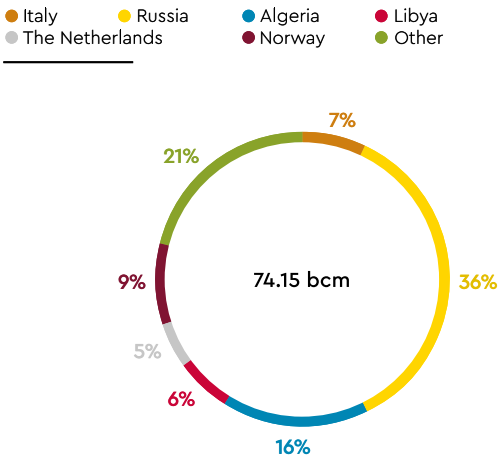
Eni operates in a liberalized market where energy customers are allowed to choose the gas supplier and, according to their specific needs, to evaluate the quality of services and offers. Overall Eni supplies 9.2 million retail customers in Italy and Europe. In particular, clients located all over Italy are 7.7 million.
In a trading environment characterized by a still decreasing demand (down by 3% in the Italian market compared to the previous year and down by 2% in the European Union) and characterized by a raised competitive pressure, Eni carried out a number of initiatives, – such as renegotiation of supply contracts, efficiency and optimization actions – in order to consolidate the business profitability in a weak demand scenario (for further information on the European scenario, see chapter on "Risk factors" below).

NATURAL GAS

SUPPLY OF NATURAL GAS

In 2018, Eni's consolidated subsidiaries supplied 74.15 bcm of natural gas, down by 4.13 bcm or by 5.3% from the full year 2017. Gas volumes supplied outside Italy from consolidated subsidiaries (68.82 bcm), imported in Italy or sold outside Italy, represented approximately 93% of total supplies, decreased by 4.41 bcm or by 6% from the full year 2017. This mainly reflected lower volumes purchased in Russia (down by 1.85 bcm), in the Netherlands (down by 1.25 bcm), in Algeria (down by 1.16 bcm) and in Norway (down by 0.73 bcm), partly offset by higher purchases in Indonesia (up by 2.32 bcm) driven by higher availabilty of gas volumes from upstream productions and in Qatar (up by 0.20 bcm).
Supplies in Italy (5.33 bcm) increased by 5.5% from the full year 2017 due to higher supplied gas volumes from equity production.

SUPPLIES OF ENI'S CONSOLIDATED SUBSIDIARIES



Supply of natural gas

(bcm)	2018	2017	2016	Change	% Ch.
Italy	**5.33**	**5.05**	**6.00**	**0.28**	**5.5**
Russia	26.24	28.09	27.99	(1.85)	(6.6)
Algeria (including LNG)	12.02	13.18	12.90	(1.16)	(8.8)
Libya	4.55	4.76	4.87	(0.21)	(4.4)
Netherlands	3.95	5.20	9.60	(1.25)	(24.0)
Norway	6.75	7.48	8.18	(0.73)	(9.8)
United Kingdom	2.21	2.36	2.08	(0.15)	(6.4)
Indonesia (LNG)	3.06	0.74		2.32	..
Qatar (LNG)	2.56	2.36	3.28	0.20	8.5
Other supplies of natural gas	5.52	6.75	5.83	(1.23)	(18.2)
Other supplies of LNG	1.96	2.31	1.91	(0.35)	(15.2)
OUTSIDE ITALY	**68.82**	**73.23**	**76.64**	**(4.41)**	**(6.0)**
TOTAL SUPPLIES OF ENI'S CONSOLIDATED SUBSIDIARIES	**74.15**	**78.28**	**82.64**	**(4.13)**	**(5.3)**
Offtake from (input to) storage	0.08	0.31	1.40	(0.23)	(74.2)
Network losses, measurement differences and other changes	(0.18)	(0.45)	(0.21)	0.27	60.0
AVAILABLE FOR SALE BY ENI'S CONSOLIDATED SUBSIDIARIES	**74.05**	**78.14**	**83.83**	**(4.09)**	**(5.2)**
Available for sale by Eni's affiliates	**2.66**	**2.69**	**2.48**	**(0.03)**	**(1.1)**
TOTAL AVAILABLE FOR SALE	**76.71**	**80.83**	**86.31**	**(4.12)**	**(5.1)**

In 2018, main gas volumes from equity production derived from: (i) Italian gas fields (3.9 bcm); (ii) certain Eni fields located in the British and Norwegian sections of the North Sea (2.6 bcm); (iii) Indonesia (1.6 bcm); (iv) Libyan fields (1.4 bcm); and (v) the United States (0.3 bcm). Supplied gas volumes from equity production were approximately 9.9 bcm representing 13% of total volumes available for sale.

SALES OF NATURAL GAS

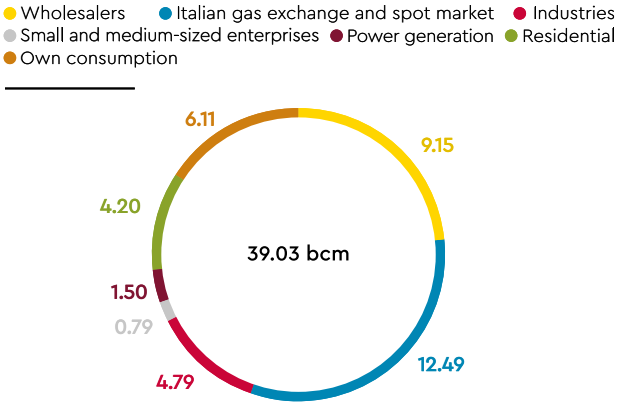
In a 2018 scenario characterized by a raised competitive pressure and a decrease in demand, natural gas sales amounted to 76.71 bcm (including Eni's own consumption, Eni's share of sales made by equity-accounted entities), down by 4.12 bcm or 5.1% from the previous year.

Gas sales by entity

(bcm)	2018	2017	2016	Change	% Ch.
Total sales of subsidiaries	**73.70**	**77.52**	**83.34**	**(3.82)**	**(4.9)**
Italy (including own consumption)	39.03	37.43	38.43	1.60	4.3
Rest of Europe	27.58	36.10	40.52	(8.52)	(23.6)
Outside Europe	7.09	3.99	4.39	3.10	77.7
Total sales of affiliates (net to Eni)	**3.01**	**3.31**	**2.97**	**(0.30)**	**(9.1)**
Rest of Europe	1.84	2.13	1.91	(0.29)	(13.6)
Outside Europe	1.17	1.18	1.06	(0.01)	(0.8)
WORLDWIDE GAS SALES	**76.71**	**80.83**	**86.31**	**(4.12)**	**(5.1)**

Sales in Italy (39.03 bcm) increased by 4.3% from the full year 2017 mainly driven by higher sales to spot market and volumes sold to wholesalers and industrial segment, partly offset by lower sales to thermoelectrical and residential segment. Sales to importers in Italy (3.42 bcm) decreased by 12.1% from the full year 2017 due to the lower availability of Libyan gas.
Sales in the European markets amounted to 26 bcm, a decrease of 24.3% or 8.34 bcm from the full year 2017. Sales in the Extra European markets increased by 3.09 bcm or 59.8% from the full year 2017, due to higher LNG sales in Japan, Pakistan, China and Taiwan, partly offset by lower volumes sold in South Korea and India.

GAS SALES IN ITALY



Gas sales by market

(bcm)	2018	2017	2016	Change	% Ch.
ITALY	**39.03**	**37.43**	**38.43**	**1.60**	**4.3**
Wholesalers	9.15	8.36	7.93	0.79	9.4
Italian gas exchange and spot markets	12.49	10.81	12.98	1.68	15.5
Industries	4.79	4.42	4.54	0.37	8.4
Small and medium-sized enterprises and services	0.79	0.93	1.72	(0.14)	(15.1)
Power generation	1.50	2.22	0.77	(0.72)	(32.4)
Residential	4.20	4.51	4.39	(0.31)	(6.9)
Own consumption	6.11	6.18	6.10	(0.07)	(1.1)
INTERNATIONAL SALES	**37.68**	**43.40**	**47.88**	**(5.72)**	**(13.2)**
Rest of Europe	**29.42**	**38.23**	**42.43**	**(8.81)**	**(23.0)**
Importers in Italy	3.42	3.89	4.37	(0.47)	(12.1)
European markets:	26.00	34.34	38.06	(8.34)	(24.3)
Iberian Peninsula	*4.65*	*5.06*	*5.28*	*(0.41)*	*(8.1)*
Germany/Austria	*1.83*	*6.95*	*7.81*	*(5.12)*	*(73.7)*
Benelux	*5.29*	*5.06*	*7.03*	*0.23*	*4.5*
Hungary			*0.93*		
UK	*2.22*	*2.21*	*2.01*	*0.01*	*0.5*
Turkey	*6.53*	*8.03*	*6.55*	*(1.50)*	*(18.7)*
France	*4.95*	*6.38*	*7.42*	*(1.43)*	*(22.4)*
Other	*0.53*	*0.65*	*1.03*	*(0.12)*	*(18.5)*
Extra European markets	**8.26**	**5.17**	**5.45**	**3.09**	**59.8**
WORLDWIDE GAS SALES	**76.71**	**80.83**	**86.31**	**(4.12)**	**(5.1)**

LNG

(bcm)	2018	2017	2016	Change	% Ch.
Europe	4.7	5.2	5.2	(0.5)	(9.6)
Outside Europe	5.6	3.1	2.9	2.5	80.6
TOTAL LNG SALES	**10.3**	**8.3**	**8.1**	**2.0**	**24.1**

In 2018, LNG sales (10.3 bcm, included in the worldwide gas sales) increased from the full year 2017 (up by 24.1%) and mainly concerned LNG supplied from Indonesia, Qatar, Nigeria, Oman and Algeria and marketed in Europe, China, Japan, Pakistan and Taiwan.

POWER

Availability of electricity

Eni's power generation sites are located in Ferrera Erbognone, Ravenna, Mantova, Brindisi, Ferrara and Bolgiano. As of December 31, 2018, installed operational capacity of EniPower's power plants was 4.7 GW. In 2018, thermoelectric power generation was 21.62 TWh, down by 0.8 TWh or by 3.6% from 2017. Electricity trading (15.45 TWh) reported an increase of 19.7% thanks to the optimization of inflows and outflows of power.

Power sales

In 2018, power sales of 37.07 TWh increased by 4.9% from the full year 2017 and were directed to the free market (70%), the Italian power exchange (19%), industrial sites (10%) and other (1%). Compared to 2017, power sales marketed in the free market decreased by 0.62 TWh or by 2.3%, due to lower volumes sold to large customers (down by 2.38 TWh), middle market (down by 1.45 TWh) and small and medium-sized enterprises (down by 0.20 TWh) partly offset by higher volumes sold to wholesalers segment (up by 3.39 TWh).

		2018	2017	2016	Change	% Ch.
Purchases of natural gas	(mmcm)	4,300	4,359	4,334	(59)	(1.4)
Purchases of other fuels	(ktoe)	356	392	360	(36)	(9.2)
Power generation	(TWh)	21.62	22.42	21.78	(0.80)	(3.6)
Steam	(ktonnes)	7,919	7,551	7,974	368	4.9

AVAILABILITY OF ELECTRICITY

(TWh)	2018	2017	2016	Change	% Ch.
Power generation	21.62	22.42	21.78	(0.80)	(3.6)
Trading of electricity[a]	15.45	12.91	15.27	2.54	19.7
Total availability	**37.07**	**35.33**	**37.05**	**1.74**	**4.9**
Free market	25.91	26.53	27.49	(0.62)	(2.3)
Italian Exchange for electricity	7.17	5.21	5.64	1.96	37.6
Industrial plants	3.49	3.01	3.11	0.48	15.9
Other[a]	0.50	0.58	0.81	(0.08)	(13.8)
Power sales	**37.07**	**35.33**	**37.05**	**1.74**	**4.9**

(a) Includes positive and negative imbalances (difference between the electricity effectively fed-in and as scheduled).

CAPITAL EXPENDITURE

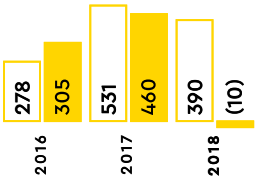
In 2018, capital expenditure amounted to €215 million, mainly related to gas marketing initiatives (€161 million) and to the maintenance, flexibility and upgrading initiatives of combined cycle power plants (€46 million).

Capital Expenditure

(€ million)	2018	2017	2016	Change	% Ch.
Marketing	**207**	**138**	**110**	**69**	**50.0**
Marketing	161	102	69	59	57.8
Italy	*93*	*63*	*32*	*30*	*47.6*
Outside Italy	*68*	*39*	*37*	*29*	*74.4*
Power generation	46	36	41	10	27.8
International transport	**8**	**4**	**10**	**4**	**100.0**
Total of capital expenditure	**215**	**142**	**120**	**73**	**51.4**
of which:					
Italy	*139*	*99*	*73*	*40*	*40.4*
Outside Italy	*76*	*43*	*47*	*33*	*76.7*

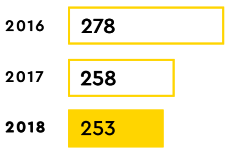
REFINING & MARKETING AND CHEMICALS

ADJUSTED OPERATING PROFIT
€ million
○ Adjusted operating profit Refining & Marketing
● Adjusted operating profit Chemicals



REFINING BREAKEVEN MARGIN AND SERM
$/barrel
○ Refining Breakeven Margin
● Standard Eni Refining Margin (SERM)

GHG EMISSIONS/ REFINING THROUGHPUTS
tons CO_2eq/kt



Performance of the year

- In 2018, the total recordable injury rate (TRIR) confirms Eni's commitment in the field of health and security with a decrease by 9.7% compared to 2017, with both employees and contractors contribution (down by 12.5% and 10.1%, respectively).
- Greenhouse gas emissions (GHG) reported an increase of 4.7% in absolute terms following higher volumes processed.
- Energy efficiency projects contributed to a 2.1% decrease in GHG emissions related to refining throughputs.
- In 2018, the Refining & Marketing and Chemicals segment reported an adjusted operating profit of €380 million, down by €611 million, or 62% from 2017.
  The Refining & Marketing business reported an adjusted operating profit of €390 million (down by 27%), consistent with an unfavorable refining trading environment (SERM down by 26%). This result was also affected by increased standstills, partly offset by the improved performance in marketing activities driven by the effective commercial initiatives.
  The Chemical business was negatively affected by rising costs of oil-based feedstock in the first ten months of the year and by a sharp decrease in polyethylene prices during the fourth quarter, thus reporting an adjusted operating loss of €10 million from the adjusted operating profit of €460 million reported in 2017.
- Breakeven refining margin at the budget scenario of exchange rates and oil spreads was 3 $/barrel, in line with the guidance.
- In 2018, Eni's refining throughputs amounted to 23.23 mmtonnes, lower y-o-y (down by 3.3%) due to lower throughputs at the Taranto plant, reflecting higher crude oil volumes processed on behalf of third parties, at the Milazzo refinery due to maintenance standstills and at the Bayernoil refinery following an event occurred in September. These negatives were partially offset by higher volumes processed at the Sannazzaro and Livorno refineries, with the latter affected in 2017 by a shutdown due to a force majeure event.
- Production of biofuels from vegetable oil at the Venice green refinery amounted to 0.25 mmtonnes, up by 4.2% compared 2017.
- Retail sales in Italy were 5.91 mmtonnes, slightly decreased by 1.7% from 2017.
- Retail sales in the rest of Europe (2.48 mmtonnes) were down by 2% compared to the previous year, mainly due to lower volumes traded in Germany, due to the event occurred at Bayernoil refinery and in France.
- Sales of petrochemical products in Europe amounted to 4.94 mmtonnes, recording an increase of 6.3% y-o-y, due to higher intermediates sale volumes.
- Capital expenditure of €877 million mainly related to refining activities.

GREEN REFINERY THROUGHPUTS
+4 % vs. 2017
at 0.25 mmtonnes

AVERAGE REFINERY PLANT UTILIZATION RATE
91 %
90% in 2017

PRODUCTION OF PETROCHEMICAL PRODUCTS
9,483 ktonnes
+6% vs. 2017

AVERAGE PETROCHEMICAL PLANT UTILIZATION RATE
76 %
73% in 2017

Acquisition of new refining capacity in the Middle East

In January 2019, Eni signed a Share Purchase Agreement with Abu Dhabi National Oil Company (ADNOC) for the acquisition of a 20% interest in the ADNOC Refining company, one of the top worldwide in terms of refining capacity (with an overall capacity of more than 900 kbbl/d). Additionally, the agreement includes the creation of a joint venture engaged in oil products trading activities, participated by Eni with a 20% interest, ADNOC with a 65% interest and Österreichische Mineralölverwaltung (OMV) with a 15% interest.
The total consideration of the deal amounts to $3.3 billion, net of acquired debt and possible price adjustments at the closing date.
The transaction is subject to the approval by the relevant authorities.
The transaction is in line with Eni's strategy finalized to geographical diversification and value chain integration.
Eni, with its expertise, will provide support to the technological development of the three refineries operated by ADNOC Refining, located in Ruwais and Abu Dhabi areas. The agreement, one of the most remarkable transaction finalized in the refining sector, increased downstream capacity by 35% and is expected to halve the breakeven refining margin to 1.5 $/barrel in the long term.

Agreements to support circular economy

As part of its commitment in circular economy, Eni launched a number of partnerships with some Italian municipalities, Vatican City and multi-utility companies operating in waste treatment and local public transport (in Taranto, Turin, Venice, Rome and in some municipalities of Emilia Romagna) for the exploitation of civil waste and organic raw materials by using them as feedstock to produce energy resources like biofuels. These partnerships aim to promote the use of Eni Diesel + in local public transport, in order to reduce GHG emissions, thanks to a 15% renewable component, and to establish a network for collecting non-edible feedstock, such as used cooking oil and other waste of biological origin, for the subsequent transformation into biofuel at the Eni biorefineries in Venice and in Gela, with the latter starting from 2019.

Green chemicals development

Eni continues to be focused on its commitment in the development of green chemicals based on use of renewable resources through the acquisition of activities in the segment of green chemicals of the Mossi & Ghisolfi Group, finalized at the year-end. In particular, the new assets will allow the valorization of biomass.
Development activities also include the re-launch of the international licensing of a proprietary technology to produce second generation bio-ethanol, to meet the growing demand and sustainability criteria required for bio-fuels.

Partnerships

Signed a partnership between Versalis and Italian producers to establish a supply chain aimed at recycling synthetic grass from sports fields.
Versalis and SABIC, a company active in the reactors segment, signed an agreement to develop an innovative technology for natural gas conversion into synthesis gas to be further transformed into high value fuels and chemicals (such as methanol).

New elastomers unit

In September 2018, started up a new plant in Ferrara for the production of high value products which will mainly supply the automotive industry. The project, that consolidates the presence of Eni in the territory, will increase overall production capacity, to update elastomer products portfolio and to increase employment.

Chemical international development

As a part of Eni's commitment in the chemical international development, was signed an agreement with Mazrui Energy Service, a leading service company in the Oil & Gas industry in the Middle East, to establish a joint venture for the marketing of innovative chemicals. The partnership with Mazrui will enable to enhance the Versalis know-how and proprietary technologies and to compete against major players in the market.

REFINING & MARKETING

SUPPLY AND TRADING

In 2018, were purchased 22.62 mmtonnes of crude (24.28 mmtonnes in 2017), of which 4.14 mmtonnes by equity crude oil, 10.01 mmtonnes on the spot market and 8.47 mmtonnes by producer's Countries with term contracts.

The breakdown by geographic area was as follows: 36% of purchased crude came from the Middle East, 18% from Russia, 14% from Italy, 13% from Central Asia, 10% from North Africa, 3% from West Africa, 2% from North Sea and 4% from other areas.

Purchases

(mmtonnes)	2018	2017	2016	Change	% Ch.
Equity crude oil	4.14	3.51	3.43	0.63	17.9
Other crude oil	18.48	20.77	19.92	(2.29)	(11.0)
Total crude oil purchases	**22.62**	**24.28**	**23.35**	**(1.66)**	**(6.8)**
Purchases of intermediate products	0.65	0.96	1.35	(0.31)	(32.3)
Purchases of products	11.55	10.92	11.20	0.63	5.8
TOTAL PURCHASES	**34.82**	**36.16**	**35.90**	**(1.34)**	**(3.7)**
Consumption for power generation	(0.35)	(0.34)	(0.37)	(0.01)	(2.9)
Other changes[a]	(1.27)	(1.76)	(1.92)	0.49	27.8
TOTAL AVAILABILITY	**33.20**	**34.06**	**33.61**	**(0.86)**	**(2.5)**

(a) Include change in inventories, decrease due to transportation, consumption and losses.

REFINING

In 2018, Eni's refining throughputs in Europe were 23.23 mmtonnes, decreased by 3.3% from 2017 due to the lower throughputs at the Taranto plant, reflecting higher crude oil volumes processed on behalf of third parties maintenance standstills at the Milazzo refinery, and at the Bayernoil refinery following an event occurred in September. These negatives were partially offset by the better performance at the Sannazzaro and Livorno refineries, with the latter affected in 2017 by a shutdown due to a force majeure event. In Italy, the decrease of refinery throughputs (down by 2.2%) was due to the above mentioned drivers. The volumes of biofuels produced from vegetable oil at the Venice green refinery increased by 4.2% from 2017. Outside Italy, Eni's refining throughputs were 2.55 mmtonnes, down by approximately 320 ktonnes or 11.1% due to the downtime of the Bayernoil refinery in September. Total throughputs in wholly-owned refineries were 16.78 mmtonnes, up by 0.75 mmtonnes or 4.7% compared to 2017.

The refinery utilization rate, ratio between throughputs and refinery capacity, is 91%.

Approximately 18.3% of processed crude was supplied by Eni's Exploration & Production segment, increased from 2017 (15.2%).

Availability of refined products

(mmtonnes)	2018	2017	2016	Change	% Ch.
ITALY					
At wholly-owned refineries	16.78	16.03	17.37	0.75	4.7
Less input on account of third parties	(1.03)	(0.34)	(0.27)	(0.69)	..
At affiliated refineries	4.93	5.46	4.51	(0.53)	(9.7)
Refinery throughputs on own account	**20.68**	**21.15**	**21.61**	**(0.47)**	**(2.2)**
Consumption and losses	(1.38)	(1.36)	(1.53)	(0.02)	(1.5)
Products available for sale	**19.30**	**19.79**	**20.08**	**(0.49)**	**(2.5)**
Purchases of refined products and change in inventories	7.50	6.74	6.28	0.76	11.3
Products transferred to operations outside Italy	(0.54)	(0.46)	(0.39)	(0.08)	(17.4)
Consumption for power generation	(0.35)	(0.34)	(0.37)	(0.01)	(2.9)
Sales of products	**25.91**	**25.73**	**25.60**	**0.18**	**0.7**
Green refinery throughputs	**0.25**	**0.24**	**0.21**	**0.01**	**4.2**
OUTSIDE ITALY					
Refinery throughputs on own account	**2.55**	**2.87**	**2.91**	**(0.32)**	**(11.1)**
Consumption and losses	(0.20)	(0.22)	(0.22)	0.02	9.1
Products available for sale	**2.35**	**2.65**	**2.69**	**(0.30)**	**(11.3)**
Purchases of refined products and change in inventories	4.12	4.36	4.72	(0.24)	(5.5)
Products transferred from Italian operations	0.54	0.46	0.40	0.08	17.4
Sales of products	**7.01**	**7.47**	**7.81**	**(0.46)**	**(6.2)**
REFINERY THROUGHPUTS ON OWN ACCOUNT IN ITALY AND OUTSIDE ITALY	**23.23**	**24.02**	**24.52**	**(0.79)**	**(3.3)**
of which: refinery throughputs of equity crude on own account	*4.14*	*3.51*	*3.43*	*0.63*	*17.9*
TOTAL SALES OF REFINED PRODUCTS IN ITALY AND OUTSIDE ITALY	**32.92**	**33.20**	**33.41**	**(0.28)**	**(0.8)**
Crude oil sales	**0.28**	**0.86**	**0.20**	**(0.58)**	**(67.4)**
TOTAL SALES	**33.20**	**34.06**	**33.61**	**(0.86)**	**(2.5)**

MARKETING OF REFINED PRODUCTS

In 2018, retail sales of refined products (32.92 mmtonnes) were down by 0.28 mmtonnes or by approximately 1% from 2017, mainly due to the decrease of retail and wholesale sales in Italy and lower volumes marketed in the wholesalers segment in the rest of Europe.

Product sales in Italy and outside Italy

(mmtonnes)	2018	2017	2016	Change	% Ch.
Retail	5.91	6.01	5.93	(0.10)	(1.7)
Wholesale	7.54	7.64	8.16	(0.10)	(1.3)
Petrochemicals	0.96	0.86	1.02	0.10	11.6
Other sales	11.50	11.22	10.49	0.28	2.5
Sales in Italy	**25.91**	**25.73**	**25.60**	**0.18**	**0.7**
Retail rest of Europe	2.48	2.53	2.66	(0.05)	(2.0)
Wholesale rest of Europe	2.82	3.03	3.18	(0.21)	(6.9)
Wholesale outside Europe	0.47	0.45	0.43	0.02	4.4
Other sales	1.24	1.46	1.54	(0.22)	(15.1)
Sales outside Italy	**7.01**	**7.47**	**7.81**	**(0.46)**	**(6.2)**
TOTAL SALES OF REFINED PRODUCTS	**32.92**	**33.20**	**33.41**	**(0.28)**	**(0.8)**

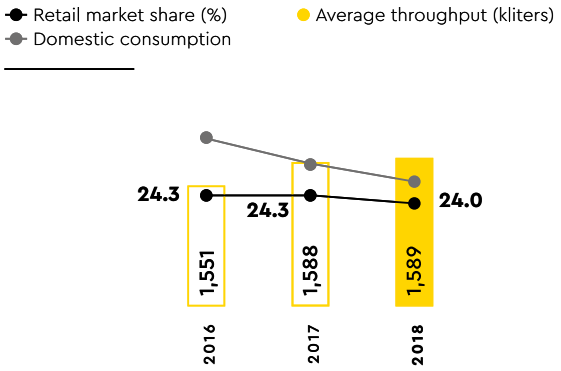
Retail sales in Italy

In 2018, retail sales in Italy were 5.91 mmtonnes, with a slight decrease compared to 2017 (about 100 ktonnes from 2017 or 1.7%). Average gasoline and gasoil throughput (1,589 kliters) was almost unchanged from 2017. Eni's retail market share of 2018 was 24%, slightly decreased from 2017 (24.3%). As of December 31, 2018, Eni's retail network in Italy consisted of 4,223 service stations, lower by 87 units from December 31, 2017 (4,310 service stations), resulting from the negative balance of acquisitions/releases of lease concessions (74 units), closure of low throughput stations (10 units) and the reduction in motorway concessions netted by the new opening (3 units).

Retail and wholesale sales of refined products

(mmtonnes)	2018	2017	2016	Change	% Ch.
Italy	**13.45**	**13.65**	**14.09**	**(0.20)**	**(1.5)**
Retail sales	**5.91**	**6.01**	**5.93**	**(0.10)**	**(1.7)**
Gasoline	1.46	1.51	1.53	(0.05)	(3.3)
Gasoil	4.03	4.08	3.99	(0.05)	(1.2)
LPG	0.38	0.38	0.36		
Others	0.04	0.04	0.04		
Wholesale sales	**7.54**	**7.64**	**8.16**	**(0.10)**	**(1.3)**
Gasoil	3.25	3.36	3.70	(0.11)	(3.3)
Fuel Oil	0.07	0.08	0.14	(0.01)	(12.5)
LPG	0.20	0.21	0.22	(0.01)	(4.8)
Gasoline	0.44	0.44	0.49		
Lubricants	0.08	0.08	0.08		
Bunker	0.80	0.85	1.01	(0.05)	(5.9)
Jet fuel	1.98	1.96	1.82	0.02	1.0
Other	0.72	0.66	0.70	0.06	9.1
Outside Italy (retail+wholesale)	**5.77**	**6.01**	**6.27**	**(0.24)**	**(4.0)**
Gasoline	1.30	1.21	1.27	0.09	7.4
Gasoil	3.16	3.29	3.44	(0.13)	(4.0)
Jet fuel	0.33	0.50	0.62	(0.17)	(34.0)
Fuel Oil	0.14	0.13	0.13	0.01	7.7
Lubricants	0.09	0.10	0.10	(0.01)	(10.0)
LPG	0.50	0.51	0.49	(0.01)	(2.0)
Other	0.25	0.27	0.22	(0.02)	(7.4)
TOTAL RETAIL AND WHOLESALE SALES	**19.22**	**19.66**	**20.36**	**(0.44)**	**(2.2)**

CONSUMPTION AND MARKET SHARE IN ITALY



Retail sales in the rest of Europe

Retail sales in the rest of Europe were 2.48 mmtonnes, reducing from 2017 (down by 2%) due to lower volumes traded in Germany due to the event occurred at Bayernoil refinery and France.

At December 31, 2018, Eni's retail network in the rest of Europe consisted of 1,225 units, decreasing by 9 units from December 31, 2017, mainly in Germany. Average throughput (2,391 kliters) decreased by 49 kliters compared to 2017 (2,440 kliters).

Wholesale and other sales

Wholesale sales in Italy amounted to 7.54 mmtonnes, unchanged from 2017, mainly due to lower volumes marketed of gasoil offset by higher sales of other products.
Wholesale sales in the rest of Europe were 2.82 mmtonnes, down by 6.9% from 2017 due to lower volumes sold in Germany and France, partly offset by higher volumes in Spain. Supplies of feedstock to the petrochemical industry (0.96 mmtonnes) increased by 11.6%. Other sales in Italy and outside Italy (12.74 mmtonnes) slightly increased by 0.06 mmtonnes, due to higher volumes sold to oil companies.

CHEMICALS

Product availability

(ktonnes)	2018	2017	2016	Change	% Ch.
Intermediates	7,130	6,595	6,580	535	8.1
Polymers	2,353	2,360	2,229	(7)	(0.3)
Production	**9,483**	**8,955**	**8,809**	**528**	**5.9**
Consumption and losses	(5,085)	(4,566)	(4,917)	(519)	(11.4)
Purchases and change in inventories	540	257	853	283	110.1
TOTAL AVAILABILITY	**4,938**	**4,646**	**4,745**	**292**	**6.3**
Intermediates	3,087	2,748	2,956	339	12.3
Polymers	1,851	1,898	1,789	(47)	(2.5)
TOTAL SALES	**4,938**	**4,646**	**4,745**	**292**	**6.3**

Petrochemical **sales** of 4,938 ktonnes increased from 2017 (up by 292 ktonnes, or 6.3%). The main increases were registered in olefins (up by 14.8%) and derivatives (up by 20.4%), partly offset by lower sales volumes of polyethylene (down by 6.3%) and elastomers (down by 3.2%).
Average unit sales prices of the intermediates business increased by 7.1% from 2017, with olefins and aromatics up by 10.9% and 4.2%, respectively. The polymers reported a decrease of 2.4% from 2017.
Petrochemical **production** of 9,483 ktonnes increased by 528 ktonnes (up by 5.9%) mainly due to higher production of intermediates business (up by 8.1%), in particular derivatives up by 17.6%; the polymers productions were substantially in line despite the improvement of styrenics (up by 8.3%).

The main increases in production were registered at the Porto Marghera site (up by 22.9%), due to a recovery of production capacity for a shutdown in 2017, as well as Szàzhalombatta, Mantova and Priolo sites. Decreasing production at the Ferrara, Brindisi and Oberhausen sites due to unplanned shutdowns of the plants in 2018. Nominal capacity of plants is in line with 2017. The average plant utilization rate calculated on nominal capacity was 76.2%, increasing from 2017 (72.8%).

BUSINESS TRENDS

Intermediates

Intermediates revenues (€2,401 million) increased by €413 million from 2017 (up by 20.8%) reflecting the higher commodity prices scenario that influences average intermediates prices of the main product of the business unit. Sales increased by 12.3%, in particular ethylene (up by 30.3%) and derivatives (up by 20.4%) driven by higher availability of product following the shutdowns in 2017. Average unit prices increased by 7.1%, in particular olefins (up by 10.9%) and aromatics (up by 4.1%); decreasing of derivatives (down by 9.3%). Intermediates production (7,130 ktonnes) registered an increase of 8.1% from the last year. Increasing production of derivatives (up by 17.6%), aromatics (up by 8.3%) and olefins (up by 7%).

Polymers

Polymers revenues (€2,589 million) decreased by €141 million or 5.2% from 2017 due to lower volumes sold (down by 2.5%), as well as to the decrease of the average unit prices (down by 2.4%). The styrenics business benefitted from higher sold volumes (up by 5.8%) reflecting higher product availability; slightly decrease in prices of sold volumes(down by 1.4%). Polyethylene volumes decreased (down by 6.4%) due to oversupply and competitive pressure from cheaper products streams from the Middle-East and the USA; decreasing of average prices (down by 3.9%).
In the elastomers business, a decrease of sold volumes was attributable to SBR rubbers (down by 3.6%), special rubbers EPDM (down by 5.7%) and lattices (down by 16.9%); increasing of thermoplastic rubbers (up by 2.5%) and BR (up by 1.2%).
Higher styrenics volumes sold (up by 5.8%) was mainly driven by higher sales of styrene (up by 21.1%), compact polystyrene (up by 8.2%) and expandable polystyrene (up by 5.3%); lower sales of ABS/SAN (down by 16%).
Overall, the sold volumes of polyethylene business reported a decrease (down by 6.4%) with lower sales of EVA, LDPE and LLDPE (down by 16.1%, 8.6% and 5.1%, respectively), while volumes of HDPE increased (up by 2.2%).
Polymers productions are in line with 2017 (2,353 ktonnes) despite the lower productions of polyethylene (down by 7.3%) and elastomers (down by 2.7%). The styrenics business reported higher production of styrene (up by 12.1%) and HIPS (up by 11.7%).

CAPITAL EXPENDITURE

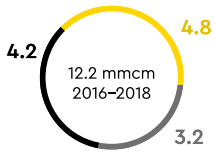
In 2018, capital expenditure in the Refining & Marketing and Chemicals segment amounted to €877 million and mainly regarded: (i) refining activity in Italy and outside Italy (€587 million) aiming fundamentally at reconstruction works of the EST conversion plant at the Sannazzaro refinery, reconversion of Gela refinery into a biorefinery, maintain plants' integrity, as well as initiatives in the field of health, security and environment; (ii) marketing activity, mainly regulation compliance and stay in business initiatives in the refined product retail network in Italy and in the rest of Europe (€139 million); (iii) in the Chemical business, upgrading activities (€52 million), maintenance (€32 million), environmental protection, safety and environmental regulation (€26 million), as well as upkeeping of plants (€21 million).
Research and Development (R&D) expenditure in the Refining & Marketing and Chemicals segment amounted to approximately €44 million. During the year, 20 patent applications were filed.

Capital expenditure

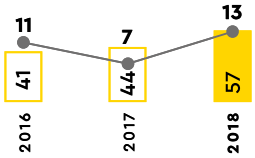
(€ million)	2018	2017	2016	Change	% Ch.
Refining	587	395	298	192	48.6
Marketing	139	131	123	8	6.1
	726	**526**	**421**	**200**	**38.0**
Chemicals	151	203	243	(52)	(25.6)
TOTAL	**877**	**729**	**664**	**148**	**20.3**

CORPORATE AND OTHER ACTIVITIES

TREATED GROUNDWATER REUSED/REINJECTED
mmcm
● 2016 ● 2017 ● 2018



TECHNOLOGY INNOVATION
First patent filing applications (number)
R&D expenditure (€ million)



NET SALES FROM OPERATIONS
€ million

The "Corporate and Other activities" includes the following businesses:
(i) the "Corporate and financial companies" segment includes results of operations of Eni's headquarters (Group strategic planning, human resources management, finance, administration, information technology, legal affairs, international affairs and corporate research and development functions) and Eni's subsidiaries (Eni Finance International SA, Banque Eni SA, Eni International BV, Eni Finance USA Inc, Eni Insurance DAC, EniServizi, Eni Corporate Uninersity, AGI and other minor subsidiaries) which carries out cash management activities, finance, general purposes services and support to Group businesses; (ii) the "Other activities" segment comprises results of operations of Eni's subsidiary Syndial which runs reclamation and decommissioning activities pertaining to certain businesses which Eni exited, divested or shut down in past years, as well as Energy Solutions business which engages in developing the business of renewable energy.

Performance of the year

- In 2018, the treated groundwater (TAF) and reused in production increased by 12%. This result confirms Eni's commitment in the growth of groundwater share reclaimed and reused for civil or industrial purposes, in the start-up of initiatives and assessments for the use of low-quality water in place of freshwater and the decrease of water intensity in the operations.
- In 2018,the photovoltaic installed capacity amounted to 39.8 MW.
- In 2018, the Corporate and Other activities segment reported an increase of revenues of approximately 9% mainly as result of the growth of global client activities, the environmental logistical services, as well as remediation initiatives carried out for Eni's Group.
- The capital expenditure reported in 2018 (€143 million) were mainly focused on the development of renewable projects, circular economy and digitalization.
- In 2018, research and development expenditure amounted to €57 million (€44 million in 2017). 13 patent applications were filed.
- In 2018, the share of recovered/recycled waste increased compared to 2017, reaching approximately 40% of total waste disposed of.

GROUNDWATER USED IN PRODUCTION/REINJECTED VS. TOTAL TREATED GROUNDWATER
21 % in 2018

PHOTOVOLTAIC INSTALLED CAPACITY
39.8 MW in 2018

R&D EXPENDITURE
+30 %
vs. 2017

RECOVERED WASTE VS. RECOVERABLE WASTE
58 % in 2018
+10% vs. 2017

Main activities of the year

Italy Eni's commitment to renewables projects is going on, though the implementation of the Project Italy. In particular were launched the following photovoltaic plants: (i) in March 2018, the 1MW plant of the Green Data Center in Ferrera Erbognone; (ii) in July 2018, the 1MW plant of Gela in the area called "Isola 10"; and (iii) in September 2018, the 26 MW plant of Assemini. The administrative procedure was launched for the realization of two photovoltaic plants in the production area of Porto Marghera in a context of territorial requalification.
In February 2019, was launched the construction of a 31 MW photovoltaic plant in the industrial area of Porto Torres. The project has been authorized by the Relevant Authority with the "Unique Authorization" allowing the construction and operation of the project. The annual production will be addressed, for a 50% share, to the internal consumption of the company located in the industrial site and will allow to avoid the emission of approximately 22,000 tons of CO_2eq per year. In December 2018, was launched at Gela refinery the pilot plant Waste to Fuel, a proprietary technology created by Eni which transforms the Organic Fraction of Municipal Solid Waste (OFMSW) into bio-oil, which can be used as bunker fuel or for bio-diesel production. The first production was obtained in January 2019. The success of the pilot project will be a functional reference for the development of further future industrial-scale initiatives. The development of Ponticelle NOI (New Innovation Opportunities) is ongoing at the industrial site of Ravenna, with an overall investment of €60 million.
The program includes the permanent safety activities and the innovative, sustainable and productive requalification of the area, according to the pillars of circular economy. The area involved covers approximately 26 hectares where it is foreseen: (i) the realization of a multipurpose environmental platform addressed to the processing of materials coming from the site and other Eni's activities with the goal of maximize their recovery; (ii) a technology centre for reclamations, to test innovative remediation technologies; (iii) a photovoltaic system to provide energy to support productive activities; and (iv) a Waste to Fuel plant.
In March 2019, a Memorandum of Understanding was signed with Veritas, a multi-utility company operating in collection, enhancement and treatment of waste in the Venetian territory. The agreement foresees the realization, in a decommissioned and reclaimed area of Porto Marghera, of a plant that will apply the Waste to Fuel technology to convert organic solid waste into bio-oil or bio-methane.

Australia In February 2019, was completed the acquisition of a project for the construction of the 33.7 MW photovoltaic power plant in the site of Katherine, located in the north of the Country. The plant will enter into production at the end of 2019, be equipped with an energy accumulation system and allow to avoid the emission of about 63,000 tonnes of CO_2eq per year.

Algeria In November 2018, was completed the construction of the 10 MW photovoltaic plant located at the Bir production site Rebaa North (BRN) in Block 403 (Eni's interest 50%). The plant will provide electricity to the productive facilities of the field and, at the same time, contribute to reduce greenhouse gas emissions, as part of a decarbonization process for the Country's energy system.
Additionally, in order to strengthen the partnership in renewable energy business, Eni signed the following agreements with Sonatrach: (i) for the implementation of a research laboratory at the BRN production site to test solar technologies in a desert environment; (ii) for the creation of a joint venture that will implement and manage solar power plants at the production sites operated by Sonatrach in the Country.

Kazakhstan In December 2018, started the building, in partnership with General Electric (GE) of the first Eni's wind farm energy with a total capacity of 50 MW, located at Badamsha site. The project, which is part of the agreement between Eni, GE and the Minister of Energy of the Republic of Kazakhstan, will enter into operation at the end of 2019.

Pakistan In 2018, preliminary activities were launched to build the 10 MW solar system to support the production facilities at the Bhit field (Eni operator with a 40% interest). The start-up is expected in 2019.

Tunisia In 2018, two photovoltaic projects were sanctioned: (i) the 5 MW plant for energy supply to the production facilities at the Adam field (Eni operator with a 50% interest); (ii) the 10 MW Tataouine plant (Eni operator with a 50% interest) which provides for the supply of the energy produced to the national company STEG on the basis of a 20-year Power Purchase Agreement.

FINANCIAL REVIEW

PROFIT AND LOSS ACCOUNT

(€ million)	2018	2017	2016	Change	% Ch.
Net sales from operations	75,822	66,919	55,762	8,903	13.3
Other income and revenues	1,116	4,058	931	(2,942)	(72.5)
Operating expenses	(59,130)	(55,412)	(47,118)	(3,718)	(6.7)
Other operating income (expense)	129	(32)	16	161	..
Depreciation, depletion, amortization	(6,988)	(7,483)	(7,559)	495	6.6
Impairment reversals (impairment losses), net	(866)	225	475	(1,091)	..
Write-off of tangible and intangible assets	(100)	(263)	(350)	163	62.0
Operating profit (loss)	**9,983**	**8,012**	**2,157**	**1,971**	**24.6**
Finance income (expense)	(971)	(1,236)	(885)	265	21.4
Income (expense) from investments	1,095	68	(380)	1,027	..
Profit (loss) before income taxes	**10,107**	**6,844**	**892**	**3,263**	**47.7**
Income taxes	(5,970)	(3,467)	(1,936)	(2,503)	(72.2)
Tax rate (%)	*59.1*	*50.7*	*217.0*	*8.4*	
Net profit (loss) - continuing operations	**4,137**	**3,377**	**(1,044)**	**760**	**22.5**
Net profit (loss) - discontinued operations			**(413)**		
Net profit (loss)	**4,137**	**3,377**	**(1,457)**	**760**	**22.5**
attributable to:					
Eni's shareholders	**4,126**	**3,374**	**(1,464)**	**752**	**22.3**
- continuing operations	**4,126**	**3,374**	**(1,051)**	**752**	**22.3**
- discontinued operations			(413)		..
Non-controlling interest	**11**	**3**	**7**	**8**	**..**
- continuing operations	**11**	**3**	**7**	**8**	**..**
- discontinued operations					

In the full year of 2018, Eni reported an operating profit of €9,983 million and a net profit attributable to Eni's shareholders of €4,126 million, increased approximately by 25% and 22% from 2017, respectively. Eni's results benefitted from a better trading environment and an improved performance.
In 2018, Brent prices increased by 31% on average from 2017 to 71 $/barrel, in a highly volatile scenario. In the first ten months of the year, oil prices built on gains peaking at 85 $/barrel in October, the highest level in the last four years, due to a global economic recovery and a balanced demand/supply backdrop. Starting from November, alongside a sharp correction in the global financial markets, oil prices entered a downturn losing about 40% from its peak, falling to approximately 50 $/barrel at the end of the year, due to signs of weakening global growth, oversupply, uncertainty tied to the commercial dispute between USA and China, the Brexit, as well as geopolitical factors. In December, OPEC and Russia announced a production cut of 1.2 million barrel/day effective from 2019. In this scenario, Eni's E&P segment reported an increase in operating profit of €2.6 billion, leveraging on better prices and production increases, with the latter boosted by a shift in the production mix towards barrels with higher profitability.
The G&P segment improved its operating profit by approximately €0.6 billion, driven by the overall restructuring of all the business lines, effective management of flexibilities associated with the portfolio of long-term gas contracts, optimization in the power business and in logistics, as well as growth in the LNG business leveraging its integration with the E&P segment. The downstream oil and chemical businesses (approximately down by €1.4 billion) were negatively affected by a squeeze in margins (the SERM benchmark refining margin was down by 26% to 3.7 $/barrel; the cracker margin down by 11% and the polyethylene margin was down by 69%) because of rapidly-escalating oil-based feedstock costs which were not fully recovered in the final prices of products due to shrinking demand for commodities and competitive pressure from more efficient producers.

Declining oil and product prices at year end resulted in a loss on inventory evaluation compared to a gain in the previous year (approximately down €225 million). Extraordinary/non-recurring items reported a loss of €388 million (compared to non-recurring gains of €839 million in the full year of 2017) reflecting the substantial netting between the gain of the business combination of Eni Norge and Point Resources to create Vår Energi (as difference between the fair value of the investment and the book value of disposed net asset) and the effect of suspending the amortization of assets since the beginning of the second half of the year, following the classification as asset held for sale, which offset impairment losses and risk provisions.

	2018	2017	2016	% Ch.
Average price of Brent dated crude oil in US dollars[a]	71.04	54.27	43.69	30.9
Average EUR/USD exchange rate[b]	1.181	1.130	1.107	4.5
Average price of Brent dated crude oil in euro	60.15	48.03	39.47	25.2
Standard Eni Refining Margin (SERM)[c]	3.7	5.0	4.2	(26.0)
PSV[d]	260	211	168	23.2
TTF[d]	243	183	148	32.8

(a) Price per barrel. Source: Platt's Oilgram.
(b) Source: ECB.
(c) In $/bbl FOB Mediterranean Brent dated crude oil. Source: Eni calculations. Approximates the margin of Eni's refining system in consideration of material balances and refineries' product yields.
(d) €/kcm.

Cash flow from operating activities amounted to €13,647 million for the full year of 2018 and was up by 35% from the full year of 2017 driven by an improved underlying performance and scenario effects.

Adjusted net cash flow from operating activities before changes in working capital at replacement cost was €12,662 million, up by 37% from 2017. This adjusted measure is derived by excluding certain non-recurring charges: an expense recognized in connection with the final outcome of an arbitration proceeding (€313 million), an extraordinary allowance for doubtful accounts in the E&P segment (€158 million) and an expense related to the sale of a 10% interest in the Zohr project due to the fact that they related to the asset disposals.

At a Brent price of 71 $/barrel in 2018, adjusted cash flow from operations amounted to approximately €13.45 billion and positive changes in receivables and payables associated with investing activities (mainly including the cash-in of the deferred price of the Zohr disposals made in 2017) amounted to €0.9 billion. Those inflows funded capex of €7.94 billion and the dividend of €2.95 billion, leaving a surplus of around €3.5 billion. Consequently, on the basis of the Group's cash flow sensitivity to the Brent scenario which assumes a change of approximately €0.19 billion in cash flow for each one-US dollar change in the Brent price (and vice versa), the cash neutrality for funding full year capex and the floor dividend would have been achieved at 52 $/barrel. This is re-determined in 55 $/barrel when excluding from cash inflows the deferred tranches of the consideration on the disposal of Eni's interests in Zohr made in 2017 (€450 million), being these the unique non-organic components of the cash flow.

Net borrowings at December 31, 2018 was €8,289 million, down by €2,627 million as of December 31, 2017. Gearing was 0.14, the lower end of the European peer group and leverage reduced to 0.16, down from 0.23 as of December 31, 2017.

Adjusted results and breakdown of special items

(€ million)	2018	2017	2016	Change	% Ch.
Operating profit (loss)	**9,983**	**8,012**	**2,157**	**1,971**	**24.6**
Exclusion of inventory holding (gains) losses	96	(219)	(175)		
Exclusion of special items	1,161	(1,990)	333		
Adjusted operating profit (loss)	**11,240**	**5,803**	**2,315**	**5,437**	**93.7**
Net profit (loss) attributable to Eni's shareholders	**4,126**	**3,374**	**(1,051)**	**752**	**22.3**
Exclusion of inventory holding (gains) losses	69	(156)	(120)		
Exclusion of special items	388	(839)	831		
Adjusted net profit (loss) attributable to Eni's shareholders	**4,583**	**2,379**	**(340)**	**2,204**	**92.6**
Tax rate (%)	*56.2*	*56.8*	*120.6*		

Net profit includes special items consist of net charges of €388 million, relating to the following:

(i) net impairment losses of certain E&P assets resulting an overall effect of €726 million driven by a lower-than-expected performance at certain fields as well as in order to align them with the fair-value of selling price;
(ii) an impairment reversal at certain transportation activities outside Italy due to the reduction of the country risk premium factored in the discount rate (€66 million);
(iii) the reinstatement of correlation amounting €375 million between hydrocarbon production and reserve depletion by accruing the underlying UOP-based amortization charges of Eni Norge subsidiary classified as held for sale in accordance to IFRS 5 due to the pending business combination with Point Resources;
(iv) impairment losses (€193 million) mainly regarding the write-down of capital expenditure relating to certain Cash Generating Units in the R&M business, which were impaired in previous reporting periods and continued to lack any profitability prospects;
(v) a charge taken in connection with the outcome of an arbitration proceeding relating a long-term contract to purchase regasification services, which resulted in the termination of the contract and of the related annual fees charged to Eni. It also awarded the counterparty equitable compensation of €289 million (plus financial interests of €24 million);
(vi) valuation allowance for doubtful accounts in connection with cost recovery in E&P segment to align the recoverable amount (€158 million);
(vii) a gain recorded on the disposal of a 10% interest in the Shorouk and Nour concessions, offshore Egypt (€339 million net of assignment bonus and other charges);

(viii) provision for redundancy incentives (€155 million);
(ix) environmental provisions (€325 million) mainly relating to R&M and Chemicals and E&P segments;
(x) the effects of fair-valued commodity derivatives that lacked the formal criteria to be accounted as hedges under IFRS (net gains of €133 million);
(xi) exchange rate differences and derivatives reclassified to operating profit (net gain of €107 million) mainly refferred to G&P segment, related to derivative financial instruments used to manage margin exposure to foreign currency exchange rate movements and exchange translation differences of commercial payables and receivables;
(xii) the gain on the business combination involving Eni Norge and Point Resources, fully-owned by Eni and HitecVision respectively, which led to the creation of the equity-accounted joint venture Vår Energi, jointly controlled by Eni (69.6%) and HitecVision, with a gain of approximately €890 million as difference between the fair value of Eni's interest in the venture and the book value of disposed net assets;
(xiii) an impairment reversal (€262 million) at the Angola LNG equity-accounted entity due to improved project economics;
(xiv) the impairment of an equity accounted upstream investment (approximately €200 million) due to the de-booking of undeveloped reserves at a certain project driven by a deteriorating operational local environment;
(xv) Eni's interest of extraordinary charges/impairment losses recognized by the Saipem joint venture (€154 million);
(xvi) tax effects relating to operating special items, as well as the write-down of deferred taxes relating to Italian subsidiaries due to a deteriorated profitability outlook (€99 million).

Breakdown of special items

(€ million)	2018	2017	2016
Special items of operating profit (loss)	**1,161**	**(1,990)**	**333**
- environmental charges	*325*	*208*	*193*
- impairment losses (impairments reversal), net	*866*	*(221)*	*(459)*
- impairment of exploration projects			*7*
- net gains on disposal of assets	*(452)*	*(3,283)*	*(10)*
- risk provisions	*380*	*448*	*151*
- provision for redundancy incentives	*155*	*49*	*47*
- commodity derivatives	*(133)*	*146*	*(427)*
- exchange rate differences and derivatives	*107*	*(248)*	*(19)*
- reinstatement of Eni Norge amortization charges	*(375)*		
- other	*288*	*911*	*850*
Net finance (income) expense	**(85)**	**502**	**166**
of which:			
- exchange rate differences and derivatives reclassified to operating profit (loss)	*(107)*	*248*	*19*
Net (income) expense from investments	**(798)**	**372**	**817**
of which:			
- gains on disposal of assets	*(909)*	*(163)*	*(57)*
- impairments / revaluation of equity investments	*67*	*537*	*896*
Income taxes	**110**	**277**	**(72)**
of which:			
- net impairment of deferred tax assets of Italian subsidiaries	*99*		*170*
- net impairment of deferred tax assets of upstream business outside Italy			*6*
- USA tax reform		*115*	
- taxes on special items of operating profit and other special items	*11*	*162*	*(248)*
Total special items of net profit (loss)	**388**	**(839)**	**1,244**

The breakdown by segment of the **adjusted net profit** is provided in the table below:

(€ million)	2018	2017	2016	Change	% Ch.
Exploration & Production	4,955	2,724	508	2,231	81.9
Gas & Power	310	52	(330)	258	..
Refining & Marketing and Chemicals	238	663	419	(425)	(64.1)
Corporate and other activities	(965)	(1,041)	(991)	76	7.3
Impact of unrealized intragroup profit elimination and other consolidation adjustments[a]	56	(16)	61	72	
Adjusted net profit (loss)	**4,594**	**2,382**	**(333)**	**2,212**	**92.9**
attributable to:					
- Non-controlling interest	11	3	7	8	..
- Eni's shareholders	**4,583**	**2,379**	**(340)**	**2,204**	**92.6**

(a) This item concerned mainly intragroup sales of commodities, services and capital goods recorded in the assets of the purchasing business segment as of end of the period.

Profit and loss analysis

Net sales from operations

(€ million)	2018	2017	2016	Change	% Ch.
Exploration & Production	25,744	19,525	16,089	6,219	31.9
Gas & Power	55,690	50,623	40,961	5,067	10.0
Refining & Marketing and Chemicals	25,216	22,107	18,733	3,109	14.1
- Refining & Marketing	*20,646*	*17,688*	*14,932*	*2,958*	*16.7*
- Chemicals	*5,123*	*4,851*	*4,196*	*272*	*5.6*
- Consolidation adjustments	*(553)*	*(432)*	*(395)*		
Corporate and other activities	1,589	1,462	1,343	127	8.7
Consolidation adjustments	(32,417)	(26,798)	(21,364)	(5,619)	
Net sales from operations	**75,822**	**66,919**	**55,762**	**8,903**	**13.3**
Other income and revenues	**1,116**	**4,058**	**931**	**(2,942)**	**(72.5)**
Total revenues	**76,938**	**70,977**	**56,693**	**5,961**	**8.4**

Net sales from operations in the full year of 2018 (€75,822 million) increased by €8,903 million or 13.3% from 2017, driven by the recovery of commodity prices.
Revenues generated by the Exploration & Production segment (€25,744 million) increased by €6,219 million or up by 31.9%. This was due to higher average realizations on equity hydrocarbons (oil realizations up by 30.8%; gas realizations up by 41% on average in dollar terms) driven by increasing prices for the marker Brent and better gas prices due to the ramp-up of production with higher-than-average gas realizations.
Revenues generated by the Gas & Power segment (€55,690 million) increased by €5,067 million or up by 10%.
The increase reflected higher natural gas and power prices, as well as increased revenues from trading activity due to higher oil and products selling prices.
Revenues generated by the Refining & Marketing and Chemicals segment (€25,216 million) increased by €3,109 million (or up by 14.1%) mainly in the Refining & Marketing business with an increase of €2,958 million due to higher commodity prices. The average selling prices of gasoline and gasoil reported an increase of 14% and 30%, respectively. Revenues generated in the Chemical business slightly increased (up by €272 million) boosted by the increase in average selling prices as well as by higher volumes sold (up by 6%).

Eni's **other income and revenues** recorded gains on the disposal of non-strategic assets and other revenues.
The positive balance of €1,116 million mainly related to the gain on the divestment of a 10% interest in the Zohr project. The reduction from the full year 2017 is due to the gains on disposals recorded in 2017 on the sale of a 40% interest in the Zohr gas field in Egypt (€1,281 million) and of a 25% interest in Area 4 offshore Mozambique (€1,985 million) where development activity is underway.

Operating expenses

(€ million)	2018	2017	2016	Change	% Ch.
Purchases, services and other	55,622	51,548	43,278	4,074	7.9
Impairment losses (impairment reversals) of trade and other receivables, net	415	913	846	(498)	(54.5)
Payroll and related costs	3,093	2,951	2,994	142	4.8
of which: provision for redundancy incentives and other	*155*	*49*	*47*		
	59,130	**55,412**	**47,118**	**3,718**	**6.7**

Operating expenses for 2018 (€59,130 million) increased by €3,718 million from 2017, up by 6.7%. **Purchases, services and other** (€55,622 million) increased by €4,074 million or 7.9% primarily reflecting higher supply cost of raw materials (natural gas under long-term supply contracts, refinery and chemical feedstock and hydrocarbons purchased for resale).
Payroll and related costs (€3,093 million) increased by €142 million from 2017, up by 4.8%, mainly due to the increase in average wages and higher provisions for redundancy incentives.
These increases were partly offset by a reduction in the average number of employees outside Italy and the appreciation of the euro against the US dollar. Payroll and related costs include special item of €155 million mainly referring to an early retirement program in the Eni gas e luce SpA subsidiary in accordance with Art. 4 of Italian Law No. 92/2012.

DD&A, impairments, reversals and write-off

(€ million)	2018	2017	2016	Change	% Ch.
Exploration & Production	6,152	6,747	6,772	(595)	(8.8)
Gas & Power	408	345	354	63	18.3
Refining & Marketing and Chemicals	399	360	389	39	10.8
Corporate and other activities	59	60	72	(1)	(1.7)
Impact of unrealized intragroup profit elimination	(30)	(29)	(28)	(1)	
Total depreciation, depletion and amortization	**6,988**	**7,483**	**7,559**	**(495)**	**(6.6)**
Impairment losses (impairment reversals), net	866	(225)	(475)	1,091	..
Depreciation, depletion, amortization, impairments and reversals, net	**7,854**	**7,258**	**7,084**	**596**	**8.2**
Write-off of tangible and intangible assets	100	263	350	(163)	(62.0)
	7,954	**7,521**	**7,434**	**433**	**5.8**

Depreciation, depletion and amortization (€6,988 million) decreased by approximately 7% from 2017, mainly in the Exploration & Production segment due to the interruption of the UOP-based amortization charges of Eni Norge subsidiary (€375 million), classified as held for sale in accordance to IFRS 5 from the second half of the year as a result of the pending business combination with Point Resources, as well as the appreciation of the euro against the US dollar, partly offset by new project start-ups and ramp-ups.

The breakdown of **impairment charges** (€866 million) is shown in the table below:

(€ million)	2018	2017	2016	Change
Impairment losses	1,292	862	1,067	430
Impairment reversals	(426)	(1,087)	(1,542)	661
Impairment losses (impairment reversals), net	**866**	**(225)**	**(475)**	**1,091**
Impairment losses on receivables related to non-recurring activities		4	16	(4)
Total	**866**	**(221)**	**(459)**	**1,087**

(€ million)	2018	2017	2016	Change
Exploration & Production	726	(158)	(700)	884
Gas & Power	(71)	(146)	81	75
Refining & Marketing and Chemicals	193	54	104	139
Corporate and other activities	18	25	40	(7)
Impairment losses (impairment reversals), net	**866**	**(225)**	**(475)**	**1,091**

Further information on impairment charges are described in the paragraph "special items".

Write-off of tangible and intangible assets (€100 million) mainly related to the costs of exploratory wells lacking the requisites for continuing capitalization because they did not encounter commercial quantities of hydrocarbons in particular in Vietnam and Morocco.

Operating profit

The breakdown by segment of the operating profit is provided below:

(€ million)	2018	2017	2016	Change	% Ch.
Exploration & Production	10,214	7,651	2,567	2,563	33.5
Gas & Power	629	75	(391)	554	..
Refining & Marketing and Chemicals	(380)	981	723	(1,361)	..
Corporate and other activities	(691)	(668)	(681)	(23)	(3.4)
Impact of unrealized intragroup profit elimination	211	(27)	(61)	238	
Operating profit (loss)	**9,983**	**8,012**	**2,157**	**1,971**	**24.6**

Adjusted operating profit

The breakdown by segment of the adjusted operating profit is provided below:

(€ million)	2018	2017	2016	Change	% Ch.
Operating profit (loss)	**9,983**	**8,012**	**2,157**	**1,971**	**24.6**
Exclusion of inventory holding (gains) losses	96	(219)	(175)		
Exclusion of special items	1,161	(1,990)	333		
Adjusted operating profit (loss)	**11,240**	**5,803**	**2,315**	**5,437**	**93.7**
Breakdown by segment:					
Exploration & Production	10,850	5,173	2,494	5,677	109.7
Gas & Power	543	214	(390)	329	153.7
Refining & Marketing and Chemicals	380	991	583	(611)	(61.7)
Corporate and other activities	(606)	(542)	(452)	(64)	(11.8)
Impact of unrealized intragroup profit elimination and other consolidation adjustments	73	(33)	80	106	
	11,240	**5,803**	**2,315**	**5,437**	**93.7**

The increase in adjusted operating profit of €5.4 billion was due to a favourable hydrocarbon prices scenario (€4 billion) and the growth in the underlying performance (€1.4 billion) driven by the production growth and the improved performance of upstream projects with higher profit per boe.

The disclosure of adjusted operating profit by segment is provided under the paragraph "Results by business segments".

Finance income (expense)

(€ million)	2018	2017	2016	Change
Finance income (expense) related to net borrowings	**(627)**	**(834)**	**(726)**	**207**
- Finance expense on short and long-term debt	(685)	(751)	(757)	66
- Net interest due to banks	18	12	15	6
- Net income from financial activities held for trading	32	(111)	(21)	143
- Net income from receivables and securities for non-financing operating activities	8	16	37	(8)
Income (expense) on derivative financial instruments	**(307)**	**837**	**(482)**	**(1,144)**
- Derivatives on exchange rate	(329)	809	(494)	(1,138)
- Derivatives on interest rate	22	28	(12)	(6)
- Derivates on securities			24	
Exchange differences, net	**341**	**(905)**	**676**	**1,246**
Other finance income (expense)	**(430)**	**(407)**	**(459)**	**(23)**
- Net income from receivables and securities for financing operating activities	132	128	143	4
- Finance expense due to the passage of time (accretion discount)	(249)	(264)	(312)	15
- Other finance income (expense)	(313)	(271)	(290)	(42)
	(1,023)	**(1,309)**	**(991)**	**286**
Finance expense capitalized	**52**	**73**	**106**	**(21)**
	(971)	**(1,236)**	**(885)**	**265**

Net finance expense of €971 million decreased by €265 million from 2017 mainly due to lower finance expenses related to debt which reflected the €2,627 million decrease in net borrowings. This improvement was due to the surplus generated by cash flow from operations after funding capex and dividend.
Other finance income (expense) included finance charges due to the write-off of a financing receivables related to an unsuccessful exploration initiative executed by a joint venture in the Black Sea (approximately €270 million). These negatives were partly offset y-o-y by the write-off of 2017 financial receivables due by an equity accounted entities.

Net income from investments

The breakdown of the net income from investment of 2018 is provided in the table below:

2018 (€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Group
Share of gains (losses) from equity-accounted investments	158	9	(67)	(168)	**(68)**
Dividends	193		38		**231**
Net gains (losses) on disposals	19	(6)	9		**22**
Other income (expense), net	885	25			**910**
	1,255	**28**	**(20)**	**(168)**	**1,095**

Net income from investments amounted to €1,095 million related to:

(i) dividends of €231 million paid by minor investments in certain entities which were designated at fair value and mainly related to Nigeria LNG Ltd (€187 million) and Saudi European Petrochemical Co. (€35 million);

(ii) other net gains (€910 million) including the net gain on the Vår Energi business combination (approximately €890 million);

(iii) the impairment reversal (€262 million) at the Angola LNG equity-accounted entity due to improved project economics partly offset by impairment loss of a joint venture due to deteriorated operating environment (approximately €200 million).

These gains were partly offset by Eni's share of losses recorded by the Saipem joint venture (Eni's interest 31%) due mainly to the incurrence of impairment losses and certain extraordinary charges by the investee.

The table below sets forth a breakdown of net income/loss from investments:

(€ million)	2018	2017	2016	Change
Share of gains (losses) from equity-accounted investments	(68)	(267)	(326)	199
Dividends	231	205	143	26
Net gains (losses) on disposals	22	163	(14)	(141)
Other income (expense), net	910	(33)	(183)	943
	1,095	**68**	**(380)**	**1,027**

Income taxes

Income taxes increased by €2,503 million to €5,970 million mainly due to the increase of profit before income taxes (up by €3,263 million from 2017). The reported tax rate was 59% compared to 51% reported in 2017, reflecting lower gains free of taxes or subject to a lower tax rate compared to the Group average tax rate. Adjusted tax rate was 56.2%, slightly lower from 2017, despite a higher tax rate in the E&P segment (approximately 3 percentage point) due to the recognition of lower deferred tax asset relating to certain projects.

Results by business segments[1]

Exploration & Production

(€ million)	2018	2017	2016	Change	% Ch.
Operating profit (loss)	**10,214**	**7,651**	**2,567**	**2,563**	**33.5**
Exclusion of special items:	636	(2,478)	(73)		
- environmental charges	*110*	*46*			
- impairment losses (impairment reversals), net	*726*	*(154)*	*(684)*		
- impairment of exploration projects			*7*		
- net gains on disposal of assets	*(442)*	*(3,269)*	*(2)*		
- provision for redundancy incentives	*26*	*19*	*24*		
- risk provisions	*360*	*366*	*105*		
- commodity derivatives			*19*		
- exchange rate differences and derivatives	*(6)*	*(68)*	*(3)*		
- other	*(138)*	*582*	*461*		
Adjusted operating profit (loss)	**10,850**	**5,173**	**2,494**	**5,677**	**109.7**
Net finance (expense) income[a]	(366)	(50)	(55)	(316)	
Net income (expense) from investments[a]	285	408	68	(123)	
Income taxes[a]	(5,814)	(2,807)	(1,999)	(3,007)	
Tax rate (%)	*54.0*	*50.8*	*79.7*	*3.2*	
Adjusted net profit (loss)	**4,955**	**2,724**	**508**	**2,231**	**81.9**
Results also include:					
Exploration expenses:	380	525	374	(145)	(27.6)
- prospecting, geological and geophysical expenses	*287*	*273*	*204*	*14*	*5.1*
- write-off of unsuccessful wells[b]	*93*	*252*	*170*	*(159)*	*(63.1)*
Average realizations					
Liquids[c] ($/barrel)	65.47	50.06	39.18	15.41	30.8
Natural gas ($/kcf)	5.20	3.69	3.27	1.51	41.0
Hydrocarbons ($/boe)	47.48	35.06	29.14	12.42	35.4

(a) Excluding special items.
(b) Also includes write-off of unproved exploration rights, if any, related to projects with negative outcome.
(c) Includes condensates.

In 2018, the Exploration & Production segment reported an **adjusted operating profit** of €10,850 million more than doubled y-o-y and the best result of the last four years. The better performance was driven by higher realized prices on equity hydrocarbons driven by the strong trend in crude oil prices in the first ten months (which drove a 31% rise in price of the Brent market benchmark, in dollar term) as well as production growth. These positives were partly offset by the euro appreciation over the US dollar (up by 4.5%). When excluding scenario effect, the underlying performance reported a significant increase, leveraging on a favorable volume/mix effects, boosted by the increased contribution of barrels with higher unitary profitability.
Adjusted operating profit excluded **special items** of €636 million.

Adjusted net profit was €4,955 million, an 82% increase y-o-y due to improved operating performance, partially offset by the write-off of financing receivables granted to a participated joint venture to execute an exploration projects that was written-off in the Black Sea (approximately €270 million), with an additional effect on the adjusted tax rate due to the fact that these expenses were non-deductible. The adjusted tax rate for 2018 increased by approximately 3 percentage points due to the recognition of lower deferred tax asset relating to certain projects. Excluding these effects, tax rate decreased by approximately 2 percentage points.

For the full year 2018, taxes paid represented approximately 30% of the cash flow from operating activities of the E&P segment before changes in working capital and income taxes paid.

(1) Other alternative performance indicators disclosed are accompanied by explanatory notes and tables in line with guidance provided by ESMA guidelines on alternative performance measures (ESMA/2015/1415), published on October 5, 2015. For further information, see the section "Alternative performance measures" of this Annual Report at subsequent pages.

Gas & Power

(€ million)	2018	2017	2016	Change	% Ch.
Operating profit (loss)	**629**	**75**	**(391)**	**554**	**..**
Exclusion of inventory holding (gains) losses			90		
Exclusion of special items:	(86)	139	(89)		
- impairment losses (impairment reversals), net	*(71)*	*(146)*	*81*		
- environmental charges	*(1)*		*1*		
- risk provisions			*17*		
- provision for redundancy incentives	*122*	*38*	*4*		
- commodity derivatives	*(156)*	*157*	*(443)*		
- exchange rate differences and derivatives	*112*	*(171)*	*(19)*		
- other	*(92)*	*261*	*270*		
Adjusted operating profit (loss)	**543**	**214**	**(390)**	**329**	**153.7**
Net finance (expense) income[a]	(4)	10	6	(14)	
Net income (expense) from investments[a]	9	(9)	(20)	18	
Income taxes[a]	(238)	(163)	74	(75)	
Tax rate (%)	*43.4*	*75.8*	*..*	*(32.4)*	
Adjusted net profit (loss)	**310**	**52**	**(330)**	**258**	**..**

(a) Excluding special items.

In 2018, the Gas & Power segment reported an **adjusted operating profit** of €543 million, the best result of the last eight years, more than doubled the full year 2017. This improvement reflected the overall restructuring of all the business lines mainly driven by growth in the LNG sales, optimizations in the power business and logistics and favorable trends in the first nine months in the natural gas wholesale market which enabled the Company to extract value from the flexibilities associated with the portfolio of long-term supply contracts.

Adjusted operating profit excluded **special items** of €86 million.

Adjusted net profit was €310 million, improving by €258 million compared to 2017 when the segment reported an adjusted net profit of €52 million, due to the better operating performance. Adjusted tax rate reflected a normalization at 43.4%, decreasing compared to 75.8% in 2017 which was penalized by a higher impact of certain non-Italian subsidiaries tax rate.

Refining & Marketing and Chemicals

(€ million)	2018	2017	2016	Change	% Ch.
Operating profit (loss)	**(380)**	**981**	**723**	**(1,361)**	**..**
Exclusion of inventory holding (gains) losses	234	(213)	(406)		
Exclusion of special items:	526	223	266		
- environmental charges	*193*	*136*	*104*		
- impairment losses (impairment reversals), net	*193*	*54*	*104*		
- net gains on disposal of assets	*(9)*	*(13)*	*(8)*		
- risk provisions	*21*		*28*		
- provision for redundancy incentives	*8*	*(6)*	*12*		
- commodity derivatives	*23*	*(11)*	*(3)*		
- exchange rate differences and derivatives	*1*	*(9)*	*3*		
- other	*96*	*72*	*26*		
Adjusted operating profit (loss)	**380**	**991**	**583**	**(611)**	**(61.7)**
- Refining & Marketing	*390*	*531*	*278*	*(141)*	*(26.6)*
- Chemicals	*(10)*	*460*	*305*	*(470)*	*..*
Net finance (expense) income[a]	11	5	1	6	
Net income (expense) from investments[a]	(2)	19	32	(21)	
Income taxes[a]	(151)	(352)	(197)	201	
Tax rate (%)	*38.8*	*34.7*	*32.0*	*4.1*	
Adjusted net profit (loss)	**238**	**663**	**419**	**(425)**	**(64.1)**

(a) Excluding special items.

In 2018, the **Refining & Marketing** segment reported an **adjusted operating profit** of €390 million, down by 27% y-o-y driven by lower refining margins (down by 26%) due to higher petroleum feedstock cost not recovered in product prices and higher impact from plant standstills. The oxygenated business was penalized by downtime at certain assets due to prolonged maintenance activities.

These negative trends were offset by plant and supply optimizations, as well as by higher margins on green throughputs. Marketing activities reported an improved performance both in the retail and wholesale segments also leveraging on effective commercial initiatives to support margins and on efficiency actions.

The **Chemical business** was affected by the worsening trading environment characterized by sharply higher supply cost of oil-based feedstock in the first ten months that were not recovered in sale prices, by competitive pressure and by a demand slowdown in the last part of the year, mainly in the polyethylene segment, which resulted in a strong contraction of the benchmark margin of cracker (down by 11%) and polyethylene margins (down by 69%), as well as, by the fact that the first half of 2017 benefitted from particularly high prices of intermediates (butadiene and benzene) due to contingent factors.

In this scenario, the Chemical business reported breakeven result and absorbed market fluctuations leveraging on plant optimization and a shift in its product portfolio towards specialties, which are less exposed to the scenario volatility. A large-scale change in scenario affected the petrochemical industry compared to the full year 2017. Adjusted operating profit of the R&M and Chemicals segment excluded **special items** of €526 million and an inventory holding loss of €234 million.

Adjusted net profit was €238 million decreased by €425 million due to lower operating performance.

Corporate and other activities

(€ million)	2018	2017	2016	Change	% Ch.
Operating profit (loss)	**(691)**	**(668)**	**(681)**	**(23)**	**(3.4)**
Exclusion of special items:	85	126	229		
- environmental charges	*23*	*26*	*88*		
- impairment losses (impairment reversals), net	*18*	*25*	*40*		
- net gains on disposal of assets	*(1)*	*(1)*			
- risk provisions	*(1)*	*82*	*1*		
- provision for redundancy incentives	*(1)*	*(2)*	*7*		
- other	*47*	*(4)*	*93*		
Adjusted operating profit (loss)	**(606)**	**(542)**	**(452)**	**(64)**	**(11.8)**
Net finance (expense) income[a]	(697)	(699)	(721)	2	0.3
Net income (expense) from investments[a]	5	22	(6)	(17)	(77.3)
Income taxes[a]	333	178	188	155	87.1
Adjusted net profit (loss)	**(965)**	**(1,041)**	**(991)**	**76**	**7.3**

(a) Excluding special items.

The Corporate and other activities segment mainly includes results of operations of Eni's headquarters principally on an intercompany basis. Eni's headquarters and certain Eni subsidiaries performs human resources management, finance, administration, information technology, legal affairs and other general and business support services. In addition, this business segment comprises operating expenses of reclamation and decommissioning activities pertaining to certain businesses, which Eni exited, divested or shut down in past years, net of the captive subsidiaries margins related to specialist business services (insurance, financial and recruitment activities).

SUMMARIZED GROUP BALANCE SHEET

The summarized Group balance sheet aggregates the amount of assets and liabilities derived from the statutory balance sheet in accordance with functional criteria which considers the enterprise conventionally divided into the three fundamental areas focusing on resource investments, operations and financing. Management believes that this summarized group balance sheet is useful information in assisting investors to assess Eni's capital structure and to analyse its sources of funds and investments in fixed assets and working capital. Management uses the summarized group balance sheet to calculate key ratios such as the return on invested capital (adjusted ROACE) and the financial soundness/ equilibrium (gearing and leverage).

Summarized Group Balance Sheet[a]

(€ million)	December 31, 2018	December 31, 2017	Change
Fixed assets			
Property, plant and equipment	60,302	63,158	(2,856)
Inventories - Compulsory stock	1,217	1,283	(66)
Intangible assets	3,170	2,925	245
Equity-accounted investments and other investments	7,963	3,730	4,233
Receivables and securities held for operating purposes	1,314	1,698	(384)
Net payables related to capital expenditure	(2,399)	(1,379)	(1,020)
	71,567	**71,415**	**152**
Net working capital			
Inventories	4,651	4,621	30
Trade receivables	9,520	10,182	(662)
Trade payables	(11,645)	(10,890)	(755)
Tax payables and provisions for net deferred tax liabilities	(1,104)	(2,387)	1,283
Provisions	(11,886)	(13,447)	1,561
Other current assets and liabilities	(860)	287	(1,147)
	(11,324)	**(11,634)**	**310**
Provisions for employee post-retirement benefits	**(1,117)**	**(1,022)**	**(95)**
Assets held for sale including related liabilities	**236**	**236**	
CAPITAL EMPLOYED, NET	**59,362**	**58,995**	**367**
Eni shareholders' equity	51,016	48,030	2,986
Non-controlling interest	57	49	8
Shareholders' equity	**51,073**	**48,079**	**2,994**
Net borrowings	**8,289**	**10,916**	**(2,627)**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**59,362**	**58,995**	**367**

(a) For a reconciliation to the statutory statement of cash flow see the paragraph "Reconciliation of Summarized Group Balance Sheet and Statement of Cash Flows to Statutory Schemes".

The Summarized Group Balance Sheet was affected by the movement in the EUR/USD exchange rate, which determined an increase in net capital employed, total equity and net borrowings by €2,107 million, €1,787 million, and €320 million respectively. This was due to translation into euros of the financial statements of US-denominated subsidiaries reflecting a 4.5% appreciation of the US dollar against the euro (1 EUR= 1.146 USD at December 31, 2018 compared to 1.200 at December 31, 2017).

Fixed assets (€71,567 million) increased by €152 million from December 31, 2017. The item "Property, plant and equipment" was down by €2,856 million mainly due to the derecognition of Eni Norge's assets following loss of control over the subsidiary as a result of the business combination with Point Resources which had an offsetting impact in the line-item "Equity-accounted investments and other investments" mainly due to the recognition of Vår Energi interest; while DD&A and impairment losses (€7,854 million) and the disposals were substantially offset by capital expenditure for the year (€9,119 million). The increase in the item "Equity-accounted investments and other investments" of €4,233 million was due to the above mentioned Vår Energi operation, the new accounting of equity instruments required by IFRS 9 and the net equity investments. Net payables related to capital expenditure increased by €1,020 billion due to the cash-in of the receivables arising from the disposal of the Zohr interests made in 2017.

Net working capital was in negative territory at minus €11,324 million and increased by €310 million y-o-y driven by the decrease in risk provisions due to the change of the estimate revision to the decommissioning provision following higher discount rates and to tax payables and provision for deferred taxes due to the derecognition of Eni Norge, offset by a reduction in trade receivables and an increase in trade payables.

COMPREHENSIVE INCOME

(€ million)	2018	2017
Net profit (loss)	**4,137**	**3,377**
Items that are not reclassified to profit or loss in later periods	**(2)**	**(4)**
Remeasurements of defined benefit plans	*(15)*	*(33)*
Change in the fair value of minor investments with effects to other comprehensive income	*15*	
Taxation	*(2)*	*29*
Items that may be reclassified to profit or loss in later periods	**1,578**	**(5,514)**
Currency translation differences	*1,787*	*(5,573)*
Change in the fair value of available-for-sale financial instruments		*(5)*
Change in the fair value of cash flow hedging derivatives	*(243)*	*(6)*
Share of "Other comprehensive income" on equity-accounted entities	*(24)*	*69*
Taxation	*58*	*1*
Total other items of comprehensive income (loss)	**1,576**	**(5,518)**
Total comprehensive income (loss)	**5,713**	**(2,141)**
attributable to:		
- Eni's shareholders	**5,702**	**(2,144)**
- Non-controlling interest	11	3

CHANGES IN SHAREHOLDERS' EQUITY

(€ million)		
Shareholders' equity at January 1, 2017		**53,086**
Total comprehensive income (loss)	(2,141)	
Dividends distributed to Eni's shareholders	(2,881)	
Dividends distributed by consolidated subsidiaries	(3)	
Other changes	18	
Total changes		**(5,007)**
Shareholders' equity at December 31, 2017		**48,079**
attributable to:		
- Eni's shareholders		**48,030**
- Non-controlling interest		49
Shareholders' equity at December 31, 2017		**48,079**
Impact of adoption IFRS 9 and IFRS 15		**245**
Shareholders' equity at January 1, 2018		**48,324**
Total comprehensive income (loss)	5,713	
Dividends distributed to Eni's shareholders	(2,953)	
Dividends distributed by consolidated subsidiaries	(3)	
Other changes	(8)	
Total changes		**2,749**
Shareholders' equity at December 31, 2018		**51,073**
attributable to:		
- Eni's shareholders		**51,016**
- Non-controlling interest		57

Shareholders' equity including non-controlling interest was €51,073 million, up by €2,994 million. This was due to net profit for the period and positive foreign currency translation differences (€1,787 million) reflecting the appreciation of dollar compared to the euro (up by 4.5%; EUR/USD exchange rate of 1.146 at December 31, 2018 compared to 1.200 at December 31, 2017), partly offset by a negative change in the fair value of the cash flow hedge reserve (€243 million) and the distribution of dividend (€2,953 million): 2017 balance dividend of €1,440 million and 2018 interim dividend for €1,513 million.

LEVERAGE AND NET BORROWINGS

Leverage is a measure used by management to assess the Company's level of indebtedness. It is calculated as a ratio of net borrowings which is calculated by excluding cash and cash equivalents and certain very liquid assets from financial debt to shareholders' equity, including non-controlling interest. Gearing measures how much of capital employed net is financed recurring to third-party funding and is calculated as the ratio between net borrowings and capital employed net. Management monitors leverage in order to assess the soundness and efficiency of the Group balance sheet in terms of optimal mix between net borrowings and net equity, and to carry out benchmark analysis with industry standards.

(€ million)	December 31, 2018	December 31, 2017	Change
Total debt:	25,865	24,707	1,158
Short-term debt	*5,783*	*4,528*	*1,255*
Long-term debt	*20,082*	*20,179*	*(97)*
Cash and cash equivalents	(10,836)	(7,363)	(3,473)
Securities held for trading and other securities held for non-operating purposes	(6,552)	(6,219)	(333)
Financing receivables for non-operating purposes	(188)	(209)	21
Net borrowings	**8,289**	**10,916**	**(2,627)**
Shareholders' equity including non-controlling interest	**51,073**	**48,079**	**2,994**
Leverage	**0.16**	**0.23**	**0.07**
Gearing	**0.14**	**0.18**	**(0.05)**

Net borrowings at December 31, 2018 was €8,289 million, lower by €2,627 million from 2017. **Total debt** of €25,865 million consisted of €5,783 million of short-term debt (including the portion of long-term debt due within twelve months of €3,601 million) and €20,082 million of long-term debt.
This reduction was driven by net cash flow from operations and the finalization of portfolio transactions as part of the Dual Exploration Model and other minor assets.

As of December 31, 2018, the ratio of net borrowings to shareholders' equity including non controlling interest – **leverage** – was 0.16, reporting a decrease from 0.23 as of the end of 2017. This decline was driven by lower net borrowing and by the increase in the Group total equity of €2,994 million from December 31, 2017. This was due to the positive foreign currency translation differences (€1,787 million) and profit for the year, partly offset by dividend distribution to Eni's shareholders (2017 balance dividend and 2018 interim dividend of €2,953 million).

As of December 31, 2018, **gearing** – the ratio of net borrowings to net capital employed – was 0.14, lower than 0.18 at December 31, 2017.

SUMMARIZED GROUP CASH FLOW STATEMENT

Eni's Summarized Group Cash Flow Statement derives from the statutory statement of cash flows. It enables investors to understand the connection existing between changes in cash and cash equivalents (deriving from the statutory cash flows statement) and in net borrowings (deriving from the summarized cash flow statement) that occurred in the reporting period. The measure which links the two statements is represented by the "free cash flow" which is calculated as difference between the cash flow generated from operations and the net cash used in investing activities. Starting from free cash flow it is possible to determine either: (i) changes in cash and cash equivalents for the period by adding/deducting cash flows relating to financing debts/receivables (issuance/repayment of debt and receivables related to financing activities), shareholders' equity (dividends paid, net repurchase of own shares, capital issuance) and the effect of changes in consolidation and of exchange rate differences; and (ii) change in net borrowings for the period by adding/deducting cash flows relating to shareholders' equity and the effect of changes in consolidation and of exchange rate differences.

Summarized Group Cash Flow Statement[a]

(€ million)	2018	2017	2016	Change
Net profit (loss)	**4,137**	**3,377**	**(1,044)**	**760**
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:				
- depreciation, depletion and amortization and other non monetary items	7,657	8,720	7,773	(1,063)
- net gains on disposal of assets	(474)	(3,446)	(48)	2,972
- dividends, interests, taxes and other changes	6,168	3,650	2,229	2,518
Changes in working capital related to operations	1,632	1,440	2,112	192
Dividends received, taxes paid, interests (paid) received during the period	(5,473)	(3,624)	(3,349)	(1,849)
Net cash provided by operating activities	**13,647**	**10,117**	**7,673**	**3,530**
Capital expenditure	**(9,119)**	**(8,681)**	**(9,180)**	**(438)**
Investments and purchase of consolidated subsidiaries and businesses	(244)	(510)	(1,164)	266
Disposals	1,242	5,455	1,054	(4,213)
Other cash flow related to capital expenditure, investments and disposals	942	(373)	465	1,315
Free cash flow	**6,468**	**6,008**	**(1,152)**	**460**
Borrowings (repayment) of debt related to financing activities[b]	(357)	341	5,271	(698)
Changes in short and long-term financial debt	320	(1,712)	(766)	2,032
Dividends paid and changes in non-controlling interests and reserves	(2,957)	(2,883)	(2,885)	(74)
Effect of changes in consolidation, exchange differences and cash	18	(65)	(3)	83
NET CASH FLOW	**3,492**	**1,689**	**465**	**1,803**

Change in net borrowings

(€ million)	2018	2017	2016	Change
Free cash flow	**6,468**	**6,008**	**(1,152)**	**460**
Net borrowings of acquired companies	(18)			(18)
Net borrowings of divested companies	(499)	261	5,848	(760)
Exchange differences on net borrowings and other changes	(367)	474	284	(841)
Dividends paid and changes in non-controlling interest and reserves	(2,957)	(2,883)	(2,885)	(74)
CHANGE IN NET BORROWINGS	**2,627**	**3,860**	**2,095**	**(1,233)**

(a) For a reconciliation to the statutory statement of cash flow see the paragraph "Reconciliation of Summarized Group Balance Sheet and Statement of Cash Flows to Statutory Schemes".
(b) The item included investments and divestments (on net basis) in held-for-trading financial assets and other investments/divestments in certain short-term financial assets. Due to their nature and the circumstance that they are very liquid, these financial assets are netted against finance debt in determing net borrowings. Cash flows of such investments were as follows:

	2018	2017	2016	Change
Financing investments:				
- securities	(424)	(316)	(1,317)	(108)
- financing receivables	(196)	(72)	(272)	(124)
	(620)	**(388)**	**(1,589)**	**(232)**
Disposal of financing investments:				
- securities	46	223		(177)
- financing receivables	217	506	6,860	(289)
	263	**729**	**6,860**	**(466)**
Borrowings (repayment) of debt related to financing activities	**(357)**	**341**	**5,271**	**(698)**

Cash flow from operating activities amounted to €13,647 million for the full year of 2018 was up by 35% driven by an improved underlying performance and scenario effects.
Cash flow from operating activities for the full year of 2018 was influenced by a lower level of receivables due beyond the end of the reporting period being sold to financing institutions, compared to 2017 (approximately €280 million).

Adjusted net cash flow from operating activities before changes in working capital at replacement cost was €12,662 million, up by 37% y-o-y. This adjusted measure is derived by excluding certain non-recurring charges: an expense recognized in connection with the final outcome of an arbitration proceeding (€313 million), an extraordinary allowance for doubtful accounts in the E&P segment (€158 million) and an expense related to the sale of a 10% interest in the Zohr project due to the fact that they related to the asset disposals (see the following reconciliation table).

Full Year 2018 (€ million)	GAAP measures	Profit/Loss on stock	Final award of an arbitration	Extraordinary allowance for doubtful accounts	Expense due on 10% Zohr disposal	Trade advances cashed-in to fund the Zohr project	NON-GAAP MEASURES	
Net cash before changes in working capital	**12,015**	96	313	158	80		**12,662**	Adjusted net cash before changes in working capital
Changes in working capital	**1,632**	(96)	(313)	(158)		(280)	**785**	
Net cash provided by operating activities	**13,647**				80	(280)	**13,447**	Underlying net cash provided by operating activities

Capital expenditure for the year, including investments, was €9,363 million. Net capex amounted to approximately €7.94 billion and excluded the following items: entry bonus paid mainly in connection with the two new producing Concession Agreements in the United Arab Emirates (€869 million); non-strategic acquisitions in the gas mid-downstream business (approximately €100 million); the capex pertaining to a 10% divested interest in the Zohr project (€170 million) incurred from January 1, 2018 to the closing of the transaction (end of June 2018), which were reimbursed to Eni by the buyer. Additionally, as part of the financing agreements with the Egyptian partners relating to the Zohr project, the Company cashed in €280 million as an advance on future gas supplies to Egyptian state-owned companies. In 2018, the self-financing ratio of net capex was 172%.

Cash flow from disposals (€1,242 million) related to the sale of the above mentioned 10% interest in the Zohr project, the divestment of certain other non-strategic assets in the E&P segment and the gas distribution activity in Hungary. Proceeds from disposals were netted by Eni Norge's cash deposited at third-party banks (approximately €250 million), which was divested as part of the business combination with Point Resources which determined the loss of Eni's control on its former subsidiary.
Other cash flow relating to capital expenditure, investments and disposals (€942 million) included the collection of the deferred tranches of the consideration on the sale of 10% and 30% interests in the Zohr project finalized in 2017 (€450 million) and increased payables relating to capital expenditure.

In order to calculate cash neutrality, management have reclassified tha main cash flow metrics.
Excluding from the cash flow, the trade advances cashed-in to fund the Zohr project and the expense due on 10% of Zohr disposal, at a Brent price of 71 $/barrel in 2018, adjusted cash flow from operations amounted to approximately €13.45 billion and positive changes in receivables and payables associated with investing activities (mainly including the cash-in of the deferred price of the Zohr disposals made in 2017) amounted to €0.9 billion. Those inflows funded capex of €7.94 billion and the dividend of €2.95 billion, leaving a surplus of around €3.5 billion. Consequently, on the basis of the Group's cash flow sensitivity to the Brent scenario which assumes a change of approximately €0.19 billion in cash flow for each one-US dollar change in the Brent price (and vice versa), the cash neutrality for funding FY capex and the floor dividend would have been achieved at 52 $/barrel. This is re-determined in 55 $/barrel when excluding from cash inflows the deferred tranches of the consideration on the disposal of Eni's interests in Zohr made in 2017 (€450 million), being these the unique non-organic components of the cash flow.

Capital expenditure

(€ million)	2018	2017	2016	Change	% Ch.
Exploration & Production	7,901	7,739	8,254	162	2.1
- acquisition of proved and unproved properties	*869*	*5*	*2*	*864*	*..*
- exploration	*463*	*442*	*417*	*21*	*4.8*
- development	*6,506*	*7,236*	*7,770*	*(730)*	*(10.1)*
- other expenditure	*63*	*56*	*65*	*7*	*12.5*
Gas & Power	215	142	120	73	51.4
Refining & Marketing and Chemicals	877	729	664	148	20.3
- Refining & Marketing	*726*	*526*	*421*	*200*	*38.0*
- Chemicals	*151*	*203*	*243*	*(52)*	*(25.6)*
Corporate and other activities	143	87	55	56	64.4
Impact of unrealized intragroup profit elimination	(17)	(16)	87		
Capital expenditure	**9,119**	**8,681**	**9,180**	**438**	**5.0**

In the full year of 2018, capital expenditure amounted to €9,119 million (€8,681 million in the FY 2017) and mainly related to:

- development activities (€6,506 million) deployed mainly in Egypt, Ghana, Norway, Libya, Italy, Nigeria, Congo and Iraq. The acquisition of proved and unproved reserves of €869 million relates to the entry bonus in two producing Concession Agreements and the offshore concession of Ghasha in the United Arab Emirates;
- refining activity in Italy and outside Italy (€587 million) mainly aimed at reconstruction works of the EST conversion plant at the Sannazzaro refinery, reconversion of Gela refinery into a biorefinery, maintain plants' integrity as well as initiatives in the field of health, security and environment; marketing activity, mainly regulation compliance and stay in business initiatives in the retail network of refining product in Italy and in the rest of Europe (€139 million);
- initiatives relating to gas marketing (€161 million) and power business (€46 million).

Alternative performance measures (Non-GAAP measure)

Management evaluates underlying business performance on the basis of Non-GAAP financial measures, not determined in accordance with IFRS ("Alternative performance measures"), such as adjusted operating profit and adjusted net profit, which are arrived at by excluding from reported operating profit and net profit certain gains and losses, defined special items, which include, among others, asset impairments, gains on disposals, risk provisions, restructuring charges and, in determining the business segments' adjusted results, finance charges on finance debt and interest income (see below). In determining adjusted results, also inventory holding gains or losses are excluded from base business performance, which is the difference between the cost of sales of the volumes sold in the period based on the cost of supplies of the same period and the cost of sales of the volumes sold calculated using the weighted average cost method of inventory accounting as required by IFRS, except in those business segments where inventories are utilized as a lever to optimize margins. Management is disclosing Non-GAAP measures of performance to facilitate a comparison of base business performance across periods, and to allow financial analysts to evaluate Eni's trading performance on the basis of their forecasting models.
Non-GAAP financial measures should be read together with information determined by applying IFRS and do not stand in for them. Other companies may adopt different methodologies to determine Non-GAAP measures. Follows the description of the main alternative performance measures adopted by Eni.
The measures reported below refer to the performance of the reporting periods disclosed in this Annual Report.

Adjusted operating and net profit
Adjusted operating and net profit are determined by excluding inventory holding gains or losses, special items and, in determining the business segments' adjusted results, finance charges on finance debt and interest income. The adjusted operating profit of each business segment reports gains and losses on derivative financial instruments entered into to manage exposure to movements in foreign currency exchange rates which impact industrial margins and translation of commercial payables and receivables. Accordingly, also currency translation effects recorded through profit and loss are reported within business segments' adjusted operating profit. The taxation effect of the items excluded from adjusted operating or net profit is determined based on the specific rate of taxes applicable to each of them.
Finance charges or income related to net borrowings excluded from the adjusted net profit of business segments are comprised of interest charges on finance debt and interest income earned on cash and cash equivalents not related to operations. Therefore, the adjusted net profit of business segments includes finance charges or income deriving from certain segment operated assets, i.e., interest income on certain receivable financing and securities related to operations and finance charge pertaining to the accretion of certain provisions recorded on a discounted basis (as in the case of the asset retirement obligations in the Exploration & Production segment).

Inventory holding gain or loss
This is the difference between the cost of sales of the volumes sold in the period based on the cost of supplies of the same period and the cost of sales of the volumes sold calculated using the weighted average cost method of inventory accounting as required by IFRS.

Special items
These include certain significant income or charges pertaining to either: (i) infrequent or unusual events and transactions, being identified as non-recurring items under such circumstances; (ii) certain events or transactions which are not considered to be representative of the ordinary course of business, as in the case of environmental provisions, restructuring charges, asset impairments or write-ups and gains or losses on divestments even though they occurred in past periods or are likely to occur in future ones; or (iii) exchange rate differences and derivatives relating to industrial activities and commercial payables and receivables, particularly exchange rate derivatives to manage commodity pricing formulas which are quoted in a currency other than the functional currency. Those items are reclassified in operating profit with a corresponding adjustment to net finance charges, notwithstanding the handling of foreign currency exchange risks is made centrally by netting off naturally occurring opposite positions and then dealing with any residual risk exposure in the exchange rate market. As provided for in Decision No. 15519 of July 27, 2006 of the Italian market regulator (CONSOB), non-recurring material income or charges are to be clearly reported in the management's discussion and financial tables. Also, special items allow to allocate to future reporting periods gains and losses on re-measurement at fair value of certain non-hedging commodity derivatives and exchange rate derivatives relating to commercial exposures, lacking the criteria to be designed as hedges, including the ineffective portion of cash flow hedges and certain derivative financial instruments embedded in the pricing formula of long-term gas supply agreements of the Exploration & Production segment.

Leverage
Leverage is a Non-GAAP measure of the Company's financial condition, calculated as the ratio between net borrowings and shareholders' equity, including non-controlling interest. Leverage is the reference ratio to assess the solidity and efficiency of the Group balance sheet in terms of incidence of funding sources including third-party funding and equity as well as to carry out benchmark analysis with industry standards.

Gearing
Gearing is calculated as the ratio between net borrowings and net capital employed and measures how much of net capital employed is financed recurring to third-party funding.

Net cash provided by operating activities before changes in working capital at replacement cost
Net cash provided from operating activities before changes in working capital and excluding inventory holding gain or loss.

Free cash flow
Free cash flow represents the link existing between changes in cash and cash equivalents (deriving from the statutory cash flows statement) and in net borrowings (deriving from the summarized cash flow statement) that occurred from the beginning of the period to the end of period. Free cash flow is the cash in excess of capital expenditure needs. Starting from free cash flow it is possible to determine either: (i) changes in cash and cash equivalents for the period by adding/deducting cash flows relating to financing debts/receivables (issuance/repayment of debt and receivables related to financing activities), shareholders' equity (dividends paid, net repurchase of own shares, capital issuance) and the effect of changes in consolidation and of exchange rate differences; (ii) changes in net borrowings for the period by adding/deducting cash flows relating to shareholders' equity and the effect of changes in consolidation and of exchange rate differences.

Net borrowings
Net borrowings is calculated as total finance debt less cash, cash equivalents and certain very liquid investments not related to operations, including among others non-operating financing receivables and securities not related to operations. Financial activities are qualified as "not related to operations" when these are not strictly related to the business operations.

ROACE (Return On Average Capital Employed) adjusted
Is the return on average capital invested, calculated as the ratio between net income before minority interests, plus net financial charges on net financial debt, less the related tax effect and net average capital employed.

Coverage
Financial discipline ratio, calculated as the ratio between operating profit and net finance charges.

Current ratio
Measures the capability of the company to repay short-term debt, calculated as the ratio between current assets and current liabilities.

Debt coverage
Rating companies use the debt coverage ratio to evaluate debt sustainability. It is calculated as the ratio between net cash provided by operating activities and net borrowings, less cash and cash-equivalents, securities held for non-operating purposes and financing receivables for non-operating purposes.

Net Debt/EBITDA adjusted
Net Debt/EBITDA adjusted is the ratio between the profit available to cover the debt before interest, taxes, amortizations and impairment. This index is a measure of the company's ability to pay off its debt and gives an indication as to how long a company would need to operate at its current level to pay off all its debt.

Profit per boe
Measures the return per oil and natural gas barrel produced. It is calculated as the ratio between Results of operations from E&P activities (as defined by FASB Extractive Activities - Oil and Gas Topic 932) and production sold.

Opex per boe
Measures efficiency in the oil and gas development activities, calculated as the ratio between operating costs (as defined by FASB Extractive Activities - oil&gas Topic 932) and production sold.

Finding & Development cost per boe
Represents Finding & Development cost per boe of new proved or possible reserves. It is calculated as the overall amount of exploration and development expenditure, the consideration for the acquisition of possible and probable reserves as well as additions of proved reserves deriving from improved recovery, extensions, discoveries and revisions of previous estimates (as defined by FASB Extractive Activities - Oil and Gas Topic 932).

The following tables report the group operating profit and Group adjusted net profit and their breakdown by segment, as well as is represented the reconciliation with net profit attributable to Eni's shareholders of continuing operations.

2018 (€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Impact of unrealized intragroup profit elimination	GROUP
Reported operating profit (loss)	**10,214**	**629**	**(380)**	**(691)**	**211**	**9,983**
Exclusion of inventory holding (gains) losses			234		(138)	96
Exclusion of special items:						
- environmental charges	110	(1)	193	23		325
- impairment losses (impairments reversal), net	726	(71)	193	18		866
- net gains on disposal of assets	(442)		(9)	(1)		(452)
- risk provisions	360		21	(1)		380
- provision for redundancy incentives	26	122	8	(1)		155
- commodity derivatives		(156)	23			(133)
- exchange rate differences and derivatives	(6)	112	1			107
- other	(138)	(92)	96	47		(87)
Special items of operating profit (loss)	**636**	**(86)**	**526**	**85**		**1,161**
Adjusted operating profit (loss)	**10,850**	**543**	**380**	**(606)**	**73**	**11,240**
Net finance (expense) income[a]	(366)	(4)	11	(697)		(1,056)
Net income (expense) from investments[a]	285	9	(2)	5		297
Income taxes[a]	(5,814)	(238)	(151)	333	(17)	(5,887)
Tax rate (%)	*54.0*	*43.4*	*38.8*			*56.2*
Adjusted net profit (loss)	**4,955**	**310**	**238**	**(965)**	**56**	**4,594**
of which attributable to:						
- non-controlling interest						11
- Eni's shareholders						**4,583**
Reported net profit (loss) attributable to Eni's shareholders						**4,126**
Exclusion of inventory holding (gains) losses						69
Exclusion of special items						388
Adjusted net profit (loss) attributable to Eni's shareholders						**4,583**

(a) Excluding special items.

2017 (€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Impact of unrealized intragroup profit elimination	GROUP
Reported operating profit (loss)	**7,651**	**75**	**981**	**(668)**	**(27)**	**8,012**
Exclusion of inventory holding (gains) losses			(213)		(6)	(219)
Exclusion of special items:						
- environmental charges	46		136	26		208
- impairment losses (impairments reversal), net	(154)	(146)	54	25		(221)
- net gains on disposal of assets	(3,269)		(13)	(1)		(3,283)
- risk provisions	366			82		448
- provision for redundancy incentives	19	38	(6)	(2)		49
- commodity derivatives		157	(11)			146
- exchange rate differences and derivatives	(68)	(171)	(9)			(248)
- other	582	261	72	(4)		911
Special items of operating profit (loss)	**(2,478)**	**139**	**223**	**126**		**(1,990)**
Adjusted operating profit (loss)	**5,173**	**214**	**991**	**(542)**	**(33)**	**5,803**
Net finance (expense) income[a]	(50)	10	5	(699)		(734)
Net income (expense) from investments[a]	408	(9)	19	22		440
Income taxes[a]	(2,807)	(163)	(352)	178	17	(3,127)
Tax rate (%)	*50.8*	*75.8*	*34.7*			*56.8*
Adjusted net profit (loss)	**2,724**	**52**	**663**	**(1,041)**	**(16)**	**2,382**
of which attributable to:						
- non-controlling interest						3
- Eni's shareholders						**2,379**
Reported net profit (loss) attributable to Eni's shareholders						**3,374**
Exclusion of inventory holding (gains) losses						(156)
Exclusion of special items						(839)
Adjusted net profit (loss) attributable to Eni's shareholders						**2,379**

(a) Excluding special items.

2016 (€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Impact of unrealized intragroup profit elimination	GROUP	DISCONTINUED OPERATIONS	CONTINUING OPERATIONS
Reported operating profit (loss)	**2,567**	**(391)**	**723**	**(681)**	**(61)**	**2,157**		**2,157**
Exclusion of inventory holding (gains) losses		90	(406)		141	(175)		(175)
Exclusion of special items:								
- environmental charges		1	104	88		193		193
- impairment losses (impairments reversal), net	(684)	81	104	40		(459)		(459)
- write off	7					7		7
- net gains on disposal of assets	(2)		(8)			(10)		(10)
- risk provisions	105	17	28	1		151		151
- provision for redundancy incentives	24	4	12	7		47		47
- commodity derivatives	19	(443)	(3)			(427)		(427)
- exchange rate differences and derivatives	(3)	(19)	3			(19)		(19)
- other	461	270	26	93		850		850
Special items of operating profit (loss)	**(73)**	**(89)**	**266**	**229**		**333**		**333**
Adjusted operating profit (loss)	**2,494**	**(390)**	**583**	**(452)**	**80**	**2,315**		**2,315**
Net finance (expense) income[a]	(55)	6	1	(721)		(769)		(769)
Net income (expense) from investments[a]	68	(20)	32	(6)		74		74
Income taxes[a]	(1,999)	74	(197)	188	(19)	(1,953)		(1,953)
Tax rate (%)	*79.7*	*18.3*	*32.0*			*120.6*		*120.6*
Adjusted net profit (loss)	**508**	**(330)**	**419**	**(991)**	**61**	**(333)**		**(333)**
of which attributable to:								
- non-controlling interest						7		7
- Eni's shareholders						**(340)**		**(340)**
Reported net profit (loss) attributable to Eni's shareholders						**(1,464)**	**413**	**(1,051)**
Exclusion of inventory holding (gains) losses						(120)		(120)
Exclusion of special items						1,244	(413)	831
Adjusted net profit (loss) attributable to Eni's shareholders						**(340)**		**(340)**

(a) Excluding special items.

Reconciliation of Summarized Group Balance Sheet and Statement of Cash Flows to Statutory Schemes

Summarized Group Cash Flow Statement

Items of Summarized Group Balance Sheet (where not expressly indicated the item derives directly from the statutory scheme) (€ million)	**Notes to the Consolidated Financial Statement**	**December 31, 2018**		**December 31, 2017**	
		Partial amounts from statutory scheme	**Amounts of the summarized Group scheme**	**Partial amounts from statutory scheme**	**Amounts of the summarized Group scheme**
Fixed assets					
Property, plant and equipment			60,302		63,158
Inventories - Compulsory stock			1,217		1,283
Intangible assets			3,170		2,925
Equity-accounted investments and other investments			7,963		3,730
Receivables and securities held for operating activities	(see note 15)		1,314		1,698
Net payables related to capital expenditure, made up of:			(2,399)		(1,379)
- receivables related to disposals	(see note 7)	122		597	
- receivables related to capital expenditure/disposals non-current	(see note 10)	9		118	
- payables related to capital expenditure	(see note 16)	(2,530)		(2,094)	
Total fixed assets			**71,567**		**71,415**
Net working capital					
Inventories			4,651		4,621
Trade receivables	(see note 7)		9,520		10,182
Trade payables	(see note 16)		(11,645)		(10,890)
Tax payables and provisions for net deferred tax liabilities, made up of:			(1,104)		(2,387)
- income tax payables		(440)		(472)	
- other tax payables		(1,432)		(1,472)	
- deferred tax liabilities		(4,272)		(5,900)	
- other non-current tax liabilities	(see note 17)	(61)		(45)	
- current tax assets		191		191	
- other current tax assets		561		729	
- deferred tax assets		3,931		4,078	
- other non-current tax assets	(see note 10)	422		507	
- payables/receivables for Italian consolidated accounts	(see note 16)	(4)		(3)	
Provisions			(11,886)		(13,447)
Other current assets and liabilities, made up of:			(860)		287
- short-term financial receivables for operating purposes	(see note 15)	51		84	
- receivables vs. partners for exploration and production activities and other	(see note 7)	4,459		4,641	
- other current assets		2,258		1,573	
- other receivables and other assets non-current	(see note 10)	361		698	
- advances, other payables, payables vs. partners for exploration and production activities and other	(see note16)	(2,568)		(3,760)	
- other current liabilities		(3,980)		(1,515)	
- other payables and other liabilities non-current	(see note 17)	(1,441)		(1,434)	
Total net working capital			**(11,324)**		**(11,634)**
Provisions for employee post-retirements benefits			**(1,117)**		**(1,022)**
Assets held for sale including related liabilities			**236**		**236**
made up of:					
- assets held for sale		295		323	
- liabilities related to assets held for sale		(59)		(87)	
CAPITAL EMPLOYED, NET			**59,362**		**58,995**
Shareholders' equity including non-controlling interest			**51,073**		**48,079**
Net borrowings					
Total debt, made up of:			25,865		24,707
- long-term debt		20,082		20,179	
- current portion of long-term debt		3,601		2,286	
- short-term financial liabilities		2,182		2,242	
less:					
Cash and cash equivalents			(10,836)		(7,363)
Securities held for trading and other securities held for non-operating purposes	(see note 6)		(6,552)		(6,219)
Financing receivables for non-operating purposes	(see note 15)		(188)		(209)
Total net borrowings[a]			**8,289**		**10,916**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY			**59,362**		**58,995**

(a) For details on net borrowings see also note 19 to the condensed consolidated interim financial statements.

Summarized Group Cash Flow Statement

Items of Summarized Cash Flow Statement and confluence/reclassification of items in the statutory scheme (€ million)	2018		2017	
	Partial amounts from statutory scheme	Amounts of the summarized Group scheme	Partial amounts from statutory scheme	Amounts of the summarized Group scheme
Net profit (loss)		**4,137**		**3,377**
Adjustments to reconcile net profit (loss) to cash provided by operating activities:				
Depreciation, depletion and amortization and other non monetary items		7,657		8,720
- depreciation, depletion and amortization	6,988		7,483	
- impairment losses (impairment reversals), net	866		(225)	
- write-off of tangible and intangible assets	100		263	
- share of profit (loss) of equity-accounted investments	68		267	
- other changes	(474)		894	
- net change in the provisions for employee benefits	109		38	
Net gains on disposal of assets		(474)		(3,446)
Dividends, interests, income taxes and other changes		6,168		3,650
- dividend income	(231)		(205)	
- interest income	(185)		(283)	
- interest expense	614		671	
- income taxes	5,970		3,467	
Changes in working capital related to operations		1,632		1,440
- inventories	15		(346)	
- trade receivables	334		657	
- trade payables	642		284	
- provisions for contingencies	(238)		96	
- other assets and liabilities	879		749	
Dividends received, taxes paid, interest (paid) received during the period		(5,473)		(3,624)
- dividends received	275		291	
- interest received	87		104	
- interest paid	(609)		(582)	
- income taxes paid, net of tax receivables received	(5,226)		(3,437)	
Net cash provided by operating activities		**13,647**		**10,117**
Investing activities:		(9,119)		(8,681)
- tangible assets	(8,778)		(8,490)	
- intangible assets	(341)		(191)	
Investments and purchase of consolidated subsidiaries and businesses		(244)		(510)
- investments	(125)		(510)	
- consolidated subsidiaries and businesses net of cash and cash equivalent acquired	(119)			
Disposals		1,242		5,455
- tangible assets	1,089		2,745	
- intangible assets	5		2	
- changes in consolidated subsidiaries and businesses net of cash and cash equivalent disposed of	(47)		2,662	
- income taxes paid on disposals			(436)	
- investments	195		482	
Other cash flow related to capital expenditure, investments and disposals		942		(373)
- securities	(432)		(316)	
- financing receivables	(554)		(657)	
- change in payables in relation to investing activities and capitalized depreciation	408		152	
reclassification: *purchase of securities and financing receivables held for non-operating purposes*	620		388	
- disposal of securities	61		224	
- disposal of financing receivables	496		999	
- change in receivables in relation to disposals	606		(434)	
reclassification: *disposal of securities and financing receivables held for non-operating purposes*	(263)		(729)	
Free cash flow		**6,468**		**6,008**

continued Summarized Group Cash Flow Statement

Items of Summarized Cash Flow Statement and confluence/reclassification of items in the statutory scheme (€ million)	2018		2017	
	Partial amounts from statutory scheme	Amounts of the summarized Group scheme	Partial amounts from statutory scheme	Amounts of the summarized Group scheme
Free cash flow		**6,468**		**6,008**
Borrowings (repayment) of debt related to financing activities		(357)		341
reclassification: *purchase of securities and financing receivables held for non-operating purposes*	(620)		(388)	
reclassification: *disposal of securities and financing receivables held for non-operating purposes*	263		729	
Changes in short and long-term finance debt		320		(1,712)
- increase in long-term finance debt	3,790		1.842	
- repayments of long-term finance debt	(2,757)		(2,973)	
- increase (decrease) in short-term finance debt	(713)		(581)	
Dividends paid and changes in non-controlling interest and reserves		(2,957)		(2,883)
- dividends paid by Eni to shareholders	(2,954)		(2,880)	
- dividends paid to non-controlling interest	(3)		(3)	
Effect of exchange rate changes and other changes on cash and cash equivalents	18	18	(72)	(65)
Effect of change in consolidation (inclusion/exclusion of significant/ insignificant subsidiaries)			7	
Net cash flow		**3,492**		**1,689**

RISK FACTORS AND UNCERTAINTIES

The risks described below may have a material effect on our operational and financial performance. We invite our investors to consider these risks carefully.

Eni's operating results, cash flow and rates of growth are affected by volatile prices of crude oil, natural gas, oil products and chemicals

Prices of oil and natural gas have a history of volatility due to many factors that are beyond Eni's control. These factors include among other things:

- global and regional dynamics of oil and gas supply and demand and global level of inventories. In 2018, the oil market environment was a volatile one. Until October 2018, crude oil prices continued the upward trend commenced in the second half of 2017 driven by economic growth, effectiveness of the production cuts implemented by OPEC Countries and other producers agreed at the end of November 2016 and normalizing inventory level. Geopolitical risks also played a role including production disruption in Venezuela, renewed internal tensions in Libya and worsening relations between USA and Iran. Oil prices peaked in October 2018, touching a four-year high around 85 $/bbl for the Brent crude oil benchmark. Then in November 2018, a sharp downturn, one of the steepest on record, followed driving crude oil prices as low as 60 $/bbl, a correction of about 30%. This downturn was driven by emerging trends pointing to an economic slowdown, uncertainties relating to the developments of the USA-China trade dispute and of the Brexit, and building oversupplies due to rising production levels in USA, OPEC and Russia also in anticipation of the enactment of US sanctions against Iran, which would happen to be less severe than expected. In December 2018, OPEC and Russia agreed to cut again production quotas by 1.2 million bbl/d, effective from January 2019, in an effort to curb a supply glut. In spite of this development, crude oil prices continued to slide throughout December 2018 to the year's lows of 50 $/bbl, extending the correction from the highs to 40%. On average, in 2018 the price for the Brent crude oil benchmark increased by 31% y-o-y at about 71 $/bbl.
  In early 2019, oil prices regained the sixty-dollar mark thanks to better-than-expected gauges of economic activity and implementation of the production cuts. In the first quarter of 2019, the Brent crude oil price averaged approximately 63 $/bbl pointing to renewed strength;
- global political developments, including sanctions imposed on certain producing Countries and conflict situations;
- global economic and financial market conditions;
- the ability of the OPEC cartel to control world supply and therefore oil prices;
- prices and availability of alternative sources of energy (e.g., nuclear, coal and renewables);
- weather conditions;
- operational issues;
- governmental regulations and actions;
- success in the development and deployment of new technologies for the recovery of crude oil and natural gas reserves and technological advances affecting energy consumption;
- competition from alternative energy sources like solar energy, photovoltaic and other renewables;
- rising commitment of the world nations and the civil society to addressing the issue of global warming and climate change by reducing the release in the atmosphere of greenhouse gases ("GHG") produced by the consumption of hydrocarbons in human activities.

All these factors can affect the global balance between demand and supply for hydrocarbons and hence prices of crude oil, natural gas, and other energy commodities.

Management expects global oil demand to grow by approximately 1.4 mmbbl/d in 2019, more or less in line with 2018, and global oil demand and supplies to be balanced overall. Considering the risks of an economic slowdown, geopolitical factors, uncertainties associated with possible developments in the USA-China trade dispute and with the Brexit, management is assuming a Brent price of 62 $/bbl in 2019, gradually increasing over the following three year period to reach 70$/bbl in 2022. After 2022, management is assuming a price growing in line with inflation (e.g. 71.4 $/bbl in 2023 assuming a long-term inflationary rate of 2%) based on its view of market fundamentals and oil price projections made by specialized agencies and financial analysts, substantially in line with the previous planning assumptions. Management's oil price forecast was utilized to elaborate the Group financial projections and the level of Group's capital expenditures for the 2019-2022 industrial plan and to estimate recoverability of the carrying amounts of the Group's oil and gas assets as of December 31, 2018.

Fluctuations in oil and natural gas prices materially affect the Group's results of operations and business prospects. Lower prices from one year to another negatively affect the Group's consolidated results of operations and cash flow. This is because lower prices translate into lower revenues recognized in the Company's Exploration & Production segment at the time of the price change, whereas expenses in this segment are either fixed or less sensitive to changes in crude oil prices than revenues. Based on the current portfolio of oil and gas assets, Eni's management estimates that the Company's consolidated net cash provided by operating activities would vary by approximately €190 million for each one-dollar change in the price of the Brent crude oil benchmark with respect to the price case assumed in Eni's financial projections for 2019 at 62 $/bbl. Furthermore, a structural decline in commodity prices may have material effects on Eni's business outlook and may limit the Group's funds available to finance expansion projects and certain contractual commitments. This because lower oil and gas prices over prolonged periods may adversely affect the

funds available to finance expansion projects, further reducing the Company's ability to grow future production and revenues. In addition, in a weak scenario the Company may also need to review investment decisions and the viability of development projects and capex plans and as a result of this review the Company could reschedule, postpone or curtail development projects.

In case of a structural decline in hydrocarbons prices, the Company may review the carrying amounts of oil and gas properties and this could result in recording material asset impairments. Finally, lower oil and gas prices could result in the de-booking of proved reserves, if they become uneconomic in this type of environment. These risks may adversely impact the Group's results of operations, cash flow, liquidity, business prospects and shareholder returns, including dividends and the share prices.

In response to weakened oil and gas industry conditions and resulting revisions made to rating agency commodity price assumptions, lower commodity prices may also reduce the Group's access to capital and lead to a downgrade or other negative rating action with respect to the Group's credit rating by rating agencies, including Standard & Poor's Ratings Services ("S&P") and Moody's Investor Services Inc ("Moody's"). These downgrades may negatively affect the Group's cost of capital, increase the Group's financial expenses, and may limit the Group's ability to access capital markets and execute aspects of the Group's business plans.

Eni is estimating that approximately 50% of its current production is exposed to fluctuations in hydrocarbons prices. Exposure to this strategic risk is not subject to economic hedging, except for some specific market conditions or transactions. The remaining portion of Eni's current production is largely unaffected by crude oil price movements considering that the Company's property portfolio is characterized by a sizeable presence of production sharing contracts, whereby, due to the cost recovery mechanism, the Company is entitled to a larger number of barrels in the event of a fall in crude oil prices. (See the specific risks of the Exploration & Production segment in "Risks associated with the exploration and production of oil and natural gas" below).

The Group's results from its Refining & Marketing and Chemicals businesses are primarily dependent upon the supply and demand for refined and chemical products and the associated margins on refined products and chemical products sales, with the impact of changes in oil prices on results of these segments being dependent upon the speed at which the prices of products adjust to reflect movements in oil prices.

Because of the above mentioned risks, a prolonged decline in commodity prices would materially and adversely affect the Group's business prospects, financial condition, results of operations, cash flows, ability to finance planned capital expenditures and commitments and may impact shareholder returns, including dividends and the share price.

Competition

There is strong competition worldwide, both within the oil industry and with other industries, to supply energy and petroleum products to the industrial, commercial and residential energy markets

Eni faces strong competition in each of its business segments. The current competitive environment in which Eni operates is characterized by volatile prices and margins of energy commodities, limited product differentiation and complex relationships with state-owned companies and national agencies of the Countries where hydrocarbons reserves are located to obtain mineral rights. As commodity prices are beyond the Company's control, Eni's ability to remain competitive and profitable in this environment requires continuous focus on technological innovation, the achievement of efficiencies in operating cost, efficient management of capital resources and the ability to provide valuable services to the energy buyers. It also depends on Eni's ability to gain access to new investment opportunities, both in Europe and worldwide.

- In the Exploration & Production segment, Eni faces competition from both international and state-owned oil companies for obtaining exploration and development rights, and developing and applying new technologies to maximize hydrocarbon recovery. Furthermore, Eni may face a competitive disadvantage because of its smaller size relative to other international oil companies, particularly when bidding for large scale or capital intensive projects, and it may be exposed to the risk of obtaining lower cost savings in a deflationary environment compared to its larger competitors given its potentially smaller market power with respect to suppliers. If, because of those competitive pressures, Eni fails to obtain new exploration and development acreage, to apply and develop new technologies, and to control costs, its growth prospects and future results of operations and cash flow in this business may be adversely affected.
- In the Gas & Power segment, Eni is facing strong competition in the European wholesale gas markets to sell gas to industrial customers, the thermoelectric sector and retailer companies from other gas wholesalers, upstream companies, traders and other players both in the Italian market and in markets across Europe. In recent years, competition has been fueled by muted demand growth, oversupplies and the development of very liquid European spot markets where large volumes of gas are traded daily. Players are competing mainly in terms of pricing and to a lesser extent on the ability to offer additional services to the buyers of the commodity, like volume flexibilities, different pricing options, the possibility to change the delivery point and other optionality. Management believes that competition in the European wholesale gas market will continue to negatively affect the results of operations and cash flow of Eni's Gas & Power segment in future reporting periods. Eni's Gas & Power segment also engages in the supply of gas and electricity to customers in the retail markets mainly in Italy, France and other areas in Europe. Customers include households, large residential accounts (hospitals, schools, public administration buildings, offices) and small and medium-sized businesses located in urban areas. The retail

market is characterized by strong competition among local selling companies which mainly compete in term of pricing and the ability to bundle valuable services with the supply of the energy commodity. In this segment competition has intensified in recent years due to the progressive liberalization of the market and the option on part of residential customers to switch smoothly from one supplier to another. Management believes that competition will represent a risk factor to the Company's results of operations and cash flow in this business unit.

- Eni is facing strong competitive pressure in its business of gas-fired electricity generation which is largely sold at wholesale markets in Italy. Margins on the sale of electricity have declined in recent years due to oversupplies, weak economic growth and inter-fuel competition. This latter was due to the fact that power produced from renewable sources and coal-fired power generation are cheaper than gas-fired electricity, although coal-fired plants are expected to be progressively phased-out due to environmental issues. Management believes that these negative factors will continue to negatively affect crack-spread margins on electricity at Italian wholesale markets and the profitability of this business unit in the foreseeable future.
- In the Refining & Marketing segment, Eni faces strong competition both in the wholesale markets and in the retail marketing activity. Margins of European refiners are facing structural headwinds due to muted trends in the European demand for fuels and continued competitive pressures from players in the Middle East, the USA and Asia, who can leverage on larger plant scale and cost economies, availability of cheaper feedstock, lower energy expenses and fewer environmental obligations. Eni believes that the competitive environment will remain challenging in the foreseeable future, also considering refining overcapacity in the European area and expectations of a new investment cycle driven by capacity expansion plans announced in Asia and the Middle East, potentially leading to a situation of global oversupplies of refinery products. In 2018 Eni's gauge of profitability in the refining business fell by approximately 26% to 3.7 $/bbl driven by rising costs of oil-based feedstock that the Company was unable to transfer to final products prices pressured by the weak market fundamentals described above. This decline negatively affected the performance of the Company's refining activity. Management believes that in the long-term the trading environment will not recover meaningfully with refining margins seen in a 4-5 $/bbl range. Furthermore, Eni's refining margins are exposed to the volatility in the spreads between crudes with high sulfur content or sour crudes vs. the Brent crude benchmark, which is a low-content sulfur crude. Eni complex refineries are able to process sour crudes which typically trade at a discount over the Brent crude. However, in 2019 a shortfall in supplies of sour crudes is expected in the market due to the production cuts implemented by OPEC, lower exports from Venezuela and the USA sanctions against Iran. Those developments could result in an appreciation of the relative prices of sour crudes vs. the Brent, which would negatively affect the results of our refining business. Against this backdrop, management has designed an action plan intended to reduce the Company's breakeven margin in its refining business to about 3 $/bbl in 2019 by means of plant and feedstock optimization, energy savings and other cost efficiencies. Additionally, management expects to close by year-end the acquisition of a 20%-stake in a large refining asset in Abu Dhabi, which will de-risk Eni's refining business due to the fact that the asset being acquired is more profitable than Eni's legacy refineries due to larger scale, efficiency, geographic reach and proximity to raw materials sources. In case management fails to execute on this plan, the profitability of Eni's refining business may be negatively affected considering management's expectations for a weak trading environment. In marketing, Eni faces competition from other oil companies and newcomers such as low-scale operators and large retailers, who tend to adopt aggressive pricing policies. All these operators compete with each other primarily in terms of pricing and, to a lesser extent, service quality.
- In the Chemical business, Eni faces strong competition from well-established international players and state-owned petrochemical companies, particularly in the most commoditized market segments such as the production of basic petrochemical products (like ethylene and polyethylene), which demand is a function of macroeconomic growth. Many of those competitors based in the Far East and the Middle East are able to benefit from cost economies due to larger plant scale, wide geographic moat, availability of cheap feedstock and proximity to end-markets. Excess capacity across Europe has also fueled competition in this business. Furthermore, petrochemical producers based in the United States have regained market share, as their cost structure has become competitive due to the availability of cheap feedstock deriving from the production of domestic shale gas from which ethane is derived which is a cheaper raw material for the production of ethylene than the oil-based feedstock utilized by Eni's petrochemicals subsidiaries. In 2018 the operating profit of our Chemicals business fell sharply due to increased expenses for oil-based feedstock, which the Company was not able to pass to final products prices pressured by competition. The Company does not expect any meaningful improvement in the trading environment in the short to the medium-term due to competitive headwinds described above. Management intends to execute an action plan designated to diversify the product portfolio away from the more commoditized products which are exposed to crude oil prices fluctuations and cyclical market dynamics and to focus on higher-value added products, particularly in the green chemicals business and in specialty niche markets, which we believe are less exposed to the economic cycle and to the volatility of crude oil prices. If the Company fails to reduce its exposure to commodity plastics and to gain critical mass in the green chemicals business and in the specialty markets, its future results of operations and cash flows may remain cyclical and exposed to any demand or cost downturn.

Safety, security, environmental and other operational risks

The Group engages in the exploration and production of oil and natural gas, processing, transportation and refining of crude oil,

transport of natural gas, storage and distribution of petroleum products and the production of base chemicals, plastics and elastomers. By their nature, the Group's operations expose Eni to a wide range of significant health, safety, security and environmental risks. Technical faults, malfunction of plants, equipment and facilities, control systems failure, human errors, acts of sabotage, loss of containment and adverse weather events can trigger damaging events such as explosions, fires, oil and gas spills from wells, pipeline and tankers, release of contaminants, toxic emissions and other negative events.

The magnitude of these risks is influenced by the geographic range, operational diversity and technical complexity of Eni's activities. Eni's future results of operations and liquidity depend on its ability to identify and mitigate the risks and hazards inherent to operating in those industries.

In the Exploration & Production segment, Eni faces natural hazards and other operational risks including those relating to the physical characteristics of oil and natural gas fields. These include the risks of eruptions of crude oil or of natural gas, discovery of hydrocarbon pockets with abnormal pressure, crumbling of well openings, leaks that can harm the environment and the security of Eni's personnel and risks of blowout, fire or explosion. Accidents at a single well can lead to loss of life, damage or destruction to properties, environmental damage, GHG emissions and consequently potential economic losses that could have a material and adverse effect on the business, results of operations, liquidity, reputation and prospects of the Group, including its share price and dividends.

Eni's activities in the Refining & Marketing and Chemicals segment entail health, safety and environmental risks related to the handling, transformation and distribution of oil, oil products and certain petrochemical products. These risks can arise from the intrinsic characteristics and the overall life cycle of the products manufactured and the raw materials used in the manufacturing process, such as oil-based feedstock, catalysts, additives and monomer feedstock. These risks comprise flammability, toxicity, long-term environmental impact such as greenhouse gas emissions and risks of various forms of pollution and contamination of the soil and the groundwater, emissions and discharges resulting from their use and from recycling or disposing of materials and wastes at the end of their useful life.

All of Eni's segments of operations involve, to varying degrees, the transportation of hydrocarbons. Risks in transportation activities depend both on the hazardous nature of the products transported, and on the transportation methods used (mainly pipelines, shipping, river freight, rail, road and gas distribution networks), the volumes involved and the sensitivity of the regions through which the transport passes (quality of infrastructure, population density, environmental considerations). All modes of transportation of hydrocarbons are particularly susceptible to a loss of containment of hydrocarbons and other hazardous materials, and, given the high volumes involved, could present a significant risk to people and the environment.

The Company has invested and will continue to invest significant resources in order to upgrade the methods and systems for safeguarding safety and health of employees, contractors and communities, and the environment; to prevent risks; to comply with applicable laws and policies and to respond to and learn from unforeseen incidents. Eni seeks to minimize these operational risks by carefully designing and building facilities, including wells, industrial complexes, plants and equipment, pipelines, storage sites and other facilities, and managing its operations in a safe and reliable manner and in compliance with all applicable rules and regulations. These measures may not ultimately be completely successful in protecting against those risks. Failure to manage these risks could cause unforeseen incidents, including releases or oil spills, blowouts, fire, mechanical failures and other incidents resulting in personal injury, loss of life, environmental damage, legal liabilities and/or damage claims, destruction of crude oil or natural gas wells, as well as damage to equipment and other property, all of which could lead to a disruption in operations and to negatively affect results and cash flow and the Company's business prospects.

Eni's operations are often conducted in difficult and/or environmentally sensitive locations such as the Gulf of Mexico, the Caspian Sea and the Arctic. In such locations, the consequences of any incident could be greater than in other locations. Eni also faces risks once production is discontinued, because Eni's activities require the decommissioning of productive infrastructures and environmental sites remediation and clean-up. Furthermore, in certain situations where Eni is not the operator, the Company may have limited influence and control over third parties, which may limit its ability to manage and control such risks.

Eni retains worldwide third-party liability insurance coverage, which is designed to hedge part of the liabilities associated with damage to third parties, loss of value to the Group's assets related to unfavorable events and in connection with environmental clean-up and remediation. Maximum compensation is $1.2 billion in case of offshore incident and $1.4 billion in case of incident at onshore facilities (refineries). Additionally, the Company may also activate further insurance coverage in case of specific capital projects and other industrial initiatives. Management believes that its insurance coverage is in line with industry practice and is sufficient to cover normal risks in its operations. However, the Company is not insured against all potential risks.
In the event of a major environmental disaster, such as the incident which occurred at the Macondo well in the Gulf of Mexico several years ago, for example, Eni's third-party liability insurance would not provide any material coverage and thus the Company's liability would far exceed the maximum coverage provided by its insurance. The loss Eni could suffer in the event of such a disaster would depend on all the facts and circumstances of the event and would be subject to a whole range of uncertainties, including legal uncertainty as to the scope of liability for consequential damages, which may include economic damage not directly connected to the disaster.

The Company cannot guarantee that it will not suffer any uninsured loss and there can be no guarantee, particularly in the case of a major environmental disaster or industrial accident, that such a loss would not have a material adverse effect on the Company.

The occurrence of the above mentioned events could have a material adverse impact on the Group's business, competitive position, cash flow, results of operations, liquidity, future growth prospects and shareholders' returns and damage the Group's reputation.

Risks associated with the exploration and production of oil and natural gas

The exploration and production of oil and natural gas require high levels of capital expenditures and are subject to natural hazards and other uncertainties, including those relating to the physical characteristics of oil and gas fields. The exploration and production activities are subject to the mining risk and the risks of cost overruns and delayed start-up at the projects to develop and produce hydrocarbons reserves. Those risks could have an adverse, significant impact on Eni's future growth prospects, results of operations, cash flows, liquidity and shareholders' returns.

The production of oil and natural gas is highly regulated and is subject to conditions imposed by governments throughout the world in matters such as the award of exploration and production leases, the imposition of specific drilling and other work obligations, income taxes and taxes on production, environmental protection measures, control over the development and abandonment of fields and installations, and restrictions on production. A description of the main risks facing the Company's business in the exploration and production of oil and gas is provided below.

Eni's oil and natural gas offshore operations are particularly exposed to health, safety, security and environmental risks

Eni has material offshore operations relating to the exploration and production of hydrocarbons. In 2018, approximately 56% of Eni's total oil and gas production for the year derived from offshore fields, mainly in, Libya, Norway, Angola, Egypt, the Gulf of Mexico, Italy, Congo, Indonesia, Venezuela, the United Arab Emirates, the United Kingdom and Nigeria. Offshore operations in the oil and gas industry are inherently riskier than onshore activities. Offshore accidents and spills could cause damage of catastrophic proportions to the ecosystem and health and security of people due to objective difficulties in handling hydrocarbons containment, pollution, poisoning of water and organisms, length and complexity of cleaning operations and other factors. Furthermore, offshore operations are subject to marine risks, including storms and other adverse weather conditions and vessel collisions, as well as interruptions or termination by governmental authorities based on safety, environmental and other considerations. Failure to manage these risks could result in injury or loss of life, damage to property or environmental damage, and could result in regulatory action, legal liability, loss of revenues and damage to Eni's reputation and could have a material adverse effect on Eni's future growth prospects, results of operations, cash flows, liquidity, reputation and shareholders' returns.

Exploratory drilling efforts may be unsuccessful

Exploration drilling for oil and gas involves numerous risks including the risk of dry holes or failure to find commercial quantities of hydrocarbons. The costs of drilling and completing wells have margins of uncertainty, and drilling operations may be unsuccessful because of a large variety of factors, including geological failure, unexpected drilling conditions, pressure or heterogeneities in formations, equipment failures, well control (blowouts) and other forms of accidents. A large part of the Company exploratory drilling operations is located offshore, including in deep and ultra-deep waters, in remote areas and in environmentally sensitive locations (such as the Barents Sea, the Gulf of Mexico and the Caspian Sea). In these locations, the Company generally experiences higher operational risks and more challenging conditions and incurs higher exploration costs than onshore. Furthermore, deep and ultra-deep water operations require significant time before commercial production of discovered reserves can commence, increasing both the financial risks associated with these activities. Because Eni plans to make significant investments in executing exploration projects, it is likely that the Company will incur significant amounts of dry hole expenses in future years. Unsuccessful exploration activities and failure to discover additional commercial reserves could reduce future production of oil and natural gas, which is highly dependent on the rate of success of exploration projects, and could have an adverse impact on Eni's future growth prospects, results of operations, cash flows and liquidity.

Development projects bear significant operational risks which may adversely affect actual returns

Eni is executing or is planning to execute several development projects to produce and market hydrocarbon reserves. Certain projects target the development of reserves in high-risk areas, particularly deep offshore and in remote and hostile environments or in environmentally-sensitive locations. Eni's future results of operations and business prospects depend heavily on its ability to implement, develop and operate major projects as planned. Key factors that may affect the economics of these projects include:

- the outcome of negotiations with joint venture partners, governments and state-owned companies, suppliers, customers or others to define project terms and conditions, including, for example, Eni's ability to negotiate favorable long-term contracts to market gas reserves;
- commercial arrangements for pipelines and related equipment to transport and market hydrocarbons;
- timely issuance of permits and licenses by government agencies;
- the ability to make the front-end engineering design in order to prevent the occurrence of technical inconvenience during the execution phase; timely manufacturing and delivery of critical equipment by contractors, shortages in the availability of such equipment or lack of shipping yards where

complex offshore units such as FPSO and platforms are built; these events may cause cost overruns and delays impacting the time-to-market of the reserves;
- risks associated with the use of new technologies and the inability to develop advanced technologies to maximize the recoverability rate of hydrocarbons or gain access to previously inaccessible reservoirs;
- performance in project execution on the part of contractors who are awarded project construction activities generally based on the EPC (Engineering, Procurement and Construction) contractual scheme;
- changes in operating conditions and cost overruns;
- the actual performance of the reservoir and natural field decline; and
- the ability and time necessary to build suitable transport infrastructures to export production to final markets.

As previously described, events such as poor project execution, inadequate front-end engineering design, delays in the achievement of critical phases and project milestones, delays in the delivery of production facilities and other equipment by third parties, differences between scheduled and actual timing of the first oil, as well as cost overruns may adversely affect the economic returns of Eni's development projects. Failure to deliver major projects on time and on budget could negatively affect results of operations, cash flow and the achievement of short-term targets of production growth. Lastly, the development and marketing of hydrocarbon reserves typically require several years after a discovery is made. This is because a development project involves an array of complex and lengthy activities, including appraising a discovery in order to evaluate the technical and economic feasibility of the development project, project final investment decision and building and commissioning the related plants and facilities. As a consequence, rates of return for such long lead time projects are exposed to the volatility of oil and gas prices and costs which may be substantially different from those estimated when the investment decision was made, thereby leading to lower return rates. Moreover, projects executed with partners and joint venture partners reduce the ability of the Company to manage risks and costs, and Eni could have limited influence over and control of the operations and performance of its partners. Furthermore, Eni may not have full operational control of the joint ventures in which it participates and may have exposure to counterparty credit risk and disruption of operations and strategic objectives due to the nature of its relationships.

Finally, if the Company is unable to develop and operate major projects as planned, particularly if the Company fails to accomplish budgeted costs and time schedules, it could incur significant impairment losses of capitalised costs associated with reduced future cash flows of those projects.

Inability to replace oil and natural gas reserves could adversely impact results of operations and financial condition
Unless the Company is able to replace produced oil and natural gas, its reserves will decline. In addition to being a function of production, revisions and new discoveries, the Company's reserve replacement is also affected by the entitlement mechanism in its production sharing agreements ("PSAs"), whereby the Company is entitled to a portion of a field's reserves, the sale of which is intended to cover expenditures incurred by the Company to develop and operate the field. The higher the reference prices for Brent crude oil used to estimate Eni's proved reserves, the lower the number of barrels necessary to recover the same amount of expenditure, and vice versa. Based on the current portfolio of oil and gas assets, Eni's management estimates that production entitlements vary on average by approximately 600 bbl/d for each $1 change in oil prices based on current Eni's assumptions for oil prices. This led to negative reserves revisions of 38 mmBOE in 2018, due to the oil price increase previously described. In case oil prices differ significantly from Eni's own forecasts, the result of the above mentioned sensitivity of production to oil price changes may be significantly different.

Future oil and gas production is dependent on the Company's ability to access new reserves through new discoveries, application of improved techniques, success in development activity, negotiations with national oil companies and other entities owners of known reserves and acquisitions. An inability to replace produced reserves by discovering, acquiring and developing additional reserves could adversely impact future production levels and growth prospects. If Eni is unsuccessful in meeting its long-term targets of production growth and reserve replacement, Eni's future total proved reserves and production will decline and this will negatively affect future results of operations, cash flow and business prospects.

Uncertainties in estimates of oil and natural gas reserves
The accuracy of proved reserve estimates and of projections of future rates of production and timing of development expenditures depends on a number of factors, assumptions and variables, including:
- the quality of available geological, technical and economic data and their interpretation and judgement;
- projections regarding future rates of production and costs and timing of development expenditures;
- changes in the prevailing tax rules, other government regulations and contractual conditions;
- results of drilling, testing and the actual production performance of Eni's reservoirs after the date of the estimates which may drive substantial upward or downward revisions; and
- changes in oil and natural gas prices which could affect the quantities of Eni's proved reserves since the estimates of reserves are based on prices and costs existing as of the date when these estimates are made. Lower oil prices or the projections of higher operating and development costs may impair the ability of the Company to economically produce reserves leading to downward reserve revisions.

Reserve estimates are subject to revisions as prices fluctuate due to the cost recovery mechanism under the Company's

production sharing agreements and similar contractual schemes.

Many of the factors, assumptions and variables involved in estimating proved reserves are subject to change over time and therefore affect the estimates of oil and natural gas reserves.

The prices used in calculating Eni's estimated proved reserves are, in accordance with the US Securities and Exchange Commission (the "US SEC") requirements, calculated by determining the unweighted arithmetic average of the first-day-of-the-month commodity prices for the preceding 12 months. For the 12-months ending December 31, 2018, average prices were based on 71.4 $/bbl for the Brent crude oil.

Brent prices have declined significantly since they reached a peak at 85 $/bbl in October of 2018 and in the first quarter of 2019 have recovered only partially. If such prices do not increase significantly in the coming months, our future calculations of estimated proved reserves will be based on lower commodity prices which could result in our having to remove non-economic reserves from our proved reserves in future periods. This effect could be counterbalanced in full or in part by increased reserves corresponding to the additional volume entitlements under Eni's PSAs relating to cost oil: i.e. because of lower oil and gas prices, the reimbursement of expenditures incurred by the Company requires additional volumes of reserves.
Accordingly, the estimated reserves reported as of the end of 2018 could be significantly different from the quantities of oil and natural gas that will be ultimately recovered. Any downward revision in Eni's estimated quantities of proved reserves would indicate lower future production volumes, which could adversely impact Eni's business prospects, results of operations, cash flows and liquidity.

The development of the Group's proved undeveloped reserves may take longer and may require higher levels of capital expenditures than it currently anticipates or the Group's proved undeveloped reserves may not ultimately be developed or produced.
At December 31, 2018, approximately 32% of the Group's total estimated proved reserves (by volume) were undeveloped and may not be ultimately developed or produced. Recovery of undeveloped reserves requires significant capital expenditures and successful drilling operations. The Group's reserve estimates assume it can and will make these expenditures and conduct these operations successfully. These assumptions may not prove to be accurate. The Group's reserve report at December 31, 2018 includes estimates of total future development and decomissioning costs associated with the Group's proved total reserves of approximately €35.3 billion (undiscounted, including consolidated subsidiaries and equity-accounted entities). It cannot be certain that estimated costs of the development of these reserves will prove correct, development will occur as scheduled, or the results of such development will be as estimated. In case of change in the Company's plans to develop those reserves, or if it is not otherwise able to successfully develop these reserves as a result of the Group's inability to fund necessary capital expenditures or otherwise, it will be required to remove the associated volumes from the Group's reported proved reserves.

Oil and gas activity may be subject to increasingly high levels of income taxes and royalties
Oil and gas operations are subject to the payment of royalties and income taxes, which tend to be higher than those payable in many other commercial activities. Furthermore, in recent years, Eni has experienced adverse changes in the tax regimes applicable to oil and gas operations in a number of Countries where the Company conducts its upstream operations. As a result of these trends, management estimates that the tax rate applicable to the Company's oil and gas operations is materially higher than the Italian statutory tax rate for corporate profit, which currently stands at 24%.

Management believes that the marginal tax rate in the oil and gas industry tends to increase in correlation with higher oil prices, which could make it more difficult for Eni to translate higher oil prices into increased net profit. However, the Company does not expect that the marginal tax rate will decrease in response to falling oil prices. Adverse changes in the tax rate applicable to the Group's profit before income taxes in its oil and gas operations would have a negative impact on Eni's future results of operations and cash flows.

In the current uncertain financial and economic environment, governments are facing greater pressure on public finances, which may induce them to intervene in the fiscal framework for the oil and gas industry, including the risk of increased taxation, windfall taxes, and even nationalizations and expropriations.

Eni's results and cash flow depend on its ability to identify and mitigate the above mentioned risks and hazards which are inherent to its operations.

The present value of future net revenues from Eni's proved reserves will not necessarily be the same as the current market value of Eni's estimated crude oil and natural gas reserves
The present value of future net revenues from Eni's proved reserves may differ from the current market value of Eni's estimated crude oil and natural gas reserves. In accordance with US SEC rules, Eni bases the estimated discounted future net revenues from proved reserves on the 12-month un-weighted arithmetic average of the first-day-of-the-month commodity prices for the preceding twelve months. Actual future prices may be materially higher or lower than the US SEC pricing used in the calculations. Actual future net revenues from crude oil and natural gas properties will be affected by factors such as:

- the actual prices Eni receives for sales of crude oil and natural gas;
- the actual cost and timing of development and production expenditures;
- the timing and amount of actual production; and
- changes in governmental regulations or taxation.

The timing of both Eni's production and its incurrence of expenses in connection with the development and production of crude oil and natural gas properties will affect the timing and amount of actual future net revenues from proved reserves, and thus their actual present value. Additionally, the 10% discount factor Eni uses when calculating discounted future net revenues may not be the most appropriate discount factor based on interest rates in effect from time to time and risks associated with Eni's reserves or the crude oil and natural gas industry in general. At December 31, 2018, the net present value of Eni's proved reserves totaled approximately €57.6 billion. The average prices used to estimate Eni's proved reserves and the net present value at December 31, 2018, as calculated in accordance with US SEC rules, were 71.4 $/bbl for the Brent crude oil. Actual future prices may materially differ from those used in our year-end estimates. Commodity prices have decreased significantly in recent months. Holding all other factors constant, if commodity prices used in Eni's year-end reserve estimates were in line with the pricing environment existing in the first quarter of 2019, Eni's PV-10 at December 31, 2019 could decrease significantly.

Oil and gas activity may be subject to increasingly high levels of regulations throughout the world, which may impact our extraction activities and the recoverability of reserves
The production of oil and natural gas is highly regulated and is subject to conditions imposed by governments throughout the world in matters such as the award of exploration and production leases, the imposition of specific drilling and other work obligations, environmental protection measures, control over the development and abandonment of fields and installations, and restrictions on production. These risks can limit the Group access to hydrocarbons reserves or may have the Group to redesign, curtail or cease its oil and gas operation with significant effects on the Group business prospects, results of operations and cash flow.

In Italy, a new law has been enacted effective February 12, 2019, which requires certain Italian administrative bodies to adopt within eighteen months a plan intended to identify areas that are suitable for carrying out exploration, development and production of hydrocarbons in the national territory, including the territorial seawaters. Until approval of such a plan, it is established a moratorium on exploration activities, including the award of new exploration leases. Following the plan approval, exploration permits resume their efficacy in areas that have been identified as suitable; on the contrary in unsuitable areas, exploration permits are repealed.

As far as development and production concessions are concerned, pending the national plan approval, ongoing concessions retain their efficacy and administrative procedures underway to grant extension to expired concession remain unaffected; instead no applications to obtain new concession can be filed. Once the above mentioned national plan is adopted, development and production concessions that fall in suitable areas can be granted further extensions and applications for new concessions can be filed; on the contrary development and production concessions current at the approval of the national plan that fall in unsuitable areas are repealed at their expiration and no further extensions can be granted, nor new concession applications can be filed.

In case Italian administrative bodies fail to adopt the national plan for suitable areas within two years from the law enactment, the general moratorium on exploration activities is revoked and application for new concession permits can be filed. According to the statute, areas that are suitable to the activities of exploring and developing hydrocarbons must conform to a number of criteria including morphological characteristics and social, urbanistic and industrial constraints, with particular bias for the hydrogeological balance, current territorial planning and with regard to marine areas for externalities on the ecosystem, reviews of marine routes, fishing and any possible impacts on the coastline.

Our largest development project in Italy is operated under a concession that will expire in 2019; the application for renewal is underway and the renewal process is unaffected by the new law; assuming it is renewed as expected, this concession will expire in 2029, unless renewed at that time. Production at those sites is currently scheduled to continue until 2045.

Management believes the criteria laid out in the law for identified unsuitable areas to be high-level principles, which make it difficult identifying in a reliable and objective manner areas that might be suitable or unsuitable to hydrocarbons activities before the plan adoption by Italian authorities. Therefore, management is not currently in the position to make a reliable and fair estimation of future impacts of the new law provisions on the recoverability of the volumes of proved reserves booked in Italy and the associated future cash flows. However, based on the review of all facts and circumstances and on the current knowledge of the matter, management does not expects any material impacts on the Group future results of operations and cash flow.

Political considerations
The large majority of Eni's oil and gas reserves are located in Countries outside Europe and North America, mainly in Africa, Central Asia and Central-Southern America, where the socio-political framework, the financial system and the macroeconomic outlook are less stable than in the OECD Countries. In those non-OECD Countries, Eni is exposed to a wide range of additional risks and uncertainties in addition to the material risks described above, which could materially impact the ability of the Company to conduct its oil and gas operations in a safe, reliable and profitable manner.
As of December 31, 2018, approximately 82% of Eni's proved hydrocarbon reserves were located in such Countries. Adverse political, social and economic developments, such as internal conflicts, revolutions, establishment of non-democratic regimes, protests, strikes and other forms of civil disorder, contraction of economic activity and financial difficulties of the local governments with repercussions on the solvency of state institutions, inflation levels, exchange rates and similar events

in those non-OECD Countries may impair Eni's ability to continue operating in an economically viable way, either temporarily or permanently, and Eni's ability to access oil and gas reserves. In particular, Eni faces risks in connection with the following, possible issues:

- lack of well-established and reliable legal systems and uncertainties surrounding the enforcement of contractual rights;
- unfavorable enforcement of laws, regulations and contractual arrangements leading, for example, to expropriation, nationalization or forced divestiture of assets and unilateral cancellation or modification of contractual terms. Eni is facing increasing competition from state-owned oil companies that are partnering Eni in a number of oil and gas projects and properties in the host Countries where Eni conducts its upstream operations. These state-owned oil companies can unilaterally change contractual terms and other conditions of oil and gas projects in order to obtain a larger share of profit from a given project, thereby reducing Eni's profit share. They can also enforce different interpretations of contractual clauses relating to the recovery of certain expenses incurred by the Company to produce hydrocarbons reserves in any given project;
- sovereign default or financial instability due to the fact that those Countries rely heavily on petroleum revenues to sustain public finance and petroleum revenues have dramatically contracted during the recent, three-year long oil downturn which ended by mid of 2017. Financial difficulties at country level often translate into failure on part of state-owned companies and agencies to fulfill their financial obligations towards Eni relating to funding capital commitments in projects operated by Eni or to timely paying supplies of equity oil and gas volumes;
- restrictions on exploration, production, imports and exports;
- tax or royalty increases (including retroactive claims);
- political and social instability which could result in civil and social unrest, internal conflicts and other forms of protest and disorder such as strikes, riots, sabotage, acts of violence and similar events. These risks could result in disruptions to economic activity, loss of output, plant closures and shutdowns, project delays, the loss of assets and threat to the security of personnel. They may disrupt financial and commercial markets, including the supply of and pricing for oil and natural gas, and generate greater political and economic instability in some of the geographical areas in which Eni operates;
- difficulties in finding qualified suppliers in critical operating environments; and
- complex processes of granting authorizations or licences affecting time-to-market of certain development projects.

Areas where Eni operates and where the Company is particularly exposed to political risk include, but are not limited to: Libya, Egypt, Algeria, Nigeria, Angola, Kazakhstan, Venezuela and Iraq. Additionally, any possible reprisals because of military or other action, such as acts of terrorism in Europe, the United States or elsewhere, could have a material adverse effect on Eni's business, results of operations and financial condition.

In recent years, Eni's operations in Libya were materially affected by the revolution of 2011 and a change of regime, which caused a prolonged period of political and social instability, still ongoing. In 2011 Eni's operations in the Country experienced an almost one-year long shutdown due to security issues amidst a civil war, causing a material impact on the Group results of operation and cash flow of the year. In subsequent years Eni has experienced frequent disruptions at its operations albeit of a smaller scale than in 2011 due to security threats to its installations and personnel. In the second half of 2018 a resurgence of socio-political instability coupled with internal clashes reduced the Country economic activity and gas demand which negatively affected the Company's levels of production for the year. Management is closely monitoring the situation and is evaluating any possible measure to safeguard safety of Eni's local personnel and security of plants and production infrastructures. Going forward, management believes that Libya's geopolitical situation will continue to represent a source of risk and uncertainty to Eni's operations in the Country. Currently, Libya represents approximately 16% of the Group's total production; this proportion is forecasted to decrease in the medium term. In the event of major adverse events such as the resumption of internal conflict, acts of war, sabotage, social unrest, clashes and other forms of civil disorder, Eni could be forced to interrupt or reduce its producing activities at the Libyan plants, negatively affecting Eni's results of operations, cash flow and business prospects.

Venezuela is currently experiencing a situation of financial stress amidst an economic downturn due to lack of resources to support the development of the Country's hydrocarbons reserves, which have negatively affected the Country production levels and hence petroleum revenues. The situation has been made worse by certain international sanctions targeting the Country's financial system and its ability to export crude oil to the USA market, which is the main outlet of Venezuelan production, which are described below. Eni expects the financial and political outlook of Venezuela to negatively affect its ability to recover the investments made in the Country to develop two petroleum projects and the overdue trade receivables owned to us by the Venezuelan national oil company – PDVSA – and its affiliates for the gas supplies of the Cardón IV gas project, a 50% – held joint venture. In 2018, this venture was able to collect a certain percentage of the sales of the equity gas produced in the year to PDVSA. The venture is systematically accounting a loss provision on the uncollected revenues based on management's appreciation of the counterparty risk which was estimated based on the findings of a review of the past experience of sovereign defaults. Furthermore, due to a worsening operating environment, management decided to de-book the proved undeveloped reserves (down 106 million bbl) at one of the Company's projects in the Country, recognizing an impairment loss of around €200 million.

Nigeria is also undergoing a situation of financial stress, which has translated into continuing delays in collecting overdue trade receivables and credits for the carry of the expenditures of the Nigerian joint operators at projects operated by Eni and the

incurrence of credit losses. Further, Eni's activities in Nigeria have been impacted in recent years by continuing incidences of theft, acts of sabotage and other similar disruptions, which have jeopardized the Company's ability to conduct operations in full security, particularly in the onshore area of the Niger Delta. Eni expects that those risks will continue to affect Eni's operations in Nigeria and other Countries.

It is possible that the Group may incur further asset impairments or credit losses in future reporting periods depending on the evolution of the financial outlook of the Countries where the Group is conducting its Oil & Gas operations.

In Egypt, Eni plans to invest significantly in the next four-year plan to sustain the production plateau at the Zohr offshore gas field and to develop existing gas reserves at other projects. Since our gas production is entirely sold to local state-owned oil companies, we expect a significant increase in the credit risk exposure in Egypt, where we experienced some issues at collecting overdue trade receivables during the downturn. Eni will continue monitoring the counterparty risk in future years considering the significant volumes of gas expected to be supplied to Egypt's national oil companies.

Eni closely monitors political, social and economic risks of the Countries in which it has invested or intends to invest, in order to evaluate the economic and financial return of certain projects and to selectively evaluate projects. While the occurrence of those events is unpredictable, the occurrence of any such events could adversely affect Eni's results from operations, cash flow and business prospects, also including the counterparty risk arising from the financing exposure of Eni in case state-owned entities, which are party to Eni's upstream projects for developing hydrocarbons, fail to reimburse due amounts.

Sanction targets

In response to the Russia-Ukraine crisis, the European Union and the United States have enacted sanctions targeting, inter alia, the financial and energy sectors in Russia by restricting the supply of certain oil and gas items and services to Russia and certain forms of financing. Eni has adapted its activities to the applicable sanctions and will adapt its business to any further restrictive measures that could be adopted by the relevant authorities. Recently, the US Government has tightened the sanction regime against Russia by enacting the "Countering America's Adversaries Through Sanctions Act". In response to these new measures, the Company could possibly refrain from pursuing business opportunities in Russia, while currently the Company is not engaged in any upstream projects in Russia.

It is possible that wider sanctions targeting the Russian energy, banking and/or finance industries may be implemented. Further sanctions imposed on Russia, Russian citizens or Russian companies by the international community, such as restrictions on purchases of Russian gas by European companies or measures restricting dealings with Russian counterparties, could adversely impact Eni's business, results of operations and cash flow. Furthermore, an escalation of the international crisis, resulting in a tightening of sanctions, could entail a significant disruption of energy supply and trade flows globally, which could have a material adverse effect on the Group's business, financial conditions, results of operations and prospects.

In 2017, the US Administration enacted certain financing sanctions against Venezuela, which prohibit any US person to be involved in all transactions related to, provision of financing for, and other dealings in, among other things, any debt owed to the Government of Venezuela that is pledged as collateral after the effective date, including accounts receivable. Recently the US Administration has resolved to impose an embargo on the import of crude oil from Venezuela state-owned oil company, PDVSA and has restricted the ability of US dealers to trade bonds issued by the Government of Venezuela and its affiliates. These sanctions do not affect directly Eni's activities, which however are affected by the worsening financial, political and operating outlook of the Country which could limit the ability of Eni to recover its investments.

Risks in the Company's Gas & Power business

Risks associated with the trading environment and competition in the gas market

Until 2018, our Gas & Power segment has recorded a history of weak profitability and losses due to the changed fundamentals of the wholesale gas markets in Europe following the gas downturn of 2013-2014. Competition escalated driven by muted demand growth, oversupplies and the increasing weigh in the European energy mix of governmental-subsided renewable energy sources (particularly the photovoltaic). The large-scale development of shale gas in the United States was another factor contributing to the oversupply situation in Europe, because many LNG projects worldwide that originally targeted the US market were redirected to an already saturated European market. Furthermore, a number of re-gasification terminals in the US have been upgraded to gas liquefaction facilities with the aim of exporting the US gas surplus. Large gas supplies to Europe led to the development of liquid spot markets where gas is traded daily. Prices at those hubs became the main indexation parameter of selling prices, replacing prices contractually agreed in bilateral negotiations between gas buyers and gas wholesalers. Increased competition, market liquidity and indexation mismatch between gas purchase prices and selling prices determined a squeeze of margins on gas sales. These trends were exacerbated by the contractual commitments taken by the Company to supply gas to end-markets in Europe. A few years ago, before the onset of the European gas downturn, the Company signed with the main Countries supplying gas to Europe (Russia, Algeria, the Netherlands, Libya and Norway) long-term gas supply contracts with take-or-pay clauses, which would expose us to a volume risk, as the Company was contractually required to purchase minimum annual amounts of gas or, in case of failure, to pay the corresponding price. Additionally, Eni booked the transportation rights along the main gas backbones across Europe to deliver its contracted gas volumes to end-markets. In a weak market,

the need to dispose of the minimum off-take of gas negatively affected Eni's margins. Those market trends have negatively affected the operating performance of our Gas & Power segment from the beginning of the market crisis throughout 2017, when this segment closed at breakeven. However, in 2018 the segment posted a significant recovery in profitability due to the benefits of the renegotiations of its long-term gas supply contracts and other drivers. Furthermore, in 2018 gas demand and supplies in Europe were more balanced due to a certain recovery in demand supported by the phase out of a number of coal-fired power plants and lower production from nuclear plants, a slowdown in the final investment decisions in new liquefaction capacity due to the oil downturn and increasing gas demand from China. Looking forward, the Company expects that a muted demand environment in Europe driven by an ongoing economic slowdown will increase the risks of oversupplies and margin pressure.

Against the backdrop of a challenging competitive environment, Eni anticipates a number of risk factors to the profitability outlook of the Company's gas marketing business over the four-year planning period, considering the Company's operational constraints dictated by its long-term supply contracts with take-or-pay clauses and its structure of fixed costs linked to the transportation rights at the main European backbones booked for multi-year periods. Such risk factors include continuing oversupplies, pricing pressures, volatile margins and the risk of deteriorating spreads of Italian spot prices versus continental benchmarks. The results of Eni's wholesale business are particularly exposed to the volatility of the spreads between spot prices at European hubs and Italian spot prices because the Group's supply costs are mainly linked to prices at European hubs, whereas a large part of the Group's selling volumes are linked to Italian spot prices which, historically, have been higher due to the costs of logistics and other factors. This price differential enables the Company to recover its fixed operating expenses in the gas wholesale business. Risks are raising that spot prices in Italy could converge with prices at continental hubs due to the current slowdown of gas demand in Europe and in Italy and the return of LNG spot volumes at European markets and also at Italian regasification terminals. Longer-term there are risks of an oversupply build in the Italian market due to the expected entry into operations of a project to import gas from the Caspian region to Italy and other developments. A reduction of the spread between Italian spot prices and European spot prices for gas could negatively affect the profitability of our business by reducing the total addressable market and the related opportunities to monetize the flexibilities of our gas portfolio, as in the case of the possibility to lift additional gas volumes in addition to the annual minimum quantity at our take-or-pay contracts up the annual contractual quantity in case of favorable market conditions.

Eni's management is planning to continue its strategy of renegotiating the Company's long-term gas supply contracts in order to constantly align pricing and volume terms to current market conditions as they evolve, considering the risk factors described above. The revision clauses provided by these contracts state the right of each counterparty to renegotiate the economic terms and other contractual conditions periodically, in relation to ongoing changes in the gas scenario. Management believes that the outcome of those renegotiations is uncertain in respect of both the amount of the economic benefits that will be ultimately obtained and the timing of recognition of profit. Furthermore, in case Eni and the gas suppliers fail to agree on revised contractual terms, the claiming party has the ability to open an arbitration procedure to obtain revised contractual conditions. However, the suppliers might also file counterclaims with the arbitration panel seeking to dismiss Eni's request for a price review and may also claim an increase in the price of the gas supplied to Eni based on their own view of markets dynamics. All these possible developments within the renegotiation process could increase the level of risks and uncertainties relating the outcome of those renegotiations.

Current, negative trends in gas demands and supplies may impair the Company's ability to fulfil its minimum off-take obligations in connection with its take-or-pay, long-term gas supply contracts
In the years preceding the European gas downturn of 2013-2014,
Eni signed a number of long-term gas supply contracts with national operators of certain key producing Countries, from where most of the European gas supplies are sourced (Russia, Algeria, Libya, the Netherlands and Norway). These contracts were intended to secure Eni long-term access to gas supplies, particularly with a view to supplying the Italian gas market and in anticipation of certain pargets of gas demand growth, which however would fall short of industry's projections.

These contracts include take-or-pay clauses whereby the Company has an obligation to lift minimum, pre-set volumes of gas in each year of the contractual term or, in case of failure, to pay the whole price, or a fraction of that price, up to the minimum contractual quantity. Similar considerations apply to ship-or-pay contractual obligations. Long-term gas supply contracts with take-or-pay clauses expose the Company to a volume risk, as the Company is obligated to purchase an annual minimum volume of gas, or in case of failure, to pay the underlying price.

Management believes that the current level of market liquidity, the outlook of the European gas sector which is featuring muted demand growth, strong competitive pressures and large supplies, as well as any possible change in sector-specific regulation represent risk factors to the Company's ongoing ability to fulfil its minimum take obligations associated with its long-term supply contracts.

Risks associated with sector-specific regulations in Italy
Risks associated with the regulatory powers entrusted to the Italian Regulatory Authority for Energy, Networks and Environment in the matter of pricing to residential customers
Eni's Gas & Power segment is subject to regulatory risks mainly in its domestic market in Italy. The Italian Regulatory Authority for Energy, Networks and Environment (the "Authority") is

entrusted with certain powers in the matter of natural gas pricing. Specifically, the Authority retains a surveillance power on pricing in the natural gas market in Italy and the power to establish selling tariffs for the supply of natural gas to residential and commercial users until the market is fully opened.

Developments in the regulatory framework intended to increase the level of market liquidity or of de-regulation, or intended to reduce operators' ability to transfer to customers cost increases in raw materials may negatively affect future sales margins of gas and electricity, operating results and cash flow.

Environmental, health and safety regulations

Eni has incurred in the past, and will continue incurring, material operating expenses and expenditures, and is exposed to business risk in relation to compliance with applicable environmental, health and safety regulations in future years, including compliance with any national or international regulation on GHG emissions

Eni is subject to numerous EU, international, national, regional and local laws and regulations regarding the impact of its operations on the environment and health and safety of employees, contractors, communities and properties. Generally, these laws and regulations require acquisition of a permit before drilling for hydrocarbons may commence, restrict the types, quantities and concentration of various substances that can be released into the environment in connection with exploration, drilling and production activities, including refinery and petrochemical plant operations, limit or prohibit drilling activities in certain protected areas, require to remove and dismantle drilling platforms and other equipment and well plug-in once oil and gas operations have terminated, provide for measures to be taken to protect the safety of the workplace and health of communities involved by the Company's activities, and impose criminal or civil liabilities for polluting the environment or harming employees' or communities' health and safety resulting from the Group's operations.

These laws and regulations set limits to the emission of scrap substances and pollutants and discipline the handling of hazardous materials and discharges of water contaminants nad nocive air emissions resulting from the operation of oil and natural gas extraction and processing plants, petrochemical plants, refineries, service stations, vessels, oil carriers, pipeline systems and other facilities owned or operated by Eni. In addition, Eni's operations are subject to laws and regulations relating to the production, handling, transportation, storage, disposal and treatment of waste.

Breaches of environmental, health and safety laws and regulations as in the case of negligent or willful release of pollutants into the atmosphere, the soil or groundwater or the overcome of concentration threshold of contaminants set by the law expose the Company to the incurrence of liabilities associated with compensation for environmental, health or safety damage and expenses for environmental remediation and clean-up. Furthermore, in the case of violation of certain rules regarding the safeguard of the environment and safety in the workplace and of communities, the Company may be liable for the negligent or willful conduct on part of its employees as per Italian Law Decree No. 231/2001, which assumes that any misconduct of employees in the field of environmental and health matters can be ascribed to the Company.

Environmental, health and safety laws and regulations have a substantial impact on Eni's operations. Management expects that the Group will continue to incur significant amounts of operating expenses and expenditures in the foreseeable future to comply with laws and regulations and to safeguard the environment, safety in the workplace, health of employees, contractors and communities involved by the Company operations, including:

- costs to prevent, control, eliminate or reduce certain types of air and water emissions and handle waste and other hazardous materials, including the costs incurred in connection with government action to address climate change;
- remedial and clean-up measures related to environmental contamination or accidents at various sites, including those owned by third parties (see discussion below);
- damage compensation claimed by individuals and entities, including local, regional or state administrations, should Eni cause any kind of accident, oil spill, well blowouts, pollution, contamination, emission of GHG above permitted levels or of any other hazardous gases, water, ground or air contaminants or pollutants, as a result of its operations or if the Company is found guilty of violating environmental laws and regulations; and
- costs in connection with the decommissioning and removal of drilling platforms and other facilities, and well plugging at the end of Oil & Gas field production.

As a further result of any new laws and regulations or other factors, like the actual or alleged occurrence of environmental damage at Eni's plants and facilities, the Company may be forced to curtail, modify or cease certain operations or implement temporary shutdowns of facilities, which could diminish Eni's productivity and materially and adversely impact Eni's results of operations, cash flow and liquidity.

Risks of environmental, health and safety incidents and liabilities are inherent in many of Eni's operations and products. Management believes that Eni adopts high operational standards to ensure safety in running its operations and safeguard of the environment and the health of employees, contractors and communities. In spite of such measures, it is possible that incidents like blowouts, oil spills, contaminations, pollution, and release in the air, soil and ground water of pollutants and other dangerous materials, liquids or gases, and other similar events could occur that would result in damage, also of large proportion and reach, to the environment, employees, contractors, communities and property. The occurrence of any such events could have a material adverse impact on the Group's business, competitive position, cash flow, results of operations, liquidity, future growth prospects, shareholders' returns and damage to the Group's reputation.

Eni has incurred in the past and may incur in the future material environmental liabilities in connection with the environmental impact of its past and present industrial activities. Eni is also exposed to claims under environmental requirements and, from time to time, such claims have been made against us. Furthermore, environmental requirements and regulations in Italy and elsewhere typically impose strict liability. Strict liability means that in some situations Eni could be exposed to liability for clean-up and remediation costs, environmental damage, and other damages as a result of Eni's conduct of operations that was lawful at the time it occurred or of the conduct of prior operators or other third parties. In addition, plaintiffs may seek to obtain compensation for damage resulting from events of contamination and pollution or in case the Company is found liable of violations of any environmental laws or regulations.

In Italy, Eni is exposed to the risk of expenses and environmental liabilities in connection with the impact of its past activities at certain industrial hubs where the Group's products were produced, processed, stored, distributed or sold, such as chemical plants, mineral-metallurgic plants, refineries and other facilities, which were subsequently disposed of, liquidated, closed or shut down. At these industrial hubs, Eni has undertaken a number of initiatives to remediate and to clean-up proprietary or concession areas that were allegedly contaminated and polluted by the Group's industrial activities. State or local public administrations have sued Eni for environmental and other damages and for clean-up and remediation measures in addition to those which were performed by the Company, or which the Company committed to perform. In some cases, Eni has been sued for alleged breach of criminal laws (for example for alleged environmental crimes such as failure to perform soil or groundwater reclamation, environmental disaster and contamination, discharge of toxic materials, amongst others). Although Eni believes that it may not be held liable for having exceeded in the past pollution thresholds that are unlawful according to current regulations but were allowed by laws then effective, nor because the Group took over operations from third parties, it cannot be excluded that Eni could potentially incur such environmental liabilities.

Eni's financial statements account for provisions relating to the costs to be incurred with respect to clean-ups and remediation of contaminated areas and groundwater for which a legal or constructive obligation exists and the associated costs can be reasonably estimated in a reliable manner, regardless of any previous liability attributable to other parties. The accrued amounts represent management's best estimates of the Company's existing liabilities.

Management believes that it is possible that in the future Eni may incur significant environmental expenses and liabilities in addition to the amounts already accrued due to: (i) the likelihood of as yet unknown contamination; (ii) the results of ongoing surveys or surveys to be carried out on the environmental status of certain Eni's industrial sites as required by the applicable regulations on contaminated sites; (iii) unfavourable developments in ongoing litigation on the environmental status of certain of the Company's sites where a number of public administrations and the Italian Ministry of the Environment act as plaintiffs; (iv) the possibility that new litigation might arise; (v) the probability that new and stricter environmental laws might be implemented; and (vi) the circumstance that the extent and cost of environmental restoration and remediation programs are often inherently difficult to estimate leading to underestimation of the future costs of remediation and restoration, as well as unforeseen adverse developments both in the final remediation costs and with respect to the final liability allocation among the various parties involved at the sites.

As a result of those risks, environmental liabilities could be substantial and could have a material adverse effect on Eni's results of operations, cash flow, financial condition, business prospects, reputation and shareholders' value, including dividends and the share price.

Rising public concern related to climate change has led and could continue to lead to the adoption of national and international laws and regulations which are expected to result in a decrease of demand for hydrocarbons and increased compliance costs for the Company. Eni is also exposed to risks of technological breakthrough in the energy field and risks of unpredictable extreme meteorological events linked to the climate change.
All these developments may adversely affect the Group's profitability, businesses outlook and reputation
Growing worldwide public concern over greenhouse gas (GHG) emissions and climate change, as well as increasingly regulations in this area, could adversely affect the Group's business and reputation, increase its operating costs and reduce its results of operations, cash flow, financial condition, business prospects and shareholders returns. Those risks may emerge in the short and medium-term, as well as over the long term.

The scientific community has established a link between climate change and increasing GHG concentration in the atmosphere. International efforts to limit global warming have led, and Eni expects them to continue to lead, to new laws and regulations designed to reduce GHG emissions that are expected to bring about a gradual reduction in the use of fossil fuel over the medium to long-term, notably through the diversification of the energy mix.

Governmental institutions have responded to the issue of climate change on two fronts: on one side, governments can both impose taxes on GHG emissions and incentivize a progressive shift in the energy mix away from fossil fuels, for example, by subsidizing the power generation from renewable sources.

Some governments have already introduced carbon pricing schemes, which can be an effective measure to reduce GHG emissions at the lowest overall cost to society. Today, about

half of the GHG direct emissions coming from Eni operated assets are already included in national or supranational Carbon Pricing Mechanisms, such as the European Emission Trading Scheme. Eni expects that more governments will adopt similar schemes and that a growing share of the Group's GHG emissions will be subject to carbon-pricing and other forms of climate regulation in the short to medium term. Eni expects that governments require companies to apply technical measures to reduce their GHG emissions. Eni is already incurring operating costs related to its participation in the European Emission Trading Scheme, whereby Eni is required to purchase on the open markets emission allowances in case its GHG emissions exceed freely-assigned emission allowances (see note No. 27 to the Financial Statements). In 2018 to comply with this carbon emissions scheme, Eni purchased on the open market allowances corresponding to 12.7 million tonnes of CO_2 emissions. In certain jurisdictions, Eni is also subject to carbon pricing schemes in Norway. Due to the likelihood of new regulations in this area, Eni expects additional compliance obligations with respect to the release, capture, and use of carbon dioxide that could result in increased investments and higher project costs for Eni and could have a material adverse effect on Eni's operating costs and results of operations, cash flow, financial condition, business prospects and shareholders' returns. Eni also expects that governments will also require companies to apply technical measures to reduce their GHG emissions.

Eni expects that the achievement of the Paris Agreement goal of holding the increase in global average temperature to less than 2 °C above pre-industrial levels, or the more stringent goal advocated by the Intergovernmental Panel on Climate Change (IPCC) to limit global warming to 1.5 °C, will strengthen the global response to the threat of climate change and spur governments to introduce further measures and policies targeting the reduction of GHG emissions, which will reduce local demand for fossil fuels, thus negatively affecting global demand for oil and natural gas. Eni's business depends on the global demand for oil and natural gas. If existing or future laws, regulations, treaties, or international agreements related to GHG and climate change, including incentives to preserve energy or use alternative energy sources, technological breakthrough in the field of renewable energies or mass-adoption of electric vehicles reduce the worldwide demand for oil and natural gas by a large amount, Eni's results of operations, cash flow, financial condition, business prospects and shareholders' returns may be significantly and adversely affected.

The scientific community has concluded that increasing global average temperatures produces significant physical effects, such as the increased frequency and severity of hurricanes, storms, droughts, floods or other extreme climatic events that could interfere with Eni's operations and damage Eni's facilities. Extreme and unpredictable weather phenomena can result in material disruption to Eni's operations, and consequent loss of or damage to properties and facilities, as well as a loss of output, loss of revenues, increasing maintenance and repair expenses and cash flow shortfall.

Finally, there is a reputational risk linked to the fact that oil companies are increasingly perceived by institutions and the general public as the entities responsible of the global warming due to GHG emissions across the value chain and in particular related with the use of energy products. This could possibly make Eni's shares less attractive to investment funds and individual investors who have been more and more assessing the risk profile of companies against their carbon footprint when making investment decisions. This trend could have a material adverse effect on the price of our securities and our ability to access equity or other capital markets. Additionally, the World Bank has announced plans to stop financing upstream oil and gas projects in 2019. Similarly, according to press reports, other financial institutions also appear to be considering limiting their exposure to certain fossil fuel projects. Accordingly, our ability to use financing for future projects may be adversely impacted. This could also adversely impact our potential partners' ability to finance their portion of costs, either through equity or debt. Further, in some Countries, governments and regulators have filed lawsuits seeking to hold fossil fuel companies, including Eni, liable for costs associated with climate change. Losing any of these lawsuits could have a material adverse effect on our results of operations, cash flows, liquidity and business prospects.

Risks related to legal proceedings and compliance with anti-corruption legislation

Eni is the defendant in a number of civil and criminal actions and administrative proceedings. In addition to existing provisions accrued as of December 31, 2018 to account for ongoing proceedings, in future years Eni may incur significant losses in addition to the amounts already accrued in connection with pending or future legal proceedings due to: (i) uncertainty regarding the final outcome of each proceeding; (ii) the occurrence of new developments that management could not take into consideration when evaluating the likely outcome of each proceeding in order to accrue the risk provisions as of the date of the latest financial statements; (iii) the emergence of new evidence and information; and (iv) underestimation of probable future losses due to the circumstance that they are often inherently difficult to estimate. Certain legal proceedings and investigations in which Eni or its subsidiaries or its officers and employees are defendant involve the alleged breach of anti-bribery and anti-corruption laws and regulations and other ethical misconduct. Such proceedings are described in note 27 to the 2018 consolidated financial statements, under the heading "Legal Proceedings". Ethical misconduct and noncompliance with applicable laws and regulations, including noncompliance with anti-bribery and anti-corruption laws, by Eni, its officers and employees, its partners, agents or others that act on the Group's behalf, could expose Eni and its employees to criminal and civil penalties and could be damaging to Eni's reputation and shareholder value.

Risks from acquisitions

Eni is constantly monitoring the oil and gas market in search of opportunities to acquire individual assets or companies with a view of achieving its growth targets or complementing its

asset portfolio. Acquisitions entail an execution risk – the risk that the acquirer will not be able to effectively integrate the purchased assets so as to achieve expected synergies. In addition, acquisitions entail a financial risk – the risk of not being able to recover the purchase costs of acquired assets, in case a prolonged decline in the market prices of oil and natural gas occurs. Eni may also incur unanticipated costs or assume unexpected liabilities and losses in connection with companies or assets it acquires. If the integration and financial risks related to acquisitions materialize, expected synergies from acquisition may fall short of management's targets and Eni's financial performance and shareholders' returns may be adversely affected.

Risks deriving from Eni's exposure to weather conditions
Significant changes in weather conditions in Italy and in the rest of Europe from year to year may affect demand for natural gas and some refined products. In colder years, demand for such products is higher. Accordingly, the results of operations of the Gas & Power segment and, to a lesser extent, the Refining & Marketing business, as well as the comparability of results over different periods may be affected by such changes in weather conditions.

Eni's crisis management systems may be ineffective
Eni has developed contingency plans to continue or recover operations following a disruption or incident. An inability to restore or replace critical capacity to an agreed level within an agreed period could prolong the impact of any disruption and could severely affect business, operations and financial results. Eni has crisis management plans and the capability to deal with emergencies at every level of its operations. If Eni does not respond or is not seen to respond in an appropriate manner to either an external or internal crisis, its business and operations could be severely disrupted with negative consequences on results of operations and cash flow.

Exposure to financial risk
Eni's business activities are exposed to financial risk, which includes exposure to market risk, including commodity price risk, interest rate risk and foreign currency risk, as well as liquidity risk, and credit risk.

Eni's primary source of exposure to financial risk is the volatility in commodity prices. Generally, the Group does not hedge its strategic exposure to the commodity risk associated with its plans to find and develop oil and gas reserves, volume of gas purchased under its long-term gas purchase contracts, which are not covered by contracted sales, its refining margins and other activities. The Group's risk management objectives in addressing commodity risk are to optimize the risk profile of its commercial activities by effectively managing economic margins and safeguarding the value of Eni assets. To achieve this, Eni engages in risk management activities seeking both to hedge Group's exposures and to profit from short-term market opportunities and trading.

Eni is engaged in substantial trading and commercial activities in the physical markets. Eni also uses financial instruments such as futures, options, Over-the-Counter forward contracts, market swaps and contracts for differences related to crude oil, petroleum products, natural gas and electricity in order to manage the commodity risk exposure. Eni also uses financial instruments to manage foreign exchange and interest rate risk.

The Group's approach to risk management includes identifying, evaluating and managing the financial risk using a top-down approach whereby the Board of Directors is responsible for establishing the Group risk management strategy and setting the maximum tolerable amounts of risk exposure. The Group's Chief Executive Officer is responsible for implementing the Group risk management strategy, while the Group's Chief Financial Officer is in charge of defining policies and tools to manage the Group's exposure to financial risk, as well as monitoring and reporting activities.

Various Group committees are in charge of defining internal criteria, guidelines and targets of risk management activities consistent with the strategy and limits defined at Eni's top level, to be used by the Group's business units, including monitoring and controlling activities. Although Eni believes it has established sound risk management procedures, trading activities involve elements of forecasting and Eni is exposed to the risks of market movements, of incurring significant losses if prices develop contrary to management expectations and of default of counterparties.

Disruption to or breaches of Eni's critical IT services or information security systems could adversely affect the Group's activities
The Group's activities depend heavily on the reliability and security of its information technology (IT) systems. The Group's IT systems, some of which are managed by third parties, are susceptible to being compromised, damaged, disrupted or shutdown due to failures during the process of upgrading or replacing software, databases or components, power or network outages, hardware failures, cyber-attacks (viruses, computer intrusions), user errors or natural disasters. The cyber threat is constantly evolving. Attacks are becoming more sophisticated with regularly renewed techniques while the digital transformation amplifies exposure to these cyber threats. The adoption of new technologies, such as the Internet of things (IoT) or the migration to the cloud, as well as the evolution of architectures for increasingly interconnected systems, are all areas where cyber security is a very important issue. The Group and its service providers may not be able to prevent third parties from breaking into the Group's IT systems, disrupting business operations or communications infrastructure through denial-of-service attacks, or gaining access to confidential or sensitive information held in the system. The Group, like many companies, has been and expects to continue to be the target of attempted cybersecurity attacks. While the Group has not experienced any such attack that has had a material impact on its business, the Group cannot guarantee that its security measures will be sufficient to prevent a material disruption, breach or compromise in the future.

As a result, the Group's activities and assets could sustain serious damage, services to clients could be interrupted, material intellectual property could be divulged 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, including its operating income and cash flow.

The United Kingdom leaving the European Union may affect the Group's results

On June 23, 2016, the UK held a referendum to decide on the UK's membership of the European Union. The UK vote was to leave the European Union. There are a number of uncertainties in connection with the future of the UK and its relationship with the European Union. The negotiation of the UK's exit terms is likely to take a number of years. Until the terms and timing of the UK's exit from the European Union are clearer, it is not possible to determine the impact that the referendum, the UK's departure from the European Union and/or any related matters may have on the business of the Issuer.

As such, no assurance can be given that such matters would not adversely affect the Company's business prospects, results of operations, cash flows and liquidity.

OUTLOOK

For further information on Eni's business outlook and financial and operational targets, please see the chapter "Scenario and Strategy".

CONSOLIDATED DISCLOSURE OF NON-FINANCIAL INFORMATION

In accordance with the Italian Legislative Decree 254/2016

Introduction

Eni's 2018 Consolidated Disclosure of Non-Financial Information (NFI) has been prepared by structuring the report on the three levers of Eni's integrated business model (Path to Decarbonisation, Operational Excellence Model and Promotion of Local Development) whose objective is to create long-term value for stakeholders, combining financial stability with social and environmental sustainability.
The NFI provides an integrated view on the topics set out in Italian Legislative Decree 254/2016, also by providing references to other sections of the Annual Report or to the Corporate Governance Report, if the information is already contained therein or to provide further explanation. In particular, the Annual Report illustrates:

- Eni's business and Governance Model;
- risk management in the sections (i) "Integrated Risk Management", including Eni's Integrated Risk Management (IRM) model, the control levels, the process – including the sustainability aspects – and its governance, and the main activities for 2018; (ii) "Targets, risks and treatment measures", showing the Top Risks for Eni and the main actions taken by the Company to mitigate them; (iii) "Risk factors and uncertainties", where the main non-financial risks, their potential impacts and treatment actions are described in greater detail.

The NFI illustrates in detail:

- Company policies in the section "Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics". Eni has a regulatory system composed of direction, coordination and control instruments (Policies and Management System Guidelines - MSGs) and instruments which define the operating procedures (procedures and operating instructions). The Policies, approved by the BoD, define the principles and general rules of conduct on which Eni's activities must, without exception, be based. The MSGs, instead, are common guidelines for all Eni units for the management of operating and business support processes and cross-cutting compliance and governance processes, including sustainability aspects;
- the main features of the "Eni Organizational and Management Models" for the following issues: environment, climate, people, health and safety, human rights, suppliers, transparency and anti-corruption, local communities, innovation and digitalization;
- the strategy on the issues dealt with, the most significant initiatives of the year and the main performance results with related comments. The contents of the "Path to Decarbonization" are drafted according to the voluntary recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) defined by the Financial Stability Board.

Finally, reference to the main United Nations Sustainable Development Goals (SDGs) has been included in the various chapters. The UN's 2030 Agenda for Sustainable Development, presented in September 2015, identifies 17 Sustainable Development Goals, which represent common goals for the current complex social challenges. These goals are a valuable source of guidance for the international community and for Eni in conducting its activities in the Countries in which it operates.
As in previous years, Eni will also publish, on the occasion of the Shareholders' Meeting, the Sustainability Report (Eni For), which will continue to be a voluntary disclosure document, certified according to the GRI Standards and with its own limited assurance.
Below is a table showing the correspondence between the information content required by the Decree and its position within the NFI, the Annual Report or Corporate Governance Report.

AREAS OF THE ITALIAN LEGISLATIVE DECREE 254/2016	PARAGRAPHS INCLUDED IN THE NFI	THEMES AND FOCUSES IN THE ANNUAL REPORT (AR) AND IN THE CORPORATE GOVERNANCE AND SHAREHOLDING STRUCTURE REPORT (CGR)	
COMPANY MANAGEMENT MODEL AND GOVERNANCE *Art. 3.1, paragraph a)*	• Eni's organizational and management models, p. 107 • Path to decarbonization, pp. 108-111 • Operational excellence model, pp. 112-122 • Promotion of local development: cooperation model, pp. 122-123 • Key sustainability topics, p. 124	AR	○ Business Model, p. 4 ○ Responsible and sustainable approach, p. 5 ○ Governance, pp. 24-29 ○ Stakeholders engagement, pp. 14-15
		CGR	▸ Responsible and sustainable approach, pp. 8-10 ▸ Corporate Governance Model, pp. 11-13 ▸ Board of Directors: composition, pp. 35-40 and Board induction, p. 55 ▸ Board committees, pp. 55-64 ▸ Board of Statutory Auditors, pp. 64-73 ▸ Model 231, pp. 101-102
POLICIES *Art. 3.1, paragraph b)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106	CGR	▸ Eni Regulatory System, pp. 87-100
RISK MANAGEMENT MODEL *Art. 3.1, paragraph c)*	• Path to decarbonization, pp. 108-111 • People, pp. 112-114 • Safety, p. 115 • Respect for the environment, pp. 116-118 • Human Rights, pp. 118-120 • Suppliers, p. 120 • Transparency and anti-corruption, pp. 121-122	AR	○ Integrated Risk Management Model, p. 20; Integrated Risk Management Process, p. 21; Targets, risks and treatment measures pp. 22-23; Risk factors and uncertainties, pp. 87-102

AREAS OF THE ITALIAN LEGISLATIVE DECREE 254/2016		PARAGRAPHS INCLUDED IN THE NFI		THEMES AND FOCUSES IN THE ANNUAL REPORT (AR) AND IN THE CORPORATE GOVERNANCE AND SHAREHOLDING STRUCTURE REPORT (CGR)	
PATH TO DECARBONIZATION	**CLIMATE CHANGE** *Art. 3.2, paragraph a)* *Art. 3.2, paragraph b)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • Path to decarbonization (governance, risk management, strategy and objectives), pp. 108-111	AR	o Integrated Risk Management, pp. 20-23; Safety, security, environmental and other operational risks, pp. 89-91; Risks related to climate change, pp. 99-100 o Scenario and strategy, pp. 16-19
			CGR	▸ Responsible and sustainable approach, pp. 8-10
OPERATIONAL EXCELLENCE MODEL	**PEOPLE** *Art. 3.2, paragraph d)* *Art. 3.2, paragraph c)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • People (employment, diversity and inclusion, training, industrial relations, welfare, health), pp. 112-114 • Safety, p. 115	AR	o Integrated Risk Management, pp. 20-23; Risks associated with the exploration and production of oil and natural gas, pp. 90-94; Safety, security, environmental and other operational risks, pp. 89-91 o Governance, pp. 24-29 (Remuneration Policy, p. 28)
	RESPECT FOR THE ENVIRONMENT *Art. 3.2, paragraph a)* *Art. 3.2, paragraph b)* *Art. 3.2, paragraph c)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • Respect for the environment (circular economy, water, spills, waste, biodiversity), pp. 116-118	AR	o Integrated Risk Management, pp. 20-23; Risks associated with the exploration and production of oil and natural gas, pp. 91-94; Safety, security, environmental and other operational risks, pp. 89-91
	HUMAN RIGHTS *Art. 3.2, paragraph e)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • Human rights (risk management, security, training, whistleblowing), pp. 118-120	CGR	▸ Responsible and sustainable approach, pp. 8-10
	SUPPLIERS *Art. 3.1, paragraph c)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • Suppliers (risk management), p. 120		
	TRANSPARENCY AND ANTI-CORRUPTION *Art. 3.2, paragraph f)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • Transparency and anti-corruption, pp. 121-122	AR	o Integrated Risk Management, pp. 20-23; Risks related to legal proceedings and compliance with anti-corruption legislation, p. 100 o The internal control and risk management system, p. 29
			CGR	▸ Principles and values. Code of Ethics, p. 7; Anti-Corruption Compliance Program, pp. 102-104
PROMOTION OF LOCAL DEVELOPMENT: COOPERATION MODEL	**LOCAL COMMUNITIES** *Art. 3.2, paragraph d)*	• Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics, p. 106 • Eni's organizational and management models, p. 107 • Promotion of local development: cooperation model, pp. 122-123	AR	o Integrated Risk Management, pp. 20-23; Political considerations, pp. 94-96; Risks associated with the exploration and production of oil and natural gas, pp. 91-94

AR Annual Report 2018.
CGR Corporate Governance Report 2018.

o Sections/paragraphs providing the disclosures required by the Decree.
▸ Sections/paragraphs to which reference should be made for further details.

Main regulatory and guiding instruments related to Legislative Decree 254/2016 topics

PATH TO DECARBONIZATION

CLIMATE CHANGE

OBJECTIVE
Promote the energy transition

PUBLIC DOCUMENTS
"Sustainability" policy;
Eni's Position on Biomass

PRINCIPLES:
- reduce greenhouse gas emissions, improving plant efficiency and increasing the use of low carbon content fuel
- develop and implement new technologies for the reduction of Greenhouse gas emissions and more efficient energy production
- use the opportunities offered by the development of international carbon markets, including tools to reduce deforestation
- promote sustainable management of water resources
- assure a sustainable management of biomass throughout the supply chain
- acquire palm oil produced only in a sustainable way, in compliance with social, environmental and safety requirements

OPERATIONAL EXCELLENCE MODEL

PEOPLE, HEALTH AND SAFETY

OBJECTIVE
Valorize Eni's people and protect their health and safety

PUBLIC DOCUMENTS
"Our people", "Integrity in our operations" policies

PRINCIPLES:
- respect the dignity of each person, valuing diversity, whether related to culture, ethnicity, gender, age, sexual orientation or disability
- provide managers with tools and support for the management and development of the people working for them
- identify the essential knowledge and skills for Company growth and promote their enhancement, development and sharing
- adopt equitable remuneration systems that motivate and support the retention of the best people to meet the needs of the business
- conduct activities in accordance with agreements and regulations on workers' health and safety and based on the principles of precaution, prevention, protection and continuous improvement

OPERATIONAL EXCELLENCE MODEL

RESPECT FOR THE ENVIRONMENT

OBJECTIVE
Use resources efficiently and protect biodiversity and ecosystem services

PUBLIC DOCUMENTS
"Sustainability", "Integrity in our operations" policies; "Eni biodiversity and ecosystem services policy"; "Eni's positioning with regards to Green Sourcing"

PRINCIPLES:
- consider, when evaluating projects and in operational practices, the presence of protected areas and of areas of biodiversity value, identifying potential impacts and mitigation actions
- ensure connections with environmental aspects (climate, BES[a] and management of water resources) and social issues such as the sustainable development of local communities
- promote circular economy and the commitment to the efficient use of resources
- promote Green Sourcing principles
- optimize control and reduction of emissions in air, water and soil
- implement sustainable remediation to return areas to the community or not use virgin areas for new industrial initiatives
- carry out "risk based" environmental studies to increase the quality of the response in the event of accident

OPERATIONAL EXCELLENCE MODEL

HUMAN RIGHTS

OBJECTIVE
Protect human rights

PUBLIC DOCUMENTS
"Sustainability", "Our people", "Our Partners in the Value Chain", "Integrity in our operations" policies; Code of Ethics; Eni Statement on Respect for Human Rights

PRINCIPLES:
- respect human rights and promote their respect among employees, partners and stakeholders, also through training and awareness-raising activities
- ensure a safe and healthy working environment and working conditions in line with international standards
- take into account Human Rights issues, from the very first feasibility evaluation phases of projects and respect the distinctive rights of indigenous peoples and vulnerable groups
- select partners who comply with the Code of Ethics and who are committed to preventing or mitigating impacts on human rights
- minimize the necessity for intervention by state and/or private security forces to protect employees and assets

OPERATIONAL EXCELLENCE MODEL

TRANSPARENCY AND ANTI-CORRUPTION

OBJECTIVE
Combat active and passive corruption

PUBLIC DOCUMENTS
"Anti-Corruption" Management System Guideline; "Our partners in the value chain" policy; Tax Strategy Guideline

PRINCIPLES:
- carry out business activities with fairness, correctness, transparency, honesty and integrity in compliance with the law
- prohibit bribery without exception
- prohibit offering, promising, giving, paying, directly or indirectly, benefits of any nature to a Public Official or a private person (active corruption)
- prohibit accepting, directly or indirectly, benefits of any nature from a Public Official or a private person (passive corruption)
- ensure that all Eni employees and partners comply with the internal anti-corruption regulations

PROMOTION OF LOCAL DEVELOPMENT: COOPERATION MODEL

LOCAL COMMUNITIES

OBJECTIVE
Promote relations with local communities and contribute to their development

PUBLIC DOCUMENTS
"Sustainability" policy

PRINCIPLES:
- create growth opportunities and enhance the skills of people and local companies in the territories where Eni operates
- involve local communities in order to consider their concerns on new projects, impact assessments and development initiatives
- identify and assess the environmental, social, economic and cultural impacts generated by Eni activities, including those on indigenous peoples
- promote free, prior and informed consultation with local communities
- cooperate in initiatives to guarantee independent, long-lasting and sustainable local development

(a) Biodiversity and Ecosystem Services.

	DIMENSION	ORGANIZATIONAL AND MANAGEMENT MODELS
PATH TO DECARBONIZATION	CLIMATE CHANGE	• **Organizational centralized function** dedicated to Climate Change, Energy Efficiency & New Issues • Long-term Positioning Initiatives Coordination Unit for **Circular Economy and Carbon Neutrality** initiatives in this area • **Climate Change Program** cross-functional working group whose Steering Committee is chaired by the CEO: it aims to gradually reduce GHG emissions in line with the 2 °C target • **Energy Transition Research and Development Program:** it aims to develop technologies to promote the rapid spread of natural gas usage, decarbonizing the supply chain • **Energy Solutions Department**: business development for energy production from renewable sources and management of relevant assets by dedicated companies • Unit of the Legal Affairs Department dedicated to the topics of Climate Change, Sustainability and Circular Economy • Energy management systems according to the ISO 50001 standard
OPERATIONAL EXCELLENCE MODEL	PEOPLE	• **Employment management and planning process** to align skills to the technical and professional needs of the Company • **Human resources management and development tools**, aimed at professional growth and involvement, inter-generational exchange of experiences, building of cross-cutting managerial development courses in line with the Company's strategic opportunities, professional development in core technical areas and valuing diversity • **Quality management system** for training, up-to-date and complying with the ISO 9001:2015 standard • **Knowledge management system** for integrating and sharing know-how and professional experiences • **National and international industrial relations management system:** participative model and platform of operating tools to motivate and engage employees in compliance with International Labour Organization conventions and the guidelines of the Institute for Human Rights and Business • **Integrated** environmental, **health** and safety **management system** based on an operating platform of qualified healthcare providers and partnerships with national and international university and governmental research centers and institutions • **Security management system** aimed at ensuring protection for Eni people in all the Countries in which Eni operates and particularly in high-risk Countries • **Welfare system** for the achievement of work-life balance and the enhancement of services for employees and their families
	SAFETY	• **Integrated** environmental, health and **safety management system** for workers with the aim of eliminating or mitigating the risks to which workers are exposed during their work activities • **Process safety management system** aimed at preventing major accidents by applying high technical and management standards (application of best practices for asset design, operating management, maintenance and decommissioning) • **Emergency preparation and response** with plans that put the protection of people and the environment first • **Product safety management system** for the assessment of risks related to the production, import, sale, purchase and use of substances/mixtures to ensure human health and environmental protection throughout their life cycle
	RESPECT FOR THE ENVIRONMENT	• **Integrated environmental**, health and safety **management system**: adopted in all plants and production units in accordance with the ISO 14001:2015 environmental management standard • **Application** of the Environmental, Social & Health Impact Assessment **(ESHIA) process** to all projects • **Technical meetings for the analysis and sharing of experiences on specific environmental issues** • **Green Sourcing**: model to identify analysis methods and technical requirements to be adopted for the selection of products and suppliers that are able to ensure better environmental performances • **Biomasses Working Group**: implementation of the commitments set out in Eni's Position on biomass and palm oil
	HUMAN RIGHTS	• **Human rights management process** regulated in a Management System Guideline • **Working Group on Business and Human Rights**: to further align business processes with the main international standards and best practices • **Application of the ESHIA process** to all projects, integrated with the analysis of human rights impacts • **Specific analyses** of human rights impacts known as **HRIA (Human Rights Impact Assessment)**
	TRANSPARENCY AND ANTI-CORRUPTION	• **231 Model**: sets out responsibilities, sensitive activities and control protocols for crimes of corruption under Italian Legislative Decree 231/01 (including environmental crimes and crimes relating to workers' health and safety) • **Anti-Corruption Compliance Program**: system of rules and controls to prevent corruption crimes • **Recognition for the Anti-Corruption Compliance Program**: certified pursuant to the ISO 37001:2016 standard • **"Anti-Corruption Compliance" organizational structure** under the "Integrated Compliance" department and reporting directly to the Chief Executive Officer
	SUPPLIERS	• **Procurement Process** designed to check compliance with Eni's requirements for ethical conduct and trustworthiness, health, safety, and environmental protection and human rights, through the qualification, selection, management and monitoring of suppliers, as well as through assessment using parameters set out by the Social Accountability Standard (SA8000)
PROMOTION OF LOCAL DEVELOPMENT: COOPERATION MODEL	LOCAL COMMUNITIES	• **Sustainability focal point at the local level**, who interfaces with the Company headquarters to define **local community development programs** in line with national development plans integrating business processes • **Application of the ESHIA process** to all projects • **Stakeholder Management System Platform** for the management and monitoring of the relations with local and other stakeholders and of grievances • **Risk identification, mitigation and monitoring system** linked to relations with local stakeholders
INNOVATION AND DIGITALIZATION	INNOVATION	• **Centralized Research & Development Function** for optimal sharing and best use of know-how • **Management of Technological Innovation projects** in line with R&D best practices (planning and control for the steps following the development of the technology) • **Continuous updating of procedures** relating to the protection of intellectual property and the identification of professional R&D service providers

PATH TO DECARBONIZATION

Taking into account the scientific evidence on climate change of the Intergovernmental Panel on Climate Change (IPCC), Eni intends to play a leading role in the energy transition process, supporting the objectives of the Paris Agreement. Eni has long been committed to promoting comprehensive and effective climate change disclosure and in this respect confirms its commitment to implementing the recommendations of the **Task Force on Climate Related Financial Disclosure** (TCFD) published in 2017. Disclosure on the path to decarbonization is structured around the four topic areas covered by TCFD recommendations: governance, risk management, strategy and metrics and objectives. The key elements of each topic are presented below and feature cross-references to the Eni for 2018 Report - Path to Decarbonization[1] for a complete analysis.

GOVERNANCE

Eni's decarbonization strategy is part of a structured system of Corporate Governance; within this, the **Board of Directors** (BoD) and the Chief Executive Officer (CEO) play a central role in managing the main aspects linked to climate change. The BoD examines and approves, based on the CEO's proposal, the Strategic Plan, which sets out strategies and includes objectives also on climate change and energy transition. Eni's economic and financial exposure to the risk that may derive from new carbon pricing mechanisms is examined by the BoD both in the phase leading up the authorisation of every investment and in the following half-year monitoring of the entire project portfolio.
The BoD is also informed annually on the result of the impairment test carried out on the main Cash Generating Units in the E&P sector and elaborated with the introduction of a carbon tax valued according to the IEA SDS scenario (see pages 99-100). Finally, the BoD is informed on a quarterly basis of the results of the risk assessment and monitoring activities of Eni's top risks, including climate change.
Since 2014, the BOD has been supported in conducting its duties by the **Sustainability and Scenarios Committee** (CSS), with whom examines, on a periodic basis, the integration between strategy, future scenarios and the medium/long-term sustainability of the business. During 2018, the CSS discussed in detail climate change issues at all meetings, including the decarbonisation strategy, energy scenarios, renewable energies, research and development to support the energy transition, climate partnerships and water resources and biodiversity issues[2]. Since the second half of 2017, the BoD and the CEO are also supported by an **Advisory Board**, composed of international experts, called to analyze the main geopolitical, technological and economic trends, including issues related to the decarbonization process[3]. In 2018, Eni also contributed to the "Climate Governance"[4] initiative of the World Economic Forum (WEF), with the involvement of the Eni BoD. From 2015, the CEO also chairs the Steering Committee of the **Climate Change Program**, a cross-functional working group composed of members of Eni's top management that assists the CEO in developing and monitoring an appropriate short/medium/long-term decarbonization strategy. The strategic commitment to reduce greenhouse gas emissions is part of the Company's key goals. Therefore, the CEO's short-term incentive plan includes the objective of reducing the intensity of GHG direct emissions from upstream operated activities by 12.5%. This objective is consistent with the target of reducing greenhouse gases by 2025 announced to the market and is applied to the incentives for Company managers who have a strategic role on this matter. Among the many international climate initiatives that Eni participates in, Eni's CEO sits on the Steering Committee of the **Oil and Gas Climate Initiative** (OGCI) as one of the founding companies. Established in 2014 by five European O&G companies, the OGCI now counts thirteen companies, representing about one third of global hydrocarbon production. In 2018, OGCI launched the first collective industry target, undertaking to reduce the intensity of methane emissions in upstream Oil & Gas operations. Through the Climate Investment scheme, the OGCI is currently engaged in the joint investment of $1 billion over 10 years in the development of technologies to reduce GHG emissions along the energy value chain at global level. As regards partnerships, Eni is the only O&G company to be actively involved, since the start of its work, in the **Task Force on Climate Related Financial Disclosure** (TCFD), set-up by the Financial Stability Board, which has drawn up voluntary recommendations for corporate climate change disclosure. In keeping with its commitment to climate disclosure, Eni has worked with its peers at the TCFD **Oil & Gas Preparer Forum** to harmonize the needs of reporting companies with those of users. In this context, the first status report on the implementation of the recommendations in 2017 highlighted the challenges of TCFD reporting and underscored the best practices: Eni was brought forth as an example of how a company should publish the risks and opportunities related to climate change in illustrating its strategy. Transparency in climate change reporting and the strategy implemented by the Company have allowed Eni to be, once again in 2018, a **leading company** with an A- rating in the Climate Change program of the CDP (formerly Carbon Disclosure Project), the main independent rating that evaluates the actions and strategies of listed international companies to combat climate change.

RISK MANAGEMENT

Eni has developed and adopted an Integrated Risk Management (IRM) model to ensure that management takes risk-informed decisions, taking fully into consideration current and potential future risks, including medium and long-term ones, as part of an organic and comprehensive vision.
The process is implemented using a "top-down, risk-based" approach, starting from the **contribution to the definition of Eni's Strategic Plan**, by means of analyses that support the understanding and

(1) This report will be published on the occasion of the Shareholders' Meeting scheduled in May.
(2) For more information, please refer to the section "Sustainability and Scenarios Committee" in the 2018 Corporate Governance Report.
(3) For more information, please refer to the chapter "Governance" of the Management report included in the Annual Report 2018.
(4) The initiative aims to raise the Boards' level of awareness of climate-related issues, also following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

evaluation of the likelihood of underlying risk (e.g. definition of specific de-risking objectives) and continue **with the support for its implementation** through periodic risk assessment & treatment cycles and monitoring. Risk prioritization is carried out on the basis of multi-dimensional matrices that measure the level of risk by combining clusters of probability of occurrence and impact in both quantitative and qualitative terms. The risk of Climate Change is identified as one of Eni's top strategic risks and is analysed, assessed and monitored by the CEO as part of the IRM process.

Main risks and opportunities

Climate change is analysed, evaluated and managed by considering energy transition aspects (market scenario, regulatory and technological evolution, reputational issues) and physical phenomena. The analysis is carried out using an integrated and cross-cutting approach which involves specialist departments and business lines and considers the related risks and opportunities. The main findings are shown below.

Market scenario. In the IEA Sustainable Development Scenario[5] (WEO 2018), taken as a reference to assess the risks of the energy transition, fossil fuels are expected to continue to play a central role in the energy mix (Oil & Gas equal to 48% of the mix in 2040), although in this scenario the global energy demand by 2040 is expected to fall slightly. Natural gas, which grows also in the SDS scenario, represents an opportunity for strategic repositioning for energy companies, due to its lower carbon intensity, the possibility of integration with renewable sources in electricity production and the prospects of growing hydrogen production.

Oil demand is expected to grow in the other IEA scenarios (Current Policies Scenario and New Policies Scenario), while in the IEA SDS scenario a peak is expected in almost all Countries before 2030 (except India and sub-Saharan Africa). Nonetheless, also considering the SDS scenario, there is a need for significant investments in the upstream sector to compensate for the drop in production from existing fields. There is residual uncertainty linked to the effect that regulatory developments and breakthrough technologies could have on the scenario, with a consequent impact on the Company business model. Eni carries out an assessment of the potential costs associated with GHG emissions, estimating them on the basis of the Sustainable Development Scenario (SDS) of the International Energy Agency (IEA), as illustrated more in detail in the section Risk Factors and Uncertainty (see pages 99-100).

Regulatory developments. The adoption of policies designed to support energy transition to low carbon sources could have significant impacts on the business. The differentiated approach by Country could provide an advantage for the development of new business opportunities. With particular reference to the European scenario, 2018 saw the entry into force of the amended EU-ETS Directive (covering the 2021-2030 period), of the "Circular Economy Package" and the approval of the Renewable Energy Directive (REDII, in force from 2021). At the international level, in 2018 an agreement was reached within the IMO (International Maritime Organization) on the adoption of an initial strategy to reduce greenhouse gas emissions from the shipping sector. Also in the light of this regulatory development, Eni has strengthened its commitment to the development of green business and renewable sources, as illustrated more in detail in the section Strategy and Objectives.

Technological developments. The need to build a final energy consumption model with low carbon footprint will favour technologies aimed at capturing and reducing GHG emissions, the production of hydrogen from gas as well as technologies that support the control of methane emissions along the Oil & Gas production chain. These elements will help to support the role of hydrocarbons in the global energy mix. On the other hand, technological development in the field of renewable energy production and storage and in the efficiency of electric vehicles could have impacts on the demand for hydrocarbons and therefore on the business. Scientific and technological research is therefore one of the levers on which Eni's decarbonization strategy is based and the areas of action are described in the section Strategy and Objectives.

Reputation. The increasing attention being given to climate change has an impact on the reputation of the entire Oil & Gas industry, seen as one of the main parties responsible for GHG emissions, with effects on the management of relations with the key stakeholders. The ability to develop and implement strategies to adapt the business model to a low carbon scenario, as well as the capacity to communicate these in a transparent manner provides an opportunity to improve stakeholder perceptions. As already mentioned, Eni's commitment to comprehensive and transparent reporting on climate change issues is confirmed by its participation in the TCFD proceedings and its recognition as a leading company in the CDP Climate Change.

Physical risks. Increasingly intense extreme/chronic climate phenomena in the medium to long term could cause damage to plants and infrastructure, resulting in an interruption of industrial activities and increased recovery and maintenance costs. With regard to extreme phenomena, such as hurricanes or typhoons, Eni's current portfolio of assets, designed in accordance with current regulations to withstand extreme environmental conditions, has a geographical distribution that does not result in concentrations of risk. The vulnerability of Eni assets to more gradual phenomena, such as rising sea levels or coastal erosion, is limited and it is therefore possible to envision and implement preventive mitigation measures to counter them.

STRATEGY AND OBJECTIVES

In relation to the risks and opportunities described above, Eni has defined a clear decarbonization strategy, integrated in its business model, that is developed in short/medium/long-term actions. Eni is committed in the implementation of its scientific and technological research activities (R&D) to achieve maximum efficiency in the decarbonization process and find innovative solutions to facilitate the energy transition.

In the short-term, Eni's strategy is based on the following drivers:

- **Efficiency increase and direct GHG emissions reduction of operated activities**: the objective for 2025 is to reduce upstream emission intensity by 43% compared to 2014 by eliminating process flaring, cutting fugitive methane emissions and implementing energy efficiency measures. This objective will contribute to the target of improving the operating efficiency index by 2% a year by 2021 compared to 2014; it will be pursued by all Eni business units through energy efficiency initiatives;

(5) International Energy Agency - Sustainable Development Scenario in the World Energy Outlook 2018.

- **low carbon and resilient Oil & Gas portfolio:** Eni's hydrocarbon portfolio has a high incidence of natural gas (>50%)[6], a bridge to a low-emission future. It is also characterized by conventional projects developed in stages. The main upstream projects being executed, which account for about **45%** of the total development investments in the sector in the 2019-2022 period, have a mean portfolio breakeven point at a Brent price of $25 per barrel, and are therefore resilient even in low carbon scenarios.
- **development of renewables and green business:** the promotion of renewables aims at reaching an installed electricity generation capacity equal to about 5 GW by 2025. In the green business sector, stage two of the Venice bio-refinery is expected to be completed by 2021, resulting in an increase in capacity to 560 ktons/year (360 ktons/year at present) and the start-up of the Gela biorefinery, with a capacity of up to 720 ktons/year, is scheduled in early 2019. The consolidation in Green Chemistry is continuing and in 2018 it saw the acquisition of the organic business of the Mossi & Ghisolfi Group and the development of recycling and recovery projects.

In the medium term, Eni aims to achieve the net zero carbon footprint on direct emissions of upstream activities valued (on an equity basis) by 2030, maximizing decarbonization initiatives and developing forestry projects to offset residual emissions.
An important role will also be played by the implementation of solutions allowing the capture, storage and reuse of CO_2. As a further decarbonization driver, Eni intends to develop circular economy initiatives aimed at enhancing waste and biomass to extract new energy, new products or materials and to give new life to decommissioned or reclaimed assets.
Overall spending in the four-year period 2019-22 for decarbonization, the circular economy and renewables is approximately €3.6 billion including scientific and technological research activities designed to support these issues.

METRICS AND COMMENTS

As part of its decarbonization strategy, Eni has adopted indicators that illustrate the progress achieved so far in the reduction of GHG emissions into the atmosphere, the use and consumption of energy from primary sources and the production of energy from renewables. With specific reference to emission rates, calculated on data 100% of the operated asset for which Eni has set strategic objectives, an overview of the results obtained in 2018 compared to the set targets is provided below.
Reduction of the upstream GHG emission intensity index by 43% by 2025 vs. 2014: the upstream GHG intensity index, expressed as the ratio between direct emissions[7] in tonnes of CO_2eq and thousands of barrels of oil equivalent, recorded a 6% decrease in 2018 compared to 2017, reaching 21.44 tCO_2eq/kboe. This is a 20% reduction compared to 2014, which is in line with the 2025 reduction target. The improvement in the index in 2018 is mainly due to the reduction in flaring emissions, the contribution to production of the gas fields in Egypt (Zohr) and Indonesia (Jangkrik) and the return to full operation in Norway (Goliat). Overall, these activities have a lower emission intensity comapared to the portfolio average.
Zero process gas flaring by 2025: the volume of hydrocarbons sent for process flaring in 2018 was equal to 1.4 billion Sm^3, a decrease of 9% compared to 2017 (1.6 billion Sm^3), mainly as a result of "zero flaring" achieved in Turkmenistan (Burun field). Through the measures implemented, the volume of hydrocarbons sent for process flaring was reduced by 16% compared to 2014, in line with the goal of zero process flaring by 2025. In 2018, Eni invested €39 million in flaring-down projects, especially in Nigeria and Libya.
Reduction of upstream fugitive methane emissions by 80% by 2025 vs. 2014: in 2018, upstream fugitive methane emissions were 38.8 kton CH_4 (-66% vs. 2014) and were unchanged compared to 2017 yet overall in line with the target. In this area, monitoring and maintenance campaigns (Leak Detection And Repair - LDAR) not only in the upstream sector, but also in the mid-downstream sector (Sergaz), with a 6% reduction in total Eni fugitive methane emissions compared to 2017.
Average improvement of 2% per year at 2021 compared to the 2014 operating efficiency index: the target extends the GHG reduction objectives (scope 1 and scope 2) to all business areas with the goal of improving the operating efficiency index by 2% a year[8]. This objective refers to the overall Eni index, maintaining the appropriate flexibility in the trends of the individual businesses. In 2018, the index stood at 33.90 tonCO_2eq/kboe, down 5.9% from 2017 (36.01 tonCO_2eq/kboe). This reduction already makes it possible to achieve the 2021 target, but Eni is nonetheless set on pursuing an improvement of at least 2% per annum in coming years as well. In addition to the upstream results already mentioned, this reduction was also made possible by a reduction in the emission intensity of refineries even with an increase in the performance index of EniPower. In 2018, Eni invested about €10 million in energy efficiency projects, which, once in full operation, will yield energy savings of 313 ktoe/year, amounting to a reduction in emissions of around 0.8 million tonnes of CO_2eq.
In 2018, GHG direct emissions, calculated on all Eni activities, amounted to 43.35 million tonCO_2eq (figure for 100% operated assets) and were stable (+0.5%) compared to 2017, while compared to 2010 they decreased by 26%. Flaring emissions decreased by 8% compared to the previous year, also as a result of emergency flaring containment measures, while venting emissions are in line with 2017. In 2018, electricity produced from photovoltaic grew by 20% YOY (19.3 vs. 16.1 GWh in 2017), while the production of biofuels stood at 219 thousand tonnes, up 6% YOY. For 2018, Eni's economic investment in scientific research and technological development amounted to €197.2 million, of which €74 million was spent on investments regarding the Path of Decarbonization. Energy transition, biorefining, green chemistry, renewable sources, emissions' reduction and energy efficiency were the main areas targeted by these investments.

(6) Percentage of gas on total equity hydrocarbon resources 3P+ Contingent at 31/12/2018.
(7) The GHG emissions from methane venting have been revised following the refinement of the estimation methodology, in line with international methodologies developed thanks to the CCMP OGMP Partnership. Therefore, the historical series of this emission category has been revised in order to ensure the consistency of the performance indices with respect to the reduction targets of the GHGs communicated by Eni.
(8) It expresses the GHG emissions intensity (scope 1 and scope 2 calculated on an operatorship basis expressed in tonCO_2eq and which consider the contributions of CO_2, CH_4 e N_2O) of Eni's main industrial productions compared to operated production (converted by homogeneity into barrels of oil equivalent using the Eni average conversion factors published in the Fact Book) in the individual businesses of reference, thus measuring their degree of operating efficiency in a decarbonization scenario. Scope 1 emissions are direct emissions from the Company's own assets. Scope 2 indirect emissions relate to the generation of electricity, steam and heat purchased from third parties.

Key Performance Indicators

		2018		2017		2016	
		Operated companies	Fully Consolidated entities	Operated companies	Fully Consolidated entities	Operated companies	Fully Consolidated entities
Direct GHG emissions (Scope 1)[a]	(million tonnes CO_2eq)	43.35	28.15	43.15	28.30	42.15	27.76
of which: CO_2eq from combustion and process		33.89	24.41	33.03	24.05	32.39	24.12
of which: CO_2eq from flaring		6.26	3.07	6.83	3.37	5.40	2.49
of which: CO_2eq from methane fugitive emissions		1.08	0.48	1.14	0.66	2.01	0.95
of which: CO_2eq from venting		2.12	0.19	2.15	0.23	2.35	0.19
Carbon efficiency index	(tonnes CO_2eq/kboe)	33.90	46.32	36.01	51.51	38.26	51.89
GHG emissions/100% operated hydrocarbon gross production (UPS)		21.44	20.91	22.75	24.04	23.56	22.29
GHG emissions/Equivalent electricity produced (EniPower)	(gCO_2eq/kWheq)	402	407	395	398	398	402
GHG emissions/Refinery throughputs	(tonnes CO_2eq/kt)	253	253	258	258	278	278
UPS methane fugitive emissions	(ktonnes CH_4)	38.8	15	38.8	19.4	72.6	30.3
Volumes of hydrocarbon sent to flaring	(billion Sm^3)	1.9	1.1	2.3	1.3	1.9	1.1
of which: sent to process flaring		1.4	0.6	1.6	0.6	1.5	0.8
Indirect GHG emissions (Scope 2)	(milllion tonnes CO_2eq)	0.67	0.56	0.65	0.54	0.71	0.58
Primary sources consumption[b]	(Mtoe)	13.0	9.4	13.0	9.1	12.5	8.8
Primary energy purchased from other companies		0.4	0.4	0.4	0.3	0.4	0.4
Electricity produced from photovoltaic[c]	(GWh)	19.3	19.2	16.1	16.1	13.5	13.5
Energy consumption from production activities/100% operated hydrocarbon gross production (UPS)	(GJ/toe)	1.42	n.a.	1.49	n.a.	1.71	n.a.
Net consumption of primary resources / Electricity produced (EniPower)	(toe/MWheq)	0.17	0.17	0.16	0.16	0.16	0.16
Energy Intensity Index (refineries)	(%)	112.2	112.2	109.2	109.2	101.7	101.7
R&D expenditures	(€ million)		197.2		185		161
of which: related to decarbonization			74		72		63
First patent filing applications	(number)		43		27		40
of which: filed on renewable sources			13		11		12
Production of biofuels	(ktonnes)		219		206		181
Capacity of biorefinery	(ktonnes/year)		360		360		360

(a) The GHG emissions from methane venting have been revised following the refinement of the estimation methodology, in line with international methodologies developed thanks to the CCMP OGMP Partnership. Therefore, the historical series of this emission category has been revised in order to ensure the consistency of the performance indices with respect to the reduction targets of the GHGs communicated by Eni.
(b) The figure differs from the data of the last year as the reporting method was refined.
(c) Unlike the NFI 2017, where the data referred only to EniPower, the data shown relates to the entire Eni perimeter.

OPERATIONAL EXCELLENCE MODEL

The operational excellence model lies in the constant commitment to minimizing risks and creating opportunities along the whole cycle of activities by enhancing people, safeguarding health and safety, protecting the environment, ensuring respect for and promoting human rights and paying the utmost attention to transparency and the fight against corruption.

People

Eni's business model is based on internal skills, an asset that is built up over time and with dedication and which increases its value in the long-term. In the coming years, Eni will continue to be engaged in a crucial transformation process that will see the development of new strategic guidelines – starting with the circular economy and the activities supporting decarbonization – alongside its traditional activities, which are currently in transition. In doing so, it will seize all the opportunities offered by Digital Transformation. Clearly, this will call for a continued effort to develop internal skills in order to ensure that these are constantly aligned with new business needs.

A culture of plurality and the development of people. Eni operates on an international scale. Its people are citizens of the world who live alongside the communities with which they work, which is why plurality is an essential value. Diversity is a resource and a source of value that must be safeguarded and promoted both within the Company and in all relationships with its stakeholders. For this reason, Eni promotes the development of local people through selection and professional development processes that ensure uniform management at a global level. With regard to gender diversity, Eni pays particular attention to the choice of members of the Boards of Directors of its subsidiaries, to the promotion of initiatives to attract female talents at a national and international level, and to the development of managerial and professional growth paths for the women in the Company. In this area, Eni takes part in national and international initiatives (Inspiring Girls Project[9], the "Manifesto for female employment"[10] of Valore D, Consorzio Elis – Sistema Scuola Impresa, WEF[11] and ERT[12]) with the aim of constantly enriching its processes and operating practices to achieve gender parity. Eni also regularly monitors the pay gap between the female and male population for the same position and seniority and has found that wages are substantially aligned. Pursuant to International Labour Organization (ILO) standards, Eni also carries out statistical analyses on the remuneration of local employees. The results show that the minimum levels set by Eni are significantly higher than the local market minimums.

Eni has also implemented managerial development and excellence pathways aimed at the core professional areas (dual career), which it supports through training activities, mobility initiatives, job rotation and development tools. In particular, mobility initiatives are offered to the managerial and non-managerial population, in order to maximise opportunities for cross-cutting enhancement and growth. Eni uses various assessment tools to support these development pathways, including the annual review and the performance and feedback process with a focus on senior managers, middle managers and young graduates. In 2018, 90% of the target population was covered by the performance assessment process and 95% by the annual review process.

Training. Training is given to Eni people around the world to create shared values and a common culture. Considering its people's skills which are essential to operational excellence, Eni plans and implements training courses for delivery in a universal and cross-cutting manner, projects for professional families and specialist initiatives for strategic activities with a high technical content. Training needs are mapped and evaluated annually according to specific needs. With reference to the global scenario and the ongoing digitalization process, the development and enhancement of digital skills are among the top priorities; in November 2018, the "Digital Transformation Center" platform was launched to make available the new "digital" skills needed to develop and use innovative technological solutions in operating processes. In addition, virtual reality training is being tested to simulate dangerous situations in controlled environments using the "learn-by-doing" approach. Finally, Eni has provided for training courses available to all on strategic issues, such as the Energy Transition and climate change.

Industrial relations. Eni maintains ongoing relations with national and international trade union organizations for the conclusion and renewal of agreements with its counterparts. At international level, the model of trade union relations is based on three pillars: two in Europe (the European Works Council and the European Observatory for the Health and Safety of Workers in Eni) and a global one, namely the Global Framework Agreement on International Industrial Relations and Corporate Social Responsibility[13]. With regard to this agreement, the second annual meeting was held on December 5, 2018 in Montreux. In addition to IndustriALL Global Union[14], it was attended by the main Italian trade unions, the members of the Select Committee of the European Works Council[15] and a delegation of workers' representatives from Eni's businesses in Congo, Ghana, Mozambique and Nigeria. During the meeting, Eni's 2018-2021 Strategic Plan was presented, along with a focus on employment,

(9) International project against stereotypes of women.
(10) Program document aimed at enhancing female talent in the Company and promoted by Valore D with the patronage of the Italian presidency of the G7 and the Department for Equal Opportunities of the Italian Presidency of the Council of Ministers.
(11) World Economic Forum.
(12) European Round Table.
(13) Second meeting since the signing of the Global Framework Agreement of July 7, 2016.
(14) Federation, founded in Copenhagen in 2012, representing more than 50 million workers in more than 140 Countries.
(15) The European Works Council is a body representing workers provided for by European Directive 94/45/EC to promote the transnational information and consultation of workers in undertakings.

the main HSE performance indicators and initiatives, Eni's sustainability approach and the activities of the Eni Foundation.

Parenthood, Welfare and Inclusion. Eni has continued with its strategy of developing policies in favour of protecting parenthood and the family, also in international mobility, by adopting in 2017, in all the Countries in which Eni operates, concrete policies to support maternity and paternity aimed at guaranteeing, in addition to the international standards of the ILO Convention, a 10-day period of fully paid leave for both parents. In 2018, the smart working pathway for new parents continued and was opened to colleagues with pathologies and in 2019, in Italy and depending on the positions held, a further progressive extension of this work scheme will be assessed.

In 2018, Eni's activities relating to services to people consolidated and reinforced its initiatives in support of families, with particular attention to services to employees who are caregivers of elderly or non-self-sufficient people, as well as those aimed at promoting health protection through the consolidation and extension of health prevention programs. With regard to welfare in Italy, the Flexible Benefit[16] scheme has been in place at Eni since 2017 and in 2018 Eni enhanced its supplementary health care offering to all non-managerial employees, guaranteeing increased reimbursements and the recognition of new reimbursable services as required in the "Welfare Protocol" signed on July 4, 2017 with the relevant Trade Unions. At the level of international labour law, a mapping of the ratifications of the main ILO Conventions in the Countries where Eni is present was carried out in 2018. This activity is further proof of the importance of, and Eni's commitment to, compliance with the fundamental principles set out in the ILO Conventions and is aimed at analyzing the status of ratifications in the Countries in which Eni operates.

Health. Eni considers health protection an essential requirement and promotes the physical, psychological and social well-being of Eni's people, their families and the communities of the Countries in which it operates. The extreme variability of business contexts requires a constant effort to update health risk matrices and makes it particularly challenging to guarantee health at every stage of the business cycle. To rise to this challenge, Eni has developed an operational platform that ensures services to its people, covering occupational health, industrial hygiene, traveller health, healthcare and medical emergency, as well as health promotion initiatives for Eni people and the communities in which it operates. In 2018, all of the Group companies continued the implementation of health management systems with the objective of promoting and maintaining the health and well-being of Eni people and ensuring adequate risk management in the workplace.

METRICS AND COMMENTS

Overall employment amounts to 30,950 people, of whom 20,576 in Italy (66.5% of Eni employees) and 10,374 abroad (33.5% of Eni employees). In 2018, employment at global level decreased by 1,245 people compared to 2017, equal to -3.9%, with an increase in Italy (+108) and a reduction abroad (-1,353 employees) due mainly to corporate reorganizations[17].

Overall, in 2018, 1,728 hires were made, of which 1,264 with permanent contracts. Of these, 29.1% covered female staff and about 81% regarded employees under 40 years of age. Of the total number of hires, approximately 42% were in the upstream business area (total 361, of which 186 were with permanent contracts and 175 with fixed-term contracts), 25% in the R&M&C area and 33% in the Gas & Power and Support Function areas. In all, 1,778 contracts were terminated, 1,270 of which were permanent contracts[18], and 25% regarded female employees. In 2018, 28.3% of the permanent contracts terminated involved employees under the age of 40.

In 2018, the percentage of women in positions of responsibility rose to 25.28%, compared to 24.86% in 2017. Similarly, there was an upward trend in the percentage of women on the management and control bodies of Eni companies, reaching 33% and 39%, respectively, in 2018.

In Italy, 868 people were hired, 691 of whom with permanent contracts (28.9% women, up 7% compared to 2017). The number of personnel employed increased, particularly for the younger age group (18-24), mainly due to the hires at industrial sites in Italy including Viggiano, Livorno, Sannazzaro, Mantova and Taranto. In 2018, the number of terminations in Italy rose (+951 employees), of which 640 permanent contracts (of which 21.7% were women).

In 2018, 860 hires were made abroad, of which 573 with permanent contracts (of which 29.3% women) with 72.1% of employees under the age of 40. Of the hires abroad, more than 60% refer to the upstream business area (Mexico, Indonesia, Norway, and the UK) and G&P business area (France, Hungary and the UK), with the aim of developing and promoting new initiatives, as well as of supporting turnover. As regards terminations, 827 contracts were terminated, of which 630 permanent contracts. Of these, 43.3% regarded employees under the age of 40, and 28.3% were women.

At year end, the balance between hires and terminations abroad was +33 (+860 -827) and was basically the result of the growth of the G&P retail business in France, the consolidation of R&M&C and upstream activities in Mexico and Indonesia, the re-dimensioning of activities in the gas business in Hungary and the release of local and international employees in upstream activities in Nigeria, Pakistan and the Americas. A reduction in local employees was registered outside of Italy (-1,438 compared with the previous year), resulting in a drop in the percentage of local staff out of total employment abroad from 85.4% in 2017 to 82.6% in 2018. A total of 1,802 expatriates (of whom 1,261 are Italian) work abroad, slightly up from 2017 (+27 Italians).

The average age of Eni people in the world is 45.4 years (46.7 in Italy and 42.9 abroad; +0.1 years compared to 2017). The average age is 49.3 years (50.3 in Italy and 46.9 abroad) for senior and middle managers, 44.3 years (46 in Italy and 41 abroad) for white collar workers, and 41.3 years (40.5 in Italy and 42.4 abroad) for blue collar workers.

In 2018, thanks also to the "digital learning" initiatives delivered through the "Digital Transformation Center", there was a significant 5.2% increase in training hours compared to 2017.

In the field of health, the number of health services sustained[19] by Eni in 2018 was 473,437, of which 320,933 for employees, 66,327 for family members, 68,796 for contractors and 17,381 for others (e.g., visitors and external patients).

The number of participants in health promotion initiatives[19] in 2018 was 170,431, of whom 75,938 were employees, 46,930 contractors and 47,563 family members.

(16) Initiative that enables a share of the performance bonus to be converted into goods and services, benefiting from the tax and contributions savings.
(17) Of note are the sale of Tigaz and the deconsolidation of Eni Norge.
(18) Of which about 50% for retirement and 40% for resignation.
(19) The health data consider the companies significant from the point of view of health impacts, with two points of view: the data only for the fully consolidated entities as required by the Decree (data relating to occupational disease claims) and the data including companies under joint operation or joint control or associates in which Eni has control of operations (for all other data).

As concerns occupational illnesses, claims fell during 2018 from 120 to 81, with an overall reduction of 33%, due to the reduction of illnesses reported, both by former employees (from 108 to 71 claims) and current employees (from 12 to 10 claims).

Of the 81 occupational disease claims submitted in 2018, 12 were submitted by heirs (11 relating to former employees and 1 to an employee).

Key Performance Indicators

		2018	2017	2016
Employees as of December, 31st[a]	(number)	30,950	32,195	32,733
Women		7,307	7,580	7,607
Italy		20,576	20,468	20,476
Abroad		10,374	11,727	12,257
Africa		3,374	3,303	3,546
Americas		1,257	1,216	1,236
Asia		2,505	2,418	2,523
Australia and Oceania		90	114	113
Rest of Europe		3,148	4,676	4,839
Employees aged 18-24		437	364	289
Employees aged 25-39		9,224	9,761	10,622
Employees aged 40-54		14,058	15,022	15,281
Employees aged over 55		7,231	7,048	6,541
Local employees abroad		8,572	10,010	10,377
Employees by professional category:				
Senior managers		1,008	990	1,000
Middle managers		9,147	9,043	9,135
White collars		15,839	16,600	16,842
Blue collars		4,956	5,562	5,756
Employees by educational qualification:				
Degree		14,603	14,802	14,655
Secondary school diploma		13,348	14,300	14,082
Less than secondary school diploma		2,999	3,093	3,996
Employees with permanent contracts[b]		30,183	31,609	32,299
Employees with fixed term contracts[b]		767	586	434
Employees with full-time contracts		30,390	31,612	32,139
Employees with part-time contracts[c]		560	583	594
Number of new hires with permanent contracts		1,264	992	663
Number of terminations of permanent contracts		1,270	1,312	1,417
Local senior managers & middle managers abroad	(%)	16.70	15.68	16.06
Seniority	(years)			
Senior managers		22.12	22.08	22.02
Middle managers		20.02	20.01	19.08
White collars		17.03	17.02	16.08
Blue collars		13.05	13.05	13.01
Presence of women on the Boards of Directors	(%)	33	32	27
Presence of women on the Boards of Statutory Auditors[d]		39	37	37
Training hours	(number)	1,169,385	1,111,112	930,345
Average hours of training per employee by employee category		36.9	34.2	28.1
Senior managers		41.7	31.7	27.6
Middle managers		37.2	35.7	23.9
White collars		36.2	34.5	30.6
Blue collars		37.7	31.6	27.5
Employees covered by collective bargaining	(%)	80.89	81.96	82.48
Italy		100	100	100
Abroad		35.33	44.54	47.46
Occupational illnesses allegations received	(number)	81	120	133
Employees		10	12	14
Previously employed		71	108	119

(a) The data differ from those published in the Annual Report (see inside cover) because they include only fully consolidated companies.
(b) The subdivision of fixed-term/permanent contracts does not vary significantly either by gender or by geographical area except for China and Mozambique where it is common practice to insert local resources for fixed term and then stabilize them over a period of 1-3 years.
(c) There is a higher percentage of women (7% of total women) on part-time contracts, compared to men (0.1% of total men).
(d) Outside of Italy, only the companies which a control body similar to the Italian Board of Statutory Auditors were considered.

Safety

Eni believes that the safety of people is a fundamental value to be shared among employees, contractors and local communities and an essential part of its operations. For this purpose, Eni takes all the necessary steps to eliminate the occurrence of accidents, including: risk assessment and management organizational models, training plans, skills development and promotion of a safety culture.
In 2018, to underscore the importance of maintaining correct and safe behaviour not only in the workplace, the campaign "Safety starts @ home" (aimed at employees) was launched through the Company intranet, consisting of 10 video clips to promote safety at home starting from the "Safety Golden Rules" (the 10 golden rules for safety at work, mandatory at Eni from 2018) and the initiative "I live safe" (for employees and third parties), a day dedicated to research and the implementation of practical tools for building healthy and safe habits even outside work through tangible and measurable actions (with companies) to be adopted for the entire duration of contracts. Meetings were also organised to raise workers' awareness of the lessons learned relating to accidents that occurred in the Company, which in 2018 were mainly related to work at height and the handling of loads. In particular, as regards the management of contractors at Eni's industrial sites, in 2018 control activities in the field were further strengthened through the more than 120 members of the Safety Competence Center[20] assigned to the coordination and supervision of the safety of work sites and contract works. More than 2,300 companies, accounting for 70% of Eni's HSE-critical suppliers in Italy, are constantly called upon to raise awareness to build their safety culture and are monitored and evaluated through tools set out and implemented by the Safety Competence Center. Non-conformities found are immediately redressed with corrective actions and good practices are recognized, shared and disseminated. In 2018, the first trials of the application of the Safety Competence Center's operational methodologies were carried out abroad (in particular in Tunisia and Angola), with positive results that suggest a systematic implementation in the coming years.
Eni has also intensified its focus on process safety culture[21], developing and implementing a specific management system, in line with international standards, and monitoring it with dedicated audits. In terms of emergency preparedness and response, in addition to continuous drills and monitoring of results, particular attention is paid to the development of alert systems, the timeliness of information communication via simplified flows and research on natural risk scenarios which could interact with its business.
The Company's main safety objectives concern: (i) the Safety Culture Program (SCP), which monitors the level of proactivity through preventive safety management aspects; (ii) the revision of process safety standards in line with international best practices; and (iii) the safety culture, with the launch of a new campaign for office safety ("Safety starts @ office").
In 2018, the Severity Incident Rate (SIR), an Eni weighted internal index that measures the level of incident severity, was consolidated. In particular, this indicator is used in the short-term incentive plan of the CEO and senior managers with strategic responsibilities to focus Eni's commitment on reducing the most serious accidents.

METRICS AND COMMENTS

In 2018, the total recordable injuries rate (TRIR) of the workforce increased by 6% compared to 2017. The worsening was determined by the employees' indicator (due to an increase in accidents), while the contractors' index remained stable. 4 fatal accidents occurred to upstream contractors: 1 in Nigeria as a result of crushing by a manoeuvring vehicle, 1 in Algeria as a result of burns, and 2 in Egypt for falls from a height. The indicator for injuries at work with serious consequences was affected by two events: one in Alaska (upstream contractor who suffered a serious injury to his right leg) and the other in Egypt (contractor who fell from a height).
In Italy, the number of total recordable accidents in 2018 increased (40 events vs. 38 in 2017), but the total recordable injury rate (TRIR) improved by 3%; however, the number of accidents abroad increased (76 events vs. 63 in 2017) and the total recordable injury rate worsened by 12%.

Key Performance Indicators

		2018		2017		2016	
		Operated companies	Fully Consolidated entities	Operated companies	Fully Consolidated entities	Operated companies	Fully Consolidated entities
Total Recordable Injury Rate (TRIR)	(total recordable injuries/hours worked) x 1.000.000	0.35	0.41	0.33	0.45	0.35	0.38
Employees		0.37	0.42	0.30	0.44	0.36	0.41
Contractors		0.34	0.41	0.34	0.46	0.35	0.36
Number of fatalities as a result of work-related injury	(number)	4	1	1	0	2	1
Employees		0	0	0	0	0	0
Contractors		4	1	1	0	2	1
High-consequence work-related injuries rate (excluding fatalities)	(high-consequence work-related injuries/hours worked) x 1.000.000	0.01	0.01	0.00	0.01	0.01	0.01
Employees		0.00	0.00	0.01	0.02	0.01	0.02
Contractors		0.01	0.01	0.00	0.00	0.01	0.01
Near miss	(number)	1,431	1,128	1,550	1,223	1,643	1,270
Worked hours	(million of hours)	330.6	190.9	306.3	174.2	276.9	168.9
Employees		91.6	57.5	93.1	59.4	93.7	61.4
Contractors		239.0	133.4	213.3	114.8	183.2	107.5

(20) Eni Center of Excellence on Safety, which supports Eni's industrial sites in Italy and abroad in the coordination and supervision of contract works.
(21) Process Safety aims at preventing and controlling, throughout the life cycle of its assets, uncontrolled releases of hazardous substances that can become major accidents, protecting the safety of people, environment, productivity, company assets and reputation.

Respect for the environment

Eni operates in very different geographical contexts, which require specific assessments of the environmental aspects, and is committed to strengthening control and monitoring of its activities in order to mitigate their impacts on the environment by adopting constantly up-to-date international technical and management good practices and Best Available Technology.
Particular attention is paid to the efficient use of natural resources, like water; to reducing operational oil spills and oil spills caused by sabotage; to managing waste through process traceability and control of the entire supply chain; to managing the interaction with biodiversity and ecosystem services, from the first exploration stages up to the end of the project cycle.
The transition path towards a circular economy, in which withdrawal of resources from the environment and waste disposal are minimized, represents a challenge and an opportunity for Eni, in terms of both profitability and improvement in environmental performances. This path involves various areas: (i) update of business models, producing renewable energy and/or using recycled or renewable material in production activities (Energy Solutions, Green Refinery and Green Chemistry); (ii) energy and water efficiency programs in all sectors of the business, as well as flaring down projects and projects to reduce methane losses with resulting savings in natural gas; (iii) management of assets to be decommissioned, through conversion, requalification, recovery and sustainable reclamation projects; (iv) management tools, such as green-c procurement and ICT solutions.
Eni promotes **efficient water management**, especially in water-stressed areas, where in 2018 initiatives to reduce fresh water withdrawals and projects in the upstream sector to give access to water to populations in areas where Eni operates continued.
In Italy, Eni is committed to increasing, over the period of the four-year plan, the amount of polluted groundwater treated and reused for civil or industrial purposes, to launching initiatives and assessments for the use of poor quality water (waste water or water from polluted groundwater, as well as rainwater and desalinated sea water), replacing fresh water, and reducing the water intensity of production. At the Centro Olio Val d'Agri (COVA), a tender was launched to award a contract for the construction of a Mini Blue water plant, based on proprietary technology, to be installed with a treatment capacity of about 70 m^3/h. Blue water consists in an innovative process for the treatment of production water, which leads to their reuse for industrial purposes.
Only a small proportion of Eni's water withdrawals come from freshwater sources (less than 7%). The analysis of river basin stress levels[22] and in-depth studies carried out at local level have shown that freshwater samples from water-stressed areas account for less than 2% of Eni's total water withdrawals.
In water-stressed areas, Eni adopts specific water management plans to reduce consumption. For example, at the Brindisi site, a collaboration agreement was signed in 2018 between EniPower and Syndial for the reuse of groundwater to reduce water withdrawals.
Considering the potential risks arising from possible water crises, as noted by the annual survey conducted by the WEF[23] and the growing demand for information by stakeholders, for the first time, in 2018, a public response was provided to the CDP water to increase transparency on these issues.
Eni is committed every day to **managing the risk of oil spills** in Italy and abroad through increasingly well-integrated actions in all areas, from the administrative level to the technical areas of prevention, control and quality/speed/effectiveness of intervention.
In 2018, the installation of the e-vpms® (Eni Vibroacustic Pipeline Monitoring System) and SSPS (Safety Security Pipeline System) tools for the detection of spills due to events, whether operational or caused by sabotage, was completed on the Italian pipeline network and on part of those in Nigeria.
To further increase preventive effectiveness, in 2019 an upgrade will be installed on two pilot pipelines to detect activities in the vicinity of the pipeline (excavations, vehicles, etc.) before a sabotage on the pipeline. If the results are positive, it will be extended to all finished product pipelines in Italy and gradually to other Company realities. In 2018, a sabotage was detected in Egypt (JV Agiba), which will be monitored based on the experience gained in Italy and Nigeria, where intense monitoring activities continue through direct surveillance, thanks also to the support of the local communities, the use of aircraft and drones, as well as the installation of mechanical protections. Finally, in terms of preparedness and response, the risk analysis of the areas crossed by pipelines was completed in Italy, identifying the most sensitive points at which to set up potential containment actions in advance. At the same time, Eni will also work on the experimentation/application of techniques for managing impacts in the case of spills to improve the speed, quality and effectiveness of intervention and surveillance.
Eni's commitment to Biodiversity and Ecosystem Services (BES) is an integral part of the Integrated HSE Management System, confirming its awareness of the risks for the natural environment resulting from its sites and activities. Eni's BES management model is aligned with the strategic objectives of the Convention on Biological Diversity (CBD) and ensures that the reciprocal relationships between environmental and social aspects are correctly identified and managed from the earliest project stages.
The biodiversity risk exposure of the global portfolio of the upstream sector is periodically assessed by mapping the geographical proximity to protected areas and areas important for biodiversity conservation. This mapping allows identifying priority sites where to take action with more detailed surveys to characterize the operational and environmental context and assess all potential impacts that are then mitigated through Action Plans, thus ensuring effective management of risk exposure. Eni's BES management model is described in the BES Policy approved by the CEO and published in 2018 on the Eni website[24].

(22) Water-stressed areas: areas with a Baseline Water Stress value over 40%. The indicator, defined by the World Resources Institute (WRI - www.wri.org), measures the exploitation of freshwater sources and indicates a stressful situation if withdrawals from a given river basin are greater than 40% of its renewable supply.
(23) The Global Risks Landscape 2018 "What is the impact and likelihood of global risks?".
(24) https://www.eni.com/docs/en_IT/enicom/sustainability/Eni-Biodiversity-and-Ecosystem-Services-Policy.pdf

METRICS AND COMMENTS

In 2018, the downward trend (-2% vs. 2017) in freshwater withdrawals continued, particularly thanks to the commissioning of new steam generators at the Porto Marghera petrochemical plant to replace steam/electric power generation units, with a reduction in the amount of freshwater used in cooling cycles.

More than 75% of freshwater withdrawals are accounted for by the R&M&C sector, while only 8% relate to the E&P sector. The percentage on freshwater reuse has reached 87%.

In the E&P sector, production water re-injected has reached 60%, mainly as a result of the good performance maintained by the fields in Egypt and Ecuador.

The number of barrels spilled in operational oil spills has decreased compared with 2017. Two major incidents were recorded, one at the Livorno refinery (spillage from a tank caused by overfilling) and the other at the Sarroch chemical plant in Sardinia (discovery of soil with hydrocarbon product and water at a road crossing), both with spills of about 500 barrels of product. The year 2018 saw a reduction in the number of incidents by sabotage, while the volume spilled increased by 14%; spills were related solely to the E&P activities in Nigeria and Egypt. The barrels spilled in chemical spills relate to upstream activities and Versalis.

Waste from production activities generated by Eni in 2018 increased compared to 2017, due in particular to the contribution of non-hazardous waste (88% of the total), while hazardous waste recorded a decrease. The increase is related to the E&P sectors (in particular, due to the ramp-up of the Zohr project in Egypt and the return to full operation of the Val d'Agri Oil Center, which was also affected by the increased production of aquifer water disposed of as waste) and R&M&C (following the general shutdown of the Taranto refinery and the disposals following flooding that occurred in 2017 at the Livorno refinery). The amount of recovered/recycled waste has increased since 2017, reaching almost 40% of total waste disposed[25].

In 2018, a total of 4.3 million tonnes of waste was generated by reclamation activities (of which 4 million tonnes by Syndial), of which about 64% was groundwater. In 2018, €374 million was spent on soil and groundwater reclamation.

The increase in SO_x emissions compared to 2017 is due in particular to the updating of the gas composition at some upstream sites, thus resulting in an increased percentage of H_2S in the stream sent to the flare.

In 2018, biodiversity risk exposure was assessed on all international and national concessions under development and/or exploitation in the upstream sector[26] (operated and joint ventures), in order to identify those that affect (even partially) protected areas[27] and/or key biodiversity areas (KBAs)[28].

A detailed analysis of these concessions, relating to the actual position of the production sites within them (plants and/or infrastructures), has shown that in 27 concessions, located in 6 Countries (United Kingdom, United States, Egypt[29], Nigeria, Pakistan and Italy), they are within one or more protected areas and/or KBAs; while in another 31 concessions, located in 7 Countries (United States, Ecuador, Tunisia, Congo, Nigeria, Pakistan and Italy), the production sites are located outside, in areas adjacent to one or more protected areas or KBAs.

Among the protected areas and/or KBAs that overlap with production sites, 2 are included in the Ramsar List[30], 3 are IUCN protected areas[31], 7 are other nationally designated protected areas, 15 fall under the Natura 2000 classification, while 12 are identified as KBAs. Of these areas, 26 are found in terrestrial ecosystems, 11 in marine ecosystems and 2 in mixed ecosystems (terrestrial and marine). No production site overlaps with World Heritage sites (WHS[32]).

Instead, among the production sites located in areas adjacent to protected areas or KBAs, only one is located near a WHS natural heritage site (Mount Etna)[33]. The other areas concerned are: 2 are included in the Ramsar List, 18 are IUCN protected areas, 4 are other nationally designated protected areas, 35 fall under the Natura 2000 classification, while 16 are identified as KBAs. Of these sites, 67 are found in terrestrial ecosystems, 6 in marine ecosystems and 3 in mixed ecosystems (terrestrial and marine).

(25) Specifically, in 2018, 16% of hazardous waste disposed of by Eni was recovered/recycled, 12% was subjected to chemical/physical treatment, 11% was incinerated, 3% was disposed of in waste dumps and the remaining 58% was sent for other types of disposal (including transfer to temporary storage plants prior to final disposal). With regard to non-hazardous waste, 42% was recovered/recycled, 1% was subjected to chemical/physical treatment, 0.3% was incinerated, 5% was disposed of in waste dumps and the remaining 51.7% was sent for other types of disposal (including transfer to temporary storage plants prior to final disposal).

(26) Source: Company database, June 2018.

(27) Source: World Database of Protected Areas, December 2018.

(28) Source: World Database of Key Biodiversity Areas, June 2018. KBAs (Key Biodiversity Areas) are sites that contribute significantly to the global persistence of biodiversity, on land, in freshwater or in the seas. These are identified through national processes by local stakeholders using a set of globally agreed scientific criteria. To date, KBAs consist of two subsets: 1) Important Bird and Biodiversity Areas; 2) Alliance for Zero Extinction Sites.

(29) In Egypt, 5 concessions have been assessed, of which only 1 belongs to fully consolidated entities as required by Italian Legislative Decree 254/2016; the remaining 4 are included in the "operated" reporting perimeter.

(30) List of wetlands of international importance identified by the Countries that signed the Ramsar Convention in Iran in 1971 and which aims to ensure the sustainable development and conservation of biodiversity in these areas.

(31) IUCN, International Union for Conservation of Nature.

(32) WHS, World Heritage Site.

(33) Although the Zubair field (Iraq) is not included among the fully consolidated entities or within the "operated" reporting perimeter, it is located near the Ahwar site classified as a mixed WHS site (natural and cultural). However, no operational infrastructure or activity falls within this protected area.

Key Performance Indicators

		2018		2017		2016	
		Operated companies	Fully Consolidated entities	Operated companies	Fully Consolidated entities	Operated companies	Fully Consolidated entities
Total water withdrawals	(Mm^3)	1,776	1,731	1,786	1,746	1,851	1,816
of which sea water		1,640	1,626	1,650	1,638	1,710	1,697
of which freshwater		117	104	119	106	129	117
of which freshwater from superficial water bodies		81	72	79	70	87	78
of which freshwater from subsoil		19	17	20	17	23	20
of which freshwater from urban net or tanker		6	5	10	9	9	9
of which polluted groundwater treated at TAF[a] plants and used in the production cycle		4	4	4	4	3	3
of which freshwater withdrawal from other streams		7	7	6	6	7	7
of which brackish water from subsoil or superficial water bodies		19	1	16	1	12	2
Fresh water reused	(%)	87	88	86	87	84	85
Re-injected production water		60	49	59	45	58	42
Operational oil spill							
Total number of oil spills (> 1 barrel)	(number)	72	34	55	24	85	44
Volume of oil spill (> 1 barrel)[b]	(barrels)	2,665	2,217	3,323	3,049	1,231	724
Oil spills due to sabotage (including theft)							
Total number of oil spills (> 1 barrel)	(number)	97	94	102	102	158	158
Volume of oil spill (> 1 barrel)	(barrels)	3,697	3,277	3,236	3,236	4,682	4,682
Chemical spill							
Total number of oil spills	(number)	34	34	17	15	24	24
Volume of oil spill	(barrels)	61	61	63	50	18	18
Total waste from production activities	(million tonnes)	2.6	1.3	1.4	0.8	0.8	0.6
of which hazardous waste		0.3	0.2	0.7	0.3	0.3	0.2
of which non-hazardous waste		2.3	1.1	0.7	0.5	0.5	0.4
NO_x (nitrogen oxides) emissions	(ktonnes NO_2eq)	53.1	31.6	55.6	30.8	56	32.1
SO_x (sulphur oxides) emissions	(ktonnes SO_2eq)	16.5	6.2	8.4	6.7	8.9	5.5
NMVOC (Non Methane Volatile Organic Compounds) emissions	(ktonnes)	23.1	13.8	21.5	13.4	15.9	9.2
TSP (Total Suspended Particulate) emissions		1.5	0.8	1.5	0.7	1.4	0.7

(a) TAF: Groundwater treatment.
(b) The 2017 figure was updated following the closure of some investigations after the publication of the 2017 NFI. This circumstance could also occur for the 2018 data.

Human Rights

Eni is committed to respecting international human rights standards, starting with the UN's Guiding Principles on Business and Human Rights, with the aim of continuously improving its due diligence system. Human rights is one of the areas in which the Eni Sustainability and Scenarios Committee (CSS) performs consultative and advisory functions for the BoD. In 2018, the CSS examined numerous aspects that directly or indirectly concern human rights, including the analysis of the results achieved by Eni in the second edition of the Corporate Human Rights Benchmark (CHRB)[34] and the draft of Eni's Statement on Respect for Human Rights, approved by the BoD in December 2018 and drawn up with the support of the inter-functional working group on "Human Rights and Business"[35]. This Statement strengthens the corporate commitment previously expressed on the subject, aligning it with the main international standards on human rights and business, starting with the United Nations Guiding Principles, and also highlighting the priority areas on which this commitment is focused.
During 2018, the activities of the working group continued, making it possible to identify the main areas for improvement and the actions necessary for the continuous improvement of performance. These actions have been incorporated into a specific multi-year plan that has been broken down into managerial objectives linked

(34) Eni ranked first among the energy companies and seventh among all 101 companies in the different sectors analysed.
(35) Created in 2017 following an event chaired by the CEO addressed to the members of the BoD, Board of Statutory Auditors and Management on the issue of Business and Human Rights.

to human rights performance. In 2018, therefore, 8 out of 16 managers reporting to the CEO were assigned a target directly related to human rights.
The subject of respect for human rights is integrated at various levels in Company processes and Eni monitors the risk of possible abuses with specific instruments such as, for example, the Integrated Risk Management (IRM) model, in which these issues are considered in the risk model and integrated in the risk assessment in the social, environmental, health, safety and reputation impact metrics.
Following the internal awareness-raising process on human rights launched in 2016, in 2018, human rights training at Eni saw the delivery of specific e-learning courses for some functions, which expanded on the course provided in 2016-2017 to all employees. These courses, developed with the support of the Danish Institute for Human Rights, are aimed at creating a language and a common and shared culture about human rights and at improving understanding of the possible impacts of business on human rights.
In 2017, Eni identified 4 areas involving the human rights considered most relevant to the activities carried out directly and those carried out by its business partners, the so-called "Salient Issues". During 2018, these areas were shared with external stakeholders and authoritative experts: human rights (i) **in the workplace**[36]; (ii) in the supply chain; (iii) in communities; and (iv) in security operations.
The promotion and protection of **human rights in the supply chain** is ensured through assessment activities and the application of criteria based on international standards, such as SA 8000 standards. In 2018, 20 suppliers were assessed, including 1 from Ecuador, 2 from Vietnam, 2 from Egypt and 15 from Italy. Eni is also committed to drawing up a code of conduct for suppliers[37], which reaffirms the importance of respecting the key principles of sustainability in the supply chain. Further actions to counter modern forms of slavery and human trafficking and to prevent the exploitation of minerals associated with human rights violations in the supply chain are discussed respectively in the Modern Slavery Statement[38] and in the Position Statement on "Conflict minerals"[39].
Eni is committed to preventing possible negative impacts on the **human rights of individuals and host communities** by providing for appropriate management measures. For this purpose, in 2018, Human Rights Impact Assessments (HRIA) were carried out in Mozambique and Angola, in addition to the follow-up to the one carried out in Myanmar in 2016, for which Eni availed itself of the support of the Danish Institute for Human Rights. A model was also developed for classifying business projects to determine the associated level of risk of social impact and the impact on human rights, based on which appropriate in-depth studies are undertaken, including the HRIAs.
Eni manages its **security operations** in accordance with international principles, including the Voluntary Principles on Security & Human Rights. Eni has designed a coherent set of rules, processes and tools to ensure that: (i) the suppliers of security forces are selected according to human rights criteria; (ii) the contractual terms include provisions on the respect of human rights; (iii) security operators and supervisors receive adequate training; and (iv) the events considered most at risk are managed in accordance with international standards.
As a complement to all the actions taken to ensure respect for human rights, since 2006 an Eni procedure has been in place, included in the Anti-Corruption Regulatory Instruments, which regulates the process of receiving, analysing and handling any whistleblowing reports, even anonymously, from employees or third parties.

METRICS AND COMMENTS

In 2018, the human rights training programme continued (after the massive campaign between 2016 and 2017) with specific follow-up initiatives for thematic insights that will continue in 2019 together with the campaign for the procurement professional area. In addition, the "Sustainability and Business Integration" course in English and French was made available to all Eni employees, for a total of approximately 7,100 enrollments.
In 2018, e-learning courses dealt with human rights and specifically: relations with local communities (140 people), workplace (about 1,740 people) and security (207 people), aimed at different employee targets depending on the content of the training modules. Human rights & security are also regularly addressed in all training courses for security personnel, such as workshops for newly appointed Security Managers and Security Officers, and generic and specific e-learning training. Thanks also to the courses mentioned above, the staff belonging to the Security professional area trained in human rights reached 96%.
In addition, since 2009 Eni has been conducting a training program for public and private security forces at its subsidiaries, which was recognized as a best practice in the 2013 joint publication Global Compact and Principles for Responsible Investment (PRI) of the United Nations. In 2018, the training session was held in Tunis and was addressed to private security operators who work at Eni's management and operational sites.
With regard to whistleblowing reports, in 2018 investigations were completed on 79 files, 31[40] of which included human rights aspects, mainly concerning potential impacts on workers' rights. Among these, 34 assertions were checked: the events reported were confirmed, at least in part, for only 9 of these, and actions were taken to mitigate and/or minimize the impacts including: (i) actions on the Internal Control and Risk Management System, relating to the implementation and strengthening of controls in place, and awareness-raising and training activities for employees; (ii) actions for suppliers and (iii) actions against employees, including disciplinary measures, in accordance with the 231 Model, the collective labour agreement and other national laws applicable. At the end of the year, 21 files were still open, 5 of which referred to human rights aspects, in particular potential impacts on workers' rights.

(36) Please refer to the section "People" on pages 112-114.
(37) In 2018, a draft of the document was drawn up and a pilot campaign was launched, in Italy and abroad, which ended with a good response from suppliers.
(38) In accordance with the UK Modern Slavery Act 2015.
(39) In accordance with US SEC regulations.
(40) All relating to companies consolidated on a line-by-line basis.

Key Performance Indicators

		2018	2017	2016
Hours of training on human rights	(number)	10,653	7,805	88,874
In class		164	52	354
Distance		10,489	7,753	88,520
Employees trained on human rights[a]	(%)	91	74	-
Security personnel trained on human rights	(number)	73	308[b]	53
Security personnel (professional area) trained on human rights[c]	(%)	96	88	83
Security contracts containing clauses on human rights		90	88	91
Whistleblowing reports[d] (assertions)[e] on human rights violations closed during the year[f], of which:	(number)	31 (34)	29 (32)	36
Founded reports (assertions)		9	3	11
Unfounded reports (assertions), with the adoption of corrective/improvement measures		9	9	6
Unfounded/generic reports (assertions)		16	20	19

(a) This percentage is calculated as the ratio between the number of registered employees who have completed a course and the total number of registered employees.
(b) The variations of the KPI Security resources trained on human rights, in some cases also significant, which can be detected between one year and the next, are linked to the different characteristics of the training projects and to the operating contingencies.
(c) This data is a percentage of a value cumulated.
(d) Whistleblowing report: it is a summary document of the investigations carried out on the whistleblowing report(s) (which may contain one or more detailed and verifiable assertions) including the summary of the investigation carried out, the results of such investigation and any identified action plan.
(e) 2016 data refers to the whistleblowing reports (and not to the assertions).
(f) 2016 and 2017 data include some cases related to not fully consolidated entities:
- 2016: 1 unfounded report with the adoption of improvement measures;
- 2017: 1 report with 1 unfounded/generic assertion.

Suppliers

Eni adopts qualification and selection criteria for suppliers to assess their capacity to meet Company standards in terms of ethical reliability, health, safety, environmental protection and human rights. Eni meets this commitment by promoting its own values with its suppliers and involving them in the risk prevention process. For this purpose, as part of its Procurement process, Eni: (i) subjects all its suppliers to a qualification and due diligence process to check their professionalism, technical capacity, ethical, economic and financial reliability and to minimize the inherent risks of operating with third parties; (ii) requires from all its suppliers a formal commitment to respect the principles in its Code of Ethics (such as protection and promotion of human rights, high standards of safety at work, environmental protection, anti-corruption, compliance with laws and regulations, ethical integrity and correctness in relations, respect for antitrust laws and fair competition); (iii) monitors observance of this commitment, to ensure the maintenance by Eni suppliers of the qualification requirements over time; (iv) if criticalities emerge, requires the implementation of improvement actions in their operating models or, if they fail to satisfy the minimum standards of acceptability, limits or inhibits their access to tenders.

METRICS AND COMMENTS

During 2018, more than 5,000 suppliers (including all the new ones) were subject to checks and assessment with reference to environmental and social sustainability aspects (i.e. health, safety, environment, human rights, anti-corruption and compliance). For 19% of these suppliers, potential criticalities and/or possible areas for improvement were identified; in 91% of cases these were not serious enough to compromise the possibility of working with them, while for the remaining 9% of suppliers checked, the criticalities revealed led to the temporary suspension of relations with Eni. In 2018 criticalities and/or areas for improvement were in fact identified on 1,008 suppliers; for 95 of these the assessment at the qualification stage was negative (i.e. non qualified) or Eni issued preventive measures (monitoring, state of attention with clearance, suspension or revocation of qualification); the 2018 figure for supplier suspensions, which shows a drop compared to previous years, reflects the reduced number of investigations for unlawful conduct involving Eni suppliers in the year. The identified criticalities (resulting in the request for the implementation of improvement plans) during the qualification process or Human Rights assessment are related to HSE issues or violations of Human Rights, such as health and safety regulations, violation of the code of ethics, corruption, environmental crimes.

Key Performance Indicators

		2018	2017	2016
Suppliers subjected to assessment regarding social responsibility aspects	(number)	5,184	5,055	5,171
of which: suppliers with criticalities / areas for improvement		1,008	1,248	1,336
of which: suppliers with whom Eni has terminated the relations		95	65	131
New suppliers that were screened using social criteria	(%)	100%	100%	100%

Transparency and anti-corruption

Eni takes part in the Global Compact (GC), which encourages member companies to align their activities with ten universally recognized principles in terms of human rights, labour, the environment, transparency, and anti-corruption and to contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs).

The GC principles are reflected in Eni's Code of Ethics. In particular, the repudiation of all forms of corruption has been one of the fundamental ethical principles of Eni's Code of Ethics since 1998 – shared among all employees when recruited – and the 231 Model. Eni has also designed and developed the Anti-Corruption Compliance Program, in accordance with the applicable rules in force, the international conventions and taking into account relevant guidance and best practices, as well as the policies adopted by the main international organisations. It is an organic system of rules and controls to prevent corruption practices.

All Eni's subsidiaries, in Italy and abroad, are required to adopt, by resolution of their own BoD[41], both the Management System Guideline[42] and all the other anti-corruption regulatory instruments issued by the parent company.

Eni's Anti-Corruption Compliance Program has evolved over the years with the aim of continuous improvement; in January 2017, Eni SpA was the first Italian company to achieve the ISO 37001:2016 "Antibribery Management Systems" certification. In order to maintain this certification, Eni SpA is subject to annual surveillance audits by the certifying body. At December 31, 2018, Eni was subject to two surveillance audits, both successfully concluded.

To guarantee the effectiveness of Eni's Anti-Corruption Compliance Program, in 2010 an ad hoc organizational structure was formed, the anti-corruption unit, which is responsible for providing specialist support to business lines and subsidiaries in Italy and abroad. This unit also implements an anti-corruption training program, both through e-learning and with classroom events, general workshops and job specific training. The workshops, designed using interactive formats, are carried out on the basis of the index produced annually by Transparency International (Corruption Perception Index) and of Eni's presence in each Country. These workshops offer an overview of the anticorruption laws applicable to Eni, the risks that could result from their infringement for natural and legal persons and the Anti-Corruption Compliance Program adopted to address these risks. Generally the workshops are accompanied by job specific training, or training for professional areas particularly at risk in terms of corruption. In 2018, a methodology was developed to systematically group Eni's people for the risk of corruption on the basis of risk drivers such as: Country, position, professional area and number of employees of the site, in order to optimize the identification of the target audience of the various training initiatives. The methodology is expected to be rolled out in 2019. In addition, in 2018 a communication initiative on the Company's intranet called "Compliance Tips" was implemented to promote the dissemination of the culture of compliance at all levels; it addressed possible situations at risk that an employee might face.

In addition, in 2017, a board induction was carried out for the Board of Statutory Auditors and new directors on the integrated compliance and Internal Audit processes, with a focus on whistleblowing reports and additional checks on anti-corruption regulatory instruments.

In order to assess the adequacy and effective operation of the Anti-Corruption Compliance Program, as part of the integrated audit plan approved annually by the BoD, Eni carries out specific checks on relevant activities, with audits dedicated to analyses of processes and companies, identified based on the riskiness of the Country in which they operate and materiality, as well as third parties considered to be high risk, where required contractually.

As evidence of Eni's commitment to improve governance and transparency in the extraction sector, which is crucial to foster a proper use of resources and prevent corruption, Eni takes part in the Extractive Industries Transparency Initiative (EITI)[43]. Membership in the EITI is a value for Eni despite the fact that since 2017 the Company has published the "Report on payments to governments" in accordance with the reporting obligations introduced by the European Directive 2013/34 EU (Accounting Directive). Furthermore, on May 24, 2018, the BoD approved the Tax Strategy Guidelines, which set out Eni's commitments in terms of tax transparency, aimed at paying taxes in the various Countries where value is generated in a manner consistent with the letter and spirit of the laws in force, in line with OECD recommendations on combating tax evasion and shifting profits towards Countries with low taxation (Base Erosion and Profit Shifting) by Multinational Enterprises.

METRICS AND COMMENTS

During 2018, 32 audits were carried out in 13 Countries, with anti-corruption checks that confirmed the overall adequacy and effective operation of the Anti-Corruption Compliance Program.

In 2018, the anti-corruption e-learning campaign aimed at training the entire Company population continued; these campaigns are gradually being completed, thus ensuring full coverage in terms of training for all Eni people. In 2018, this campaign reached 2,844 employees, 32% of whom were managers, with a coverage that reflects Eni's presence in the Countries in which it operates: 41% in Italy, 29% in Africa, 17% in Asia, 11% in the rest of Europe and 2% in the Americas.

As part of its commitment in the EITI, Eni follows its international activities and, in the member Countries, it contributes annually to drafting the reports. As a member, it participates in the activities of the Multi Stakeholder Group in Congo, Mozambique, East Timor, Ghana, and the UK. In Kazakhstan, Nigeria and Mexico, Eni's subsidiaries interface with EITI's local Multi Stakeholder Groups through trade associations in the Countries.

(41) Or alternatively the equivalent body depending on the governance of the subsidiary.
(42) The MSGs are common guidelines for all Eni units for the management of operating and business support processes and cross-cutting compliance and governance processes.
(43) Global initiative to promote responsible and transparent use of the financial resources generated in the extraction sector.

Key Performance Indicators

		2018		2017		2016	
		Total	Fully Consolidated entities	Total	Fully Consolidated entities	Total	Fully Consolidated entities
Audit actions on risk of corruption activities	(number)		32		36		33
E-learning for managers	(number of participants)	951	920	493	452	865	822
E-learning for other resources		1,950	1,924	1,857	1,736	9,364	8,952
General Workshop		1,765	1,765	1,434	1,329	1,269[a]	
Job specific training		1,461	1,461	1,539	1,503	1,214[a]	
Countries where Eni supports EITI's local Multi Stakeholder Groups	(number)	8		9		8	

(a) The figure includes a small number of Eni resources belonging to companies not included in the scope of consolidation with the integral method which cannot be separated from the consolidated data.

PROMOTION OF LOCAL DEVELOPMENT: COOPERATION MODEL

Eni's distinctive mark has always been its willingness to meet the development needs of the Countries in which it operates, collaborating on a regular basis with local authorities and stakeholders. For this to happen, Eni has adopted a systematic and applicable approach at all stages of the business in all operating contexts. In recent years Eni has ensured that from the negotiation phase, through exploration, to all operational processes, including decommissioning, there are adequate tools to know the local socio-economic context, also in relation to human rights, and to manage the demands of stakeholders as well as the needs of communities. These tools allow defining a structured intervention plan at local level that ensures the integration of both local needs and the guidelines contained in national development plans, in the United Nations 2030 Agenda and in the National Determined Contributions (NDCs).

The support for local development strategy is centered on people and is based on enhancement of the energy resources of the Countries and the definition of initiatives to improve the living conditions of local communities. The development of energy sources is the target of Eni's business model and involves the construction of infrastructure for the production and transport of gas for both export and local consumption, and the construction of off-grid and on-grid electricity production plants.

Supporting development tailored to local needs, in line with business objectives in a long-term perspective and minimising socio-economic gaps by involving all stakeholders means today to tackle increasingly complex and global events such as climate change and migratory phenomena that require extending the scope of action beyond the "operating area" of plants.

In order to address these current and future challenges, Eni's cooperation model has three directions:

1. Community investment: Eni promotes a wide range of initiatives to improve people's living conditions through economic diversification initiatives such as the development of agricultural projects, micro-enterprise, micro-credit or infrastructure projects, and education, water access and through health protection, such as the strengthening of public health services and awareness-raising and empowerment activities of the beneficiary populations.

2. Public Private Partnership: in keeping with the 2015 Addis Ababa agreement "Financing for development", Eni has started collaborations with development cooperation organizations to pool resources not only in economic terms but also in terms of skills, know-how and experience. Specifically, in 2018 Eni established public-private partnerships with the United Nations Development Programme (UNDP) to contribute to sustainable development and promote the achievement of the SDGs, in particular universal access to energy by 2030, actions to combat climate change and the protection, restoration and sustainable use of the earth's ecosystem and with the Food and Agricultural Organization (FAO) for access to clean and safe water in Nigeria.

3. Monitoring and evaluation of the direct, indirect and induced effects of Eni's presence at local level: to measure the impacts and benefits of its initiatives and amplify their effects, in collaboration with the Polytechnic of Milan, Eni has developed two tools: the ELCE (Eni Local Content Evaluation) Model and the Eni Impact Tool[44].

(44) The ELCE (Eni Local Content Evaluation) Model was developed by Eni and validated by the Polytechnic of Milan to assess the direct, indirect and induced effects generated by Eni's activities at a local level in the areas in which it operates.
The Eni Impact Tool is a methodology developed by Eni and validated by Polytechnic of Milan that allows assessing the social, economic and environmental impacts of its activities at local level, quantifying the generated benefits and directing investment choices for future initiatives.

Another tool for relations with local communities is the Stakeholder Management System for mapping, managing and monitoring relations with its stakeholders in the Countries where it operates and managing grievances at all stages of the business to ensure that all stakeholder suggestions are taken into account, to provide adequate responses and to prevent potential risk factors. As of 2018, this mapping also includes indigenous peoples located close by the operations and operated projects.
Monitoring activities also include analyses to measure the percentage spent on local suppliers at some major upstream foreign subsidiaries. The 2018 percentage spent on local suppliers in these Countries is about 33%.

METRICS AND COMMENTS

In 2018, overall spending on community investment amounted to about €94.8 million (Eni share), of which approximately 98% related to upstream activities. In Asia, approximately €21.9 million was spent, mainly on economic diversification, in particular for the maintenance of road infrastructure (bridges and roads). In Africa a total of €46.7 million was spent, of which €43.9 million was on Sub-Saharan Africa, mainly in the area of professional training and the construction of school infrastructure (net of expenditure on resettlement). About €32.4 million was invested in infrastructure development, of which €13.4 million was in Africa and €15.2 million in Asia. In the field of health, in 2018, in order to assess the potential impact of projects on the health of the communities involved, the upstream sector completed 20 studies (Health Impact Assessment), of which 7 were integrated ESHIA studies (Environmental, Social and Health Impact Assessment). In addition, 3 HRIA (Human Rights Impact Assessment[45]), studies were carried out. The total number of grievances received is 193, of which 138 cases have been resolved and closed. In particular, 97% of complaints in Ghana were closed.

Key Performance Indicators

(€ million)	2018 Total	2018 Fully Consolidated entities	2017 Total	2017 Fully Consolidated entities	2016 Total	2016 Fully Consolidated entities
Community investment[a]	94.8	73.9	70.7	66.8	64.2	60.3
of which: infrastructure	32.4	29.6	22.1	22.1	23.3	23.3

(a) The data includes resettlement activities: amounting to € 19.1 million in 2018.

(45) See the section "Human Rights" on pages 118-120 for more information.

KEY SUSTAINABILITY TOPICS

For Eni, key sustainability topics are those priority aspects for the Company and its stakeholders that identify the challenges and key opportunities of the entire value creation cycle in the long term.

Process for determining key topics

For Eni, determining key sustainability topics is based on a process of identifying issues and setting priorities. It takes into account:

1

ANALYSIS OF THE SCENARIO

Topics emerging from the business environment and progress with respect to the Strategic Plan. The analysis is presented every year at the Sustainability and Scenarios Committee and approved by the Eni BoD.

2

RISK ASSESSMENT RESULTS

Main risks including potential environmental, social, reputational and health and safety impacts.
These are submitted to the BoD on a quarterly basis by the CEO.

3

STAKEHOLDERS' PERSPECTIVE

Key sustainability topics according to Eni's various stakeholders[46].

The identified topics, according to the priorities set for the different business lines, are the basis for the elaboration of the four-year Strategic Plan and the non-financial reporting (Consolidated Disclosure of Non-Financial Information and Eni for). Then, the sustainability management objectives (MBOs) assigned to all managers are determined based on the Strategic Plan. The key topics are then presented to the Management Committee and Sustainability and Scenarios Committee, and reported to the BoD at the beginning of the reporting process.
Below are the 2018 key topics associated with the sustainable development goals (SDGs) on which Eni's activities have a direct or indirect impact.

2018 KEY TOPICS

PATH TO DECARBONIZATION

COMBATING CLIMATE CHANGE	GHG emissions, promotion of natural gas, renewables, biofuels and green chemistry	SDGs: 7 - 9 - 12 - 13 - 17
TECHNOLOGICAL INNOVATION		SDGs: 7 - 9 - 12 - 13 - 17

OPERATIONAL EXCELLENCE MODEL

PEOPLE	Employment and Diversity and Inclusion Training Occupational health and local communities health	SDGs: 3 - 4 - 5 - 8
SAFETY	People safety and asset integrity	SDGs: 3 - 8 - 11
REDUCTION OF ENVIRONMENTAL IMPACTS	Water resources, biodiversity and oil spills	SDGs: 3 - 6 - 12 - 14 - 15
HUMAN RIGHTS	Rights of workers and local communities, Supply chain and Security	SDGs: 4 - 8 - 10 - 16 - 17
INTEGRITY IN BUSINESS MANAGEMENT	Transparency and Anti-Corruption	SDGs: 10 - 16 - 17

PROMOTION OF LOCAL DEVELOPMENT: COOPERATION MODEL

ACCESS TO ENERGY		SDGs: 7 - 9 - 10 - 17
LOCAL DEVELOPMENT THROUGH PUBLIC-PRIVATE PARTNERSHIPS	Economic diversification, Education and Training, Access to water and hygiene, Health	SDGs: 2 - 3 - 4 - 6 - 8 - 10 - 17
LOCAL CONTENT		SDGs: 4 - 8 - 9

(46) Identified according to GRI standards, AA1000 Accountability and International Finance Corporation guidelines.

REPORTING PRINCIPLES AND CRITERIA

The Consolidated Disclosure of Non-Financial Information is drafted in accordance with the Decree 254/2016 and with the "Sustainability Reporting Standards", published by the Global Reporting Initiative (GRI Standards), which represent the reporting standard adopted. The document is drafted in accordance with the "core" option of the GRI Standards and had undergone a limited assurance by the independent company which provided assurance to Eni Group's Annual Report as of December 31, 2018. All figures refer to Eni SpA and its fully consolidated entities. In addition, an additional view was added in line with other corporate documents and in continuity with the past for data concerning safety, environment, climate, whistleblowing reports, anti-corruption training and community investment. The safety, environment and climate data consider the companies significant from the point of view of HSE impacts, with two points of view: the data only for the fully consolidated entities as required by the Decree and the data including companies under joint operation or joint control or associates in which Eni has control of operations[47]. In addition to providing continuity with respect to past publications and consistency with the objectives that the Company has set itself, the aim is to represent the potential impacts of the activities managed by Eni. Comments on safety, environment and climate data refer to the perimeter including the companies over which Eni has control of operations. Key Performance Indicators, selected according to items identified as the most relevant, are collected on an annual basis according to the consolidation perimeter of the relevant year and relate to the 2016-2018 period. All GRI indicators in the Content Index refer to the version of the GRI Standards published in 2016, with the exception of those of the Standards 403: occupational health and safety, which refer to the 2018 edition.

KPI	METHODOLOGY
CLIMATE CHANGE	
GHG EMISSIONS	Scope 1: the GHGs include CO_2, CH_4 and N_2O emissions; the Global Warming Potential used is 25 for CH_4 and 298 for N_2O. In 2019, the Eni inventory will be certified in accordance with ISAE3000/3410. The emission factors used for the calculations are, where possible, site specific or, as an alternative, drawn from the international documents available. Scope 2: Scope 2 indirect emissions relate to the generation of electricity, steam and heat purchased from third parties and include the contributions of CO_2, CH_4 and N_2O.
EMISSION INTENSITY	Numerator: direct GHG emissions (Scope 1) including CO_2, CH_4 and N_2O. Denominator: • UPS: 100% operated hydrocarbon gross production • R&M: incoming processed quantities (raw materials and semi-finished products) from own refineries • EniPower: equivalent electrical energy produced
OPERATIONAL EFFICIENCY	It expresses the GHG emissions intensity (scope 1 and scope 2 calculated on an operated basis expressed in tonCO_2eq) of Eni's main industrial productions compared to operated production (converted by homogeneity into barrels of oil equivalent using the Eni average conversion factors) in the individual businesses of reference, thus measuring their degree of operating efficiency in a decarbonization scenario.
ENERGY CONSUMPTION	Consumption from primary sources: sum of consumption of fuel gas, natural gas, refinery/process gas, LPG, light distillates/ petrol, diesel, kerosene, fuel oil, FOK and coke from FCC. Primary energy purchased from other companies: sum of purchases of electricity, heat and steam from third parties. Consumption from renewable sources depends on the national electric mix because consumption from photovoltaic panels installed by Eni on its assets is currently negligible.
ENERGY INTENSITY	The refining energy intensity index represents the total value of energy actually used in a given year in the various refinery processing plants, divided by the corresponding value determined on the basis of predefined standard consumption values for each processing plant. For comparison between years, the data for 2009 have been taken as the baseline (100%). For these indexes the numerator represents consumption from primary resources and purchases of electricity and/or steam.
PEOPLE, HEALTH AND SAFETY	
EMPLOYMENT	Eni uses a large number of contractors to carry out the activities within its own sites.
INDUSTRIAL RELATIONS	Regarding industrial relations, the minimum notice period for operational changes is in line with the provisions of the laws in force and the trade union agreements signed in the Countries in which Eni operates. **Employees covered by collective bargaining**: are those employees whose employment relationship is governed by collective agreements or contracts, whether national, industry, company or site.
SENIORITY	Average number of years worked by employees at Eni and its subsidiaries.
TRAINING HOURS	Hours delivered to Eni employees through training courses managed and carried out by Eni Corporate University (classroom and remote) and through activities carried out by the organisational units of Eni Business areas/Companies independently, also through on-the-job training. Average training hours are calculated as total training hours divided by the average number of employees in the year.
LOCAL SENIOR MANAGERS AND MANAGERS ABROAD	Number of local senior managers + managers (employees born in the Country in which their main working activity is based) divided by total employment abroad.

(47) This view includes the following non-fully consolidated companies deemed significant from a HSE impacts standpoint: Mozambique Rovuma Venture SpA, Agiba Petroleum Co, Cardón IV SA, Groupment Sonatrach-Agip, InAgip doo, Karachaganak Petroleum Operating BV, Llc "Westgasinvest", Mellitah Oil & Gas BV, Petrobel Belayim Petroleum Co, United Gas Derivatives Co, Virginia Indonesia Co Llc, Costiero Gas Livorno SpA, Petroven Srl, Servizio Fondo Bombole Metano SpA, Esacontrol SA, Tecnoesa SA, Oleoduc du Rhone SA, OOO Eni-Nefto, Eni Gas Transport Services Srl, Versalis Congo Sarlu, Versalis Kimya Ticaret Limited Sirketi, Versalis Pacific (India) Private Limited, Società EniPower Ferrara Srl, EniProgetti Egypt Ltd.

KPI	METHODOLOGY
SAFETY	**TRIR**: total recordable injuries rate (injuries leading to days of absence, medical treatments and cases of work limitations). Numerator: number of total recordable injuries; denominator: hours worked in the same period. Result of the ratio multiplied by 1,000,000. **High-consequence work-related injuries rate**: indicator of frequency of injuries at work with serious consequences (injuries at work with days of absence exceeding 180 days or resulting in total or permanent disability). Numerator: number of injuries at work with serious consequences; denominator: hours worked in the same period. Result of the ratio multiplied by 1,000,000. **Near miss**: an incidental event, of which the origin, execution and potential effect is accidental in nature, but which is however different from an accident only in that the result has not proved damaging, due to luck or favourable circumstances, or to the mitigating intervention of technical and/or organizational protection systems. Accidental events that do not turn into accidents or injuries are therefore considered to be near misses. The **main hazards identified** in 2018 at Eni were found in the following types of activities: • work at height: exposes workers to the risk of falls from a height. At Eni, this occurs especially for work that requires the use of scaffolding or that involves the lifting of workers with a safety harness (man rigging); • load handling: exposes workers to collisions, crushing, falls from a height or on the same plane mainly during the lifting of material and the movement on the same plane of various types of materials.
HEALTH	**Number of occupational disease reports presented by heirs**: indicator used as a proxy for the number of deaths due to occupational diseases. **Recordable cases of occupational diseases:** number of occupational disease reports. **Main types of diseases**: (i) due to exposure to chemical agents: neoplasms, respiratory diseases, blood diseases; (ii) due to exposure to biological agents: malaria; (iii) due to exposure to physical agents: hypoacusis.
ENVIRONMENT	
WATER WITHDRAWAL BY SOURCE	Sum of sea water, freshwater, and salt water from subsoil or surface withdrawn. TAF (groundwater treatment plant) water represents the amount of polluted groundwater treated and reused in the production cycle.
BIODIVERSITY	**Number of sites overlapping with protected areas and *Key Biodiversity Areas (KBAs)***: calculated by identifying the active national and international concessions, whether operated or in joint ventures, under development or in production, present in the Company databases (last updated in June 2018) that overlap with one or more protected or key biodiversity areas (data made available to Eni by "World Database on Protected Areas" last updated in December 2018, and "World Database of Key Biodiversity Areas" last updated in June 2018, in the framework of Eni's membership in the UNEP-WCMC Proteus Partnership) where development/production operations (wells, sealines, pipelines and onshore and offshore plants as documented in the company's GIS geodatabase) overlap with protected areas and/or KBAs. **Number of sites adjacent to protected areas or *Key Biodiversity Areas (KBAs)***: concessions for which the overlap analysis described above has not confirmed the presence of operational sites (development/production) overlapping protected areas or key biodiversity areas, determining their position outside these areas. There are some limitations to consider when interpreting the results of this analysis: • it is globally recognised that there is an overlap between the different databases of protected areas and KBAs, which may have led to a certain degree of duplication in the analysis (some protected areas/KBAs could be counted several times); • the databases of protected or key biodiversity areas used for the analysis, while representing the most up-to-date information available at global level, may not be complete for each Country.
OIL SPILLS	Spills from primary or secondary containment into the environment of oil or petroleum derivative from refining or oil waste occurring during operation or as a result of sabotage, theft or vandalism.
WASTE	**Waste from production**: waste from production activities, including waste from drilling activities and construction sites. **Waste from remediation activities**: this includes waste from soil securing and remediation activities, demolition and groundwater classified as waste.
AIR PROTECTION	**NO_x:**total direct emissions of nitrogen oxide due to combustion processes with air. Includes emissions of NO_x from flaring activities, sulphur recovery processes, FCC regeneration, etc. Includes emissions of NO and NO_2, excludes N_2O. **SO_x:**total direct emissions of sulphur oxides, including emissions of SO_2 and SO_3. **NMVOC:** total direct emissions of hydrocarbons, hydrocarbon substitutes and oxygenated hydrocarbons that evaporate at normal temperature. They include LPG and exclude methane. **PST:** direct emissions of Total Suspended Particulates, finely divided solid or liquid material suspended in gaseous flows. Standard emission factors.
SUPPLIERS	
SUPPLIERS SUBJECTED TO ASSESSMENT	This indicator relates to processes managed by Eni SpA, Eni Ghana and Eni Pakistan and represents all suppliers subjected to Due Diligence, a qualification process, HSE, compliance or business conduct assessment feedback, human rights feedback process or assessment (SA8000). It relates to all suppliers for which Vendor Management activities are centralized in Eni SpA (i.e. all Italian suppliers, mega-suppliers and international suppliers) and to local suppliers of Eni Ghana and Eni Pakistan.

KPI	METHODOLOGY
ANTI-CORRUPTION	
ANTI-CORRUPTION TRAINING	**E-learning for managers**: online courses for managerial figures. **E-learning for other resources**: online courses for non-managerial resources. **General workshop**: in-class training events for staff at risk of corruption. **Job specific training**: in-class training events for professional areas at risk of corruption.
LOCAL COMMUNITIES	
SPENDING TO LOCAL SUPPLIERS	The indicator refers to the 2018 share of expenditure to local suppliers. "Spending to local suppliers" has been defined according to the following alternative methods on the basis of the specific characteristics of the Countries analysed: 1) "Equity Method" (Ghana): the share of spending to local suppliers is determined on the basis of the percentage of ownership of the corporate structure (e.g., for a JV with 60% local component, 60% of total spending to the JV is considered as spending to local suppliers); 2) "Local Currency Method" (Angola): the portion paid in local currency is identified as spending to local suppliers; 3) "Country registration method" (Iraq e Nigeria): spending to suppliers registered in the Country and not belonging to international/ megasupplier groups (e.g., drilling service/drilling support service providers) is identified as local; 4) "Country registration + Local Currency Method" (Congo): spending to suppliers registered in the Country and not belonging to international/megasupplier groups (e.g., drilling service/drilling support service providers) is identified as local. For the latter, spending in local currency is considered to be local. The list of Countries to which the expenditure indicator refers will be expanded starting from 2019.
GRIEVANCES	Complaints made by an individual or a group of individuals relating to actual or perceived impacts caused by the Company's operational activities.

Correlation table between the key sustainability topics for Eni and GRI Standards

	KEY SUSTAINABILITY TOPICS	GRI STANDARDS	INTERNAL BOUNDARY	EXTERNAL BOUNDARY AND LIMITATIONS
PATH TO DECARBONIZATION	**Combating climate change** GHG emissions, promotion of natural gas, renewable, biofuels and green chemistry	GRI 201 Economic Performance GRI 305 Emissions	√	Suppliers and customers (RNES[1]; RNEC[2])
		GRI 302 Energy	√	
	Technological Innovation	-	√	
OPERATIONAL EXCELLENCE MODEL	**People** Employment, diversity and inclusion Training Occupational health and local communities health	GRI 202 Market presence GRI 401 Employment GRI 403 Occupational H&S GRI 404 Training and Education GRI 405 Diversity of governance bodies and employees	√	
	Safety People safety and asset integrity	GRI 403 Occupational H&S	√	Suppliers
	Reduction of environmental impacts Water resources Biodiversity Oil spill	GRI 303 Water GRI 304 Biodiversity GRI 306 Effluents and Waste GRI 307 Environmental compliance	√	
	Human Rights Rights of workers and local communities Supply chain Security	GRI 406 Non-Discrimination GRI 410 Security Practices GRI 412 Human Rights Assessment GRI 414 Supplier Social Assessment	√	Local security forces; Suppliers (RNES[1])
	Integrity in business management Transparency and anti-corruption	GRI 205 Anti-corruption	√	Suppliers (RPES[3])
PROMOTION OF LOCAL DEVELOPMENT	**Access to energy, local development through public-private partnerships** Economic diversification Education and training Access to water and hygiene Health	GRI 203 Indirect Economic Impacts GRI 413 Local Communities	√	
	Local content	GRI 204 Procurement Practices	√	Suppliers (RNES[1])

(1) RNES: Reporting not extended to suppliers.
(2) RNEC: Reporting not extended to customers.
(3) RPES: Reporting partially extended to suppliers.

GRI Content Index

DISCLOSURE	INDICATOR DESCRIPTION	SECTION AND/OR PAGE NUMBER
Organizational profile		
102-1	Name of the organization	Annual Report 2018, p. 1
102-2	Activities, brands, products, and services	Annual Report 2018, p. 3
102-3	Location of headquarters	Annual Report 2018, inside back cover
102-4	Location of operations	Annual Report 2018, p. 3
102-5	Ownership and legal form	Annual Report 2018, inside back cover https://www.eni.com/en_IT/company/governance/shareholders.page
102-6	Markets served	Annual Report 2018, p. 3
102-7	Scale of the organization	Annual Report 2018, pp. 12-13 NFI, pp. 114; 125
102-8	Information on employees and other workers	NFI, pp. 114; 125
102-9	Supply chain	NFI, p. 120
102-10	Significant changes to the organization and its supply chain	Annual Report 2018, pp. 146-149; 283
102-11	Precautionary Principle or approach	Annual Report 2018, pp. 20-23
102-12	External initiatives	Annual Report 2018, p. 15
102-13	Membership of associations	Annual Report 2018, p. 15
Strategy		
102-14	Statement from senior decision-maker	Annual Report 2018, pp. 7-11
102-15	Key impacts, risks, and opportunities	Annual Report 2018, pp. 20-23; 87-102
Ethics and integrity		
102-16	Values, principles, standards, and norms of behavior	Annual Report 2018, pp. 2; 4-5; 29 NFI, 106
Governance		
102-18	Governance structure	Annual Report 2018, pp. 24-29
Stakeholders engagement		
102-40	List of stakeholder groups	Annual Report 2018, pp. 14-15
102-41	Collective bargaining agreements	NFI, pp. 114; 125
102-42	Identifying and selecting stakeholders	Annual Report 2018, pp. 14-15
102-43	Approach to stakeholder engagement	Annual Report 2018, pp. 14-15
102-44	Key topics and concerns raised	Annual Report 2018, pp. 14-15
Reporting practice		
102-45	Entities included in the consolidated financial statements	Annual Report 2018, pp. 260-283 NFI, p. 125
102-46	Defining report content and topic Boundaries	NFI, pp. 124; 127
102-47	List of material topics	NFI, pp. 124; 127
102-48	Restatements of information	NFI, pp. 111; 118; 125
102-49	Changes in reporting	NFI, pp. 124; 127
102-50	Reporting period	NFI, p. 125
102-51	Date of most recent report	https://www.eni.com/en_IT/documentations.page
102-52	Reporting cycle	NFI, p. 125
102-53	Contact point for questions regarding the report	https://www.eni.com/en_IT/sustainability/contacts-sustainability.page
102-54 / 102-55	Claims of reporting in accordance with the GRI Standards and content index	NFI, pp. 125; 128-130
102-56	External assurance	NFI, pp. 131-133

Specific Standard disclosures

DISCLOSURE	INDICATOR DESCRIPTION	SECTION AND/OR PAGE NUMBER	OMISSION
CATEGORY: ECONOMIC METRICS AND COMMENTS			
Economic performance - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-111; 124; 127**	
201-2	Financial implications and other risks and opportunities due to climate change	Annual Report 2018, pp. 22-23; 99-100 NFI, pp. 108-111	
Market presence - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 112-114; 124-125; 127**	
202-2	Proportion of senior management hired from the local community	NFI, pp. 113-114; 125	
Indirect economic impacts - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 122-124; 127**	
203-1	Infrastructure investments and services supported	NFI, p. 123	
Procurement practices - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 122-124; 127**	
204-1	Proportion of spending on local suppliers	NFI, pp. 122-123; 127	
Anti-corruption - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 121-122; 124; 127**	
205-2	Communication and training about anti-corruption policies and procedures	NFI, pp. 121-122; 127	
CATEGORY: ENVIRONMENTAL METRICS AND COMMENTS			
Energy - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-111; 124-125; 127**	
302-3	Energy intensity	NFI, pp. 110-111; 125	
Water - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 116-118; 124; 126-127**	
303-1	Water withdrawal by source	NFI, pp. 117-118; 126	
Biodiversity - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 116-118; 124; 126-127**	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	NFI, pp. 117; 126	The biodiversity disclosure is limited to the upstream sector only.
Emissions - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-111; 124-125; 127**	
305-1	Direct (Scope 1) GHG emissions	NFI, pp. 110-111; 125	
305-4	GHG emissions intensity	NFI, pp. 110-111; 125	
Effluents and waste - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 116-118; 124; 126-127**	
306-2	Waste by type and disposal method	NFI, pp. 117-118; 126	
306-3	Significant spills	NFI, pp. 117-118; 126	
Environmental compliance - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 116-118; 124; 127**	
307-1	Environmental compliance	Annual Report 2018, pp. 205-209	
CATEGORY: SOCIAL METRICS AND COMMENTS			
Employment - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 112-114; 124-125; 127**	
401-1	New employee hires and employee turnover	NFI, pp. 113-114; 125	
Occupational health and safety - DMA (103-1; 103-2; 103-3; 403-1; 403-2; 403-3; 403-4; 403-5; 403-6; 403-7)		**NFI, pp. 106-107; 112-115; 124; 126-127**	
403-9	Work-related injuries	NFI, pp. 115; 126	
403-10	Work-related ill health	NFI, pp. 113-114; 126	

DISCLOSURE	INDICATOR DESCRIPTION	SECTION AND/OR PAGE NUMBER	OMISSION
Training and education - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 112-114; 124-125; 127**	
404-1	Average hours of training per year per employee	NFI, pp. 113-114; 125	
Diversity and equal opportunity - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 112-114; 124; 127**	
405-1	Diversity of governance bodies and employees	NFI , pp. 113-114	
Non-discrimination - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 118-120; 124; 127**	
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410-1	Security personnel trained in human rights policies or procedures	NFI, pp. 119-120	
Human rights assessment - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 118-120; 124; 127**	
412-2	Employee training on human rights policies or procedures	NFI, pp. 119-120	
Local communities - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 122-124; 127**	
413-1	Operations with local community engagement, impact assessments, and development programs	NFI, pp. 122-123	
Supplier social assessment - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-107; 120; 124; 126-127**	
414-1	New suppliers that were screened using social criteria	NFI, pp. 120; 126	
CATEGORY: TECHNOLOGICAL INNOVATION			
Innovation - DMA (103-1; 103-2; 103-3)		**NFI, pp. 106-111; 124; 127**	

Independent auditors' report

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Independent auditor's report on the consolidated disclosure of non-financial information in accordance with article 3, par. 10, of Legislative Decree December 30, 2016, n. 254 and with article 5 of Consob Regulation adopted with Resolution n. 20267 of January 18, 2018

(Translation from the original Italian text)

To the Board of Directors of
Eni S.p.A.

We have been appointed to perform a limited assurance engagement pursuant to article 3, paragraph 10, of Legislative Decree December 30, 2016, n. 254 (hereinafter "Decree") and article 5 of Consob Regulation adopted with Resolution n. 20267of January 18, 2018, on the consolidated disclosure of non-financial information of Eni S.p.A. and its subsidiaries (hereinafter the "Group") for the year ended on December 31, 2018 in accordance with article 4 of the Decree, presented in the specific section of the Management Report and approved by the Board of Directors on March 14, 2019 (hereinafter "DNF").

Responsibilities of Directors and Board of Statutory Auditors for the DNF

The Directors are responsible for the preparation of the DNF in accordance with the requirements of articles 3 and 4 of the Decree and the "Global Reporting Initiative Sustainability Reporting Standards" defined by GRI - Global Reporting Initiative (hereinafter "GRI Standards"), identified by them as a reporting standard.

The Directors are also responsible, within the terms provided by law, for that part of internal control that they consider necessary in order to allow the preparation of the DNF that is free from material misstatements caused by fraud or non-intentional behaviors or events.

The Directors are also responsible for identifying the content of the DNF within the matters mentioned in article 3, paragraph 1, of the Decree, considering the business and the characteristics of the Group and to the extent deemed necessary to ensure the understanding of the Group's business, its performance, its results and its impact.

The Directors are also responsible for defining the Group's management and organization business model, as well as with reference to the matters identified and reported in the DNF, for the policies applied by the Group and for identifying and managing the risks generated or incurred by the Group.

The Board of Statutory Auditors is responsible, within the terms provided by the law, for overseeing the compliance with the requirements of the Decree.

Auditor's independence and quality control

We are independent in accordance with the ethics and independence principles of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, based on fundamental principles of integrity, objectivity, professional competence and diligence, confidentiality and professional behavior. Our audit firm applies the International Standard on Quality Control 1 (ISQC Italia 1) and, as a result, maintains a quality control system that includes documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable laws and regulations.

EY S.p.A.
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Auditor's responsibility

It is our responsibility to express, on the basis of the procedures performed, a conclusion about the compliance of the DNF with the requirements of the Decree and of the GRI Standards. Our work has been performed in accordance with the principle of "International Standard on Assurance Engagements ISAE 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (hereinafter "ISAE 3000 Revised"), issued by the International Auditing and Assurance Standards Board (IAASB) for limited assurance engagements. This standard requires the planning and execution of work in order to obtain a limited assurance that the DNF is free from material misstatements. Therefore, the extent of work performed in our examination was lower than that required for a full examination according to the ISAE 3000 Revised ("reasonable assurance engagement") and, hence, it does not provide assurance that we have become aware of all significant matters and events that would be identified during a reasonable assurance engagement.

The procedures performed on the DNF were based on our professional judgment and included inquiries, primarily with company's personnel responsible for the preparation of the information included in the DNF, documents analysis, recalculations and other procedures in order to obtain evidences considered appropriate.

In particular, we have performed the following procedures:

1. analysis of the relevant matters in relation to the activities and characteristics of the Group reported in the DNF, in order to assess the reasonableness of the selection process applied in accordance with the provisions of article 3 of the Decree and considering the reporting standard applied for;
2. analysis and evaluation of the criteria for identifying the consolidation area, in order to evaluate its compliance with the provisions of the Decree;
3. comparison of the economic and financial data and information included in the DNF with those included in the Eni Group's consolidated financial statements for the year ended on December 31, 2018;
4. understanding of the following aspects:
   - Group's management and organization business model, with reference to the management of the matters indicated in the article 3 of the Decree;
   - policies adopted by the Group related to the matters indicated in the article 3 of the Decree, results achieved and related key performance indicators;
   - main risks generated or suffered related to the matters indicated in the article 3 of the Decree.

   With regard to these aspects, we obtained the documentation supporting the information contained in the DNF and performed the procedures described in item 5. a) below;
5. understanding of the processes that lead to the generation, detection and management of significant qualitative and quantitative information included in the DNF.

   In particular, we have conducted interviews and discussions with the management of Eni S.p.A. and with the personnel of Vår Energi AS (formerly Eni Norge AS), Eni Ghana Exploration and Production Ltd and Versalis S.p.A. and we have performed limited documentary evidence procedures, in order to collect information about the processes and

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procedures that support the collection, aggregation, processing and transmission of non-financial data and information to the management responsible for the preparation of the DNF.

Furthermore, for significant information, considering the Group activities and characteristics:

- at group level
  a) with reference to the qualitative information included in the DNF and, in particular, to the business model, policies implemented and main risks, we carried out inquiries and acquired supporting documentation to verify its consistency with the available evidence;
  b) with reference to quantitative information, we have performed both analytical procedures and limited assurance procedures to ascertain, on a sample basis, the correct aggregation of data.
- For Eni S.p.A. (Torrente Tona production site of the *Distretto Centro Settentrionale* – DICS and Taranto refinery), Versalis S.p.A. (Priolo production site), Vår Energi AS (Goliat offshore production site), Eni Ghana Exploration and Production Ltd (John Agyekum Kufur offshore production site), that we have selected based on their activities, relevance to the consolidated performance indicators and locations, we have carried out site visits during which we have had discussions with management and have obtained evidence about the appropriate application of the procedures and the calculation methods used to determine the indicators.

Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the DNF of the Eni Group for the year ended on December 31, 2018 has not been prepared, in all material aspects, in accordance with the requirements of articles 3 and 4 of the Decree and the GRI Standards.

Other Information

The Group has prepared the document "Eni for" for the year ended on December 31, 2016; such data are presented for comparative purposes in the DNF. This document has been subject to voluntary limited assurance procedures in accordance with ISAE 3000 by us, on which we have expressed an unqualified conclusion.

Rome, April 5, 2019

EY S.p.A.

Riccardo Rossi
(Partner)

This report has been translated into the English language solely for the convenience of international readers.

OTHER INFORMATION

Acceptance of Italian responsible payments code
Coherently with Eni's policy on transparency and accuracy in managing its suppliers, Eni SpA adhered to the Italian responsible payments code established by Assolombarda in 2014. In 2018, payments to Eni's suppliers were made within 55 days, in line with contractual provisions.

Article No. 15 (former Article No. 36) of Italian regulatory exchanges (Consob Resolution No. 20249 published on December 28, 2017).
Continuing listing standards about issuers that control subsidiaries incorporated or regulated in accordance with laws of extra-EU Countries.
Certain provisions have been enacted to regulate continuing Italian listing standards of issuers controlling subsidiaries that are incorporated or regulated in accordance with laws of extra-EU Countries, also having a material impact on the consolidated financial statements of the parent company.
Regarding the aforementioned provisions, the Company discloses that:

- as of December 31, 2018, nine of Eni's subsidiaries: Eni Congo SA, Eni Petroleum Co Inc, Nigerian Agip Oil Co Ltd, Nigerian Agip Exploration Ltd, Eni Finance USA Inc, Eni Trading & Shipping Inc, Eni Canada Holding Ltd, Eni Turkmenistan Ltd and Eni Ghana Exploration and Production Ltd - fall within the scope of the new continuing listing standards;
- the Company has already adopted adequate procedures to ensure full compliance with the new regulations.

Branches
In accordance with Article No. 2428 of the Italian Civil Code, it is hereby stated that Eni has the following branches:
San Donato Milanese (MI) - Via Emilia, 1;
San Donato Milanese (MI) - Piazza Vanoni, 1.

Subsequent events
Subsequent business developments are described in the operating review of each of Eni's business segments.

GLOSSARY

The glossary of oil and gas terms is available on Eni's web page at the address eni.com. Below is a selection of the most frequently used terms.

- **Average reserve life index** Ratio between the amount of reserves at the end of the year and total production for the year.
- **Barrel/bbl** Volume unit corresponding to 159 liters. A barrel of oil corresponds to about 0.137 metric tonnes.
- **Boe (Barrel of Oil Equivalent)** Is used as a standard unit measure for oil and natural gas. From July 1, 2012, Eni has updated the conversion rate of gas to 5,492 cubic feet of gas equals 1 barrel of oil (it was 5,550 cubic feet of gas per barrel in previous reporting periods).
- **Conversion** Refinery process allowing the transformation of heavy fractions into lighter fractions. Conversion processes are cracking, visbreaking, coking, the gasification of refinery residues, etc. The ration of overall treatment capacity of these plants and that of primary crude fractioning plants is the conversion rate of a refinery. Flexible refineries have higher rates and higher profitability.
- **Elastomers (or Rubber)** Polymers, either natural or synthetic, which, unlike plastic, when stress is applied, return, to a certain degree, to their original shape, once the stress ceases to be applied. The main synthetic elastomers are polybutadiene (BR), styrene-butadiene rubber (SBR), ethylenepropylene rubber (EPR), thermoplastic rubber (TPR) and nitrylic rubber (NBR).
- **Emissions of NO_x (Nitrogen Oxides)** Total direct emissions of nitrogen oxides deriving from combustion processes in air. They include NO_x emissions from flaring activities, sulphur recovery processes, FCC regeneration, etc. They include NO and NO_2 emissions and exclude N_2O emissions.
- **Emissions of SO_x (Sulphur Oxides)** Total direct emissions of sulfur oxides including SO_2 and SO_3 emissions. Main sources are combustion plants, diesel engines (including maritime engines), gas flaring (if the gas contains H_2S), sulphur recovery processes, FCC regeneration, etc.
- **Enhanced recovery** Techniques used to increase or stretch over time the production of wells.
- **Green House Gases (GHG)** Gases in the atmosphere, transparent to solar radiation, can consistently trap infrared radiation emitted by the earth's surface, atmosphere and clouds. The six relevant greenhouse gases covered by the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6). GHGs absorb and emit radiation at specific wavelengths within the range of infrared radiation determining the so called greenhouse phenomenon and the related increase of earth's average temperature. Eni's emissions are reported in CO_2 equivalent (CO_2eq) because they include not only carbon dioxide but also other climating gases as methane (CH_4) and nitrouse oxide (N_2O), characterized by a conversion factor of 25 and 298 respectively (source: IPCC).
- **Infilling wells** Infilling wells are wells drilled in a producing area in order to improve the recovery of hydrocarbons from the field and to maintain and/or increase production levels.
- **LNG** Liquefied Natural Gas obtained through the cooling of natural gas to minus 160 °C at normal pressure. The gas is liquefied to allow transportation from the place of extraction to the sites at which it is transformed and consumed. One ton of LNG corresponds to 1,400 cubic meters of gas.
- **LPG** Liquefied Petroleum Gas, a mix of light petroleum fractions, gaseous at normal pressure and easily liquefied at room temperature through limited compression.
- **Mineral Potential (Potentially recoverable hydrocarbon volumes)** Estimated recoverable volumes which cannot be defined as reserves due to a number of reasons, such as the temporary lack of viable markets, a possible commercial recovery dependent on the development of new technologies, or for their location in accumulations yet to be developed or where evaluation of known accumulations is still at an early stage.
- **Natural gas liquids** Liquid or liquefied hydrocarbons recovered from natural gas through separation equipment or natural gas treatment plants. Propane, normal-butane and isobutane, isopentane and pentane plus, that used to be defined natural gasoline, are natural gas liquids.
- **Oil spills** Discharge of oil or oil products from refining or oil waste occurring in the normal course of operations (when accidental) or deriving from actions intended to hinder operations of business units or from sabotage by organized groups (when due to sabotage or terrorism).
- **Olefins (or Alkenes)** Hydrocarbons that are particularly active chemically, used for this reason as raw materials in the synthesis of intermediate products and of polymers.
- **Over/underlifting** Agreements stipulated between partners regulate the right of each to its share in the production of a set period of time. Amounts different from the agreed ones determine temporary over/underlifting situations.
- **Production Sharing Agreement (PSA)** Contract in use in African, Middle Eastern, Far Eastern and Latin American Countries, among others, regulating relationships between states and oil companies with regard to the exploration and production of hydrocarbons. The mineral right is awarded to the national oil company jointly with the foreign oil company that has an exclusive right to perform exploration, development and production activities and can enter into agreements with other local or international entities. In this type of contract the national oil company assigns to the international contractor the task of performing exploration and production with the contractor's equipment and financial resources. Exploration risks are borne by the contractor and production is divided into two portions: "cost oil" is used to recover costs borne by the contractor and "profit oil" is divided between the contractor and the national company according to variable schemes and represents the profit deriving from exploration and production. Further terms and conditions of these contracts may vary from Country to Country.
- **Proved 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 reasonable certainty to be economically producible from a given date forward, from know reservoirs, and under existing economic conditions.

The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

- **Reserves** Quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project. Reserves can be: (i) developed reserves quantities of oil and gas anticipated to be through installed extraction equipment and infrastructure operational at the time of the reserves estimate; (ii) undeveloped reserves: oil and gas expected to be recovered from new wells, facilities and operating methods.
- **Ship-or-pay** Clause included in natural gas transportation contracts according to which the customer for which the transportation is carried out is bound to pay for the transportation of the gas also in case the gas is not transported.
- **Take-or-pay** Clause included in natural gas purchase contracts according to which the purchaser is bound to pay the contractual price or a fraction of such price for a minimum quantity of the gas set in the contract also in case it is not collected by the customer. The customer has the option of collecting the gas paid and not delivered at a price equal to the residual fraction of the price set in the contract in subsequent contract years.
- **Upstream/downstream** The term upstream refers to all hydrocarbon exploration and production activities. The term mid-downstream includes all activities inherent to oil industry subsequent to exploration and production. Process crude oil and oil-based feedstock for the production of fuels, lubricants and chemicals, as well as the supply, trading and transportation of energy commodities. It also includes the marketing business of refined and chemicals products.
- **Wholesale sales** Domestic sales of refined products to wholesalers/distributors (mainly gasoil), public administrations and end consumers, such as industrial plants, power stations (fuel oil), airlines (jet fuel), transport companies, big buildings and households. They do not include distribution through the service station network, marine bunkering, sales to oil and petrochemical companies, importers and international organizations.
- **Workover** Intervention on a well for performing significant maintenance and substitution of basic equipment for the collection and transport to the surface of liquids contained in a field.

Abbreviations

/d	per day
/y	per year
bbbl	billion barrels
bbl	barrels
bboe	billion barrels of oil equivalent
bcf	billion cubic feet
bcm	billion cubic meters
bln liters	billion liters
bln tonnes	billion tonnes
boe	barrels of oil equivalent
cm	cubic meter
GWh	gigawatthour
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
kbbl	thousand barrels
kboe	thousand barrels of oil equivalent
km	kilometers
ktoe	thousand tonnes of oil equivalent
ktonnes	thousand tonnes
mmbbl	million barrels
mmboe	million barrels of oil equivalent
mmcf	million cubic feet
mmcm	million cubic meters
mmtonnes	million tonnes
MTPA	Million Tonnes Per Annum
No.	number
NGL	Natural Gas Liquids
PCA	Production Concession Agreement
ppm	parts per million
PSA	Production Sharing Agreement
Tep	Ton of equivalent petroleum
TWh	Terawatt hour

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CONSOLIDATED BALANCE SHEET

(€ million)	Note	December 31, 2018 Total amount	December 31, 2018 *of which with related parties*	December 31, 2017 Total amount	December 31, 2017 *of which with related parties*
ASSETS					
Current assets					
Cash and cash equivalents	(5)	10,836		7,363	
Financial assets held for trading	(6)	6,552		6,012	
Financial assets available for sale				207	
Other current financial assets	(15)	300	*49*	316	*73*
Trade and other receivables	(7)	14,101	*633*	15,421	*834*
Inventories	(8)	4,651		4,621	
Income tax receivables	(9)	191		191	
Other tax receivables	(9)	561		729	
Other current assets	(10) (23)	2,258	*71*	1,573	*30*
		39,450		**36,433**	
Non-current assets					
Property, plant and equipment	(11)	60,302		63,158	
Inventory - compulsory stock	(8)	1,217		1,283	
Intangible assets	(12)	3,170		2,925	
Equity-accounted investments	(14)	7,044		3,511	
Other investments	(14)	919		219	
Other non-current financial assets	(15)	1,253	*915*	1,675	*1,214*
Deferred tax assets	(22)	3,931		4,078	
Other non-current assets	(10) (23)	792	*160*	1,323	*46*
		78,628		**78,172**	
Assets held for sale	(24)	**295**		**323**	
TOTAL ASSETS		**118,373**		**114,928**	
LIABILITIES AND SHAREHOLDERS' EQUITY					
Current liabilities					
Short-term debt	(18)	2,182	*661*	2,242	*164*
Current portion of long-term debt	(18)	3,601		2,286	
Trade and other payables	(16)	16,747	*3,664*	16,748	*2,808*
Income tax payables	(9)	440		472	
Other tax payables	(9)	1,432		1,472	
Other current liabilities	(17) (23)	3,980	*63*	1,515	*60*
		28,382		**24,735**	
Non-current liabilities					
Long-term debt	(18)	20,082		20,179	
Provisions for contingencies	(20)	11,886		13,447	
Provisions for employee benefits	(21)	1,117		1,022	
Deferred tax liabilities	(22)	4,272		5,900	
Other non-current liabilities	(17) (23)	1,502	*23*	1,479	*23*
		38,859		**42,027**	
Liabilities directly associated with assets held for sale	(24)	**59**		**87**	
TOTAL LIABILITIES		**67,300**		**66,849**	
SHAREHOLDERS' EQUITY	(25)				
Non-controlling interest		***57***		***49***	
Eni shareholders' equity					
Share capital		4,005		4,005	
Retained earnings		36,702		35,966	
Cumulative currency translation differences		6,605		4,818	
Other reserves		1,672		1,889	
Treasury shares		(581)		(581)	
Interim dividend		(1,513)		(1,441)	
Net profit (loss)		4,126		3,374	
Total Eni shareholders' equity		**51,016**		**48,030**	
TOTAL SHAREHOLDERS' EQUITY		**51,073**		**48,079**	
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**118,373**		**114,928**	

CONSOLIDATED PROFIT AND LOSS ACCOUNT

(€ million)	Note	2018 Total amount	2018 *of which with related parties*	2017 Total amount	2017 *of which with related parties*	2016 Total amount	2016 *of which with related parties*
REVENUES	(28)						
Net sales from operations		75,822	*1,383*	66,919	*1,567*	55,762	*1,238*
Other income and revenues		1,116	*8*	4,058	*41*	931	*74*
		76,938		**70,977**		**56,693**	
COSTS							
Purchases, services and other	(29)	(55,622)	*(8,009)*	(51,548)	*(9,164)*	(43,278)	*(8,212)*
Net (impairment losses) reversals of trade and other receivables	(7)	(415)	*26*	(913)		(846)	
Payroll and related costs	(29)	(3,093)	*(22)*	(2,951)	*(34)*	(2,994)	*(24)*
Other operating income (expense)	(23)	129	*319*	(32)	*331*	16	*247*
Depreciation and amortization	(11) (12)	(6,988)		(7,483)		(7,559)	
Net (impairment losses) reversals of tangible and intangible assets	(13)	(866)		225		475	
Write-off of tangible and intangible assets	(11) (12)	(100)		(263)		(350)	
OPERATING PROFIT (LOSS)		**9,983**		**8,012**		**2,157**	
FINANCE INCOME (EXPENSE)							
Finance income	(30)	3,967	*115*	3,924	*191*	5,850	*157*
Finance expense	(30)	(4,663)	*(283)*	(5,886)	*(4)*	(6,232)	*(145)*
Net finance income (expense) from financial assets held for trading	(30)	32		(111)		(21)	
Derivative financial instruments	(23)	(307)		837		(482)	*27*
		(971)		**(1,236)**		**(885)**	
INCOME (EXPENSE) FROM INVESTMENTS	(14) (31)						
Share of profit (loss) from equity-accounted investments		(68)		(267)		(326)	
Other gain (loss) from investments		1,163		335		(54)	
		1,095		**68**		**(380)**	
PROFIT (LOSS) BEFORE INCOME TAXES		**10,107**		**6,844**		**892**	
Income taxes	(32)	(5,970)		(3,467)		(1,936)	
Net profit (loss) for the year - continuing operations		**4,137**		**3,377**		**(1,044)**	
Net profit (loss) for the year - discontinued operations						**(413)**	
Net profit (loss) for the year		**4,137**		**3,377**		**(1,457)**	
Attributable to Eni:							
- continuing operations		4,126		3,374		(1,051)	
- discontinued operations						(413)	
		4,126		**3,374**		**(1,464)**	
Attributable to non-controlling interest:							
- continuing operations		11		3		*7*	
- discontinued operations							
		11		**3**		***7***	
Earnings per share attributable to Eni (€ per share)	(33)						
Basic		1.15		0.94		(0.41)	
Diluted		1.15		0.94		(0.41)	
Earnings per share attributable to Eni – Continuing operations (€ per share)	(33)						
Basic		1.15		0.94		(0.29)	
Diluted		1.15		0.94		(0.29)	

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)

(€ million)	Note	2018	2017	2016
Net profit (loss)		**4,137**	**3,377**	**(1,457)**
Other items of comprehensive income (loss)				
Items that are not reclassified to profit or loss in later periods				
Remeasurements of defined benefit plans	(25)	(15)	(33)	16
Fair value valuation of minor investments with effect to other comprehensive income	(25)	15		
Tax effect related to other comprehensive income not to be reclassified to profit or loss in subsequent periods	(25)	(2)	29	(35)
		(2)	**(4)**	**(19)**
Items that may be reclassified to profit or loss in later periods				
Currency translation differences		1,787	(5,573)	1,198
Change in the fair value of available-for-sale financial instruments	(25)		(5)	(4)
Change in the fair value of cash flow hedging derivatives	(25)	(243)	(6)	883
Share of other comprehensive income on equity-accounted entities	(25)	(24)	69	32
Tax effect related to other comprehensive income to be reclassified to profit or loss in subsequent periods	(25)	58	1	(220)
		1,578	**(5,514)**	**1,889**
Total other items of comprehensive income (loss)		**1,576**	**(5,518)**	**1,870**
Total comprehensive income (loss)		**5,713**	**(2,141)**	**413**
Attributable to Eni				
- continuing operations		5,702	(2,144)	819
- discontinued operations				(413)
		5,702	**(2,144)**	**406**
Attributable to non-controlling interest				
- continuing operations		11	3	7
- discontinued operations				
		11	**3**	**7**

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

		Eni shareholders' equity									
(€ million)	Note	Share capital	Retained earnings	Cumulative currency translation differences	Other reserves	Treasury shares	Interim dividend	Net profit (loss) for the year	Total	Non-controlling interest	Total shareholders' equity
Balance at December 31, 2017	(25)	**4,005**	**35,966**	**4,818**	**1,889**	**(581)**	**(1,441)**	**3,374**	**48,030**	**49**	**48,079**
Changes in accounting policies (IFRS 9 and 15)	(3)		245						245		245
Balance at January 1, 2018		**4,005**	**36,211**	**4,818**	**1,889**	**(581)**	**(1,441)**	**3,374**	**48,275**	**49**	**48,324**
Net profit for the year								**4,126**	**4,126**	**11**	**4,137**
Other items of comprehensive income (loss)											
Items that are not reclassified to profit or loss in later periods											
Remeasurements of defined benefit plans net of tax effect	(25)				(17)				(17)		(17)
Change of minor investments measured at fair value with effects recognised in OCI	(25)				15				15		15
					(2)				**(2)**		**(2)**
Items that may be reclassified to profit or loss in later periods											
Currency translation differences	(25)			1,787					1,787		1,787
Change in the fair value of cash flow hedge derivatives net of tax effect	(25)				(185)				(185)		(185)
Share of "Other comprehensive income" on equity-accounted entities	(25)				(24)				(24)		(24)
				1,787	**(209)**				**1,578**		**1,578**
Total comprehensive income (loss) of the year				**1,787**	**(211)**			**4,126**	**5,702**	**11**	**5,713**
Transactions with shareholders											
Dividend distribution of Eni SpA (€0.40 per share in settlement of 2017 interim dividend of €0.40 per share)	(25)						1,441	(2,881)	(1,440)		(1,440)
Interim dividend distribution of Eni SpA (€0.42 per share)	(25)						(1,513)		(1,513)		(1,513)
Dividend distribution of other companies										(3)	(3)
Allocation of 2017 net income			493					(493)			
			493				**(72)**	**(3,374)**	**(2,953)**	**(3)**	**(2,956)**
Other changes in shareholders' equity											
Long-term share-based incentive plan			5						5		5
Other changes			(7)		(6)				(13)		(13)
			(2)		**(6)**				**(8)**		**(8)**
Balance at December 31, 2018	(25)	**4,005**	**36,702**	**6,605**	**1,672**	**(581)**	**(1,513)**	**4,126**	**51,016**	**57**	**51,073**

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY *(continued)*

		Eni shareholders' equity									
(€ million)	Note	Share capital	Retained earnings	Cumulative currency translation differences	Other reserves	Treasury shares	Interim dividend	Net profit (loss) for the year	Total	Non-controlling interest	Total shareholders' equity
Balance at December 31, 2016	(25)	**4,005**	**40,367**	**10,319**	**1,832**	**(581)**	**(1,441)**	**(1,464)**	**53,037**	**49**	**53,086**
Net profit for the year								**3,374**	**3,374**	**3**	**3,377**
Other items of comprehensive income (loss)											
Items that are not reclassified to profit or loss in later periods											
Remeasurements of defined benefit plans net of tax effect	(25)				(4)				(4)		(4)
					(4)				**(4)**		**(4)**
Items that may be reclassified to profit or loss in later periods											
Currency translation differences	(25)			(5,575)	2				(5,573)		(5,573)
Change in the fair value of other available-for-sale financial instruments net of tax effect	(25)				(4)				(4)		(4)
Change in the fair value of cash flow hedge derivatives net of tax effect	(25)				(6)				(6)		(6)
Share of "Other comprehensive income" on equity-accounted entities	(25)				69				69		69
				(5,575)	**61**				**(5,514)**		**(5,514)**
Total comprehensive income (loss) of the year				**(5,575)**	**57**			**3,374**	**(2,144)**	**3**	**(2,141)**
Transactions with shareholders											
Dividend distribution of Eni SpA (€0.40 per share in settlement of 2016 interim dividend of €0.40 per share)	(25)						1,441	(2,881)	(1,440)		(1,440)
Interim dividend distribution of Eni SpA (€0.40 per share)	(25)						(1,441)		(1,441)		(1,441)
Dividend distribution of other companies										(3)	(3)
Allocation of 2016 net loss			(4,345)					4,345			
			(4,345)					**1,464**	**(2,881)**	**(3)**	**(2,884)**
Other changes in shareholders' equity											
Other changes			(56)	74					18		18
			(56)	**74**					**18**		**18**
Balance at December 31, 2017	(25)	**4,005**	**35,966**	**4,818**	**1,889**	**(581)**	**(1,441)**	**3,374**	**48,030**	**49**	**48,079**

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY *(continued)*

	Eni shareholders' equity									
(€ milioni)	Share capital	Retained earnings	Cumulative currency translation differences	Other reserves	Treasury shares	Interim dividend	Net profit for the year	Total	Non-controlling interest	Total shareholders' equity
Balance at December 31, 2015	**4,005**	**51,985**	**9,129**	**1,173**	**(581)**	**(1,440)**	**(8,778)**	**55,493**	**1,916**	**57,409**
Net profit (loss) for the year							**(1,464)**	**(1,464)**	**7**	**(1,457)**
Other items of comprehensive income (loss)										
Items that are not reclassified to profit or (loss) in later periods										
Remeasurements of defined benefit plans net of tax effect				(19)				(19)		(19)
				(19)				**(19)**		**(19)**
Items that may be reclassified to profit or (loss) in later periods										
Currency translation differences			1,190	8				1,198		1,198
Change in the fair value of other available-for-sale financial instruments net of tax effect				(4)				(4)		(4)
Change in the fair value of cash flow hedge derivatives net of tax effect				663				663		663
Share of "Other comprehensive income" on equity-accounted entities				32				32		32
			1,190	**699**				**1,889**		**1,889**
Total comprehensive income (loss) of the year			**1,190**	**680**			**(1,464)**	**406**	**7**	**413**
Transactions with shareholders										
Dividend distribution of Eni SpA (€0.40 per share in settlement of 2015 interim dividend of €0.40 per share)		(1,028)				1,440	(1,852)	(1,440)		(1,440)
Interim dividend distribution of Eni SpA (€0.40 per share)						(1,441)		(1,441)		(1,441)
Dividend distribution of other companies									(4)	(4)
Allocation of 2015 net loss		(10,630)					10,630			
		(11,658)				**(1)**	**8,778**	**(2,881)**	**(4)**	**(2,885)**
Other changes in shareholders' equity										
Exclusion from the scope of consolidation of Saipem group following the sale of the control									(1,872)	(1,872)
Reclassification to profit and loss account of amounts previously recognized in other comprehensive income related to Saipem		(8)		(20)				(28)		(28)
Other changes		48		(1)				47	2	49
		40		**(21)**				**19**	**(1,870)**	**(1,851)**
Balance at December 31, 2016	**4,005**	**40,367**	**10,319**	**1,832**	**(581)**	**(1,441)**	**(1,464)**	**53,037**	**49**	**53,086**

CONSOLIDATED STATEMENT OF CASH FLOWS

(€ million)	Note	2018	2017	2016
Net profit (loss) of the year - continuing operations		4,137	3,377	(1,044)
Adjustments to reconcile net profit (loss) to net cash provided by operating activities				
Depreciation and amortization	(11) (12)	6,988	7,483	7,559
Net Impairments (reversals) of tangible and intangible assets	(13)	866	(225)	(475)
Write-off of tangible and intangible assets	(11) (12)	100	263	350
Share of (profit) loss of equity-accounted investments	(14) (31)	68	267	326
Net gain on disposal of assets		(474)	(3,446)	(48)
Dividend income	(31)	(231)	(205)	(143)
Interest income		(185)	(283)	(209)
Interest expense		614	671	645
Income taxes	(32)	5,970	3,467	1,936
Other changes		(474)	894	(9)
Changes in working capital:				
- inventories		*15*	*(346)*	*(273)*
- trade receivables		*334*	*657*	*1,286*
- trade payables		*642*	*284*	*1,495*
- provisions for contingencies		*(238)*	*96*	*(1,043)*
- other assets and liabilities		*879*	*749*	*647*
Cash flow from changes in working capital		1,632	1,440	2,112
Change in the provisions for employee benefits		109	38	22
Dividends received		275	291	212
Interest received		87	104	160
Interest paid		(609)	(582)	(780)
Income taxes paid, net of tax receivables received		(5,226)	(3,437)	(2,941)
Net cash provided by operating activities		**13,647**	**10,117**	**7,673**
- of which with related parties	(36)	***(2,707)***	***(2,843)***	***(3,749)***
Investing activities:				
- tangible assets	(11)	(8,778)	(8,490)	(9,067)
- intangible assets	(12)	(341)	(191)	(113)
- consolidated subsidiaries and businesses net of cash and cash equivalent acquired	(26)	(119)		
- investments	(14)	(125)	(510)	(1,164)
- securities		(432)	(316)	(1,336)
- financial receivables		(554)	(657)	(1,208)
- change in payables in relation to investing activities and capitalized depreciation		408	152	(8)
Cash flow from investing activities		(9,941)	(10,012)	(12,896)
Disposals:				
- tangible assets		1,089	2,745	19
- intangible assets		5	2	
- consolidated subsidiaries and businesses net of cash and cash equivalent disposed of	(26)	(47)	2,662	(362)
- tax on disposals			(436)	
- investments		195	482	508
- securities		61	224	20
- financial receivables		496	999	8,063
- change in receivables in relation to disposals		606	(434)	205
Cash flow from disposals		2,405	6,244	8,453
Net cash used in investing activities		**(7,536)**	**(3,768)**	**(4,443)**
- of which with related parties	(36)	***(3,314)***	***(3,115)***	***3,752***

CONSOLIDATED STATEMENT OF CASH FLOWS *(continued)*

(€ million)	Note	2018	2017	2016
Increase in long-term financial debt	(18)	3,790	1,842	4,202
Repayments of long-term financial debt	(18)	(2,757)	(2,973)	(2,323)
Increase (decrease) in short-term financial debt	(18)	(713)	(581)	(2,645)
		320	**(1,712)**	**(766)**
Dividends paid to Eni's shareholders		(2,954)	(2,880)	(2,881)
Dividends paid to non-controlling interest		(3)	(3)	(4)
Net cash used in financing activities		**(2,637)**	**(4,595)**	**(3,651)**
- of which with related parties	(36)	***16***	***(16)***	***(192)***
Effect of change in consolidation (inclusion/exclusion of significant/insignificant subsidiaries)			7	(5)
Effect of cash and cash equivalents pertaining to discontinued operations				889
Effect of exchange rate changes and other changes on cash and cash equivalents		18	(72)	2
Net cash flow of the year		**3,492**	**1,689**	**465**
Cash and cash equivalents - beginning of the year	(5)	**7,363**	**5,674**	**5,209**
Cash and cash equivalents - end of the year[a]	(5)	**10,855**	**7,363**	**5,674**

(a) Cash and cash equivalents as of December 31, 2018, include €19 million of cash and cash equivalents of consolidated subsidiaries held for sale that were reported in the item Assets held for sale in the balance sheet.

NOTES ON CONSOLIDATED FINANCIAL STATEMENTS

1 | Significant accounting policies, estimates and judgements

BASIS OF PREPARATION

The Consolidated Financial Statements of the Eni Group have been prepared in accordance with International Financial Reporting Standards (IFRS)[1] as issued by the International Accounting Standards Board (IASB) and adopted by the European Union (EU) pursuant to article 6 of the EC Regulation No. 1606/2002 of the European Parliament and of the Council of July 19, 2002, and in accordance with article 9 of Legislative Decree No. 38/05[2]. Oil and natural gas exploration and production activity is accounted for in accordance with internationally accepted accounting standards taking into account the applicable IFRS requirements.

The Consolidated Financial Statements have been prepared under the historical cost convention, taking into account, where appropriate, value adjustments, except for certain items that under IFRSs must be measured at fair value as described in the accounting policies that follow.

The 2018 Consolidated Financial Statements, approved by the Eni's Board of Directors on March 14, 2019, were audited by the external auditor EY SpA. The external auditor of Eni SpA, as the main external auditor, is wholly in charge of the auditing activities of the Consolidated Financial Statements; when there are other external auditors, EY SpA takes the responsibility of their work.

The Consolidated Financial Statements are presented in euro and all values are rounded to the nearest million euros (€ million), except where otherwise indicated.

SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of the Consolidated Financial Statements requires the use of estimates and assumptions that affect the assets, liabilities, revenues and expenses recognised in the financial statements, as well as amounts included in the notes thereto, including disclosure of contingent assets and contingent liabilities. Estimates made are based on complex judgements and past experience of other assumptions deemed reasonable in consideration of the information available at the time. The accounting policies and areas that require the most significant judgements and estimates to be used in the preparation of the Consolidated Financial Statements are in relation to the accounting for oil and natural gas activities, specifically in the determination of proved and proved developed reserves, impairment of fixed assets, intangible assets and goodwill, decommissioning and restoration liabilities, business combinations, employee benefits and recognition of environmental liabilities. Although the Company uses its best estimates and judgements, actual results could differ from the estimates and assumptions used. The accounting estimates and judgements relevant for the preparation of the Consolidated Financial Statement are described below.

PRINCIPLES OF CONSOLIDATION

SUBSIDIARIES

The Consolidated Financial Statements comprise the financial statements of the parent Company Eni SpA and those of its subsidiaries, being those entities over which the Company has control, either directly or indirectly, through exposure or rights to their variable returns and the ability to affect those returns through its power over the investees. To have power over an investee, the investor must have existing rights that give it the current ability to direct the relevant activities of the investee, i.e. the activities that significantly affect the investee's returns.

Subsidiaries are consolidated, on the basis of consistent accounting policies, from the date on which control is obtained until the date that control ceases. Assets, liabilities, income and expenses of consolidated subsidiaries are fully recognised with those of the parent in the Consolidated Financial Statements; the parent's investment in each subsidiary is eliminated against the corresponding parent's portion of equity of each subsidiary.

Non-controlling interests are presented separately in the balance sheet within equity; the profit or loss attributable to non-controlling interests is presented in a specific line item of the profit and loss account.

For entities acting as sole-operator in the management of Oil & Gas contracts on behalf of companies participating in a joint project, the activities are financed proportionally based on a budget approved by the participating companies upon presentation of periodical reports of proceeds and expenses. Costs and revenue and other operating data (production, reserves, etc.) of the project, as well as the related obligations arising from the project, are recognised directly in the financial statements of the companies involved based on their own share. Some subsidiaries are not consolidated because they are not significant, either individually or in the aggregate; this exclusion has not produced significant[3] effects on the Consolidated Financial Statements[4].

When the proportion of the equity held by non-controlling interests changes, any difference between the consideration paid/received and the amount by which the non-controlling interests are adjusted is attributed to Eni shareholders' equity. Conversely, the sale of equity interests with loss of control determines the recognition in the profit and loss account of: (i) any gain or loss calculated as the difference between the consideration received and the corresponding transferred net assets; (ii) any gain or loss recognised as a result of the re-measurement of any investment retained in the former subsidiary at its fair value; and (iii) any amount related to the former subsidiary previously recognised

(1) IFRSs include also International Accounting Standards (IAS), currently effective, as well as the interpretations developed by the IFRS Interpretations Committee, previously named International Financial Reporting Interpretations Committee (IFRIC) and initially Standing Interpretations Committee (SIC).
(2) The Consolidated Financial Statements are compliant with IFRSs as issued by the IASB and effective for the year 2018.
(3) According to the requirements of the Conceptual Framework for Financial Reporting, "information is material if omitting it or misstating it could influence decisions that users make on the basis of financial information about a specific reporting entity".
(4) Unconsolidated subsidiaries are accounted for as described in the accounting policy for "The equity method of accounting"; for further information, see the annex "List of companies owned by Eni SpA as of December 31, 2018".

in other comprehensive income which may be reclassified subsequently to the profit and loss account[5]. Any investment retained in the former subsidiary is recognised at its fair value at the date when control is lost and shall be accounted for in accordance with the applicable measurement criteria.

INTERESTS IN JOINT ARRANGEMENTS

Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Investments in joint ventures are accounted for using the equity method as described in the accounting policy for "The equity method of accounting".

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have enforceable rights to the assets, and enforceable obligations for the liabilities, relating to the arrangement. In the Consolidated Financial Statements, Eni recognises its share of the assets/liabilities and revenue/expenses of joint operations on the basis of its rights and obligations relating to the arrangements.

After the initial recognition, the assets/liabilities and revenue/expenses of the joint operations are measured in accordance with the applicable measurement criteria. Not significant joint operations are accounted for using the equity method or, if this does not result in a misrepresentation of the Company's financial position and performance, at cost net of any impairment losses.

INVESTMENTS IN ASSOCIATES

An associate is an entity over which Eni has significant influence, that is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control of those policies. Investments in associates are accounted for using the equity method as described in the accounting policy for "The equity method of accounting".

Investments in subsidiaries, joint arrangements and associates as of December 31, 2018 are presented separately in the annex "List of companies owned by Eni SpA as of December 31, 2018". This annex includes also the changes in the scope of consolidation.

Consolidated companies' financial statements are audited by external auditors who audit also the information required for the preparation of the Consolidated Financial Statements.

THE EQUITY METHOD OF ACCOUNTING

Investments in joint ventures, associates and not significant unconsolidated subsidiaries, are accounted for using the equity method[6 7].

Under the equity method, investments are initially recognised at cost, allocating, similarly to business combinations procedures, the purchase price of the investment to the investee's assets/liabilities; if this allocation is provisionally recognised at initial recognition, it can be retrospectively adjusted within one year from the date of initial recognition, to reflect new information obtained about facts and circumstances that existed at the date of initial recognition. Subsequently, the carrying amount is adjusted to reflect: (i) the investor's share of the profit or loss of the investee after the date of acquisition; and (ii) the investor's share of the investee's other comprehensive income. Distributions received from an equity-accounted investee reduce the carrying amount of the investment. In applying the equity method, consolidation adjustments are considered (see also the accounting policy for "Subsidiaries"). When there is objective evidence of impairment (e.g. relevant breaches of contracts, significant financial difficulty, probable default of the counterparty, etc.), the recoverability is tested by comparing the carrying amount and the related recoverable amount determined by adopting the criteria indicated in the accounting policy for "Property, plant and equipment". When an impairment loss no longer exists or has decreased, a reversal of the impairment loss is recognised in the profit and loss account within "Other gain (loss) from investments". The impairment reversal shall not exceed the previously recognised impairment losses. Losses arising from the application of the equity method in excess of the carrying amount of the investment, recognised in the profit and loss account within "Income (Expense) from investments", reduce the carrying amount of any financing receivables towards the investee for which settlement is neither planned nor likely to occur in the foreseeable future and which are, in substance, an extension of the investment in the investee (the so-called long-term interests).

The sale of equity interests with loss of joint control or significant influence over the investee determines the recognition in the profit and loss account of: (i) any gain or loss calculated as the difference between the consideration received and the corresponding transferred share; (ii) any gain or loss recognised as a result of the re-measurement of any investment retained in the former joint venture/associate at its fair value[8]; and (iii) any amount related to the former joint venture/associate previously recognised in other comprehensive income which may be reclassified subsequently to the profit and loss account[9]. Any investment retained in the former joint venture/associate is recognised at its fair value at the date when joint control or significant influence is lost and shall be accounted for in accordance with the applicable measurement criteria.

The investor's share of losses of an investee, that exceeds the carrying amount of the investment and any long-term interests, is recognised in a specific provision only to the extent that the investor has incurred legal or constructive obligations or made payments on behalf of the investee.

(5) Conversely, any amount related to the former subsidiary previously recognised in other comprehensive income, which may not be reclassified subsequently to the profit and loss account, are reclassified in another item of equity.

(6) In the case of step acquisition of significant influence (joint control), the investment is recognised, at the acquisition date of significant influence (joint control), at the amount deriving from the use of the equity method assuming the adoption of this method since initial acquisition; the "step-up" of the carrying amount of interests owned before the acquisition of significant influence (joint control) is taken to equity.

(7) Joint ventures, associates and not significant unconsolidated subsidiaries are accounted for at cost less any accumulated impairment losses, if this does not result in a misrepresentation of the Company's financial position and performance.

(8) If the retained investment continues to be accounted for using the equity method, no re-measurement at fair value is recognised in the profit and loss account.

(9) Conversely, any amount related to the former joint venture/associate previously recognised in other comprehensive income, which may not be reclassified subsequently to the profit and loss account, are reclassified in another item of equity.

BUSINESS COMBINATION

Business combinations are accounted for by applying the acquisition method. The consideration transferred in a business combination is the sum of the acquisition-date fair value of the assets transferred, the liabilities incurred and the equity interests issued by the acquirer. Acquisition-related costs are accounted for as expenses when incurred.

The acquirer shall measure the identifiable assets acquired and liabilities assumed at their acquisition-date fair values[10], unless another measurement basis is required by IFRSs. The excess of the consideration transferred over the Group's share of the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed is recognised, in the balance sheet, as goodwill; conversely, a gain on a bargain purchase is recognised in the profit and loss account.

Any non-controlling interests are measured as the proportionate share in the recognised amounts of the acquiree's identifiable net assets at the acquisition date excluding, hence, the portion of goodwill attributable to them (partial goodwill method); as an alternative, non-controlling interests may be measured at fair value, which means that goodwill includes the portion attributable to them (full goodwill method)[11]. The choice of measurement basis for goodwill (partial goodwill method vs. full goodwill method) is made on a transaction-by-transaction basis.

In a business combination achieved in stages, the purchase price is determined by summing the acquisition-date fair value of previously held equity interests in the acquiree and the consideration transferred for obtaining control; the previously held equity interests are re-measured at their acquisition-date fair value and the resulting gain or loss, if any, is recognised in the profit and loss account. Furthermore, on obtaining control, any amount recognised in other comprehensive income related to the previously held equity interests is reclassified to the profit and loss account, or in another item of equity when such amount may not be reclassified to the profit and loss account.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the provisional amounts recognised at the acquisition date shall be retrospectively adjusted within one year from the acquisition date, to reflect new information obtained about facts and circumstances that existed as of the acquisition date.

The acquisition of interests in a joint operation whose activity constitutes a business is accounted for applying the principles on business combinations accounting.

Significant accounting estimates and judgements: investments and business combinations

The assessment of the existence of control, joint control, significant influence over an investee, as well as for joint operations, the assessment of the existence of enforceable rights and obligations imply that the management makes complex judgements on the basis of the characteristics of the investee's structure, arrangements between parties and other relevant facts and circumstances. Significant accounting estimates by management are required also for measuring the identifiable assets acquired and the liabilities assumed, in a business combination, at their acquisition-date fair values. For such measurement, to be performed also for the application of the equity method, Eni adopts the valuation techniques generally used by market participants taking into account the available information; for the most significant business combinations, Eni engages external independent evaluators.

INTRAGROUP TRANSACTIONS

All balances and transactions between consolidated companies, and not yet realised with third parties, including unrealised profits arising from such transactions have been eliminated.

Unrealised profits arising from 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 both cases, unrealised losses are not eliminated unless the transaction provides evidence of an impairment loss of the asset transferred.

FOREIGN CURRENCY TRANSLATION

The financial statements of foreign operations having a functional currency other than the euro, that represents the parent's functional currency, are translated into euro using the spot exchange rates on the balance sheet date for assets and liabilities, historical exchange rates for equity and average exchange rates for the profit and loss account and the statement of cash flows (source: Reuters - WMR).

The cumulative resulting exchange differences are presented in the separate component of the Eni shareholders' equity "Cumulative currency translation differences"[12]. Cumulative amount of exchange differences relating to a foreign operation are reclassified to the profit and loss account when the entity disposes the entire interest in that foreign operation or when the partial disposal involves the loss of control, joint control or significant influence over the foreign operation. On a partial disposal that does not involve loss of control of a subsidiary that includes a foreign operation, the proportionate share of the cumulative exchange differences is reattributed to the non-controlling interests in that foreign operation. On a partial disposal that does not involve loss of joint control or significant influence, the proportionate share of the cumulative exchange differences is reclassified to the profit and loss account. The repayment of share capital made by a subsidiary having a functional currency other than the euro, without a change in the ownership interest, implies that the proportionate share of the cumulative amount of exchange differences relating to the subsidiary is reclassified to the profit and loss account.

The financial statements of foreign operations which are translated into euro are denominated in the foreign operations' functional currencies which generally is the US dollar.

The main foreign exchange rates used to translate the financial statements into the parent's functional currency are indicated below:

(10) Fair value measurement principles are described below in the accounting policy for "Fair value measurements".
(11) The choice between partial goodwill and full goodwill method is made also for business combinations resulting in the recognition of a gain on bargain purchase in the profit and loss account.
(12) When the foreign subsidiary is partially owned, the cumulative exchange differences, that are attributable to the non-controlling interests, are allocated to and recognised as part of "Non-controlling interest".

(currency amount for 1 €)	Annual average exchange rate 2018	Exchange rate at December 31, 2018	Annual average exchange rate 2017	Exchange rate at December 31, 2017	Annual average exchange rate 2016	Exchange rate at December 31, 2016
US Dollar	1.18	1.15	1.13	1.20	1.11	1.05
Pound Sterling	0.88	0.89	0.88	0.89	0.82	0.86
Norwegian Krone	9.60	9.94	9.33	9.83	9.29	9.09
Australian Dollar	1.58	1.62	1.47	1.53	1.49	1.46

SIGNIFICANT ACCOUNTING POLICIES

The most significant accounting policies used in the preparation of the Consolidated Financial Statements are described below.

OIL AND NATURAL GAS EXPLORATION, APPRAISAL, DEVELOPMENT AND PRODUCTION EXPENDITURE

ACQUISITION OF EXPLORATION RIGHTS

Costs incurred for the acquisition of exploration rights (or their extension) are initially capitalised within the line item "Intangible assets" as "exploration rights – unproved" pending determination of whether the exploration and appraisal activities in the reference areas are successful or not. Unproved exploration rights are not amortised, but reviewed to confirm that there is no indication that the carrying amount exceeds the recoverable amount. This review is based on the confirmation of the commitment of the Company to continue the exploration activities and on the analysis of facts and circumstances that can show the existence of uncertainties related to the recoverability of the carrying amount. If no future activity is planned, the carrying amount of the related exploration rights is recognised in the profit and loss account as write-off. Lower value exploration rights are pooled and amortised on a straight-line basis over the estimated period of exploration. In the event of a discovery of proved reserves (i.e. upon recognition of proved reserves and internal approval for development), the carrying amount of the related unproved exploration rights is reclassified to "proved exploration rights", within the line item "Intangible assets". Upon reclassification, as well as whether there is any indication of impairment, the carrying amount of exploration rights to reclassify as proved is tested for impairment considering the higher of their value in use and their fair value less costs of disposal. From the commencement of production, proved exploration rights are amortised according to the unit of production method (the so-called UOP method, described in the accounting policy for "UOP depreciation, depletion and amortisation").

ACQUISITION OF MINERAL INTERESTS

Costs incurred for the acquisition of mineral interests are capitalised in connection with the assets acquired (such as exploration potential, possible and probable reserves and proved reserves). When the acquisition is related to a set of exploration potential and reserves, the cost is allocated to the different assets acquired based on their expected discounted cash flows.
Acquired exploration potential is measured in accordance with the criteria illustrated in the accounting policy for "Acquisition of exploration rights". Costs associated with proved reserves are amortised according to the UOP method (see the accounting policy for "UOP depreciation, depletion and amortisation"). Expenditure associated with possible and probable reserves (unproved mineral interests) is not amortised until classified as proved reserves; in case of a negative result, it is written-off.

EXPLORATION AND APPRAISAL EXPENDITURE

Geological and geophysical exploration costs are recognised as an expense as incurred.
Costs directly associated with an exploration well are initially recognised within tangible assets in progress, as "exploration and appraisal costs – unproved" (exploration wells in progress) until the drilling of the well is completed and can continue to be capitalised in the following 12-month period pending the evaluation of drilling results (suspended exploration wells). If, at the end of this period, it is ascertained that the result is negative (no hydrocarbon found) or that the discovery is not sufficiently significant to justify the development, the wells are declared dry/unsuccessful and the related costs are written-off. Conversely, these costs continue to be capitalised if and until: (i) the well has found a sufficient quantity of reserves to justify its completion as a producing well, and (ii) the entity is making sufficient progress assessing the reserves and the economic and operating viability of the project; on the contrary, the capitalised costs are recognised in the profit and loss account as write-off.
Analogous recognition criteria are adopted for the costs related to the appraisal activity. When proved reserves of oil and/or natural gas are determined, the relevant expenditure recognised as unproved is reclassified to proved exploration and appraisal costs, within tangible assets in progress. Upon reclassification, as well as whether there is any indication of impairment, the carrying amount of the costs to reclassify as proved is tested for impairment considering the higher of their value in use and their fair value less costs of disposal. From the commencement of production, proved exploration and appraisal costs are depreciated according to the UOP method (see the accounting policy for "UOP depreciation, depletion and amortisation").

DEVELOPMENT EXPENDITURE

Development expenditure, including the costs related to unsuccessful and damaged development wells, are capitalised as "Tangible asset in progress – proved". Development costs are incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering and storing the Oil & Gas. They are amortised, from the commencement of production, generally on a UOP basis. When development projects are unfeasible/not carried on, the related costs are written-off when it is decided to abandon the project. Development costs are tested for impairment in accordance with the criteria described in the accounting policy for "Property, plant and equipment".

UOP DEPRECIATION, DEPLETION AND AMORTISATION

Proved Oil & Gas assets are depreciated generally under the UOP method, as their useful life is closely related to the availability of Oil & Gas reserves, by applying, to the depreciable amounts at the end of each quarter a rate representing the ratio between the volumes extracted during the quarter and the reserves existing at the end of the quarter, increased by the volumes extracted during the quarter. This method is applied with reference to the smallest aggregate representing a direct correlation between expenditures to be depreciated and Oil & Gas reserves. Proved exploration rights and acquired proved mineral interests are amortised over proved reserves; proved exploration and appraisal costs and development expenditure are depreciated over proved developed reserves.

PRODUCTION COSTS

Production costs are those costs incurred to operate and maintain wells and field equipment and are recognised as an expense as incurred.

PRODUCTION SHARING AGREEMENTS AND BUY-BACK CONTRACTS

Oil and gas reserves related to Production Sharing Agreements and buy-back contracts are determined on the basis of contractual terms related to the recovery of the contractor's costs to undertake and finance exploration, development and production activities at its own risk (Cost Oil) and the Company's stipulated share of the production remaining after such cost recovery (Profit Oil). Revenues from the sale of the lifted production, against both Cost Oil and Profit Oil, are accounted for on an accrual basis, whilst exploration, development and production costs are accounted for according to the above-mentioned accounting policies. The Company's share of production volumes and reserves includes the share of hydrocarbons that corresponds to the taxes to be paid, according to the contractual agreement, by the national government on behalf of the Company. As a consequence, the Company has to recognise at the same time an increase in the taxable profit, through the increase of the revenue, and a tax expense.

DECOMMISSIONING AND RESTORATION LIABILITIES

Costs expected to be incurred with respect to the plugging and abandonment of a well, dismantlement and removal of production facilities, as well as site restoration, are capitalised, consistently with the accounting policy described under "Property, plant and equipment", and then depreciated on a UOP basis.

Significant accounting estimates and judgements: oil and natural gas activities

Engineering estimates of the Company's Oil & Gas reserves are inherently uncertain. Proved reserves are the estimated volumes of crude oil, natural gas and gas condensates, liquids and associated substances which geological and engineering data demonstrate that can be economically producible with reasonable certainty from known reservoirs under existing economic conditions and operating methods. Although there are authoritative guidelines regarding the engineering and geological criteria that must be met before estimated Oil & Gas reserves can be categorised as "proved", the accuracy of any reserve estimate depends on the quality of available data, the engineering and geological interpretation of such data and management's judgement.

The determination of whether potentially economic oil and natural gas reserves have been discovered by an exploration well is made within a year after well completion. The evaluation process of a discovery, which requires performing additional appraisal activities on the potential oil and natural gas field and establishing the optimum development plans, can take longer, in most cases, depending on the complexity of the project and on the size of capital expenditures required. During this period, the costs related to these exploration wells remain suspended on the balance sheet. In any case, all such carried costs are reviewed, at least, on an annual basis to confirm the continued intent to develop, or otherwise to extract value from the discovery.

Field reserves will be categorised as proved only when all the criteria for attribution of proved status have been met. Initially, all booked reserves are classified as proved undeveloped. Subsequently, volumes are reclassified from proved undeveloped to proved developed as a consequence of development activity. Generally, reserves are booked as proved developed when the first oil or gas is produced. Major development projects typically take one to four years from the time of initial booking to the start of production. Eni reassesses its estimate of proved reserves periodically. The estimated proved reserves of oil and natural gas may be subject to future revision. Upward or downward revision may be made to the initial booking of reserves due to production, reservoir performance, commercial factors, acquisition and divestment activity and additional reservoir development activity. In particular, changes in oil and natural gas prices could impact the amount of Eni's proved reserves in regards to the initial estimate and, in the case of production sharing agreements and buy-back contracts, the share of production and reserves to which Eni is entitled. Accordingly, the estimated reserves could be materially different from the quantities of oil and natural gas that ultimately will be recovered. Oil and natural gas reserves have a direct impact on certain amounts reported in the Consolidated Financial Statements. Estimated proved reserves are used in determining depreciation, amortisation and depletion charges and impairment charges. Assuming all other variables are held constant, an increase in estimated proved developed reserves for each field decreases depreciation, amortisation and depletion charge using the UOP method. Conversely, a decrease in estimated proved developed reserves increases depreciation, amortisation and depletion charge. Estimated proved reserves are affected, inter alia, by the trend of reference oil and gas commodity prices and by the specific legal agreement for the Oil & Gas activity.

In addition, estimated proved reserves are used to calculate future cash flows from Oil & Gas properties, which are used to assess any impairment loss.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment, including investment properties, are recognised using the cost model and stated at their purchase price or construction cost including any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. For assets that necessarily take a substantial period of time to get ready for their intended use, the purchase price or construction cost comprises the borrowing costs incurred in the period to get the asset ready for use that would have been avoided if the expenditure had not been made.

In the case of a present obligation for dismantling and removal of assets and restoration of sites, the initial carrying amount of an item of property, plant and equipment includes the estimated (discounted) costs to be incurred when the removal event occurs (a corresponding amount is recognised as part of a specific provision). Changes resulting from revisions to the timing or the amount of the original estimate of the provision are accounted for as described in the accounting policy for "Provisions, contingent liabilities and contingent assets"[13].

Property, plant and equipment are not revalued for financial reporting purposes.

Assets held under finance lease, or under arrangements that do not take the legal form of a finance lease but substantially transfer all the risks and rewards incidental to ownership of the leased asset, are recognised, at the commencement of the lease term, at their fair value, net of grants attributable to the lessee or, if lower, at the present value of the minimum lease payments. Leased assets are included within property, plant and equipment. A corresponding financing payable to the lessor is recognised.

Expenditures on upgrading, revamping and reconversion are recognised as items of property, plant and equipment when it is probable that they will increase the expected future economic benefits of the asset. Assets acquired for safety or environmental reasons, although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, qualify for recognition as assets when they are necessary for running the business.

Depreciation of tangible assets begins when they are available for use, i.e. when they are in the location and condition necessary for it to be capable of operating as planned. Property, plant and equipment are depreciated on a systematic basis, using a straight-line method over their useful life. The useful life is the period over which an asset is expected to be available for use by the Company. When tangible assets are composed of more than one significant part with different useful lives, each part is depreciated separately. The depreciable amount is the asset's carrying amount less its residual value at the end of its useful life, if it is significant and can be reasonably determined. Land is not depreciated, even when acquired together with a building. Tangible assets held for sale are not depreciated (see the accounting policy for "Assets held for sale and discontinued operations"). Changes in the asset's useful life, in its residual value or in the pattern of consumption of the future economic benefits embodied in the asset, are accounted for prospectively.

Assets to be handed over for no consideration are depreciated over the shorter term between the duration of the concession or the asset's useful life.

Replacement costs of identifiable parts in complex assets are capitalised and depreciated over their useful life; the residual carrying amount of the part that has been substituted is charged to the profit and loss account. Leasehold improvement costs are depreciated over the useful life of the improvements or, if lower, over the residual length of the lease, considering any renewal period if renewal depends entirely on the lessee and is virtually certain. Expenditures for ordinary maintenance and repairs are recognised as an expense as incurred.

The carrying amount of property, plant and equipment is reviewed for impairment whenever there is any indication that the carrying amounts of those assets may not be recoverable. The recoverability of an asset is assessed by comparing its carrying amount with the recoverable amount, which is the higher of the asset's fair value less costs of disposal and its value in use. Value in use is the present value of the future cash flows expected to be derived from continuing use of the asset and, if significant and reliably measurable, the cash flows expected to be obtained from its disposal at the end of its useful life, after deducting the costs of disposal. Expected cash flows are determined on the basis of reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset, giving greater weight to external evidence.

With reference to commodity prices, management assumes the price scenario adopted for economic and financial projections and for whole life appraisal for capital expenditures. In particular, for the cash flows associated to oil, natural gas and petroleum products prices (and prices derived from them), the price scenario is approved by the Board of Directors and is based on management's planning assumptions, in the short and medium term, takes into account the projections of market analysts and, if there is a sufficient liquidity and reliability level, on the forward prices prevailing in the marketplace.

Discounting is carried out at a rate that reflects a current market assessment of the time value of money and of the risks specific to the asset that are not reflected in the expected future cash flows. In particular, the discount rate used is the Weighted Average Cost of Capital (WACC) adjusted for the specific country risk of the asset. These adjustments are measured considering information from external parties. WACC differs considering the risk associated with each operating segments where the asset operates. In particular, for the assets belonging to the Gas & Power segment and the Chemical business, taking into account their different risk compared with Eni as a whole, specific WACC rates have been defined on the basis of a sample of companies operating in the same segment/business, adjusted to take into consideration the risk premium of the specific Country of the activity. For the other segments/businesses, a single WACC is used considering that the risk is the same to that of Eni as a whole. Value in use is calculated net of the tax effect as this method results in values similar to those resulting from discounting pre-tax cash flows at a pre-tax discount rate deriving, through an iteration process, from a post-tax valuation. Valuation is carried out for each single asset or, if the recoverable amount of a single asset cannot be determined, for the smallest identifiable group of assets that generates independent cash inflows from their continuous use, the so-called "cash-generating unit". When an impairment loss no longer exists or has decreased, a reversal of the impairment loss is recognised in the profit and loss account. The impairment reversal shall not exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years.

The carrying amount of property, plant and equipment is derecognised on disposal or when no future economic benefits are expected from its use or disposal; the arising gain or loss is recognised in the profit and loss account.

(13) These liabilities relate essentially to assets in the Exploration & Production segment. Decommissioning and restoration liabilities associated with tangible assets of Refining & Marketing and Chemicals and Gas & Power segments are recognised when the cost is actually incurred and the amount of the liability can be reliably estimated, considering that undetermined settlement dates for assets dismantlement and restoration do not allow a discounting estimate of the obligation. With regard to this, Eni performs periodic reviews of its tangible assets of Refining & Marketing and Chemicals and Gas & Power segments for any changes in facts and circumstances that might require recognition of a decommissioning and restoration liability.

INTANGIBLE ASSETS

Intangible assets are identifiable non-monetary assets without physical substance, controlled by the Company and able to produce future economic benefits, and goodwill. An asset is classified as intangible when management is able to distinguish it clearly from goodwill. This condition is normally met when: (i) the intangible asset arises from contractual or other legal rights, or (ii) the asset is separable, i.e. can be sold, transferred, licensed, rented or exchanged, either individually or together with other assets. An entity controls an intangible asset if it has the power to obtain the future economic benefits flowing from the underlying asset and to restrict the access of others to those benefits.
Intangible assets are initially recognised at cost as determined by the criteria used for tangible assets and they are not revalued for financial reporting purposes.
Intangible assets with finite useful lives are amortised on a systematic basis over their useful life; the amount to be amortised and the recoverability of the carrying amount are determined in accordance with the criteria described in the accounting policy for "Property, plant and equipment".
Goodwill and intangible assets with indefinite useful lives are not amortised. Their carrying amounts are tested for impairment at least annually and whenever there is any indication of impairment. Goodwill is tested for impairment at the lowest level within the entity at which it is monitored for internal management purposes. When the carrying amount of the cash-generating unit, including goodwill allocated thereto, calculated considering any impairment loss of the non-current assets belonging to the cash-generating unit, exceeds its recoverable amount[14], the excess is recognised as an impairment loss. The impairment loss is allocated first to reduce the carrying amount of goodwill; any remaining excess is allocated to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit, up to the recoverable amount of assets with finite useful lives. An impairment loss recognised for goodwill is not reversed in a subsequent period[15].
Costs of obtaining a contract with a customer are recognised in the balance sheet if the Company expects to recover those costs. The intangible asset arising from those costs is amortised on a systematic basis, that is consistent with the transfer to the customer of the goods or services to which the asset relates, and is tested for impairment[16].
Costs of technological development activities are capitalised when: (i) the cost attributable to the development activity can be measured reliably; (ii) there is the intention and the availability of financial and technical resources to make the asset available for use or sale; and (iii) it can be demonstrated that the asset is able to generate probable future economic benefits.
The carrying amount of intangible assets is derecognised on disposal or when no future economic benefits are expected from its use or disposal; any arising gain or loss is recognised in the profit and loss account.

GRANTS RELATED TO ASSETS

Government grants related to assets are recognised by deducting them in calculating the carrying amount of the related assets when there is reasonable assurance that the Company will comply with the conditions attaching to them and the grants will be received.

INVENTORIES

Inventories, including compulsory stock, are measured at the lower of purchase or production cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale, or, with reference to inventories of crude oil and petroleum products already included in binding sale contracts, the contractual selling price. Inventories which are principally acquired with the purpose of selling in the near future and generating a profit from fluctuations in price are measured at fair value less costs to sell. Materials and other supplies held for use in production are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost.
The cost of inventories of hydrocarbons (crude oil, condensates and natural gas) and petroleum products is determined by applying the weighted average cost method on a three-month basis, or on a different time period (e.g. monthly), when it is justified by the use and the turnover of inventories of crude oil and petroleum products; the cost of inventories of the Chemical business is determined by applying the weighted average cost on an annual basis.
When take-or-pay clauses are included in long-term gas purchase contracts, pre-paid gas volumes that are not withdrawn to fulfill minimum annual take obligations, are measured using the pricing formulas contractually defined. They are recognised under "Other assets" as "Deferred costs" as a contra to "Other payables" or, after the settlement, to "Cash and cash equivalents". The allocated deferred costs are charged to the profit and loss account: (i) when natural gas is actually withdrawn – the related cost is included in the determination of the weighted average cost of inventories; and (ii) for the portion which is not recoverable, when it is not possible to withdraw the previously pre-paid gas, within the contractually defined deadlines. Furthermore, the allocated deferred costs are tested for economic recoverability by comparing the related carrying amount and their net realisable value, determined adopting the same criteria described for inventories.

Significant accounting estimates and judgements: impairment of non-financial assets

Non-financial assets are impaired whenever events or changes in circumstances indicate that carrying amounts of the assets are not recoverable. Such impairment indicators include changes in the Group's business plans, changes in commodity prices leading to unprofitable performance, a reduced capacity utilisation of plants and, for Oil & Gas properties, significant downward revisions of estimated

(14) For the definition of recoverable amount see the accounting policy for "Property, plant and equipment".
(15) Impairment losses recognised in an interim period are not reversed also when, considering conditions existing in a subsequent interim period, they would have been recognised in a smaller amount or would not have been recognised.
(16) The previous accounting policies required the capitalisation of directly attributable customer acquisition costs when the following conditions are met: (i) the capitalised costs can be measured reliably; (ii) there is a contract binding the customer for a specified period of time; and (iii) it is probable that the costs will be recovered through the revenue from the sales, or, where the customer withdraws from the contract in advance, through the collection of a penalty.

proved reserve quantities or significant increase of the estimated development costs. Determination as to whether and how much an asset is impaired involves management estimates on highly uncertain and complex matters such as future commodity prices, the effects of inflation and technology improvements on operating expenses, production profiles and the outlook for demand and supply conditions on a global or regional scale. Similar remarks are valid for assessing the physical recoverability of assets recognised in the balance sheet (deferred costs — see also the accounting policy for "Inventories") related to natural gas volumes not withdrawn under long-term supply contracts with take-or-pay clauses, as well as for assessing the recoverability of deferred tax assets (see also accounting policy for "Income taxes"), which requires complex processes for evaluating the existence of adequate future taxable profit.

The expected future cash flows used for impairment analyses are based on judgemental assessments of future production volumes, prices and costs, considering available information at the date of review and are discounted by using a rate which considers the risks specific to the asset.

For oil and natural gas properties, the expected future cash flows are estimated principally based on developed and undeveloped proved reserves including, among other elements, production taxes and the costs to be incurred for the reserves yet to be developed. The estimate of the future amount of production is based on assumptions related to the commodity future prices, lifting and development costs, field decline rates, market demand and other factors. The cash flows associated to Oil & Gas commodities are estimated on the basis of forward market information, if there is a sufficient liquidity and reliability level, on the consensus of independent specialised analysts and on management's forecasts about the evolution of the supply and demand fundamentals.

FINANCIAL INSTRUMENTS[17]

FINANCIAL ASSETS

Financial assets are classified, on the basis of both contractual cash flow characteristics and the entity's business model for managing them, in the following categories: (i) financial assets measured at amortised cost; (ii) financial assets measured at fair value through other comprehensive income (hereinafter also OCI); (iii) financial assets measured at fair value through profit or loss.

At initial recognition, a financial asset is measured at its fair value; at initial recognition, trade receivables that do not have a significant financing component are measured at their transaction price.

After initial recognition, financial assets whose contractual terms give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding are measured at amortised cost if they are held within a business model whose objective is to hold financial assets in order to collect contractual cash flows (the so-called hold to collect business model). For financial assets measured at amortised cost, interest income determined using the effective interest rate, foreign exchange differences and any impairment losses[18] (see the accounting policy for "Impairment of financial assets") are recognised in the profit and loss account.

Conversely, financial assets that are debt instruments are measured at fair value through OCI (hereinafter also FVTOCI) if they are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets (the so-called hold to collect and sell business model). In these cases: (i) interest income determined using the effective interest rate, foreign exchange differences and any impairment losses (see the accounting policy for "Impairment of financial assets") are recognised in the profit and loss account; (ii) changes in fair value of the instruments are recognised in equity, within other comprehensive income. The accumulated changes in fair value, recognised in the equity reserve related to other comprehensive income, is reclassified to the profit and loss account when the financial asset is derecognised.

A financial asset represented by a debt instrument that is neither measured at amortised cost nor at FVTOCI, is measured at fair value through profit or loss (hereinafter FVTPL); financial assets held for trading fall into this category. Interest income on assets held for trading contributes to the fair value measurement of the instrument and is recognised in "Finance income (expense)", within "Net finance income (expense) from financial assets held for trading".

When the purchase or sale of a financial asset is under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned, the transaction is accounted for on the settlement date.

IMPAIRMENT OF FINANCIAL ASSETS

The expected credit loss model is adopted for the impairment of financial assets that are debt instruments, but are not measured at fair value through profit or loss.

In particular, the expected credit losses are generally measured by multiplying: (i) the exposure to the counterparty's credit risk net of any collateral held and other credit enhancements (Exposure At Default, EAD); (ii) the probability that the default of the counterparty occurs (Probability of Default, PD); and (iii) the percentage estimate of the exposure that will not be recovered in case of default (LGD), considering the past experiences and the range of recovery tools that can be activated (e.g. extrajudicial and/or legal proceedings, etc.).

With reference to trade and other receivables, Probabilities of Default of counterparties are determined by adopting the internal credit ratings already used for credit worthiness and are periodically reviewed using, inter alia, back-testing analyses; for government entities (e.g. National Oil Companies), the Probability of Default, represented essentially by the probability of a delayed payment, is determined by using, as input data, the country risk premium adopted to determine WACC for the impairment review of non-financial assets.

(17) The accounting policies related to financial instruments were defined on the basis of IFRS 9 "Financial Instruments" effective from 2018; as required by the standard, the new requirements have been applied starting from January 1, 2018 without restating the prior years under comparison. With reference to the financial instruments held by the Company, the previous accounting policies (see 2017 Annual Report on Form 20-F) required essentially: (i) the classification of financial assets on the basis of the categories under IAS 39; (ii) recognition and measurement of impairment losses if there was objective evidence that an impairment loss had been incurred (the so-called incurred loss model); and (iii) more stringent hedge accounting requirements (mainly referred to the assessment of hedge effectiveness).

(18) Receivables and other financial assets measured at amortised cost are presented in the balance sheet net of their loss allowance.

For customers without internal credit ratings, the expected credit losses are measured by using a provision matrix, defined by grouping, where appropriate, receivables into adequate clusters to which apply expected loss rates defined on the basis of their historical credit loss experiences, adjusted, where appropriate, to take into account forward-looking information on credit risk of the counterparty or clusters of counterparties[19].
Considering the characteristics of the reference markets, financial assets with more than 180 days past due or, in any case, with counterparties undergoing litigation, restructuring or renegotiation, are considered to be in default. Counterparties are considered undergoing litigation when judicial/legal proceedings aimed to recover a receivable have been activated or are going to be activated.
Impairment losses of trade and other receivables are recognised in the profit and loss account, net of any impairment reversal, within the line item of the profit and loss account "Net impairment reversals (losses) of trade and other receivables".
The financing receivables held for operating purposes, granted to associates and joint ventures, which in substance form part of the entity's net investment in these investees, are tested for impairment considering also the underlying industrial operations and the macroeconomic scenarios of the Countries where the investees operate.

Significant accounting estimates and judgements: impairment of financial assets

Measuring impairment losses of financial assets requires management evaluation of complex and highly uncertain elements such as, for example, Probabilities of Default of counterparties, the existence of any collaterals or other credit enhancements, the expected exposure that will not be recovered in case of default, as well as the definition of customers' clusters to be adopted.

INVESTMENTS IN EQUITY INSTRUMENTS

Investments in equity instruments, that are not held for trading, are measured at fair value through other comprehensive income, without subsequent transfer of fair value changes to profit or loss on derecognition of these investments; conversely, dividends from these investments are recognised in the profit and loss account, within the line item "Income (Expense) from investments". In limited circumstances, an investment in equity instruments can be measured at cost if it is an appropriate estimate of fair value.

FINANCIAL LIABILITIES

At initial recognition, financial liabilities, other than derivative financial instruments, are measured at their fair value, minus transaction costs that are directly attributable, and are subsequently measured at amortised cost.

DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGE ACCOUNTING

Derivative financial instruments, including embedded derivatives (see below) that are separated from the host contract, are assets and liabilities measured at their fair value.
With reference to the defined risk management objectives and strategy, the qualifying criteria for hedge accounting requires: (i) the existence of an economic relationship between the hedged item and the hedging instrument in order to offset the related value changes and the effects of counterparty credit risk do not dominate the economic relationship between the hedged item and the hedging instrument; and (ii) the definition of the relationship between the quantity of the hedged item and the quantity of the hedging instrument (the so-called hedge ratio) consistently with the entity's risk management objectives, under a defined risk management strategy; the hedge ratio is adjusted, where appropriate, after taking into account any adequate rebalancing. A hedging relationship is discontinued prospectively, in its entirety or a part of it, when it no longer meets the risk management objectives on the basis of which it qualified for hedge accounting, it ceases to meet the other qualifying criteria or after rebalancing it.
When derivatives hedge the risk of changes in the fair value of the hedged items (fair value hedge, e.g. hedging of the variability in the fair value of fixed interest rate assets/liabilities), the derivatives are measured at fair value through profit and loss account. Consistently, the carrying amount of the hedged item is adjusted to reflect, in the profit and loss account, the changes in fair value of the hedged item attributable to the hedged risk; this applies even if the hedged item should be otherwise measured.
When derivatives hedge the exposure to variability in cash flows of the hedged items (cash flow hedge, e.g. hedging the variability in the cash flows of assets/liabilities as a result of the fluctuations of exchange rate), the effective changes in the fair value of the derivatives are initially recognised in the equity reserve related to other comprehensive income and then reclassified to the profit and loss account in the same period during which the hedged transaction affects the profit and loss account.
If a hedged forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, the accumulated changes in fair value of hedging derivatives, recognised in equity, are included directly in the carrying amount of the hedged non-financial asset/liability (commonly referred to as a "basis adjustment").
The changes in the fair value of derivatives, that are not designated as hedging instruments, including any ineffective portion of changes in fair value of hedging derivatives, are recognised in the profit and loss account. In particular, the changes in the fair value of non-hedging derivatives on interest rates and exchange rates are recognised in the profit and loss account line item "Finance income (expense)"; conversely, the changes in the fair value of non-hedging derivatives on commodities are recognised in the profit and loss account line item "Other operating (expense) income".
Derivatives embedded in financial assets are no longer accounted for separately; in such circumstances, the entire hybrid instrument is classified depending on the contractual cash flow characteristics of the financial instrument and the business model for managing it (see the accounting policy for "Financial assets"). Derivatives embedded in financial liabilities and/or non-financial assets are separated if: (i) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract; (ii) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and (iii) the entire hybrid contract is not measured at FVTPL.

(19) For exposures arising from intragroup transactions, the recovery rate is assumed equal to 100% taking into account the possibility to provide capital injections of investees.

The entity assesses the existence of embedded derivatives to be separated when it becomes party to the contract and, afterwards, when a change in the terms of the contract that modifies its cash flows occurs.
Contracts to buy or sell commodities entered into and continue to be held for the purpose of their receipt or delivery in accordance with the Group's expected purchase, sale or usage requirements are recognised on an accrual basis (the so-called normal sale and normal purchase exemption or own use exemption).

OFFSETTING OF FINANCIAL ASSETS AND LIABILITIES

Financial assets and liabilities are set off in the balance sheet if the Group currently has a legally enforceable right to set off and intends to settle on a net basis (or to realise the asset and settle the liability simultaneously).

DERECOGNITION OF FINANCIAL ASSETS AND LIABILITIES

Transferred financial assets are derecognised when the contractual rights to receive the cash flows from the financial assets expire or are transferred to another party. Financial liabilities are derecognised when they are extinguished, or when the obligation specified in the contract is discharged, cancelled or expired.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash on hand, demand deposits, as well as financial assets originally due, generally, within 90 days, readily convertible to known amount of cash and subject to an insignificant risk of changes in value.

PROVISIONS, CONTINGENT LIABILITIES AND CONTINGENT ASSETS

A provision is a liability of uncertain timing or amount on the balance sheet date. Provisions are recognised when: (i) there is a present obligation, legal or constructive, as a result of a past event; (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and (iii) the amount of the obligation can be reliably estimated. The amount recognised as a provision is the best estimate of the expenditure required to settle the present obligation or to transfer it to third parties at the balance sheet date. The amount recognised for onerous contracts is the lower of the cost necessary to fulfill the obligations, net of expected economic benefits deriving from the contracts, and any compensation or penalties arising from failure to fulfill these obligations. Where the effect of the time value is material, and the payment date of the obligations can be reasonably estimated, provisions to be accrued are the present value of the expenditures expected to be required to settle the obligation at a discount rate that reflects the Company's average borrowing rate taking into account the risks associated with the obligation. The increase in the provision due to the passage of time is recognised as "Finance income (expense)".
Where an obligation exists for an item of property, plant and equipment (e.g. site dismantling and restoration), the provision is recognised together with a corresponding amount as part of the related item of property, plant and equipment. The decommissioning portion of the property, plant and equipment is subsequently depreciated at the same rate as the rest of the asset.
A provision for restructuring costs is recognised only when the Company has a detailed formal plan for the restructuring and has raised a valid expectation in the affected parties that it will carry out the restructuring.
Provisions are periodically reviewed and adjusted to reflect changes in the estimates of costs, timing and discount rates. Changes in provisions are recognised in the same profit and loss account line item where the original provision was charged, or, when the liability regards tangible assets (e.g. site dismantling and restoration), changes in the provision are recognised with a corresponding entry to the assets to which they refer, to the extent of the assets' carrying amounts; any excess amount is recognised in the profit and loss account.
Contingent liabilities are: (i) possible, but not probable obligations arising from past events, whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company; or (ii) present obligations arising from past events, whose amount cannot be reliably measured or whose settlement will probably not result in an outflow of resources embodying economic benefits. Contingent liabilities are not recognised in the financial statements, but are disclosed.
Contingent assets, that are possible assets arising from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company, are not recognised unless the realisation of economic benefits is virtually certain. Contingent assets are disclosed when an inflow of economic benefits is probable. Contingent assets are assessed periodically to ensure that developments are appropriately reflected in the financial statements; if it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognised in the financial statements of the period in which the change occurs.

Significant accounting estimates and judgements: decommissioning and restoration liabilities, environmental liabilities and other provisions

The Group holds provisions for dismantling and removing items of property, plant and equipment, and restoring land or seabed at the end of the oil and gas production activity. Estimating obligations to dismantle, remove and restore items of property, plant and equipment is complex. It requires management to make estimates and judgements with respect to removal obligations that will come to term many years into the future and contracts and regulations are often unclear as to what constitutes removal. In addition, the ultimate financial impact of environmental laws and regulations is not always clearly known as asset removal technologies and costs constantly evolve in the Countries where Eni operates, as do political, environmental, safety and public expectations.
Where the effect of the time value of money is material, the amount recognised as provision is the present value of the expenditures expected to be required to settle the obligation. After the initial recognition, the carrying amount of decommissioning and restoration liabilities is adjusted to reflect the passage of time and any change in the estimates following the modification of amount and timing of future cash flows and discount rates adopted. The discount rate used to determine the provision is based on complex managerial judgements.
As other Oil & Gas companies, Eni is subject to numerous EU, national, regional and local environmental laws and regulations

concerning its Oil & Gas operations, production and other activities. They include legislations that implement international conventions or protocols. Environmental provisions are recognised when it becomes probable that an outflow of resources will be required to settle the obligation and such obligation can be reliably estimated. Management, considering the actions already taken, insurance policies obtained to cover environmental risks and provision for risks accrued, does not expect any material adverse effect on Eni's consolidated results of operations and financial position as a result of such laws and regulations. However, there can be no assurance that there will not be a material adverse impact on Eni's consolidated results of operations and financial position due to: (i) the possibility of an unknown contamination; (ii) the results of the ongoing surveys and other possible effects of statements required by applicable laws; (iii) the possible effects of future environmental legislations and rules; (iv) the effects of possible technological changes relating to future remediation; and (v) the possibility of litigation and the difficulty of determining Eni's liability, if any, against other potentially responsible parties with respect to such litigations and the possible reimbursements.

In addition to liabilities related to environmental and decommissioning and restoration liabilities, Eni recognises provisions primarily related to legal, trade and tax proceedings. These provisions are estimated on the basis of complex managerial judgements related to the amounts to be recognised and the timing of future cash outflows. After the initial recognition, provisions are periodically reviewed and adjusted to reflect the current best estimate.

EMPLOYEE BENEFITS

Employee benefits are considerations given by the Group in exchange for service rendered by employees or for the termination of employment.
Post-employment benefit plans, including informal arrangements, are classified as either defined contribution plans or defined benefit plans depending on the economic substance of the plan as derived from its principal terms and conditions. Under defined contribution plans, the Company's obligation, which consists in making payments to the State or to a trust or a fund, is determined on the basis of contributions due.
The liabilities related to defined benefit plans, net of any plan assets, are determined on the basis of actuarial assumptions and charged on an accrual basis during the employment period required to obtain the benefits.
Net interest includes the return on plan assets and the interests cost to be recognised in the profit and loss account. Net interest is measured by applying to the liability, net of any plan assets, the discount rate used to calculate the present value of the liability; net interest of defined benefit plans is recognised in "Finance income (expense)".
Re-measurements of the net defined benefit liability, comprising actuarial gains and losses, resulting from changes in the actuarial assumptions used or from changes arising from experience adjustments, and the return on plan assets excluding amounts included in net interest, are recognised within the statement of comprehensive income. Re-measurements of the net defined benefit liability, recognised within other comprehensive income, are not reclassified subsequently to the profit and loss account.
Obligations for long-term benefits are determined by adopting actuarial assumptions. The effects of re-measurements are taken to profit and loss account in their entirety.

SHARE-BASED PAYMENTS

The line item "Payroll and related costs" includes the cost of the share-based incentive plan, consistently with its actual remunerative nature[20]. The cost of the share-based incentive plan is measured by reference to the fair value of the equity instruments granted and the estimate of the number of shares that eventually vest; the cost is recognised on an accrual basis pro rata temporis over the vesting period, that is the period between the grant date and the settlement date. The fair value of the shares underlying the incentive plan is measured at the grant date, taking into account the estimate of achievement of market conditions (e.g. Total Shareholder Return), and is not adjusted in subsequent periods; when the achievement is linked also to non-market conditions, the number of shares expected to vest is adjusted during the vesting period to reflect the updated estimate of these conditions. If, at the end of the vesting period, the incentive plan does not vest because of failure to satisfy the performance conditions, the portion of cost related to market conditions is not reversed to the profit and loss account.

Significant accounting estimates and judgements: employee benefits and share-based payments

Defined benefit plans are evaluated with reference to uncertain events and based upon actuarial assumptions including, among others, discount rates, expected rates of salary increases, mortality rates, estimated retirement dates and medical cost trends. The significant assumptions used to account for defined benefit plans are determined as follows: (i) discount and inflation rates are based on the market yields on high quality corporate bonds (or, in the absence of a deep market of these bonds, on the market yields on government bonds) and on the expected inflation rates in the reference currency area; (ii) the future salary levels of the individual employees are determined including an estimate of future changes attributed to general price levels (consistent with inflation rate assumptions), productivity, seniority and promotion; (iii) healthcare cost trend assumptions reflect an estimate of the actual future changes in the cost of the healthcare related benefits provided to the plan participants and are based on past and current healthcare cost trends, including healthcare inflation, changes in healthcare utilisation and changes in health status of the participants; and (iv) demographic assumptions such as mortality, disability and turnover reflect the best estimate of these future events for individual employees involved.
Differences in the amount of the net defined benefit liability (asset), deriving from the re-measurements, comprising, among others, changes in the current actuarial assumptions, differences in the previous actuarial assumptions and what has actually occurred and differences in the return on plan assets, excluding amounts included in net interest, usually occur.

(20) The current share-based incentive plan, to be settled by treasury shares, was approved by the shareholders' meeting held on April 13, 2017.

Similarly to the approach followed for the fair value measurement of financial instruments, the fair value of the shares underlying the incentive plans is measured by using complex valuation techniques and identifying, through structured judgements, the assumptions to be adopted.

TREASURY SHARES

Treasury shares, including shares held to meet the future requirements of the share-based incentive plans, are recognised as deductions from equity at cost. Any gain or loss resulting from subsequent sales is recognised in equity.

REVENUE FROM CONTRACTS WITH CUSTOMERS[21]

Revenue from contracts with customers is recognised on the basis of the following five steps: (i) identifying the contract with the customer; (ii) identifying the performance obligations, that are promises in a contract to transfer goods and/or services to a customer; (iii) determining the transaction price; (iv) allocating the transaction price to each performance obligation on the basis of the relative stand-alone selling prices of each good or service; and (v) recognising revenue when (or as) a performance obligation is satisfied, that is when a promised good or service is transferred to a customer. A promised good or service is transferred when (or as) the customer obtains control of it. Control can be transferred over time or at a point in time. With reference to the most important products sold by Eni, revenue is generally recognised for:

- crude oil, upon shipment;
- natural gas and electricity, upon delivery to the customer;
- petroleum products sold to retail distribution networks, upon delivery to the service stations, whereas all other sales of petroleum products are recognised upon shipment; and
- chemical products and other products, upon shipment.

Revenue from crude oil and natural gas production from properties in which Eni has an interest together with other producers is recognised on the basis of the quantities actually lifted and sold (sales method); costs are recognised on the basis of the quantities actually sold[22].
Revenue is measured at the fair value of the consideration to which the Company expects to be entitled in exchange for transferring promised goods and/or services to a customer, excluding amounts collected on behalf of third parties. In determining the transaction price, the promised amount of consideration is adjusted for the effects of the time value of money if the timing of payments agreed to by the parties to the contract provides the customer or the entity with a significant benefit of financing the transfer of goods or services to the customer. The promised amount of consideration is not adjusted for the effect of the significant financing component if, at contract inception, it is expected that the period between the transfer of a promised good or service to a customer and when the customer pays for that good or service will be one year or less.
If the consideration promised in a contract includes a variable amount, the Company estimates the amount of consideration to which it will be entitled in exchange for transferring the promised goods and/or services to a customer; in particular, the amount of consideration can vary because of discounts, refunds, incentives, price concessions, performance bonuses, penalties or if the price is contingent on the occurrence or non-occurrence of future events.
If, in a contract, the Company grants a customer the option to acquire additional goods or services for free or at a discount (for example sales incentives, customer award points, etc.), this option gives rise to a separate performance obligation in the contract only if the option provides a material right to the customer that it would not receive without entering into that contract.
When goods or services are exchanged for goods or services which are of a similar nature and value, the exchange is not regarded as a transaction which generates revenues.

Significant accounting estimates and judgements: revenue from contracts with customers

Revenue from sales of electricity and gas to retail customers includes amount accrued for electricity and gas supplied between the date of the last invoiced meter reading (actual or estimated) of volumes consumed and the end of the year. These estimates consider information provided by the grid managers about the volumes allocated among the customers of the secondary distribution network, about the actual and estimated volumes consumed by customers, as well as they rely on other factors, considered by the management, which can impact on them. Therefore, revenue is accrued as a result of a complex estimate based on the volumes distributed and allocated, communicated by third parties, likely to be adjusted, according to applicable regulations, within the fifth year following the one in which they are accrued. Considering the contractual obligations on the supply delivery points, revenue from sales of electricity and gas to retail customers includes costs for transportation and dispatching and in these cases the gross amount of consideration to which the entity is entitled is recognised.

COSTS

Costs are recognised when the related goods and services are sold or consumed during the year, when they are allocated on a systematic basis or when their future economic benefits cannot be identified. Costs associated with emission quotas, determined on the basis of the market prices, are recognised in relation to the amounts of the carbon dioxide emissions that exceed free allowances. Costs related to the purchase of the emission rights that exceed the amount necessary to meet regulatory obligations, are recognised as intangible assets. Revenue related to emission quotas is recognised when they are sold and, if applicable, purchased emission rights are considered the first to be sold. Monetary receivables granted to replace the free award emission rights are recognised as a contra to the line item “Other income and revenues”.
Lease payments under an operating lease are recognised as an expense over the lease term. The costs for the acquisition of new knowledge or discoveries, the study of products or alternative processes, new techniques or models, the planning and construction of prototypes or, in any case, costs incurred for other scientific research activities or technological development, which cannot be capitalised (see also the accounting policy for “Intangible assets”), are included in the profit and loss account when they are incurred.

(21) The previous accounting policies about revenue are described in the 2017 Annual Report on Form 20-F.
(22) In accordance with the previous accounting policy (entitlement method), revenue from crude oil and natural gas production from properties in which Eni has an interest together with other producers were recognised on the basis of Eni’s net working interest in those properties. In the balance sheet, lifting imbalances were recognised respectively as payables and receivables and measured at current prices at the balance sheet date.

EXCHANGE DIFFERENCES

Revenues and costs associated with transactions in foreign currencies are translated into the functional currency by applying the exchange rate at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the spot exchange rate on the balance sheet date and any resulting exchange differences are included in the profit and loss account within "Finance income (expense)" or, if designated as hedging instruments for the foreign currency risk, in the same line item in which the economic effects of the hedged item are recognised. Non-monetary assets and liabilities denominated in foreign currencies, measured at cost, are not retranslated subsequent to initial recognition. Non-monetary items measured at fair value, recoverable amount or net realisable value are retranslated using the exchange rate at the date when the value is determined.

DIVIDENDS

Dividends are recognised at the date of the general shareholders' meeting in which they were declared, except when the sale of shares before the ex-dividend date is certain.

INCOME TAXES

Current income taxes are determined on the basis of estimated taxable profit. The estimated liability is included in "Income tax payables". Current income tax assets and liabilities are measured at the amount expected to be paid to (recovered from) the taxation authorities, using tax rates and the tax laws that have been enacted or substantively enacted by the end of the reporting period. Deferred tax assets and liabilities are recognised for temporary differences arising between the carrying amounts of the assets and liabilities and their tax bases, based on tax rates and tax laws that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. Deferred tax assets are recognised when their recoverability is considered probable, i.e. when it is probable that sufficient taxable profit will be available in the same year as the reversal of the deductible temporary difference. Similarly, deferred tax assets for the carry-forward of unused tax credits and unused tax losses are recognised to the extent that their recoverability is probable. The carrying amount of the deferred tax assets is reviewed, at least, on an annual basis. Income tax assets that are uncertain in the amount to be recovered are recognised in accordance with the probable threshold.

Relating to the taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint arrangements, the related deferred tax liabilities are not recognised if the investor is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future. Deferred tax assets and liabilities are presented within non-current assets and liabilities and are offset at a single entity level if related to off-settable taxes. The balance of the offset, if positive, is recognised in the line item "Deferred tax assets" and, if negative, in the line item "Deferred tax liabilities". When the results of transactions are recognised directly in shareholders' equity, the related current and deferred taxes are also charged to the shareholders' equity.

ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Non-current assets and current and non-current assets included within disposal groups are classified as held for sale, if their carrying amounts will be recovered principally through a sale transaction rather than through their continuing use. This condition is regarded as met only when the sale is highly probable and the asset or the disposal group is available for immediate sale in its present condition. When there is a sale plan involving loss of control of a subsidiary, all the assets and liabilities of that subsidiary are classified as held for sale, regardless of whether a non-controlling interest in its former subsidiary will be retained after the sale.

Non-current assets held for sale, current and non-current assets included within disposal groups that have been classified as held for sale and the liabilities directly associated with them are recognised in the balance sheet separately from other assets and liabilities. Immediately before the initial classification of a non-current asset and/or a disposal group as held for sale, the non-current asset and/or the assets and liabilities in the disposal group are measured in accordance with applicable IFRSs. Subsequently, non-current assets held for sale are not depreciated or amortised and they are measured at the lower of the fair value less costs to sell and their carrying amount. If an equity-accounted investment, or a portion of that investment, meets the criteria to be classified as held for sale, it is no longer accounted for using the equity method and is measured at the lower of its carrying amount at the date the equity method is discontinued, and its fair value less costs to sell. Any retained portion of the equity-accounted investment that has not been classified as held for sale is accounted for using the equity method until disposal of the portion that is classified as held for sale takes place. After the disposal takes place, any retained interest in the investee is measured in accordance with the measurement criteria indicated in the accounting policy for "Investments in equity instruments", unless the retained interest continues to be an equity-accounted investment.

Any difference between the carrying amount of the non-current assets and the fair value less costs to sell is taken to the profit and loss account as an impairment loss; any subsequent reversal is recognised up to the cumulative impairment losses, including those recognised prior to qualification of the asset as held for sale. Non-current assets classified as held for sale and disposal groups are considered a discontinued operation if, alternatively: (i) represent a separate major line of business or geographical area of operations; (ii) are part of a disposal program of a separate major line of business or geographical area of operations; or (iii) are a subsidiary acquired exclusively with a view to resale. The results of discontinued operations, as well as any gain or loss recognised on the disposal, are indicated in a separate line item of the profit and loss account, net of the related tax effects; the economic figures of discontinued operations are indicated also for prior periods presented in the financial statements.

If events or circumstances occur that no longer allow to classify a non-current asset or a disposal group as held for sale, the non-current asset or the disposal group is reclassified into the original line items of the balance sheet and measured at the lower of: (i) its carrying amount at the date of classification as held for sale adjusted for any depreciation, amortisation, impairment losses and reversals that would have been recognised had the asset or

disposal group not been classified as held for sale, and (ii) its recoverable amount at the date of the subsequent decision not to sell. If the interruption of a plan of sale concerns a subsidiary, joint operation, joint venture, associate, or a portion of an interest in a joint venture or an associate, financial statements for the period since classification as held for sale are amended.

FAIR VALUE MEASUREMENTS

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants (not in a forced liquidation or a distress sale) at the measurement date (exit price). Fair value measurement is based on the market conditions existing at the measurement date and on the assumptions of market participants (market-based measurement). A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market to which the entity has access, independently from the entity's intention to sell the asset or transfer the liability to be measured.
A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use. Highest and best use is determined from the perspective of market participants, even if the entity intends a different use; an entity's current use of a non-financial asset is presumed to be its highest and best use, unless market or other factors suggest that a different use by market participants would maximise the value of the asset.
The fair value of a liability, both financial and non-financial, or of the Company's own equity instrument, in the absence of a quoted price, is measured from the perspective of a market participant that holds the identical item as an asset at the measurement date. The fair value of financial instruments takes into account the counterparty's credit risk for a financial asset (Credit Valuation Adjustment, CVA) and the Company's own credit risk for a financial liability (Debit Valuation Adjustment, DVA).
In the absence of available market quotation, fair value is measured by using valuation techniques that are appropriate in the circumstances, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

Significant accounting estimates and judgements: fair value
Fair value measurement, although based on the best available information and on the use of appropriate valuation techniques, is inherently uncertain, requires the use of professional judgement and could result in expected values other than the actual ones.

2 | Financial statements[23]

Assets and liabilities on the balance sheet are classified as current and non-current. Items on the profit and loss account are presented by nature[24]. Assets and liabilities are classified as current when: (i) they are expected to be realised/settled in the entity's normal operating cycle or within twelve months after the balance sheet date; (ii) they are cash or cash equivalents unless they are restricted from being exchanged or used to settle a liability for at least twelve months after the balance sheet date; or (iii) they are held primarily for the purpose of trading. Derivative financial instruments held for trading are classified as current, apart from their maturity date. Non-hedging derivative financial instruments, which are entered into to manage risk exposures but do not satisfy the formal requirements to be considered as hedging, and hedging derivative financial instruments are classified as current when they are expected to be realised/settled within twelve months after the balance sheet date; on the contrary, they are classified as non-current.
The statement of comprehensive income (loss) shows net profit (loss) integrated with income and expenses that are not recognised in the profit and loss account according to IFRSs.
The statement of changes in shareholders' equity includes the total comprehensive income (loss) for the year, transactions with shareholders in their capacity as shareholders and other changes in shareholders' equity.
The statement of cash flows is presented using the indirect method, whereby net profit (loss) is adjusted for the effects of non-cash transactions.

3 | Changes in accounting policies

IFRS 15 "Revenue from Contracts with Customers" and the document "Clarifications to IFRS 15 Revenue from Contracts with Customers" (hereinafter IFRS 15), which set out the requirements for recognising and measuring revenue arising from contracts with customers, have been adopted by the Commission Regulations No. 2016/1905 and 2017/1987 issued by the European Commission, respectively, on September 22, 2016 and October 31, 2017.
Eni has applied IFRS 15 starting from January 1, 2018, by recognising, in accordance with the transition requirements of the standard, the cumulative effect of initially applying IFRS 15 as an adjustment to the opening balance of equity as of January 1, 2018, taking into account the contracts existing at that date, without restating the comparative information. In particular, the adoption of IFRS 15 resulted in a decrease in equity of €49 million arising from:

(i) a negative change of €103 million (€259 million before taxes) in the Exploration & Production segment, related to the accounting for amounts of production lifted by a partner within Oil & Gas operations different from its proportionate entitlement (the so-called lifting imbalances), by recognising revenue on the basis of the quantities actually sold (the so-called sales method) instead of the entitled quantities (the so-called entitlement method); costs are recognised on the basis of the quantities actually sold. Moreover the adoption of sales method resulted in the reclassification of underlifting assets (quantities lifted smaller than the entitled ones) and overlifting liabilities (quantities lifted higher than the entitled ones), represented as

(23) The impacts on the financial statements arising from the adoption, starting from January 1, 2018, of the new IFRSs, as well as the other changes in the financial statements are described in the note 3 – Changes in accounting policies.
(24) Further information about classification of financial instruments is provided in note 27 – Guarantees, commitments and risks - Other information about financial instruments.

receivables and payables under the entitlement method, into the other assets and liabilities;

(ii) a positive change of €60 million (€87 million before taxes), related to the capitalisation of the costs of obtaining contracts with customers in the Gas & Power segment, net of their amortisation;

(iii) a negative change of €6 million of equity-accounted investments.

IFRS 9 "Financial Instruments" (hereinafter IFRS 9) has been adopted by the Commission Regulation No. 2016/2067 issued by the European Commission on November 22, 2016. Eni has applied IFRS 9 starting from January 1, 2018. As allowed by the transition requirements of the standard, considering also the complexity of the restatement at the beginning of the first comparative year without the use of hindsight, the impacts of the new classification and measurement requirements, including impairment, of financial assets, have been recognised as an adjustment to the opening balance of equity as of January 1, 2018, without restating the comparative information; with reference to hedge accounting, the adoption of the new requirements did not have significant impacts.

In particular, the adoption of IFRS 9 resulted in an increase in equity of €294 million arising from the fair value measurement of investments in equity instruments previously measured at cost (€681 million), partially offset by the additional impairment losses (€356 million) of trade and other receivables (€427 million before taxes), recognised under the expected credit loss model and by the decrease of the carrying amount of equity-accounted investments (€31 million).

As indicated in the accounting policy for "Investments in equity instruments", Eni elected to designate the investments in equity instruments, held as of January 1, 2018, as assets measured at FVTOCI.

Moreover, with reference to the classification and measurement of financial assets, Eni reclassified the portfolio of financial assets previously classified as available for sale into the financial assets measured at FVTPL (€207 million), on the basis of the facts and circumstances existing as of January 1, 2018.

The breakdown of the abovementioned quantitative effects and reclassifications[25], deriving from the initial application, as of January 1, 2018[26], of IFRS 9 and IFRS 15, is as follows:

(€ million)	December 31, 2017	Adoption of IFRS 9	Adoption of IFRS 15	Reclassifications	Total effect of the first application	As restated January 1, 2018
Selected line items only						
Current assets	36,433	(427)	(372)		(799)	35,634
- of which: Financial assets held for trading	6,012			207	207	6,219
- of which: Financial assets available for sale	207			(207)	(207)	
- of which: Other current financial assets	316					316
- of which: Trade and other receivables	15,421	(427)	(372)	(466)	(1,265)	14,156
- of which: Other current assets	1,573			466	466	2,039
Non-current assets	78,172	721	247		968	79,140
- of which: Intangible assets	2,925		87		87	3,012
- of which: Equity-accounted investments	3,511	(31)	(6)		(37)	3,474
- of which: Other investments	219	681			681	900
- of which: Deferred tax assets	4,078	71	166		237	4,315
Current liabilities	24,735		(113)		(113)	24,622
- of which: Trade and other payables	16,748		(113)	(1,330)	(1,443)	15,305
- of which: Other current liabilities	1,515			1,330	1,330	2,845
Non-current liabilities	42,027		37		37	42,064
- of which: Deferred tax liabilities	5,900		37		37	5,937
Shareholders' equity	48,079	294	(49)		245	48,324

With reference to year 2018, the application of the previous revenue recognition requirements does not have a significant impact on the Consolidated Financial Statements.

For each kind of financial assets adjusted/reclassified upon the initial application of IFRS 9, the table below provides for the following information: (i) the original measurement category determined in accordance with IAS 39; (ii) the new measurement category determined in accordance with IFRS 9; (iii) the carrying amounts determined in accordance with IAS 39, recognised as of December 31, 2017, and the carrying amounts determined in accordance with IFRS 9 as of January 1, 2018.

(25) Under IFRS 15, short-term advances from customers have been reclassified from the line item "Trade and other payables" into the line item "Other current liabilities" of the balance sheet in order to present them together with the other current contract liabilities (e.g. customer loyalty programs, deferred income, etc.), already recognised within such line item.

(26) The IFRIC Interpretation 22 "Foreign Currency Transactions and Advance Consideration" is also effective starting from January 1, 2018, but it did not have a significant impact on the Consolidated Financial Statements.

(€ milioni)	Classification under IAS 39	Classification under IFRS 9	Carrying amount under IAS 39	Adjustments	Reclassifications	Other changes(*)	Carrying amount under IFRS 9
Financial assets							
Financial assets held for trading	Held for trading	FVTPL	6,012		207		6,219
Financial assets available for sale	Available-for-sale	FVTPL	207		(207)		
Trade and other receivables(**)	Financing receivables	Amortized cost	15,421	(427)		(838)	14,156
Other investments	Cost	FVTOCI	219	681			900
Total			**21,859**	**254**		**(838)**	**21,275**

(*) Other changes result from the effects related to a different classification under IFRS 15 of receivables for underlifting which have been reclassified as other assets in application of the sales method.
(**) Compared to the values presented in the balance sheet at December 31, 2017, the item no longer includes financial receivables, which have been reclassified under the new item "Other current financial assets".

The adoption of the new requirements resulted in some updates of the line items presented in the financial statements; in particular:

- in the profit and loss account: (i) as a consequence of the adoption of IFRS 9, an additional line item to present separately impairment losses/reversals of trade and other receivables (named "Net (impairment losses) reversals of trade and other receivables") was presented; these items were previously recognised within the line item "Purchases, services and other". Consequently, in order to have homogeneous comparative information, these items referred to the comparative years, determined in accordance with the superseded IAS 39, were reclassified into the new line item; and (ii) the line item "Net (impairments) reversals" was renamed as "Net (impairment losses) reversals of tangible and intangible assets";
- in the statement of comprehensive income (loss) an additional line item aimed to present subsequent change of minor investments measured at fair value with effects recognised in OCI was presented within items that may not be reclassified subsequently to the profit and loss account.

Furthermore, the following changes have been made in the balance sheet:

- the current financing receivables were reclassified out of the line item "Trade and other receivables" into the new line item "Other current financial assets", both in the current and comparative year; this new presentation of the balance sheet was aimed, essentially, to present separately the trade and other exposures from the financial ones, being characterised by different originations, risk profiles and evaluation processes;
- the breakdown of the items of Eni shareholders' equity was updated to present separately the related most relevant items.

4 | IFRSs not yet effective

IFRSs ISSUED BY THE IASB AND ADOPTED BY THE EU

By the Commission Regulation No. 2017/1986 issued by the European Commission on October 31, 2017, IFRS 16 "Leases" (hereinafter IFRS 16), which replaces IAS 17 and related interpretations, was adopted. In particular, IFRS 16 defines a lease as a contract that conveys to the lessee the right to control the use of an identified asset for a period of time in exchange for consideration. The new IFRS eliminates the classification of leases as either operating leases or finance leases for the preparation of lessees' financial statements; in particular, for all leases that have a lease term of more than 12 months, it is required:

- in the balance sheet, to recognise a right-of-use asset, that represents a lessee's right to use an underlying asset (hereinafter also RoU asset), and a lease liability, that represents the lessee's obligation to make the contractual lease payments; as allowed by the standard, the right-of-use assets and the lease liabilities are presented separately from other assets and other liabilities;
- in the profit and loss account, to recognise, within operating costs, the depreciation charges of the right-of-use asset and, within finance expense, the interest expense on the lease liability, if not capitalised, rather than recognising the operating lease payments within operating costs under IAS 17, effective until year 2018. The depreciation charges of the right-of-use asset and the interest expense on the lease liability directly attributable to the construction of an asset are capitalised as part of the cost of such asset and subsequently recognised in the profit and loss account through depreciation, impairments or write-off, mainly in the case of exploration assets. Moreover, the profit and loss account will include: (i) the lease expenses relating to short-term leases or leases of low-value assets, as allowed under the simplified approach provided for by IFRS 16; and (ii) the variable lease payments that are not included in the measurement of the lease liability (e.g., payments based on the use of the underlying asset);
- in the statement of cash flows, to recognise cash payments for the principal portion of the lease liability within the net cash used in financing activities and interest expenses within the net cash provided by operating activities, if they are recognised in the profit and loss account, or within the net cash used in investing activities if they are capitalised as referred to leased assets that are used for the construction of other assets. Consequently, compared with the requirements of IAS 17 related to operating leases, the adoption of IFRS 16 will result in a significant impact in the statement of cash flows, by determining: (a) an improvement of the net cash provided by operating activities, which will no longer include the operating lease payments, not capitalised, but will only include the cash payments for the interest portion of the lease liability that are not capitalised[27]; (b) an improvement of the net cash used in investing activities, which will no longer include capitalised lease payments for property, plant and equipment and intangible assets, but will only include cash payments for the capitalised interest portion of the lease liability; and (c) a worsening in the net cash used in financing activities, which will include cash payments for the principal portion of the lease liability.

(27) The net cash provided by operating activities will include also: (i) the short-term lease payments and payments for leases of low-value assets; and (ii) variable lease payments not included in the measurement of the lease liability.

Conversely, a lessor continues to classify its leases as either operating leases or finance leases. IFRS 16 enhances disclosures both for lessees and for lessors. IFRS 16 shall be applied for annual reporting periods beginning on or after January 1, 2019.

In 2018, the Group completed the analytical activities aimed to identify the areas affected by the adoption of the new requirements, update the processes and systems and assess the expected impacts on the Consolidated Financial Statements.

The adoption of the new requirements affects most of the Group companies; in terms of amounts and/or volumes, the main cases are the following: (i) in the Exploration & Production segment, contracts for the lease of drilling rigs and floating production storage and offloading vessels (the so-called FPSOs); (ii) in the Refining & Marketing and Chemicals segment, highway concessions, leases of lands, service stations for the sale of oil products, as well as car fleet dedicated to the car sharing business (enjoy); (iii) in the Gas & Power segment, leases of vessels used for shipping activities and gas distribution facilities, as well as tolling contracts; (iv) for corporate activities, leases of property.

In the Exploration & Production segment, the activities are often carried out through unincorporated joint operations, managed by one of the partners (the operator), which has the responsibility to carry out the operations and the approved work programmes. The operator usually enters into a contract (including lease contracts), as the sole signatory, for the activities of the unincorporated joint operation. Accordingly, the operator manages the leases, makes lease payments to the lessor and recharges the costs to the other partners (the so-called followers) proportionally. On this regard, the indications of the IFRS Interpretations Committee (hereinafter also the IFRIC) issued in September 2018 applies. In particular, the IFRIC indicated that, in the case of unincorporated joint operations, the operator recognises the entire lease liability, as, by signing the contract, it has primary responsibility for the liability towards the third-party supplier. Therefore, if, based on the contractual provisions and any other relevant facts and circumstances, Eni has primary responsibility, it shall recognise in the balance sheet: (i) the entire lease liability and (ii) the entire RoU asset, unless there is a sublease with the followers. On the other hand, if the lease contract is signed by all the partners, Eni shall recognise its share of the RoU asset and lease liability based on its working interest. If Eni does not have primary responsibility for the lease liability, it does not recognise any RoU asset or lease liability related to the lease contract. The followers' share of the RoU asset, recognised by the operator, will be recovered according to the joint operation's arrangements by billing the project costs attributable to the followers and collecting the related cash calls. Costs recovered from the followers are recognised as "Other income and revenues" in the profit and loss account and as net cash provided by operating activities in the statement of cash flows. The IFRIC indications have been confirmed at its March 2019 meeting.

The complexity of the contracts, as well as their multiannual duration, has required a complex judgement by management to determine the assumptions to be applied in order to estimate the expected impacts deriving from the adoption of the new requirements. In particular, the main assumptions were the following ones:

- for lease contracts related to assets used in the Oil & Gas operations (mainly drilling rigs and FPSOs) set out as operator of the Oil & Gas activities, the recognition of 100% of the lease liability and the right-of-use asset in line with the indications provided by the IFRIC. When the lease contracts are set out by companies, other than subsidiaries, that act as operators on behalf of the other participating companies (the so-called operating companies), consistently with the provision to recover from the followers the costs related to the Oil & Gas activities, the participating companies recognise their shares of the right-of-use assets and the lease liabilities based on their working interest, considering any available information on the expected use of the underlying assets;
- the separation of non-lease components, also on the basis of in-depth analyses performed with external experts, with reference to the main contracts related to the upstream activities (drilling rigs) which provide for single payments relating to both lease and non-lease components;
- the assessment of extension or termination options in order to determine the lease term;
- the identification of variable lease payments and their characteristics in order to establish whether or not[28] they shall be included in the measurement of the lease liability and the right-of-use asset;
- the discount rate used to measure the lease liability that is the lessee's incremental borrowing rate. This rate have been defined considering the lease term of the lease contracts, the currencies and the characteristics of the lessees' economic environment, defined on the basis of the country risk premium assigned to each Country where Eni operates.

On initial application, Eni elects to apply the following practical expedients allowed by the accounting standard:

- possibility to adopt the modified retrospective approach, by recognising the cumulative effect of initially applying the new standard as an adjustment to the opening balance at January 1, 2019, without restating the comparative information;
- possibility not to reassess each contract existing at January 1, 2019, by applying IFRS 16 to all contracts previously identified as leases (under IAS 17 and IFRIC 4), while not applying IFRS 16 to the contracts that were not previously identified as leases;
- for contracts previously classified as operating leases, possibility to measure the right-of-use asset at an amount equal to the lease liability, adjusted, if necessary, by any prepaid amounts already recognised in the balance sheet;
- as an alternative to performing an impairment review, possibility to adjust the right-of-use assets, existing at January 1, 2019, by the amount of any provision for onerous lease contracts recognised at December 31, 2018;
- upon transition, election not to consider leases for which the lease term ends within 12 months of January 1, 2019 as short-term leases.

Based on the available information, the adoption of IFRS 16 results in the recognition of right-of-use assets for €5.7 billion and lease liabilities for €5.8 billion; the estimated amount of the lease liabilities includes the payables for lease fees outstanding at January 1, 2019, previously classified as trade payables. The estimated impacts of the initial adoption of IFRS 16 might be

(28) Under IFRS 16, variable lease payments linked to future sales or use of an underlying asset are recognised in the profit and loss account and so they are not included in the measurement of the lease liability/right-of-use asset.

subject to change due to any evolution in the interpretations deriving, among others, from further IFRIC indications, as well as due to the development of the data process upon initial adoption of the standard in the 2019 financial reports. Moreover, the estimated amount of the lease liabilities includes the share of the lease liabilities corresponding to the followers' working interest for €2.0 billion, while the Eni working interest is €3.8 billion.
Based on the currently available information, a reconciliation between the amount of future minimum lease payments under non-cancellable operating leases at December 31, 2018 and the opening balance of the lease liability at January 1, 2019 is provided below:

(€ billion)	
Future minimum lease payments under non-cancellable operating leases at December 31, 2018	4.0
- Recognition of the shares of leases related to followers	2.0
- Effect of discounting	(1.5)
- Extension options	1.2
- Other changes	0.1
Lease liability at January 1, 2019	5.8

By the Commission Regulation No. 2018/1595 issued by the European Commission on October 23, 2018, IFRIC 23 "Uncertainty over Income Tax Treatments" (hereinafter IFRIC 23) was adopted. IFRIC 23 clarifies the accounting for (current and/or deferred) tax assets and liabilities when there is uncertainty over income tax treatments. IFRIC 23 shall be applied for annual reporting periods beginning on or after January 1, 2019.
By the Commission Regulation No. 2019/237 issued by the European Commission on February 8, 2019, the amendments to IAS 28 "Long-term Interests in Associates and Joint Ventures" (hereinafter the amendments to IAS 28) were adopted. The amendments to IAS 28 clarify that entities account for long-term interests in an associate or joint venture, that, in substance, form part of the entity's net investment in the investee and for which settlement is neither planned nor likely to occur in the foreseeable future, using the provisions of IFRS 9, including those related to impairment. The amendments to IAS 28 shall be applied for annual reporting periods beginning on or after January 1, 2019.
By the Commission Regulation No. 2019/402 issued by the European Commission on March 13, 2019, the amendments to IAS 19 "Plan Amendment, Curtailment or Settlement" (hereinafter the amendments to IAS 19) were adopted. The amendments to IAS 19 require to use updated actuarial assumptions to determine current service cost and net interest, when an amendment, curtailment or settlement to an existing defined benefit pension plan takes place, for the remainder reporting period after the change of the plan. The amendments to IAS 19 shall be applied for annual reporting periods beginning on or after January 1, 2019.

IFRSs ISSUED BY THE IASB AND NOT YET ADOPTED BY THE EU

On May 18, 2017, the IASB issued IFRS 17 "Insurance Contracts" (hereinafter IFRS 17), which sets out the accounting for the insurance contracts issued and the reinsurance contracts held. IFRS 17, which replaces IFRS 4 "Insurance Contracts", shall be applied for annual reporting periods beginning on or after January 1, 2021.
On March 29, 2018, the IASB issued the document "Amendments to References to the Conceptual Framework in IFRS Standards", which includes, basically, technical and editorial changes to existing IFRS standards in order to update references in those standards to previous versions of the IFRS Framework with the new Conceptual Framework for Financial Reporting, issued by the IASB on the same date. The amendments to the standards shall be applied for annual reporting periods beginning on or after January 1, 2020.
On October 22, 2018, the IASB issued the amendments to IFRS 3 "Business Combinations" (hereinafter the amendments to IFRS 3), which clarify the definition of a business. The amendments to IFRS 3 shall be applied for annual reporting periods beginning on or after January 1, 2020.
On October 31, 2018, the IASB issued the amendments to IAS 1 and IAS 8 "Definition of Material" (hereinafter the amendments to IAS 1 and IAS 8), which clarify, and align across all IFRS Standards and other publications, the definition of material to help companies make better materiality judgements. In particular, information is material if omitting, misstating or obscuring it could be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments to IAS 1 and IAS 8 shall be applied for annual reporting periods beginning on or after January 1, 2020.
On December 12, 2017, the IASB issued the document "Annual Improvements to IFRS Standards 2015-2017 Cycle", which includes, basically, technical and editorial changes to existing standards. The amendments to the standards shall be applied for annual reporting periods beginning on or after January 1, 2019.
Eni is currently reviewing the IFRSs not yet effective in order to determine the likely impact on the Consolidated Financial Statements.

5 | Cash and cash equivalents

Cash and cash equivalents of €10,836 million (€7,363 million at December 31, 2017) included financial assets with maturity generally of up to three months at the date of inception amounting to €8,732 million (€5,591 million at December 31, 2017) and mainly included short-term deposits with financial institutions having notice of more than 48 hours.
Cash and cash equivalents consist essentially of bank deposits in euro and US dollars as a way to employ the Group cash on hand with a view of funding the Group's short-term financing needs.
The average maturity of bank deposits in euro of €7,653 million was 29 days and the interest rate of return was a negative 0.29%; the average maturity of bank deposits in US dollars of €1,074 million was 12 days with an internal rate of return of 2.59%.

6 | Financial assets held for trading

(€ million)	December 31, 2018	December 31, 2017
Quoted bonds issued by sovereign states	1,083	1,022
Other	5,469	4,990
	6,552	**6,012**

From January 1, 2018, financial assets held by the Group captive insurance company Insurance DAC of €207 million, previously classified as available for sale, have been classified as held for trading in accordance to the provisions of IFRS 9 on the base of the conditions existing at the adoption date.
The Company has established a liquidity reserve as part of its internal targets and financial strategy with a view of ensuring an adequate level of flexibility to the Group development plans and of coping with unexpected fund requirements or difficulties in accessing financial markets. The management of this liquidity reserve is performed through trading activities in view of the financial optimization of returns, within a predefined and authorized level of risk tolerance, targeting the preservation of the invested capital and the ability to promptly convert it into cash.
Financial assets held for trading of Eni SpA include securities subject to lending agreements of €1,301 million (€845 million at December 31, 2017).
The breakdown by currency is provided below:

(€ million)	December 31, 2018	December 31, 2017
Euro	4,573	4,232
US dollars	1,614	1,025
Other currencies	365	755
	6,552	**6,012**

The breakdown by issuing entity and credit rating is presented below:

	Nominal value (€ million)	Fair value (€ million)	Rating Moody's	Rating S&P
Quoted bonds issued by sovereign states				
Fixed rate bonds				
Italy	523	529	Baa3	BBB
Other(*)	336	349	from Aaa to Baa3	from AAA to BBB-
	859	**878**		
Floating rate bonds				
Italy	130	129	Baa3	BBB
Other(*)	86	76	from Aaa to Baa3	from AAA to BBB-
	216	**205**		
Total quoted bonds issued by sovereign states	**1,075**	**1,083**		
Other Bonds				
Fixed rate bonds				
Quoted bonds issued by industrial companies	1,628	1,581	from Aa2 to Baa3	from AA to BBB-
Quoted bonds issued by financial and insurance companies	1,270	1,269	from Aaa to Baa3	from AAA to BBB-
Other	51	48	from A1 to Baa3	from A+ to BBB-
	2,949	**2,898**		
Floating rate bonds				
Quoted bonds issued by financial and insurance companies	1,562	1,453	from Aaa to Baa3	from AAA to BBB-
Quoted bonds issued by industrial companies	987	976	from Aa2 to Baa2	from AA to BBB
Other	158	142	from Aa3 to Baa3	from AA- to BBB-
	2,707	**2,571**		
Total other bonds	**5,656**	**5,469**		
Total other financial assets held for trading	**6,731**	**6,552**		

(*) Individual amounts included herein are lower than €50 million.

The fair value hierarchy is level 1 for €6,362 million and level 2 for €190 million. During 2018, there were no transfers between the different hierarchy levels of fair value.

7 | Trade and other receivables

As of January 1, 2018, the effects of the application of IFRS 9 and IFRS 15 are the following:

(€ million)	Trade and other receivables
Amount as of 31 December 2017	**15,421**
Changes in accounting policies (IFRS 9)	(427)
Changes in accounting policies (IFRS 15)	(372)
Reclassification to other current asssets (IFRS 15)	(466)
Amount as of 1 January 2018	**14,156**

The adoption of IFRS 9 determined an increase in the provision for doubtful accounts of €427 million in application of the expected loss model.
The application of IFRS 15 determined a decrease in Other receivables for €372 million due to the fact that Eni now adopts the sales method versus the entitlement method previously adopted under the previous accounting policy as disclosed in note 3 – Changes in accounting policies.
In applying IFRS 15, €466 million of assets related to lifting imbalances accounted for using the sales method have been reclassified to other current assets.
More information about the application of IFRS 9 and IFRS 15 is disclosed in note 3 – Changes in accounting policies.
The following is the analysis of trade and other receivables:

(€ million)	December 31, 2018	December 31, 2017
Trade receivables	9,520	10,182
Receivables from divestments	122	597
Receivables from joint operators in E&P activities	3,024	3,369
Other receivables	1,435	1,273
	14,101	**15,421**

Generally, trade receivables do not bear interest and provide payment terms within 180 days.
Trade receivables decreased by €662 million, of which €641 million related to the Gas & Power segment.
At December 31, 2018, Eni sold without recourse trade receivables due in 2019 for €1,769 million (€2,051 million at December 31, 2017 due in 2018). Derecognized receivables related to the Gas & Power segment for €1,419 million and to the Refining & Marketing and Chemicals segment for €350 million.
Receivables from divestments decreased by €475 million due to: (i) the collection of the price installments related the sale of 10% and 30% interests in the Zohr asset in Egypt made in 2017 respectively to BP and Rosneft for a total amount of €433 million. An additional installment relating to the transaction with BP will be collected in June 2019 (€119 million); (ii) the collection for €153 million of the third and last instalment of a receivable on the divestment of a 1.71% interest in the Kashagan project to the local partner KazMunayGas.
Amounts receivable from operators in exploration and production projects included amounts owed by partners in Nigeria for €977 million (€1,507 million at December 31, 2017). This latter comprised an amount of €681 million in large part overdue (€713 million at December 31, 2017) owed by the Nigerian national oil company NNPC in respect of the contractual recovery of the expenditures incurred at certain projects operated by Eni. During the year, the Company recovered €140 million of the overdue amount due to the implementation of the "Repayment Agreement" agreed with the counterparty, whereby Eni is to be reimbursed through the sale of the profit oil attributable to NNPC in certain rig-less petroleum initiatives with low mineral risk. Based on Eni's Brent price scenario, the reimbursement will be accomplished over a time horizon of three to five years. The overdue receivables are stated net of a discount factor. In addition, a receivable relating to the recovery of a disputed amount of expenditures due to the same counterpart was completely written down (€153 million at December 31, 2017).
Receivables from others comprised the recoverable value amounting to €300 million of certain overdue trade receivables towards the state-owned oil company of Venezuela, PDVSA, in relation to gas equity volumes supplied by the joint venture Cardón IV, equally participated by Eni and Repsol in 2016 and in 2018. The two shareholders purchased those receivables from the venture. The proceeds from the sale were utilized to reimburse part of the financing loan provided by the same shareholders to fund the development of the gas project reserves. The recoverable amount of those receivables was estimated considering the lifetime expected credit losses which were evaluated based on a financial model built around empirical evidence and outcomes from a thorough review of sovereign defaults. Risks associated with the complex financial outlook of the Country and the deteriorated operating environment were appreciated in the recoverability estimation by assuming a deferral in the timing of collection of future revenues and overdue credit amounts.
Trade and other receivables stated in euro and US dollars amounted to €7,100 million and €6,119 million, respectively.
Credit risk exposure and expected losses relating to trade and other receivables has been prepared on the basis of internal ratings as follows:

	Performing receivables					
(€ million)	Low risk	Medium Risk	High Risk	Defaulted receivables	Eni gas e luce customers	Total
December 31, 2018						
Business customers	2,454	3,585	1,152	1,350		8,541
National Oil Companies and public administrations	1,292	157	672	2,217		**4,338**
Other counterparties	1,494	77	156	271	2,374	**4,372**
Gross amount	**5,240**	**3,819**	**1,980**	**3,838**	**2,374**	**17,251**
Allowance for doubtful accounts	(9)	(3)	(44)	(2,237)	(857)	**(3,150)**
Net amount	**5,231**	**3,816**	**1,936**	**1,601**	**1,517**	**14,101**
Expected loss (% net of counterpart risk mitigation factors)	0.2	0.1	2.6	62.5	36.1	

Eni has classified its business customers and the associated commercial or industrial exposures based on an individual assessment of the credit and the counterparty risks. Business customers other than National Oil Companies (NOC) and public administrations, each of whom has undergone an individual credit evaluation, have assigned a probability of default calculated based on internal ratings which factor in: (i) a full assessment of each customer profitability, financial condition and liquidity and business a financial prospects on an ongoing basis; (ii) history of the contractual relationship (timeliness in invoice payment, number of claims, etc.); (iii) presence of mitigation factor of credit risk (e.g. securitization package, insurance against the credit risk, guarantee from third parties, etc.); (iv) other specialized pieces of information obtained by the Company's business commercial function or by specialized info-providers; (v) industrial and market trends. Internal ratings and the probability of default are constantly updated by means of back-testing analysis and risk assessment of the current credit portfolio. The loss given default associated with those industrial customers is estimated by the business based on the past experience in credit recoverability; in the case of defaulting customers, loss given default is estimated based on the recovery rates obtained in situations of credit restructurings or litigation procedures.

The probability of default associated with NOCs and public administrations is estimated based on the country risk premium incorporated in the risk-adjusted weighted average cost of capital utilized by the Company to perform the impairment review of its fixed assets. The loss given default of these business partners is estimated based on historical averages of delays in collecting overdue receivables, substantially assessing the time value of money. The resulting loss given default is adjusted to factor in any existing mitigation factors. In case of particular market conditions or sovereign defaults, the expected loss associated with NOCs is re-rated based on the empirical evidence and outcomes obtained from restructuring of sovereign debts considering the specificities of trading relationships with energy companies.

Customers of Eni gas e luce have been grouped into homogeneous clusters with different credit risk and probability of default which have been estimated based on past experience on credit collection, systematically updated and, in case of particular market conditions, adjusted to take into account expected market and credit trends in any given cluster.

The exposure to credit risk and expected losses relating to retail customers of Eni gas e luce was assessed on the basis of a provision matrix as follows:

	Ageing					
(€ million)	Not-past due	from 0 to 3 months	from 3 to 6 months	from 6 to 12 months	over 12 months	Total
December 31, 2018						
Customers - Eni gas e luce:						
- Retail	575	49	34	64	554	1,276
- Middle	449	43	13	29	349	883
- Other	207	2	1	2	3	215
Gross amount	**1,231**	**94**	**48**	**95**	**906**	**2,374**
Allowance for doubtful accounts	(20)	(18)	(18)	(56)	(745)	(857)
Net amount	**1,211**	**76**	**30**	**39**	**161**	**1,517**
Expected loss (%)	1.6	19.1	37.5	58.9	82.2	36.1

Trade and other receivables are stated net of the valuation allowance for doubtful accounts which has been determined considering the counterparty risk mitigation factors amounting to €3,072 million:

(€ million)	Trade and other receivables
Carrying amount at December 31, 2017	**2,639**
Changes in accounting policies (IFRS 9)	427
Carrying amount at January 1, 2018	**3,066**
Additions on trade and other performing receivables	126
Additions on trade and other defaulted receivables	372
Deductions on trade and other performing receivables	(189)
Deductions on trade and other defaulted receivables	(532)
Other changes	307
Carrying amount at December 31, 2018	**3,150**
Carrying amount at December 31, 2016	**2,303**
Additions	927
Deductions	(454)
Other changes	(137)
Carrying amount at December 31, 2017	**2,639**

Additions to allowance for doubtful accounts on trade and other performing receivables related for €108 million to the Gas & Power segment, particularly in the retail business.
Additions to allowance for doubtful accounts on trade and other defaulted receivables related for €291 million to the Exploration & Production segment and in connection with receivables for the supply of equity hydrocarbons to State-owned companies and other commercial partners.
Utilizations of allowance for doubtful accounts on trade and other performing and defaulted receivables amounted to €721 million and mainly related to the Gas & Power segment for €613 million, in particular utilizations against charges of €579 million mainly in the retail business. The mitigation measures regarding the counterparty risk executed by the Company, including better customer selection, allowed to reduce the incidence of unpaid amounts on retail sales of gas and power to physiological levels.
Net (impairment losses) reversals of trade and other receivables are disclosed as follows:

(€ million)	2018
Net (impairment losses) reversals of trade and other receivables	
New or increased provisions	(498)
Credit losses	(37)
Reversal of unutilized provisions	120
	(415)

The following is the analysis of the 2017 ageing of trade and other receivables stated according to the valuation criteria in force before the application of IFRS 9 "Financial instruments":

	December 31, 2017	
(€ million)	Trade receivables	Other receivables
Neither impaired nor past due	**8,800**	**4,604**
Impaired (net of the valuation for doubtful accounts)	**567**	**31**
Not impaired and past due:		
- within 90 days	478	21
- from 3 to 6 months	46	9
- from 6 to 12 months	147	202
- over 12 months	144	372
	815	**604**
	10,182	**5,239**

Because of the short-term maturity and conditions of remuneration of trade and other receivables, the fair value approximated the carrying amount.

Receivables with related parties are disclosed in note 36 – Transactions with related parties.

8 | Non-current and current inventories

(€ million)	December 31, 2018	December 31, 2017
Raw and auxiliary materials and consumables	889	999
Materials and supplies	1,451	1,566
Finished products and goods	2,274	2,000
Certificates and emission rights	37	56
	4,651	**4,621**

Raw and auxiliary materials and consumables include oil-based feedstock, catalysts and other consumables pertaining to refining and chemical activities.
Materials and supplies include materials to be consumed in drilling activities and spare parts related to the Exploration & Production segment for €1,334 million (€1,441 million at December 31, 2017).

Finished products and goods included gas and petroleum products for €1,543 million (€1,287 million at December 31, 2017) and chemical products for €547 million (€489 million at December 31, 2017).
Certificates and emission rights are measured at the fair value. The fair value hierarchy is level 1.
Inventories of €95 million (€86 million at December 31, 2017) were

pledged to guarantee the estimated imbalance in volumes input to/off-taken from the national gas network operated by Snam Rete Gas SpA.
Inventories are stated net of a write down provision of €578 million (€245 million at December 31, 2017). Net additions to write down provision for 2018 amounted to €337 million and primarily related to the alignment of the carrying amount of crude oil and oil products inventories to their net realizable values at the period end, as a consequence of the rapid decline in hydrocarbons prices recorded in the final months of 2018.
Inventories held for compliance purposes of €1,217 million (€1,283 million at December 31, 2017) primarily related to Italian subsidiaries for €1,200 million (€1,267 million at December 31, 2017) in accordance with minimum stock requirements for oil and petroleum products set forth by applicable laws.

9 | Current income tax receivables and payables

	December 31, 2018		December 31, 2017	
(€ million)	**Receivables**	**Payables**	Receivables	Payables
Income taxes	191	440	191	472
Other taxes and duties	561	1,432	729	1,472
	752	**1,872**	**920**	**1,944**

Income taxes are described in note 32 – Income tax expense.
Receivables for other taxes and duties included VAT credits for €383 million (€452 million at December 31, 2017) in relation to down payments by Italian subsidiaries made in December.
Payables for other taxes and duties consisted of excise and custom duties of €636 million (€824 million at December 31, 2017).

10 | Other assets

	December 31, 2018		December 31, 2017	
(€ million)	**Current**	**Non-current**	Current	Non-current
Fair value of derivative financial instruments	1,594	68	1,231	80
Other current assets	664	724	342	1,243
	2,258	**792**	**1,573**	**1,323**

The fair value related to derivative financial instruments is disclosed in note 23 – Derivative financial instruments.
The increase in other assets of €322 million included the reclassification as of January 1, 2018, from the item Trade and other receivables of the underlifting imbalances related to the Exploration & Production segment for €466 million following the adoption of the sales method in application of IFRS 15.
Other assets include: (i) non-current tax assets for € 422 million (€507 million at December 31, 2017); (ii) gas volumes prepayments that were made in previous years due to the take-or-pay obligations in relation to the Company's long-term supply contracts of €26 million (€119 million at 31 December 2017); (iii) non-current receivables from others for €35 million (€44 million at December 31, 2017); (iv) non-current receivables for investing activities for €9 million (€118 million at December 31, 2017).
Transactions with related parties are described in note 36 – Transactions with related parties.

11 | Property, plant and equipment

(€ million)	Land and buildings	E&P wells, plant and machinery	Other plant and machinery	E&P exploration assets and appraisal	E&P tangible assets in progress	Other tangible assets in progress and advances	Total
2018							
Net carrying amount - beginning of the year	**1,313**	**45,782**	**3,877**	**1,371**	**9,469**	**1,346**	**63,158**
Additions	18	432	173	330	6,947	878	8,778
Depreciation	(65)	(6,012)	(529)				(6,606)
Reversals	41	299	86				426
Impairments	(61)	(477)	(73)		(548)	(117)	(1,276)
Write-off		(12)	(1)	(66)	(4)	(1)	(84)
Disposals	(2)	(400)	(9)	(32)	(198)	2	(639)
Currency translation differences	2	1,623	36	53	385	(1)	2,098
Decrease through loss of control of subsidiary	1	(4,388)	32	(58)	(474)	10	(4,877)
Transfers	81	6,795	461	(294)	(6,501)	(542)	
Other changes	(54)	(786)	(152)	(37)	119	234	(676)
Net carrying amount - end of the year	**1,274**	**42,856**	**3,901**	**1,267**	**9,195**	**1,809**	**60,302**
Gross carrying amount - end of the year	4,060	135,467	27,516	1,267	12,559	2,415	183,284
Provisions for depreciation and impairments	2,786	92,611	23,615		3,364	606	122,982
2017							
Net carrying amount - beginning of the year	**1,258**	**47,090**	**3,789**	**1,905**	**15,135**	**1,616**	**70,793**
Additions	22	42	190	351	7,302	583	8,490
Depreciation	(71)	(6,583)	(545)				(7,199)
Reversals	5	608	273		169		1,055
Impairments	(2)	(491)	(83)		(146)	(126)	(848)
Write-off		(3)	(2)	(232)	(2)		(239)
Disposals	(15)	3	(6)		(1,376)	(54)	(1,448)
Currency translation differences	(5)	(5,155)	(143)	(193)	(1,527)	(2)	(7,025)
Transfers	84	9,940	629	(265)	(9,673)	(715)	
Other changes	37	331	(225)	(195)	(413)	44	(421)
Net carrying amount - end of the year	**1,313**	**45,782**	**3,877**	**1,371**	**9,469**	**1,346**	**63,158**
Gross carrying amount - end of the year	4,061	137,223	26,746	1,371	12,315	2,061	183,777
Provisions for depreciation and impairments	2,748	91,441	22,869		2,846	715	120,619

Capital expenditures included capitalized finance expenses of €52 million (€72 million in 2017) related to the Exploration & Production segment (€37 million). The interest rate used for capitalizing finance expense ranged from 2.3% to 2.4% (1.6% to 2.7% at December 31, 2017).

Capital expenditures primarily related to the Exploration & Production segment for €7,757 million (€7,638 million in 2017) and included the consideration paid for the award of the interests in the already producing Concession Agreements of Umm Shaif and Nasr (10%) and Lower Zakum (5%) and the Concession Agreement of Gasha (25%) under development, located in the offshore of Abu Dhabi (United Arab Emirates). The price paid of €869 million was allocated to proved mineral interest (E&P wells, plant and machinery) for €382 million and to unproved mineral interest for (E&P tangible assets in progress) €487 million.

More information is reported in note 35 – Segment information and information by geographical area.

The main depreciation rates used were substantially unchanged from the previous year and ranged as follows:

(%)	
Buildings	2 - 10
Mineral exploration wells and plants	UOP
Refining and chemical plants	2 - 17
Gas pipelines and compression stations	2 - 12
Power plants	5
Other plant and machinery	6 - 12
Industrial and commercial equipment	5 - 25
Other assets	10 - 20

The criteria adopted by Eni for determining net (impairments) reversals is reported in note 13 – Net reversal (impairment) of tangible and intangible assets.
Disposals related to a 10% interest in the Zohr asset in Egypt to Mubadala Petroleum Llc with a gain of €418 million.
Foreign currency translation differences primarily related to subsidiaries which utilize the US dollar as functional currency (€2,209 million).
Property, plant and equipment decreased by €4,800 million due to the exclusion from the consolidation of the assets of the former Eni's subsidiary Eni Norge AS which was merged with Point Resources AS, fully-owned by HitecVision AS, to establish the equity-accounted joint venture Vår Energi AS, jointly controlled by Eni (69.60%) and HitecVision AS, with the initial recognition among equity-accounted investments of Eni's interest in the combined entity.
Transfers from E&P tangible assets in progress to E&P wells, plant and machinery related for €2,750 million to progress in the development of reserves at large projects, comprising Zohr, Jangkrik, East Hub, Noroos and OCTP projects.
Changes in exploration and appraisal activities related to: (i) the successful completion of exploration and appraisal activities at certain suspended exploration wells and their transfer to tangible assets for €297 million; (ii) the write-off of exploration wells for €66 million due to the negative outcome of exploration and appraisal activities, mainly relating to two offshore projects in Morocco and Vietnam.
Other changes included a downward revision of estimates of the decommissioning provision of the Exploration & Production segment (negative for €503 million) due to increased discount rates curve, especially for the US dollar.
Exploration and appraisal activities related for €1,101 million to costs of suspended exploration wells pending final determination and for €166 million to costs of exploration wells in progress at the end of the year. Changes relating to suspended wells are showed:

(€ million)	2018	2017	2016
Costs for exploratory wells suspended - beginning of the period	**1,263**	**1,684**	**1,737**
Increases for which is ongoing the determination of proved reserves	235	451	282
Amounts previously capitalized and expensed in the period	(61)	(217)	(109)
Reclassification to successful exploratory wells following the estimation of proved reserves	(297)	(278)	(276)
Disposals	(6)	(199)	
Decrease through loss of control of subsidiary	(58)		
Reclassification to assets held for sale	(24)		
Currency translation differences	49	(178)	50
Costs for exploratory wells suspended - end of the period	**1,101**	**1,263**	**1,684**

The following information relates to the stratification of the suspended wells pending final determination (ageing):

	2018		2017		2016	
	(€ million)	(number of wells in Eni's interest)	(€ million)	(number of wells in Eni's interest)	(€ million)	(number of wells in Eni's interest)
Costs capitalized and suspended for well activity						
- within 1 year	111	7.02	222	7.95	16	1.05
- between 1 and 3 years	87	2.88	241	3.87	609	10.25
- beyond 3 years	903	24.20	800	21.44	1,059	21.55
	1,101	**34.10**	**1,263**	**33.26**	**1,684**	**32.85**
Costs capitalized for suspended wells						
- fields including wells drilled over the last 12 months	111	7.02	148	5.88	9	0.55
- fields for which the delineation campaign is in progress	217	4.66	261	4.69	251	3.51
- fields including commercial discoveries that proceeds to sanctioning	773	22.42	854	22.69	1,424	28.79
	1,101	**34.10**	**1,263**	**33.26**	**1,684**	**32.85**

Unproved mineral interests include the purchase price allocated to unproved reserves following business combinations or acquisition of individual properties.

Unproved mineral interests were as follows:

(€ million)	Congo	Nigeria	Turkmenistan	USA	Algeria	Egypt	United Arab Emirates	Total
2018								
Book amount at the beginning of the year	**1,162**	**825**	**192**	**99**	**105**	**7**		**2,390**
Additions	26	56				23	487	592
Net (impairments) reversals	(429)		(76)					(505)
Reclassification to proved mineral interest	(32)		(44)		(32)	(2)		(110)
Other changes and currency translation differences	42	40	5	4	4	1	15	111
Book amount at the end of the year	**769**	**921**	**77**	**103**	**77**	**29**	**502**	**2,478**
2017								
Book amount at the beginning of the year	**1,254**	**938**	**138**	**113**		**7**		**2,450**
Additions					112			112
Net (impairments) reversals	72		75					147
Reclassification to proved mineral interest	(7)							(7)
Other changes and currency translation differences	(157)	(113)	(21)	(14)	(7)			(312)
Book amount at the end of the year	**1,162**	**825**	**192**	**99**	**105**	**7**		**2,390**

Unproved mineral interest comprised a property denominated Oil Prospecting License 245 ("OPL 245"), located in the offshore of Nigeria, with a net book value of €857 million, which corresponded to the price paid to the Nigerian Government to acquire a 50% interest in the property, with the partner Shell acquiring the remaining 50%. As of December 31, 2018, the net book value of the property was €1,159 million, including capitalized exploration costs and pre-development costs. The acquisition of OPL 245 is subject to judicial proceedings in Italy and in Nigeria for alleged corruption and money laundering in respect of the Resolution Agreement signed on April 29, 2011, relating to the purchase of the license by Eni and Shell. Those proceedings are disclosed in note 27 – Guarantees, Commitments and Risks.

Additions for the year related to the acquisition of unproved reserves as part of the deals to acquire interests in Oil & Gas assets in production/development phase in the offshore of Abu Dhabi (United Arab Emirates), the extension of the concession terms in Nigeria and Egypt and contractual revisions in Congo.

Accumulated provisions for impairments amounted to €16,471 million (€16,005 million at December 31, 2017).

At December 31, 2018, Eni pledged property, plant and equipment for €24 million primarily as collateral against certain borrowings (same amount as of December 31, 2017).

Government grants recorded as a decrease of property, plant and equipment amounted to €125 million (€110 million at December 31, 2017).

Assets acquired under financial lease agreements amounted to €46 million (€29 million at December 31, 2017).

Contractual commitments related to the purchase of property, plant and equipment are disclosed in note 27 – Guarantees, commitments and risks - Liquidity risk.

Property, plant and equipment under concession arrangements are described in note 27 – Guarantees, commitments and risks - Assets under concession arrangements.

Property, plant and equipment by segment are described in note 35 – Segment information and information by geographical area.

12 | Intangible assets

(€ million)	Exploration rights	Industrial patents and intellectual property rights	Other intangible assets	Intangible assets with finite useful lives	Goodwill	Total
2018						
Net carrying amount - beginning of the year	**995**	**240**	**486**	**1,721**	**1,204**	**2,925**
Changes in accounting policies (IFRS 9 and 15)			87	**87**		**87**
Net carrying amount restated - beginning of the year	**995**	**240**	**573**	**1,808**	**1,204**	**3,012**
Additions	133	28	180	341		**341**
Amortization	(71)	(87)	(226)	(384)		**(384)**
Impairments			(16)	(16)		**(16)**
Write-off	(15)		(1)	(16)		**(16)**
Currency translation differences	39			39	8	**47**
Change through loss of control of subsidiary			74	74	46	**120**
Other changes		40		40	26	**66**
Net carrying amount at the end of the year	**1,081**	**221**	**584**	**1,886**	**1,284**	**3,170**
Gross carrying amount at the end of the year	1,686	1,534	4,188	7,408		
Provisions for amortization and impairment	605	1,313	3,604	5,522		
2017						
Net carrying amount - beginning of the year	**1,092**	**259**	**598**	**1,949**	**1,320**	**3,269**
Additions	91	17	83	191		**191**
Amortization	(65)	(84)	(137)	(286)		**(286)**
Reversals	32			32		**32**
Impairments	(14)			(14)		**(14)**
Write-off	(24)			(24)		**(24)**
Currency translation differences	(115)	(1)	(2)	(118)	(23)	**(141)**
Other changes	(2)	49	(56)	(9)	(93)	**(102)**
Net carrying amount - end of the year	**995**	**240**	**486**	**1,721**	**1,204**	**2,925**
Gross carrying amount - end of the year	1,504	1,466	3,778	6,748		
Provisions for amortization and impairment	509	1,226	3,292	5,027		

Exploration rights comprised the residual book value of license and leasehold property acquisition costs relating to areas with proved reserves, which are amortized based on UOP criteria and are regularly reviewed for impairment. Furthermore, they include the cost of unproved areas which are suspended pending a final determination of the success of the exploratory activity or until management confirms its commitment to the initiative.
Additions for the year related to signature bonuses paid for the acquisition of new exploration acreage in United Arab Emirates, United States and Mexico.
The breakdown of exploration rights by type of asset was as follows:

(€ million)	December 31, 2018	December 31, 2017
Proved licence and leasehold property acquisition costs	357	403
Unproved licence and leasehold property acquisition costs	684	586
Other mineral interests	40	6
	1,081	**995**

Industrial patents and intellectual property rights mainly regarded the acquisition and internal development of software and rights for the use of production processes and software.
Other intangible assets comprised: (i) customer acquisition costs relating to the retail gas business for €166 million; (ii) concessions, licenses, trademarks and similar items for €151 million comprised transmission rights for natural gas imported from Algeria of €27 million; (iii) capital expenditures in progress on natural gas pipelines for which Eni has acquired transport rights for €78 million (same amount as of December 31, 2017).

The main amortization rates used were substantially unchanged from the previous year and ranged as follows:

(%)	
Exploration rights	UOP - 33
Transport rights of natural gas	3
Other concessions, licenses, trademarks and similar items	3 - 33
Service concession arrangements	20 - 33
Capitalized costs for customer acquisition	25 - 33
Other intangible assets	4 - 20

The carrying amount of goodwill at the end of the year amounted to €2,422 million, net of cumulative impairments charges.

A breakdown of the stated goodwill by operating segment is provided below:

(€ million)	December 31, 2018	December 31, 2017
Gas & Power	977	932
Exploration & Production	187	179
Refining & Marketing	119	93
Other activities	1	
	1,284	**1,204**

Goodwill acquired through business combinations has been allocated to the CGUs that are expected to benefit from the synergies of the acquisition.

The amount of goodwill outstanding at the reporting date mainly related to the Gas & Power segment. A breakdown is disclosed below.

(€ million)	December 31, 2018	December 31, 2017
Domestic gas market	835	835
European gas market	142	97
	977	**932**

Goodwill allocated to the CGU domestic gas market was recognized upon the buy-out of the former Italgas SpA minorities in 2003 through a public offering (€706 million). The acquired entity engaged in the retail sale of gas to the residential sector and middle and small-sized businesses in Italy. In addition, further goodwill amounts have been allocated over the years following business combinations with small, local companies selling gas to residential customers in focused territorial reach and municipalities synergic to Eni's activities. The impairment review performed at the balance sheet date confirmed the recoverability of the carrying amount of this CGU including any allocated goodwill.

In assessing the recoverability of the carrying amount of the CGU domestic gas market, including the allocated portion of goodwill, management determined the value in use of the CGU considering the sales margin exclusively of the retail market (excluding margins on sales to wholesalers, industrial and power generation customers). The assessment was performed considering the cash flows of the four-year plan approved by management and incorporating the perpetuity of the last year of the plan to determine the terminal value by assuming a nominal long-term growth rate equal to zero, unchanged from the previous reporting period. These cash flows were discounted by using the post-tax WACC adjusted considering the specific country risk of 5.4% for Italy. Post-tax cash flows and discount rates were adopted as they resulted in an assessment that substantially approximated a pre-tax assessment.

The excess of the recoverable amount of the CGU Domestic gas market over its carrying amount including the allocated portion of goodwill (headroom) amounting to €1,701 million would be reduced to zero under each of the following alternative hypothesis: (i) a decrease of 63% on average in the projected volumes or commercial margins; (ii) an increase of 12.1 percentage points in the discount rate; and (iii) a final negative nominal growth rate of 26.2%.

Goodwill allocated to the CGU European gas market increased by €45 million following the acquisition of the residual 51% interest in Gas Supply Company Thessaloniki-Thessalia SA operating in Greece, previously participated with a 49% of the share capital. The residual amount of €95 million relates to Eni Gas & Power France SA (former Altergaz SA). The impairment review performed at the balance sheet date by using a method similar to the Domestic gas market CGU confirmed the recoverability of the carrying amount of the France gas market CGU including any allocated goodwill by using a post-tax WACC adjusted considering a country risk for France of 6.1%, while the impairment review for the Greek gas market CGU was part of the acquisition evaluation.

13 | Net reversal (impairment) of tangible and intangible assets

In assessing whether impairment is required, the carrying amounts of the assets are compared with their recoverable amounts. The recoverable amount is the higher between an asset's fair value less costs to sell and its value-in-use. In the event of an asset's impairment being reversed, the reversal may not raise the carrying amount above the value it would have stood at taking into account depreciation, if no impairment had originally been recognized.

Given the nature of Eni's activities, information on asset fair value is usually difficult to obtain unless negotiations with a potential buyer are ongoing. Therefore, the recoverability is verified by estimating assets' values-in-use. The valuation is carried out for individual assets or for the smallest identifiable group of assets that generates cash inflows that are largely independent from the cash inflows from other assets, or groups of assets (cash generating unit - CGU). The Group has identified the following CGUs: (i) in the Exploration & Production segment, individual oilfields or pools of oilfields when technical, economic or contractual features make underlying cash flows interdependent; (ii) in the Gas & Power segment, in addition to the CGUs to which goodwill arisen from business combinations was allocated, electricity generation plants, international pipelines and LNG vessels; (iii) in the Refining & Marketing business line, refining plants, retail networks and assets related to other distribution channels grouped by Country of operations and type of network (retail outlets located along ordinary routes and high-ways, wholesale facilities); and (iv) the Chemical business line has been assessed to be a single CGU.

The value-in-use is calculated by discounting the estimated future cash flows deriving from the continuing use of the CGUs and, if significant and reasonably determinable, the cash flows deriving from disposal at the end of their useful lives. Cash flows are determined based on the best information available at the time of the assessment. Cash flow projections for the first four years of each CGU evaluation are extracted from the Company's four-year plan adopted by the top management. The plan includes data points on expected Oil & Gas production volumes, sales volumes, capital expenditure, operating costs and margins and industrial and marketing set-up, as well as trends on the main macroeconomic variables, including inflation, nominal interest rates and exchange rates. The estimation of CGUs' terminal values is based on cash flow projections beyond the four-year plan horizon, which are estimated based on management's long-term assumptions regarding the main macroeconomic variables (inflation rates, commodity prices, etc.) and considering the expected useful lives of the Company's CGUs and certain assumptions regarding future trends in revenues and costs. In the case of the Oil & Gas CGUs, management assumed the residual life of the reserves and the associated projections of operating costs and development expenditures. The CGUs of the Refining & Marketing business line and power plants are evaluated based on the plant economic and technical life and the associated, normalized projections of operating costs and expenditures to support plant efficiency. The CGUs of the gas market business to which goodwill has been allocated are evaluated based on the perpetuity method of the last year-plan result assuming nominal growth rates equal to 0%. The terminal value of the Chemical business integrated CGU considers the economic useful lives of the underlying assets and factors a normalized EBITDA (to reflect the cyclicality of the sector) defined based on the average contribution margin of the plan.

In projecting future commodity prices, management assumed the price scenario adopted for the economic and financial projections of the Company's four-year industrial plans and for the assessment of capital projects returns. The Company's price scenario is approved by the Board of Directors and is based on internal assumptions about future trends in the fundamentals of demand and supply of crude oil and other commodities as benchmarked against the market consensus forecasts and on forward prices of commodities for future delivery in case the level of liquidity and reliability of future contracts is deemed fair.

Values-in-use is estimated by discounting post-tax cash flows at a rate, which corresponds for the Exploration & Production segment and Refining & Marketing business line to the Company's weighted average cost of capital (WACC) net of the risk factors attributable to the Gas & Power segment and the Chemical business line, the WACC of which is assessed on a stand-alone basis. Then specific discount rates are adjusted to factor in risks specific to each Country of activity (adjusted post-tax WACC). Post-tax cash flows and discount rates were adopted as they resulted in an assessment that substantially approximated a pre-tax assessment.

The framework of impairment indicators of exogenous origin remained substantially stable compared to the context relating to the assessments performed in the previous year.

In the final part of 2018, after touching a multi-year high at approximately 85 $/BBL, the Brent crude oil price made a sharp downturn driven by a slowdown in macroeconomic growth, oversupplies and uncertainties tied with the trade dispute between USA and China, the Brexit and local geopolitical crises. In spite of the remarkable correction in oil prices which declined by more than 20 $/BBL to close the year at approximately 60 $/BBL, based on the review of market fundamentals in the medium-long term which remain supportive of continued demand growth, as well as willingness on part of producers to maintain oil markets in balance and the market view of financial analysts and industry observers, management retained a long-term Brent price of 70 $/BBL in real terms 2022, substantially in line with the assumption made in the annual report 2017, on which basis management performed the 2018 assets impairment review and elaborated financial projections for the four-year plan 2019-2022. Prices of natural gas in Europe are projected to reach a higher level than in previous planning assumptions driven by an improved balance between gas demand and supplies supported by a continuing decline in continental mature fields production and the phase-out of nuclear and coal power plants. The SERM benchmark refining margin is projected unchanged from the previous plan at approximately 5 $/BBL in the long-term, based on expectations of continuing competitive pressures in Europe from cheaper products streams imported from USA and Middle East, the effects of which will be mitigated by enactment of stricter environmental regulations on the sulphur content of marine fuels effective from 2020. Projections of margins for the main petrochemicals commodities were scaled down due to management's expectations of continued competitive pressures in European markets from more competitive producers based in USA and Middle East and a slowdown in end markets. However, the projections of margins in the petrochemicals business determined only a modest reduction in the value-in-use of the Company's petrochemicals CGU because the impairment review is based on a normalized scenario which factors in the cyclicality of the industry.

Moreover, although at the balance sheet date the market capitalization of Eni was about 3% lower than the book value of consolidated net assets, this tendency registered a significant trend reversal and, at the date of approval of the Financial Statements by the Board of Directors, the market capitalization exceeded the book value by about 10%.

The management tested for impairment the totality of the Group's fixed assets as provided by the Company's internal guidelines.
The 2018 WACC of Eni, which is the driver for calculating the post-tax WACC of the Oil & Gas and refining business CGUs to assess their value-in-use, recorded an increase 0.5 percentage point to 7.3% compared to 2017. This increase was driven by the projections of higher risk-free yields that Eni's methodology links to ten-year Italian government bonds. The WACC used in the Gas & Power segment and the Chemical business, subject to separate valuation compared to the Eni's assessment, line resulted unchanged from 2017. The post-tax WACC rates for 2018 highlighted a certain dispersion of values compared to the mean, reflecting large differences in the country risk premiums which were affected by ongoing developments in each Country operating environment. The adjusted WACC rates used for impairment test purposes in 2018 ranged from 6.2% to 16.0% in the Exploration & Production segment.
In the Exploration & Production segment the Company recorded impairment losses before taxes for €1,025 million driven by a lower-than-expected performance at certain oilfields, particularly in Congo and USA, a deteriorated operating environment of a specific project and alignment to fair value of assets divested or held for sale in Croatia and Ecuador. These losses were partially offset by reversals of prior-year impairment losses for €299 million due to better gas prices in Europe and reduced country risk premiums in certain locations. The post-tax WACC relating to impairment losses/reversals of impairments of more than €100 million amounted to 6%, corresponding to pre-tax rates ranging from 6% to 9%.
In the Refining & Marketing business line the Company recorded impairment losses for €156 million related to the investments of the year for compliance and stay-in-business related to CGUs fully impaired in prior years for which profitability expectations have remained unchanged from the previous-year impairment review.
In the Gas & Power segment the Company recorded a reversals of impairment losses at a gas transportation asset for €66 million driven by a lower discount rate adjusted for the country risk. In the power business, reversals and impairments relating to each individual plant resulted offset.

14 | Investments

EQUITY-ACCOUNTED INVESTMENTS

	2018				2017			
(€ million)	Investments in unconsolidated entities controlled by Eni	Joint ventures	Associates	Total	Investments in unconsolidated entities controlled by Eni	Joint ventures	Associates	Total
Carrying amount - beginning of the year	**116**	**2,332**	**1,063**	**3,511**	**168**	**2,675**	**1,197**	**4,040**
Changes in accounting policies (IFRS 9 and 15)		(34)	(3)	(37)				
Carrying amount restated - beginning of the year	**116**	**2,298**	**1,060**	**3,474**	**168**	**2,675**	**1,197**	**4,040**
Additions and subscriptions		28	92	120		63	444	507
Divestments and reimbursements	(33)	(3)	(115)	(151)			(462)	(462)
Share of profit of equity-accounted investments	8	16	385	409	9	49	66	124
Share of loss of equity-accounted investments	(5)	(415)	(10)	(430)	(7)	(340)	(6)	(353)
Deduction for dividends	(6)	(19)	(25)	(50)	(32)	(41)	(13)	(86)
Changes in the scope of consolidation		3,448		3,448	2			2
Currency translation differences	2	25	54	81	(13)	(127)	(128)	(268)
Other changes	13	119	11	143	(11)	53	(35)	7
Carrying amount - end of the year	**95**	**5,497**	**1,452**	**7,044**	**116**	**2,332**	**1,063**	**3,511**

Acquisitions and share capital increases mainly related to: (i) the capital contribution to Coral FLNG SA (€48 million) which is engaged in the development of a floating production and storage unit of LNG in natural gas-rich Area 4, offshore Mozambique; (ii) the acquisition for €42 million of a 33.72% interest in Commonwealth Fusion System Llc (CFS), a company created as a spin-out of the Massachusetts Institute of Technology for the development of the technology of power generation from fusion.
Divestments and reimbursements related to the capital reimbursement of Angola LNG Ltd for €95 million.
The share of Eni's profit of equity-accounted entities related for €353 million to the equity result of Angola LNG Ltd, driven by a reversal of about €260 million of prior-year impairment losses of the LNG project. The economics of the project improved due to the favorable outcome of an arbitration proceeding which established the settlement of a contract to utilize the re-gasification terminal of Pascagoula owned by Gulf Energy Ltd, where the fees associated with the contract were previously discounted in the future cash flow of the upstream project and of the related downstream activity of gas marketing. The outcome of the arbitration led to the recognition of an equivalent expense through loss.
The accounting under the equity method of Saipem SpA resulted in a loss of €146 million due to the recognition by the investee of restructuring costs and impairment losses of assets. As of December 31, 2018, the book value of the investment in Saipem amounting to €1,228 million, which was aligned to the corresponding share of the net assets of the investee, exceeded by approximately 22% the fair value represented by the market capitalization of Saipem share. Considering this impairment indicator and ongoing uncertainties surrounding a recovery in the investing cycle of oil companies and competitive pressure in the E&C sector, management performed an impairment review of the investment to assess its recoverability based on an internal financial model of future

cash flows of Saipem estimated based on financial projections made by the sell-side analysts who cover the Saipem share, publicly available data on Saipem and the observed historical correlation which link the Saipem turnover to crude oil prices and spending in capital projects made by oil companies. This review supported the book value of the investment. At date of approval of the financial statements, the book value of the investment exceeded by approximately 23% the fair value represented by the market capitalization.
Share of losses of equity-accounted investments included a loss of €219 million accounted at the joint ventures with the Venezuelan state-owned company PDVSA, PetroJunín SA, (Eni's interest 40%) and Cardón IV SA (Eni's interest 50%), which are operating the onshore heavy-oil Junín field and the Perla gas field, respectively. The loss was driven by the de-booking of the project's undeveloped proved reserves (down by 106 million boe) due to a deteriorated operating environment, as required by the US SEC rules.
Deduction for dividends related for €24 million to United Gas Derivatives Co.
Other increases included for €3,498 million the initial recognition of Eni's participating interest in the joint venture Vår Energi AS (69.60%), which was established following the business combination between the former Eni subsidiary Eni Norge AS and Point Resources AS. The joint venture will be equity-accounted. The book value of the joint venture equals Eni's share of the fair values of the combined net assets.
Net carrying amount of equity-accounted investments related to the following:

	December 31, 2018		December 31, 2017	
(€ million)	Net carrying amount	% of the investment	Net carrying amount	% of the investment
Investments in unconsolidated entities controlled by Eni				
Eni BTC Ltd	31	100.00	63	100.00
Other investments(*)	64		53	
	95		**116**	
Joint ventures				
Vår Energi AS	3,498	69.60		
Saipem SpA	1,228	30.99	1,413	31.00
Unión Fenosa Gas SA	335	50.00	350	50.00
Gas Distribution Company of Thessaloniki-Thessaly SA	137	49.00	137	49.00
Cardón IV SA	98	50.00		
Lotte Versalis Elastomers Co Ltd	75	50.00	114	50.00
PetroJunín SA	47	40.00	210	40.00
AET - Raffineriebeteiligungsgesellschaft mbH	32	33.33	32	33.33
Other investments(*)	47		76	
	5,497		**2,332**	
Associates				
Angola LNG Ltd	1,106	13.60	802	13.60
Coral FLNG SA	102	25.00	54	25.00
Novamont SpA	67	25.00	71	25.00
United Gas Derivatives Co	62	33.33	82	33.33
Commonwealth Fusion Systems Llc	42	33.72		
Other investments(*)	73		54	
	1,452		**1,063**	
	7,044		**3,511**	

(*) Each individual amount included herein was lower than €25 million.

Results of equity-accounted investments by segment are disclosed in note 35 – Segment information and information by geographical area.
The carrying amounts of equity-accounted investments included differences between the purchase price of acquired interests and their underlying book value of net assets amounting to €58 million, related to Novamont SpA for €43 million and Unión Fenosa Gas SA for €15 million. These surpluses were driven by the long-term profitability outlook of the acquired companies at the time of the acquisition.
As of December 31, 2018, the market value of the investments listed in regulated stock markets was as follows:

(€ million)	Saipem SpA
Number of shares held	308,767,968
% of the investment	30.99
Share price (€)	3.265
Market value (€ million)	1,008
Book value (€ million)	1,228

Additional information is included in note 37 – Other information about investments.

OTHER INVESTMENTS

(€ million)	December 31, 2018	December 31, 2017
Carrying amount - beginning of the year	**219**	**276**
Changes in accounting policies (IFRS 9)	681	
Carrying amount restated - beginning of the year	**900**	**276**
Additions and subscriptions	5	3
Change in the fair value	15	
Divestments and reimbursements	(22)	(19)
Currency translation differences	31	(23)
Other changes	(10)	(18)
Carrying amount - end of the year	**919**	**219**

In applying IFRS 9, minor investments were recognized at fair value resulting in an asset write-up of €681 million as of January 1, 2018. Those investments in equity instruments were previously accounted for under IAS 39 which permitted entities to measure unquoted investments in equity instruments at cost if their fair value could not be determined reliably. This increase related to: (i) Nigeria LNG Ltd for €511 million (carrying amount of €99 million at December 31, 2017). The investment book value as of December 31, 2018 was €651 million net of the dividends paid in the year; (ii) Saudi European Petrochemical Co "IBN ZAHR" for €130 million (carrying amount of €13 million at December 31, 2017). The investment book value as at December 31, 2018 was €144 million net of the dividends paid in the year.
The fair value of the main non-controlling interests in unquoted undertakings, classified within level 3 of the fair value hierarchy, was estimated based on a methodology that combines expected additional earnings and sum-of-the-parts measurements (so-called residual income approach) and takes into account, inter alia, the following inputs: (i) expected results, as a gauge of the future profitability of the investees, derived from the business plans, but adjusted, where appropriate, to include the assumptions that market participants would incorporate; (ii) the cost of capital, adjusted to include the risk premium of the specific Country in which each investee operates. Changes of 1% of the cost of capital considered in the valuation do not produce significant changes at the fair value evaluation.
Dividends paid by those investments are disclosed in note 31 – Income (expense) from investments.
Investments in subsidiaries, joint arrangements and associates as of December 31, 2018 are presented in the annex "List of companies owned by Eni SpA as of December 31, 2018". This annex includes also the changes in the scope of consolidation.

15 | Other financial assets

	December 31, 2018		December 31, 2017	
(€ million)	Current	Non-current	Current	Non-current
Long-term financing receivables held for operating purposes	61	1,189	23	1,602
Long-term financing receivables held for operating purposes	51		84	
	112	**1,189**	**107**	**1,602**
Financing receivables held for non-operating purposes	188		209	
	300	**1,189**	**316**	**1,602**
Securities held for operating purposes		64		73
	300	**1,253**	**316**	**1,675**

Financing receivables are stated net of allowance for doubtful accounts as follows:

(€ million)	Allowance for doubtful accounts of financing receivables
Carrying amount at December 31, 2017	**730**
Additions	279
Deductions	(596)
Currency translation differences	17
Carrying amount at December 31, 2018	**430**

Financing receivables held for operating purposes of €1,301 million (€1,709 million at December 31, 2017) related principally to funds provided to joint ventures and associates in the Exploration & Production segment (€1,075 million) and the Gas & Power segment (€103 million). The greatest exposure is towards the joint venture Cardón IV SA (Eni's interest 50%) in Venezuela, which is currently operating the Perla offshore gas field, for €705 million at December 31, 2018 (€955 million at December 31, 2017). The recoverability of those assets was assessed considering the performance of the industrial initiatives financed, in addition to other factors.

Financing receivables held for operating purposes due beyond five years amounted to €1,088 million (€1,393 million at December 31, 2017).

The fair value of non-current financing receivables held for operating purposes of €1,188 million has been estimated based on the present value of expected future cash flows discounted at rates ranging from -0.2% to 2.9% (-0.2% and 2.5% at December 31, 2017). This valuation methodology does not apply to assess the recoverability of the financial loan granted to the joint venture Cardón IV SA to fund the development projects carried out by the venture, which can be assimilated to net capital employed. The recoverability of this financing loans depends on the future cash flows of the industrial project, which are exposed to a credit risk given the difficult financial condition of Venezuela. In assessing the recoverability of the loan, management carried out an appreciation of the risk to convert in cash the project future revenues by projecting a deferral in the timing of revenues collection and discounting the resulting future cash flows at a rate adjusted for the country risk that factors in the deteriorated operating environment of the Country. The outcomes of the assessment confirmed the carrying amount of the financial loan.

The recoverability of other long-term financial assets was assessed by considering the expected probability default in the next twelve months only, as the creditworthiness suffered no significant deterioration in the reporting period.

Additions to the allowance for doubtful accounts related to a loss taken at a financing receivable granted to a joint venture in Russia engaged in the execution of an exploratory project in the Black Sea due to the unsuccessful outcome of the initiative.

Financing receivables held for non-operating purposes related to bank deposits with the purpose to invest cash surpluses and restricted deposits in escrow to guarantee transactions on derivative contracts.

Financing receivables held for operating purposes were denominated in euro and US dollar for €188 million and € 1,299 million, respectively.

Securities held for operating purpose related to listed bonds issued by sovereign states (listed bonds issued by sovereign states for €69 million and by the European Investment Bank for €4 million at December 31, 2017).

Securities for €20 million (same amount as of December 31, 2017) were pledged as guarantee of the deposit for gas cylinders as provided for by the Italian law.

The following table analyses securities per issuing entity:

	Amortized cost (€ million)	Nominal value (€ million)	Fair value (€ milioni)	Nominal rate of return %	Maturity date	Rating - Moody's	Rating - S&P
Sovereign states							
Fixed rate bonds							
Italy	24	24	25	from 0.20 to 4.75	from 2019 to 2025	Baa3	BBB
Others(*)	29	29	29	from 0.05 to 4.40	from 2019 to 2023	from Aa3 to Baa1	from AA to A-
Floating rate bonds							
Italy	8	8	8		from 2019 to 2020	Baa3	BBB
Others(*)	3	3	3		2022	Baa3	BBB-
Total sovereign states	**64**	**64**	**65**				

(*) Amounts included herein are lower than €25 million.

Securities having a maturity within five years amounted to €63 million.

The fair value of securities was derived from quoted market prices.

Receivables with related parties are described in note 36 – Transactions with related parties.

16 | Trade and other payables

As of January 1, 2018, the effects of the application of IFRS 15 are the following:

(€ million)	Trade payables	Down payments and advances from customers	Down payments and advances from joint venture partners in Exploration & Production	Other payables	Trade and other payables
Carrying amount at December 31, 2017	**10,890**	**545**	**252**	**5,061**	**16,748**
Changes in accounting principles (IFRS 15)				(113)	(113)
Reclassification to other current liabilities (IFRS 15)		(545)		(785)	(1,330)
Carrying amount at January 1, 2018	**10,890**		**252**	**4,163**	**15,305**

The application of IFRS 15 determined a decrease in the stated amount of payables recognized in connection with lifting imbalances in the Exploration & Production segment for €113 million in application of the sales method in lieu of the entitlement method.
The reclassification to other current liabilities (IFRS 15) related to: (i) lifting imbalances of the Exploration & Production segment recognized by using the sales method for €785 million; (ii) down payments and advances from customers reclassified as liabilities from contracts with customers.
More information about the application of IFRS 9 and IFRS 15 is reported in note 3 – Changes in accounting policies.
The breakdown of trade and other payables is the following:

(€ million)	December 31, 2018	December 31, 2017
Trade payables	11,645	10,890
Down payments and advances from customers		545
Down payments and advances from partners in Exploration & Production activities	207	252
Payables for purchase of non-current assets	2,530	2,094
Payables due to partners in Exploration & Production activities	1,151	1,968
Other payables	1,214	999
	16,747	**16,748**

Trade payables were denominated in euro for €6,484 million and in US dollar for €9,403 million.
Because of the short-term maturity and conditions of remuneration of trade payables, the fair values approximated the carrying amounts.
Payables due to related parties are described in note 36 – Transactions with related parties.

17 | Other liabilities

	December 31, 2018		December 31, 2017	
(€ million)	Current	Non-current	Current	Non-current
Fair value of derivatives financial instruments	1,445	40	1,011	91
Liabilities from contracts with customers	1,108	518		
Cautionary deposits		268		255
Other liabilities	1,427	676	504	1,133
	3,980	**1,502**	**1,515**	**1,479**

In applying IFRS 15: (i) liabilities from contracts with customers included the reclassification as of January 1, 2018, from the item Trade and other liabilities of down payments and advances from customers of €545 million; (ii) other current liabilities included the reclassification as of January 1, 2018, from the item Trade and other receivables of the lifting imbalances in the Exploration & Production

segment for €785 million following the adoption of the sales method. Fair value related to derivative financial instruments is disclosed in note 23 – Derivative financial instruments and hedge accounting.
Liabilities from contracts with customer of €1,626 million included: (i) advances denominated in local currency of €716 million relating to future supplies of equity hydrocarbons to our Egyptian State-owned partners in relation to the operations of Eni's Concession Agreements in the Country for the next four-year period and in particular, among these, the Zohr project; (ii) the current portion of advances received by Engie SA (former Suez) relating to a long-term agreement for supplying natural gas and electricity for €66 million; the non-current portion amounted to €518 million.

Cautionary deposits related to deposits from retail customers for the supply of gas and electricity of €233 million (€215 million at December 31, 2017).
Other current liabilities included overlifting imbalances of the Exploration & Production segment for €1,004 million.

Other non-current liabilities included tax liabilities for €61 million (€45 million at December 31, 2017) and other debts for €155 million (€45 million at December 31, 2017).

Transactions with related parties are described in note 36 – Transactions with related parties.

18 | Financial liabilities

	December 31, 2018				December 31, 2017			
(€ million)	Short-term debt	Current portion of long-term debt	Long-term debt	Total	Short-term debt	Current portion of long-term debt	Long-term debt	Total
Banks	383	768	2,710	**3,861**	201	801	3,200	**4,202**
Ordinary bonds		2,781	16,923	**19,704**		1,445	16,520	**17,965**
Convertible bonds			390	**390**			387	**387**
Commercial papers	915			**915**	1,664			**1,664**
Other financial institutions	884	52	59	**995**	377	40	72	**489**
	2,182	**3,601**	**20,082**	**25,865**	**2,242**	**2,286**	**20,179**	**24,707**

Financial liabilities included an increase of €1,158 million driven by: (i) new issuances net of repayments made of €320 million; (ii) currency translation differences relating to companies having debt denominated in currency other than the functional currency for €314 million (iii) the de-recognition of Eni Norge AS cash and cash equivalents for €494 million due to the loss of control on the former subsidiary, which were deposited at the Group's financial companies.
Commercial papers were issued by the Group's financial subsidiaries.
The following table reflects long-term debt and current portion of long-term debt as of December 31, 2018 by maturity:

(€ million)	2020	2021	2022	2023	After	Total
Banks	556	345	393	829	587	2,710
Ordinary bonds	2,391	921	698	1,858	11,055	16,923
Convertible bonds			390			390
Other financial institutions	9	10	9	11	20	59
	2,956	**1,276**	**1,490**	**2,698**	**11,662**	**20,082**

Eni entered into long-term borrowing facilities with the European Investment Bank. These borrowing facilities are subject to the maintenance of a minimum level of credit rating. According to the agreements, should the Company lose the minimum credit rating, new guarantees could be required to be agreed upon with the European Investment Bank. In addition, Eni entered into long and medium-term facilities subject to the maintenance of certain financial ratios based on the Consolidated Financial Statements of Eni with Citibank Europe Plc, whose non-compliance allows the bank to request an early repayment. At December 31, 2018, debts subjected to restrictive covenants amounted to €1,337 million (€1,664 million at December 31, 2017). Eni was in compliance with those covenants.
Ordinary bonds consisted of bonds issued within the Euro Medium Term Notes Program for a total of €16,904 million and other bonds for a total of €2,800 million.

The following table provides a breakdown of ordinary bonds by issuing entity, maturity date, interest rate and currency as of December 31, 2018:

(€ million)	Amount	Discount on bond issue and accrued expense	Total	Currency	Maturity from	Maturity to	Rate % from	Rate % to
Issuing entity								
Euro Medium Term Notes								
Eni SpA	1,500	17	1,517	EUR		2019		4.125
Eni SpA	1,200	16	1,216	EUR		2025		3.750
Eni SpA	1,000	38	1,038	EUR		2020		4.250
Eni SpA	1,000	27	1,027	EUR		2029		3.625
Eni SpA	1,000	19	1,019	EUR		2020		4.000
Eni SpA	1,000	9	1,009	EUR		2023		3.250
Eni SpA	1,000	8	1,008	EUR		2026		1.500
Eni SpA	900	(5)	895	EUR		2024		0.625
Eni SpA	800	2	802	EUR		2021		2.625
Eni SpA	800	(1)	799	EUR		2028		1.625
Eni SpA	750	14	764	EUR		2019		3.750
Eni SpA	750	8	758	EUR		2024		1.750
Eni SpA	750	5	755	EUR		2027		1.500
Eni SpA	700	1	701	EUR		2022		0.750
Eni SpA	650	2	652	EUR		2025		1.000
Eni SpA	600	(5)	595	EUR		2028		1.125
Eni Finance International SA	335	15	350	GBP	2019	2021	4.750	5.000
Eni Finance International SA	295	4	299	EUR	2028	2043	3.875	5.441
Eni Finance International SA	167		167	YEN	2019	2037	1.955	2.810
Eni Finance International SA	1,528	5	1,533	USD	2026	2027		variable
	16,725	**179**	**16,904**					
Other bonds								
Eni SpA	873	2	875	USD		2023		4.000
Eni SpA	873	1	874	USD		2028		4.750
Eni SpA	393	4	397	USD		2020		4.150
Eni SpA	305	1	306	USD		2040		5.700
Eni USA Inc	349	(1)	348	USD		2027		7.300
	2,793	**7**	**2,800**					
	19,518	**186**	**19,704**					

As of December 31, 2018, ordinary bonds maturing within 18 months amounted to €4,596 million. During 2018, new bonds issued amounted to €2,844 million. The following table provides a breakdown of convertible bonds issued by Eni SpA as of December 31, 2018:

(€ million)	Amount	Discount on bond issue and accrued expense	Total	Currency	Maturity	Rate %
Eni SpA	400	(10)	390	EUR	2022	0.000

The non-dilutive equity-linked bond issued provides for by a redemption value linked to the market price of Eni's shares. The bondholders have "conversion" rights at certain times and/or in the presence of certain events, while the bonds will be cash-settled. Accordingly, to hedge its exposure, Eni purchased cash-settled call options relating to Eni shares that will be settled on a net cash basis. The convertible bond is measured at amortized cost. The conversion option, embedded in the financial instrument issued, and the call option on Eni's shares acquired are valued at fair value with effects recognized through profit and loss.

Eni has in place a program for the issuance of Euro Medium Term Notes up to €20 billion, of which €16.7 billion were drawn as of December 31, 2018.

The following table provides a breakdown by currency of long-term debt, its current portion and the related weighted average interest rates:

	December 31, 2018				December 31, 2017			
	Short term debt (€ million)	Average rate (%)	Long term debt and current portion of long-term debt (€ million)	Average rate (%)	Short term debt (€ million)	Average rate (%)	Long term debt and Short-term portion of long-term debt (€ million)	Average rate (%)
Euro	680	1.9	18,635	2.3	904	0.5	20,094	2.4
US dollar	1,007	2.5	4,530	4.3	1,329	1.8	1,694	4.8
Other currencies	495	1.0	518	4.2	9	(0.7)	677	4.7
Total	**2,182**		**23,683**		**2,242**		**22,465**	

As of December 31, 2018, Eni retained undrawn uncommitted borrowing facilities amounting to €12,484 million (€11,584 million at December 31, 2017) and undrawn long-term committed borrowing facilities of €5,214 million (€5,802 million at December 31, 2017).

Those facilities bore interest rates reflecting prevailing conditions on the marketplace.

Fair value of long-term debt, including the current portion of long-term debt is described below:

(€ million)	December 31, 2018	December 31, 2017
Ordinary bonds	20,257	19,219
Convertible bonds	399	410
Banks	3,445	4,021
Other financial institutions	111	114
	24,212	**23,764**

Fair value of financial debt was calculated by discounting the expected future cash flows at discount rates ranging from -0.2% to 2.9% (-0.2% and 2.5% at December 31, 2017).

Because of the short-term maturity and conditions of remuneration of short-term debts, the fair value approximated the carrying amount.

Changes in borrowings are provided below:

(€ million)	Long-term debt and current portion of long-term debt	Short-term debt	Total
Carrying amount at December 31, 2017	**22,465**	**2,242**	**24,707**
Cash flows	1,033	(713)	320
Currency translation differences	126	188	314
Changes in the scope of consolidation		494	494
Other non-monetary changes	59	(29)	30
Carrying amount at December 31, 2018	**23,683**	**2,182**	**25,865**

Transactions with related parties are described in note 36 – Transactions with related parties.

19 | Information on net borrowings

The analysis of net borrowings, as defined in the "Financial Review", was as follows:

	December 31, 2018			December 31, 2017		
(€ million)	Current	Non-current	Total	Current	Non-current	Total
A. Cash and cash equivalents	10,836		10,836	7,363		7,363
B. Held-for-trading financial assets	6,552		6,552	6,012		6,012
C. Available-for-sale financial assets				207		207
D. Liquidity (A+B+C)	**17,388**		**17,388**	**13,582**		**13,582**
E. Financing receivables	**188**		**188**	**209**		**209**
F. Short-term debt towards banks	383		383	201		201
G. Long-term debt towards banks	768	2,710	3,478	801	3,200	4,001
H. Bonds	2,781	17,313	20,094	1,445	16,907	18,352
I. Short-term debt towards related parties	661		661	164		164
L. Other short-term liabilities	1,138		1,138	1,877		1,877
M. Other long-term liabilities	52	59	111	40	72	112
N. Total borrowings (F+G+H+I+L+M)	**5,783**	**20,082**	**25,865**	**4,528**	**20,179**	**24,707**
O. Net borrowings (N-D-E)	**(11,793)**	**20,082**	**8,289**	**(9,263)**	**20,179**	**10,916**

Financial assets held for trading are disclosed in note 6 – Financial assets held for trading.

Current financing receivables are disclosed in note 15 – Other financial assets.

20 | Provisions for contingencies

(€ million)	Provision for site restoration, abandonment and social projects	Environmental provision	Provision for litigations	Provision for taxes	Loss adjustments and actuarial provisions for Eni's insurance companies	Provision for losses on investments	Provision for OIL insurance cover	Provision for redundancy incentives	Provision for disposal and restructuring	Provision for onerous contracts	Other(*)	Total
Carrying amount at December 31, 2017	**8,126**	**2,653**	**1,107**	**527**	**205**	**182**	**76**	**140**	**65**	**60**	**306**	**13,447**
New or increased provisions		299	148	73	493	48	51	9	19		223	1,363
Initial recognition and changes in estimates	(502)											(502)
Accretion discount	259	(12)	2									249
Reversal of utilized provisions	(190)	(287)	(214)	(118)	(481)			(17)	(14)	(22)	(100)	(1,443)
Reversal of unutilized provisions		(33)	(289)	(31)		(1)		(17)			(18)	(389)
Changes in the scope of consolidation	(1,024)	(11)	(1)	(8)				(5)			(2)	(1,051)
Currency translation differences	153		34	17		2					4	210
Other changes	(45)	(14)	37	(20)	110	(27)	3	(2)	(4)		(36)	2
Carrying amount at December 31, 2018	**6,777**	**2,595**	**824**	**440**	**327**	**204**	**130**	**108**	**66**	**38**	**377**	**11,886**

(*) Each individual amount included herein was lower than €50 million.

The Group makes full provision for the future costs of decommissioning oil and natural gas wells, facilities and related pipelines on a discounted basis upon installation. The decommissioning provisions, included the discounted estimated costs that the Company expects to incur for decommissioning oil and natural gas production facilities at the end of the producing lives of fields, well-plugging, abandonment and site restoration of the Exploration & Production segment for €6,266 million. Estimate revisions of €502 million were driven by an increase in the discount rate curve in particular for the US dollar. Such increase was partially offset by the recognition of new decommissioning obligations due to the activity of the year and upward revisions of cost estimates. The unwinding of discount recognized through profit and loss for €259 million was determined based on discount rates ranging from -0.2% to 6.1% (from -0.01% to 5.98% at December 31, 2017). Main expenditures associated with

decommissioning operations are expected to be incurred over a 45-year period.
Provisions for environmental risks included the estimated costs for environmental clean-up and remediation of soil and groundwater in areas owned or under concession where the Group performed in the past industrial operations that were progressively divested, shut down, dismantled or restructured. The provision was accrued because at the balance sheet date there is a legal or constructive obligation for Eni to carry out environmental clean-up and remediation and the expected costs can be estimated reliably. The provision included the expected charges associated with strict liability related to obligations of cleaning up and remediating polluted areas that met the parameters set by the law at the time when the pollution occurred, or because Eni assumed the liability borne by other operators when the Company acquired or otherwise took over site operations. Those environmental provisions are recognized when an environmental project is approved by or filed with the relevant administrative authorities or a constructive obligation has arisen whereby the Company commits itself to performing certain cleaning-up and restoration projects and a reliable cost estimation is available. At December 31, 2018, environmental provision primarily related to Syndial SpA for €2,009 million and to the Refining & Marketing business line for €348 million.
The litigation provision comprised the expected liabilities associated with legal proceedings and other matters arising from contractual claims, contract renegotiations, including arbitration, fines and penalties due to antitrust proceedings and administrative matters. These provisions represented the Company's best estimate of the expected, probable liabilities associated with pending litigation and commercial disputes and primarily related to the Exploration & Production segment for €653 million. Utilizations of €503 million mainly related to the definition of a price revision relating to a gas sale contract with a long-term buyer, the effect of which was compensated by the reduction of the receivable due by the gas supplier recognized in other non-current assets.
Provisions for taxes included the estimated charges that the Company expects to incur to settle uncertain tax matters and tax claims from authorities in connection the application of current tax rules at certain Italian and non-Italian subsidiaries in the Exploration & Production segment (€397 million).
Loss adjustments and actuarial provisions of Eni's insurance company Eni Insurance DAC represented the estimated liabilities accrued on the basis for third parties claims. Against such liability was recorded receivables of €236 million recognized towards insurance companies for reinsurance contracts.
Provisions for losses on investments included provisions relating to investments whose loss exceeds the equity and primarily related to Industria Siciliana Acido Fosforico - ISAF - SpA (in liquidation) for €114 million.
Provisions for the OIL mutual insurance scheme included the estimated future increase of insurance premiums which will be charged to Eni in the next five years and that accrued at the reporting date because of the effective accident rate occurred in past reporting periods.
Provisions for redundancy incentives were recognized due to a restructuring program involving the Italian personnel related to past reporting periods.

21 | Provisions for employee benefits

(€ million)	December 31, 2018	December 31, 2017
Italian defined benefit plans	275	284
Foreign defined benefit plans	385	409
FISDE, foreign medical plans and other	148	135
Defined benefit plans	**808**	**828**
Other benefit plans	309	194
Provision for employee benefits	**1,117**	**1,022**

The liability relating to Eni's commitment to cover the healthcare costs of personnel is determined on the basis of the contributions paid by the Company.
Other employee benefit plans related to deferred monetary incentive plans for €136 million, the isopensione plans of Eni gas e luce SpA for €132 million, jubilee awards for €22 million, long-term incentive plan still outstanding for €8 million and other long-term plans for €11 million.

Present value of employee benefits, estimated by applying actuarial techniques, consisted of the following:

	December 31, 2018						December 31, 2017					
(€ million)	Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Defined benefit plans	Other benefit plans	Total	Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Defined benefit plans	Other benefit plans	Total
Present value of benefit liabilities at beginning of year	**284**	**997**	**135**	**1,416**	**194**	**1,610**	**298**	**895**	**136**	**1,329**	**158**	**1,487**
Current cost		27	2	29	42	71		24	2	26	54	80
Interest cost	4	31	2	37	1	38	3	29	2	34	1	35
Remeasurements:	1	(25)	13	(11)	30	19	(6)	54	(1)	47	3	50
- actuarial (gains) losses due to changes in demographic assumptions								*(14)*		*(14)*		*(14)*
- actuarial (gains) losses due to changes in financial assumptions		*(31)*	*1*	*(30)*	*29*	*(1)*	*(5)*	*71*		*66*	*3*	*69*
- experience (gains) losses	*1*	*6*	*12*	*19*	*1*	*20*	*(1)*	*(3)*	*(1)*	*(5)*		*(5)*
Past service cost and (gains) losses settlements		2	1	3	115	118		(1)	2	1	28	29
Plan contributions:								1		1		1
- employee contributions		*1*		*1*		*1*		*1*		*1*		*1*
Benefits paid	(15)	(35)	(9)	(59)	(74)	(133)	(10)	(37)	(6)	(53)	(36)	(89)
Reclassification to asset held for sale		(8)		(8)		(8)		(12)		(12)	(2)	(14)
Changes in the scope of consolidation		(90)		(90)	(2)	(92)	(1)	(15)	(1)	(17)	(3)	(20)
Currency translation differences and other changes	1	26	4	31	3	34		59	1	60	(9)	51
Present value of benefit liabilities at end of year (a)	**275**	**925**	**148**	**1,348**	**309**	**1,657**	**284**	**997**	**135**	**1,416**	**194**	**1,610**
Plan assets at beginning of year		**588**		**588**		**588**		**619**		**619**		**619**
Interest income		17		17		17		20		20		20
Return on plan assets		(21)		(21)		(21)		12		12		12
Plan contributions:		25		25		25		24		24		24
- employee contributions		*1*		*1*		*1*		*1*		*1*		*1*
- employer contributions		*24*		*24*		*24*		*23*		*23*		*23*
Benefits paid		(26)		(26)		(26)		(25)		(25)		(25)
Changes in the scope of consolidation		(64)		(64)		(64)		(15)		(15)		(15)
Currency translation differences and other changes		26		26		26		(47)		(47)		(47)
Plan assets at end of year (b)		**545**		**545**		**545**		**588**		**588**		**588**
Asset ceiling at beginning of year												
Change in asset ceiling		5		5		5						
Asset ceiling at end of year (c)		**5**		**5**		**5**						
Net liability recognized at end of year (a-b+c)	**275**	**385**	**148**	**808**	**309**	**1,117**	**284**	**409**	**135**	**828**	**194**	**1,022**

Employee benefit plans included the liability attributable to partners operating in exploration and production activities of €181 million (€177 million at December 31, 2017). Eni recorded a receivable for an amount equivalent to such liability.

Costs charged to the profit and loss account consisted of the following:

(€ million)	Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Defined benefit plans	Other benefit plans	Total
2018						
Current cost		27	2	29	42	71
Past service cost and (gains) losses on settlements		2	1	3	115	118
Interest cost (income), net:						
- interest cost on liabilities	*4*	*31*	*2*	*37*	*1*	*38*
- interest income on plan assets		*(17)*		*(17)*		*(17)*
Total interest cost (income), net	4	14	2	20	1	21
- of which recognized in "Payroll and related cost"					*1*	*1*
- of which recognized in "Financial income (expense)"	*4*	*14*	*2*	*20*		*20*
Remeasurements for long-term plans					30	30
Total	**4**	**43**	**5**	**52**	**188**	**240**
- of which recognized in "Payroll and related cost"		*29*	*3*	*32*	*188*	*220*
- of which recognized in "Financial income (expense)"	*4*	*14*	*2*	*20*		*20*
2017						
Current cost		24	2	26	54	80
Past service cost and (gains) losses on settlements		(1)	2	1	28	29
Interest cost (income), net:						
- interest cost on liabilities	*3*	*29*	*2*	*34*	*1*	*35*
- interest income on plan assets		*(20)*		*(20)*		*(20)*
Total interest cost (income), net	3	9	2	14	1	15
- of which recognized in "Payroll and related cost"					*1*	*1*
- of which recognized in "Financial income (expense)"	*3*	*9*	*2*	*14*		*14*
Remeasurements for long-term plans					3	3
Total	**3**	**32**	**6**	**41**	**86**	**127**
- of which recognized in "Payroll and related cost"		*23*	*4*	*27*	*86*	*113*
- of which recognized in "Financial income (expense)"	*3*	*9*	*2*	*14*		*14*

Costs of defined benefit plans recognized in other comprehensive income consisted of the following:

	2018				2017			
(€ million)	Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Total	Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Total
Remeasurements								
Actuarial (gains)/losses due to changes in demographic assumptions						(14)		(14)
Actuarial (gains)/losses due to changes in financial assumptions		(31)	1	(30)	(5)	71		66
Experience (gains) losses	1	6	12	19	(1)	(3)	(1)	(5)
Return on plan assets		21		21		(12)		(12)
Change in asset ceiling		5		5				
	1	**1**	**13**	**15**	**(6)**	**42**	**(1)**	**35**

Plan assets consisted of the following:

(€ million)	Cash and cash equivalents	Equity securities	Debt securities	Real estate	Derivatives	Investment funds	Assets held by insurance company	Other	Total
December 31, 2018									
Plan assets with a quoted market price	115	37	238	6	2	56	18	70	542
Plan assets without a quoted market price							3		3
	115	**37**	**238**	**6**	**2**	**56**	**21**	**70**	**545**
December 31, 2017									
Plan assets with a quoted market price	16	48	329	10	9	60	13	100	585
Plan assets without a quoted market price							3		3
	16	**48**	**329**	**10**	**9**	**60**	**16**	**100**	**588**

The main actuarial assumptions used in the measurement of the liabilities at year-end and in the estimate of costs expected for 2019 consisted of the following:

(%)		Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Other long-term benefit plans
2018					
Discount rate		1.5	0.8-18.0	1.5	0.2-1.5
Rate of compensation increase		2.5	1.5-16.5		
Rate of price inflation		1.5	0.8-16.0	1.5	1.5
Life expectations on retirement at age 65	(years)		13-25	24	
2017					
Discount rate		1.5	0.6-15.5	1.5	0.0-1.5
Rate of compensation increase		2.5	1.5-13.5		
Rate of price inflation		1.5	0.6-14.8	1.5	1.5
Life expectations on retirement at age 65	(years)		13-24	24	

The following is an analysis by geographical area related to the main actuarial assumptions used in the valuation of the principal foreign defined benefit plans:

(%)		Euro area	Rest of Europe	Africa	Other areas	Foreign defined benefit plans
2018						
Discount rate		1.5-1.9	0.8-2.9	3.7-18.0	8.0-13.3	**0.8-18.0**
Rate of compensation increase		1.5-3.0	2.5-3.8	5.0-16.5	10.0-13.3	**1.5-16.5**
Rate of price inflation		1.5-2.0	0.8-3.3	3.7-16.0	3.5-5.0	**0.8-16.0**
Life expectations on retirement at age 65	(years)	21-22	23-25	13-17		**13-25**
2017						
Discount rate		1.5-1.8	0.6-2.5	3.7-15.5	4.1-8.0	**0.6-15.5**
Rate of compensation increase		1.5-3.0	2.5-3.7	5.0-13.5	1.5-10.0	**1.5-13.5**
Rate of price inflation		1.5-1.9	0.6-3.4	3.7-14.8	1.5-4.8	**0.6-14.8**
Life expectations on retirement at age 65	(years)	21-24	22-24	13-17		**13-24**

The effects of a possible change in the main actuarial assumptions at the end of the year are listed below:

(€ million)	Discount rate		Rate of price inflation	Rate of increases in pensionable salaries	Healthcare cost trend rate	Rate of increases to pensions in payment
	0.5% Increase	0.5% Decrease	0.5% Increase	0.5% Increase	0.5% Increase	0.5% Increase
December 31, 2018						
Italian defined benefit plans	(12)	13	8			
Foreign defined benefit plans	(58)	65	23	15		18
FISDE, foreign medical plans and other	(7)	8			6	
Other benefit plans	(5)	3	1			
December 31, 2017						
Italian defined benefit plans	(13)	14	9			
Foreign defined benefit plans	(72)	79	24	20		13
FISDE, foreign medical plans and other	(7)	7			7	
Other benefit plans	(3)	1	1			

The sensitivity analysis was performed based on the results for each plan through assessments calculated considering modified parameters.
The amount of contributions expected to be paid for employee benefit plans in the next year amounted to €129 million, of which €48 million related to defined benefit plans.
The following is an analysis by maturity date of the liabilities for employee benefit plans and their relative weighted average duration:

(€ million)		Italian defined benefit plans	Foreign defined benefit plans	FISDE, foreign medical plans and other	Other benefit plans
December 31, 2018					
2019		15	54	9	81
2020		16	56	7	72
2021		18	63	6	67
2022		14	64	6	20
2023		11	74	6	17
2024 and thereafter		201	74	114	57
Weighted average duration	**(years)**	**10.1**	**17.4**	**12.8**	**2.6**
December 31, 2017					
2018		16	47	7	64
2019		17	65	7	58
2020		18	70	6	45
2021		17	79	6	7
2022		14	84	6	5
2023 and thereafter		202	64	103	25
Weighted average duration	**(years)**	**10.1**	**17.5**	**12.8**	**2.8**

22 | Deferred tax assets and liabilities

(€ million)	December 31, 2018	December 31, 2017
Deferred tax liabilities, gross	7,956	10,169
Deferred tax assets available for offset	(3,684)	(4,269)
Deferred tax liabilities	**4,272**	**5,900**
Deferred tax assets, gross (net of accumulated write-down provisions)	7,615	8,347
Deferred tax liabilities available for offset	(3,684)	(4,269)
Deferred tax assets	**3,931**	**4,078**

The most significant temporary differences giving rise to net deferred tax liabilities are disclosed below:

(€ million)	Carrying amount at December 31, 2018	Carrying amount at December 31, 2017
Deferred tax liabilities		
Accelerated tax depreciation	6,612	8,323
Difference between the fair value and the carrying amount of assets acquired	849	1,106
Site restoration and abandonment (tangible assets)	85	305
Application of the weighted average cost method in evaluation of inventories	44	70
Other	366	365
	7,956	**10,169**
Deferred tax assets, gross		
Carry-forward tax losses	(5,528)	(5,240)
Site restoration and abandonment (provisions for contingencies)	(1,986)	(2,747)
Timing differences on depreciation and amortization	(2,104)	(2,164)
Accruals for impairment losses and provisions for contingencies	(1,460)	(1,404)
Impairment losses	(792)	(801)
Over/Under lifting	(604)	(395)
Employee benefits	(212)	(194)
Unrealized intercompany profits	(124)	(130)
Other	(546)	(534)
	(13,356)	**(13,609)**
Accumulated write-downs of deferred tax assets	**5,741**	**5,262**
Deferred tax assets, net	**(7,615)**	**(8,347)**

The following table summarizes the changes in deferred tax liabilities and assets:

(€ million)	Deferred tax liabilities	Deferred tax assets, gross	Accumulated write-downs of deferred tax assets	Deferred tax assets, net of impairments
2018				
Carrying amount - beginning of the year	**10,169**	**(13,609)**	**5,262**	**(8,347)**
Changes in accounting principles (IFRS 15)	37	(237)		(237)
Carrying amount restated - beginning of the year	**10,206**	**(13,846)**	**5,262**	**(8,584)**
Additions	1,147	(1,478)	253	(1,225)
Deductions	(802)	1,523	(43)	1,480
Currency translation differences	283	(278)	71	(207)
Decrease through loss of control of subsidiary	(2,778)	813		813
Other changes	(100)	(90)	198	108
Carrying amount at the end of the year	**7,956**	**(13,356)**	**5,741**	**(7,615)**
2017				
Carrying amount at the beginning of the year	**10,953**	**(13,698)**	**5,622**	**(8,076)**
Additions	1,171	(2,341)	212	(2,129)
Deductions	(835)	1,588	(349)	1,239
Currency translation differences	(1,123)	862	(202)	660
Other changes	3	(20)	(21)	(41)
Carrying amount at the end of the year	**10,169**	**(13,609)**	**5,262**	**(8,347)**

Carry-forward tax losses amounted to €19,108 million out of which €13,753 million can be used indefinitely. Carry-forward tax losses regarded Italian companies for €10,786 million and foreign companies for €8,322 million. Deferred tax assets recognized on these losses amounted to €2,615 million and €2,913 million, respectively.
Italian taxation law allows the carry-forward of tax losses indefinitely. Foreign taxation laws generally allow the carry-forward of tax losses over a period longer than five years, and in many cases, indefinitely.
An average tax rate of 24% was applied to tax losses of Italian subsidiaries to determine the portion of the carry-forwards tax losses, which will be utilized in future years to offset expected taxable profit. The corresponding rate for foreign subsidiaries was 35%.
Accumulated write-down provisions of deferred tax assets related to Italian companies for €4,133 million and foreign companies for €1,608 million.

23 | Derivative financial instruments

	December 31, 2018			December 31, 2017		
(€ million)	Fair value asset	Fair value liability	Level of Fair value	Fair value asset	Fair value liability	Level of Fair value
Non-hedging derivatives						
Derivatives on exchange rate						
- Currency swap	99	46	2	170	86	2
- Interest currency swap	14	71	2	41	45	2
- Outright	3	5	2	3	5	2
	116	**122**		**214**	**136**	
Derivatives on interest rate						
- Interest rate swap	18	6	2	9	5	2
	18	**6**		**9**	**5**	
Derivatives on commodities						
- Future	1,060	1,107	1	796	771	1
- Over the counter	306	284	2	81	97	2
- Other	1	5	2	1	2	2
	1,367	**1,396**		**878**	**870**	
	1,501	**1,524**		**1,101**	**1,011**	
Trading derivatives						
Derivatives on commodities						
- Over the counter	992	1,031	2	683	829	2
- Future	367	263	1	395	390	1
- Options	80	71	2	133	114	2
	1,439	**1,365**		**1,211**	**1,333**	
Cash flow hedge derivatives						
Derivatives on commodities						
- Over the counter	311	196	2	227	21	2
- Future	26	15	1	35		1
	337	**211**		**262**	**21**	
Option embedded in convertible bonds	**21**	**21**	**2**	**16**	**16**	**2**
Gross amount	**3,298**	**3,121**		**2,590**	**2,381**	
Offsetting	(1,636)	(1,636)		(1,279)	(1,279)	
Net amount	**1,662**	**1,485**		**1,311**	**1,102**	
Of which:						
- current	1,594	1,445		1,231	1,011	
- non-current	68	40		80	91	

Derivative fair values were estimated on the basis of market quotations provided by primary info-provider or, alternatively, appropriate valuation techniques generally adopted in the marketplace.
Fair values of non-hedging derivatives consisted of derivatives that did not meet the formal criteria to be designated as hedges under IFRS.
Fair values of trading derivatives consisted of derivatives entered for trading purposes and proprietary trading.
Fair value of cash flow hedge derivatives related to commodity hedges entered by the Gas & Power segment. These derivatives were entered into to hedge variability in future cash flows associated with highly probable future sale transactions of gas or electricity or on already contracted sales due to different indexation mechanism of supply costs versus selling prices. A similar scheme applies to exchange rate hedging derivatives. The effects of the measurement at fair value of cash flow hedge derivatives are given in note 25 – Shareholders' equity and in note 29 – Operating expenses. Information on hedged risks and hedging policies is disclosed in note 27 – Guarantees, commitments and risks - Risk factors.
Options embedded in convertible bonds of €21 million related to equity-linked cash settled. More information is disclosed in note 18 – Financial liabilities.
The offsetting of financial derivatives related to the Gas & Power segment.
During the 2018, there were no transfers between the different hierarchy levels of fair value.

Hedging derivative instruments are disclosed below:

	December 31, 2018		
(€ million)	Nominal amount of the hedging instrument	Change in fair value (effective hedge)	Change in fair value (ineffective hedge)
Cash flow hedge derivatives			
Derivatives on commodity			
- Over the counter	3,528	404	2
- Future	71	(6)	(2)
	3,599	**398**	

In 2018, the exposure to the exchange rate risk deriving from securities denominated in US dollars included in the strategic liquidity portfolio amounting to €1,154 million was hedged by using, in a fair value hedge relationship, negative exchange differences for €35 million resulting on a portion of bonds denominated in US dollars amounting to €1,140 million.
The breakdown of the underlying asset or liability by type of risk hedged under cash flow hedge is provided below:

	December 31, 2018		
(€ million)	Change of the underlying asset used for the calculation of hedging ineffectiveness	CFH reserve	Reclassification adjustments
Cash flow hedge			
Commodity price risk			
- Forecast sales	(389)	(13)	642
	(389)	**(13)**	**642**

Eni's results of operations are affected by fluctuations in the price of commodities. In order to manage commodity price risk, Eni uses derivatives traded on the organized markets MTF, OTF and derivatives traded over the counter (swaps, forward, contracts for differences and options on commodities) with the underlying commodities being crude oil, gas, refined products, electricity or emission certificates that are not settled through physical delivery of the underlying asset but are designated as hedging instruments in a cash flow hedge relation.
The existence of a relationship between hedged item and hedging instrument aimed to compensate its changes in value and the relating hedging capability not affected by the level of credit risk of the counterparty are verified for qualifying the operation as hedge.
The definition of the relationship between the quantity of the hedged item and the quantity of the hedging instrument (the so-called hedge ratio) is defined consistently with the entity's risk management objectives, under a defined risk management strategy.
The hedging relationship is discontinued when it ceases to meet the qualifying criteria and the risk management objectives on the basis of which it was qualified as for hedge accounting.
More information is reported in note 27 – Guarantees, Commitments and Risks - Risk factors.

Effects recognized in other operating profit (loss)

Other operating profit (loss) related to derivative financial instruments on commodity was as follows:

(€ million)	2018	2017	2016
Net income (loss) on cash flow hedging derivatives		12	(1)
Net income (loss) on other derivatives	129	(44)	17
	129	**(32)**	**16**

Net income (loss) on cash flow hedging derivatives related to the ineffective portion of the hedging relationship on commodity derivatives was recognized through profit and loss in the Gas & Power segment.
Net income (loss) on other derivatives included: (i) the fair value measurement and settlement of commodity derivatives which do not meet the formal criteria to be treated in accordance with hedge accounting under IFRS as they related to net exposure to commodity risk and derivatives for trading purposes and proprietary trading amounting to a net income of €129 million (net loss of €44 million in 2017 and net income of €36 million in 2016); and (ii) the fair value valuation at certain derivatives embedded in the pricing formulas of long-term gas supply contracts of the Exploration & Production segment amounting to a net loss of €19 million in 2016.

Effects recognized in finance income (loss)

Finance income (loss) on derivative financial instruments consisted of the following:

(€ million)	2018	2017	2016
Derivatives on exchange rate	(329)	809	(494)
Derivatives on interest rate	22	28	(12)
Options			24
	(307)	**837**	**(482)**

Net income from derivatives was recognized in connection with fair value valuation of certain derivatives which do not meet the formal criteria to be treated in accordance with hedge accounting under IFRS as they are entered into for amounts equal to the net exposure to exchange rate risk and interest rate risk, and as such, they cannot be referred to specific trade or financing transactions. Exchange rate derivatives were entered into in order to manage exposures to foreign currency exchange rates arising from the pricing formulas of commodities in the Gas & Power segment.
Finance income (expense) with related parties is disclosed in note 36 – Transactions with related parties.

24 | Assets held for sale and liabilities directly associated with assets held for sale

As of December 31, 2018, assets held for sale and the related directly associated liabilities of €295 million and €59 million, respectively, related to: (i) Agip Oil Ecuador BV, holder of the service contract for the Villano oil field, for which a binding transfer agreement was signed. The carrying amounts of assets held for sale and directly associated liabilities amounted to €274 million (of which current assets for €81 million) and €59 million respectively (of which current liabilities for €33 million); (ii) the sale of tangible assets and minority interests for a total carrying amount of €21 million.
In the course of 2018, Eni finalized the sale of: (i) the 98.99% (entire stake owned) of Tigáz Zrt and Tigáz DSO (100% Tigáz Zrt) to the group MET Holding AG, including Eni's gas distribution operations in Hungary; (ii) the business relating to a 26.25% stake of Lasmo Sanga Sanga Ltd (entire stake owned) of the PSA in the Sanga Sanga gas and condensates field; (iii) the sale of a 50% (entire stake owned) interest in the joint venture Unimar Llc.

25 | Shareholders' equity

As of January 1, 2018, the effects of the application of IFRS 9 and IFRS 15 are the following:

(€ million)	Share capital	Retained Earnings	Other reserves	Net profit (loss)	Total
Carrying amount at December 31, 2017	**4,005**	**35,966**	**4,685**	**3,374**	**48,030**
Changes in accounting principles (IFRS 9)		294			**294**
Changes in accounting principles (IFRS 15)		(49)			**(49)**
Carrying amount at January 1, 2018	**4,005**	**36,211**	**4,685**	**3,374**	**48,275**

More information about the application of IFRS 9 and IFRS 15 is disclosed in note 3 – Changes in accounting policies.

(€ million)	December 31, 2018	December 31, 2017
Share capital	4,005	4,005
Retained earnings	36,702	35,966
Cumulative currency translation differences	6,605	4,818
Legal reserve	959	959
Reserve for treasury shares	581	581
Reserve related to the fair value of cash flow hedging derivatives net of the tax effect	(9)	183
Reserve related to the defined benefit plans net of tax effect	(130)	(114)
Other comprehensive income on equity-accounted investments	66	90
Other comprehensive income on other investments	15	
Other reserves	190	190
Treasury shares	(581)	(581)
Interim dividend	(1,513)	(1,441)
Net profit (loss) for the year	4.126	3.374
	51.016	**48.030**

More information about the application of IFRS 9 and IFRS 15 is disclosed in note 3 – Changes in accounting policies.

Share capital

As of December 31, 2018, the parent company's issued share capital consisted of €4,005,358,876 represented by 3,634,185,330 ordinary shares without nominal value (same amounts as of December 31, 2017).

On May 10, 2018, Eni's Shareholders' Meeting resolved the distribution of a dividend of €0.40 per share, with the exclusion of treasury shares held at the ex-dividend date, in full settlement of the 2017 dividend of €0.40 per share, of which €0.40 per share paid as interim dividend in September 2017. The balance was paid on 23 May 2018, to shareholders on the register on 21 May 2018, record date on 22 May 2018. Total dividend per share in 2017 was €0.80.

Legal reserve

This reserve represents earnings restricted from the payment of dividends pursuant to Article 2430 of the Italian Civil Code. The legal reserve has reached the maximum amount required by the Italian Law.

Reserve for treasury shares

The reserve for treasury shares represents the reserve that was established in previous reporting period to repurchase the Company shares in accordance with resolutions at Eni's Shareholders' Meetings.

Other Comprehensive Income reserves

	Cash flow hedge derivatives			Defined benefit plans				
(€ million)	Gross reserve	Deferred tax liabilities	Net reserve	Gross reserve	Deferred tax liabilities	Net reserve	Other comprehensive income on equity-accounted investments	Investments valued at fair value
Reserve as of December 31, 2017	**240**	**(57)**	**183**	**(133)**	**19**	**(114)**	**90**	
Changes of the year	399	(116)	**283**	(15)	(2)	**(17)**	(24)	15
Foreign currency translation differences				1	(1)			
Change in scope of consolidation				4	(3)	**1**		
Reversal to inventories adjustments	(10)	3	**(7)**					
Reclassification adjustments	(642)	174	**(468)**					
Reserve as of December 31, 2018	**(13)**	**4**	**(9)**	**(143)**	**13**	**(130)**	**66**	**15**
Reserve as of December 31, 2016	**246**	**(57)**	**189**	**(99)**	**(13)**	**(112)**	**21**	
Changes of the year	(59)	14	**(45)**	(33)	29	**(4)**	69	
Foreign currency translation differences				(1)	3	**2**		
Reclassification adjustments	53	(14)	**39**					
Reserve as of December 31, 2017	**240**	**(57)**	**183**	**(133)**	**19**	**(114)**	**90**	

Reserve related to investments valued at fair value does not include the effects of first application of IFRS 9 of €681 million recognized in retained earnings.

Other reserves

Other reserves related to: (i) a reserve of €127 million representing the increase in Eni shareholders' equity associated with a business combination under common control, whereby the parent company Eni SpA divested its subsidiaries; (ii) a reserve of €63 million deriving from Eni SpA's equity.

Cumulative foreign currency translation differences

The cumulative foreign currency translation differences arose from the translation of financial statements denominated in currencies other than euro.

Treasury shares

A total of 33,045,197 Eni's ordinary shares (same amount as of December 31, 2017) were held in treasury for a total cost of €581 million (same amount as of December 31, 2017). On April 13, 2017, the Shareholders Meeting approved the Long-Term Monetary Incentive Plan 2017-2019 and empowered the Board of Directors to execute the Plan by authorizing it to dispose up to a maximum of 11 million of treasury shares in service of the Plan.

Interim dividend

The interim dividend for the year 2018 amounted to €1,513 million corresponding to €0.42 per share, as resolved by the Board of Directors on September 13, 2018, in accordance with Article 2433-bis, paragraph 5 of the Italian Civil Code; the dividend was paid on September 26, 2018.

Distributable reserves

As of December 31, 2018, Eni shareholders' equity included distributable reserves of approximately €46 billion.

Reconciliation of net profit and shareholders' equity of the parent company Eni SpA to consolidated net profit and shareholders' equity

	Net profit		Shareholders' equity	
(€ million)	2018	2017	December 31, 2018	December 31, 2017
As recorded in Eni SpA's Financial Statements	**3,173**	**3,586**	**42,615**	**42,529**
Excess of net equity stated in the separate accounts of consolidated subsidiaries over the corresponding carrying amounts of the parent company	(134)	(466)	7,183	6,110
Consolidation adjustments:				
- difference between purchase cost and underlying carrying amounts of net equity		(1)	153	145
- adjustments to comply with Group account policies	862	202	2,000	719
- elimination of unrealized intercompany profits	177	(88)	(519)	(807)
- deferred taxation	59	144	(359)	(617)
	4,137	**3,377**	**51,073**	**48,079**
Non-controlling interest	(11)	(3)	(57)	(49)
As recorded in Consolidated Financial Statements	**4,126**	**3,374**	**51,016**	**48,030**

26 | Other information

Supplemental cash flow information

(€ million)	2018	2017	2016
Investment in consolidated subsidiaries and businesses			
Current assets	44		
Non-current assets	198		
Net borrowings	11		
Current and non-current liabilities	(47)		
Net effect of investments	**206**		
Fair value of investments held before the acquisition of control	(50)		
Gain on a bargain purchase	(8)		
Purchase price	**148**		
less:			
Cash and cash equivalents	*(29)*		
Investment in consolidated subsidiaries and businesses net of cash and cash equivalent acquired	**119**		
Disposal of consolidated subsidiaries and businesses			
Current assets	328	166	6,526
Non-current assets	5,079	814	8,615
Net borrowings	785	(252)	(5,415)
Current and non-current liabilities	(3,470)	(205)	(6,334)
Net effect of disposals	**2,722**	**523**	**3,392**
Reclassification of foreign currency translation differences among other items of OCI	113		7
Fair value of share capital held after the sale of control	(3,498)		(1,006)
Fair value valuation for business combination	889		
Gain (loss) on disposal	13	2,148	11
Non-controlling interest			(1,872)
Selling price	**239**	**2,671**	**532**
less:			
Cash and cash equivalents	*(286)*	*(9)*	*(894)*
Disposal of consolidated subsidiaries and businesses net of cash and cash equivalent divested	**(47)**	**2,662**	**(362)**

Investments in 2018 concerned: (i) the acquisition of the business by Versalis Spa of the "bio" activities of Mossi & Ghisolfi Group, related to development, industrialization, licensing of bio-chemical technologies and processes based on use of renewable sources for €75 million; (ii) the acquisition of the remaining 51% stake in the Gas Supply Company Thessaloniki-Thessalia SA which distributes and sells gas in Greece for €24 million, net of cash acquired of €28 million; (iii) the acquisition of the company Mestni Plinovodi distribucija plina doo, which distributes and sells gas in Slovenia for €15 million, net of cash acquired for €1 million. The gain from bargain purchase, recognized in Other income and revenues, was due to the obtainable synergies from the greater ability to recover the investments made by the acquired company due to the combination of customer portfolios.

Disposals in 2018 concerned: (i) the loss of control of Eni Norge AS resulting from the business combination with Point Resources AS, with the establishment of the equity-accounted joint venture Vår Energi AS (Eni interest 69.60%), that will develop the project portfolio of the combined entities. The operation entailed the exclusion from the consolidation area of €2,486 million of net assets, of which cash and cash equivalents for €258 million, the recognition of the investment in Vår Energi AS for €3,498 million and a fair value gain of €889 million, net of negative exchange rate differences of €123 million; (ii) the sale of 98.99% (entire stake owned) of Tigáz Zrt and Tigáz Dso (100% Tigáz Zrt) operating in the gas distribution business in Hungary to the MET Holding AG group for €145 million net of cash divested of €13 million; (iii) the sale by Lasmo Sanga Sanga of the business relating to a 26.25% stake (entire stake owned) in the PSA of the Sanga Sanga gas and condensates field for €33 million; (iv) the sale of 100% of Eni Croatia BV, which owns shares of gas projects in Croatia to INA-Industrija Nafte dd for €20 million, net of cash divested of €15 million; (v) the sale of 100% of Eni Trinidad and Tobago Ltd, which holds a share of a gas project in Trinidad & Tobago for €10 million.

27 | Guarantees, commitments and risks

Guarantees

Commitments and risks

(€ million)	December 31, 2018	December 31, 2017
Consolidated subsidiaries	5,082	5,595
Unconsolidated subsidiaries	196	181
Joint ventures and associates	4,056	10,046
Others	163	352
	9,497	**16,174**

The parent company of the Eni Group issued guarantees to cover the contractual obligations held by third parties towards Eni's affiliates to build and finance the construction of an LNG Floating Production unit for the development of the Coral gas reserves discovered in Area 4 offshore Mozambique. The value of the contract is €4,586 million. Eni is operator of the project with a 25% indirect interest through a 35.71% stake in the joint operation Mozambique Rovuma Venture SpA. The final investment decision (FID) for the Coral project was made on June 1, 2017. The FLNG plant is designed to treat approximately 3.37 million tonnes per year of LNG. A special purpose entity was established, Coral FLNG SA (Eni interest 25%). This entity will operate the vessel in accordance to a service agreement for the liquefaction, storage and loading of the LNG on behalf of the Concessionaires of Area 4 and of the other two partners of Mozambique Rovuma Venture SpA, CNPC and ExxonMobil in proportion to their participating interest in the Exploration and Production Concession Contract (EPCC) of Area 4, equal to 20% and 25%, respectively. The LNG will be supplied to BP under a long-term LNG sale and purchase agreement with a take-or-pay clause and a twenty-year term, providing an option of extending the duration for up to ten consecutive years. Eni issued through a subsidiary a parent company guarantee, whereby it irrevocably and unconditionally guarantees the Technip – JGC – Samsung Heavy Industries (TJS) consortium (the beneficiaries) for the due and proper performance of the obligations of Coral FLNG SA in connection with execution of the Engineering Procurement Construction Installation and Commissioning contract (EPCIC), up to the maximum liability of €1,147 million equal to 25% of the value of the contract. The maximum liability will be automatically reduced by any amount paid to the beneficiaries in respect of the guaranteed obligations. The financing of the project is carried out partly through funds provided by the venturers and partly by a project financing with Export Credit Agencies and commercial banks for a total amount of €4,082 million. During the construction and the commissioning of the FLNG plant, the project financing agreement will be supported by a debt service undertaking, up to a maximum liability of €1,397 million in proportion to Eni's participating interest equal to 25% in the industrial initiative. Subsequently, in the running phase of the plant, once the performance tests of the vessel have been validated by the lenders, that guarantee will be released and the financing facility will change into a non-recourse one, terminating the obligations of the venturers of Area 4. Once vessel operations start, the lenders will be guaranteed only by the vessel cash flows, excluding the gas reserves from the scope of the guarantee. The financing and any collateral costs will be reimbursed to the lenders through a "pay-when-paid" clause, whereby loan repayments will be made through the cash flows associated with the sale of the LNG arising from the project to the long-term buyer, without any obligations from Eni and Concessionaires to guarantee the performance of Coral FLNG SA towards the lenders. Furthermore, the Concessionaries opened a credit facility which committed each Concessionary to finance pro-quota: (i) the share of capital expenditures to be borne by the Mozambique State-owned company ENH up to a maximum liability of €121 million in Eni's share; (ii) the share of the debt service undertaking by ENH up to a maximum liability of €155 million in Eni's share. As a final point, as provided by the EPCC that regulates the petroleum activities in Area 4, Eni SpA in its capacity as parent company of the operator Mozambique Rovuma Venture SpA provided concurrently with the approval of the initial development plan of the Area reserves, an irrevocable and unconditional parent company guarantee in respect of any possible claims or any contractual breaches in connection with the petroleum activities to be carried out in the contractual area, including those activities in charge of the special purpose entities like Coral FLNG SA, to benefit of the Government of Mozambique and third parties. The obligations of the guarantor towards the Government of Mozambique are unlimited (non-quantifiable commitments), whereas they provide a maximum liability of €1,309 million in respect of third-parties claims. This guarantee will be effective until the completion of any decommissioning activity related to both the development plan of Coral as well as any development plan to be executed within Area 4 (particularly the Mamba project). This parent company guarantee issued by Eni covering 100% of the aforementioned obligations was taken over by the other concessionaires (Kogas, Galp and ENH) and by ExxonMobil and CNPC shareholders of the joint operation Mozambico Rovuma Venture SpA, in proportion to their respective participating interest in the EPCIC of Area 4. Other guarantees issued on behalf of consolidated subsidiaries primarily consisted of: (i) guarantees given to third parties relating to bid bonds and performance bonds for €2,576 million (€2,312 million at December 31, 2017); (ii) a bank guarantee of €1,010 million (same amount as of December 31, 2017) issued on behalf of GasTerra in order to obtain the renunciation to a temporary seizure order on Eni's investment in Eni International BV, requested and obtained by a Netherlands Court in July 2016. At December 31, 2018, the underlying commitment covered by such guarantees was €5,000 million (€5,564 million at December 31, 2017). Unsecured guarantees and other guarantees issued on behalf of joint ventures and associates primarily consisted of: (i) an unsecured guarantee of €499 million (€6,122 million at December 31, 2017) given by Eni SpA to Treno Alta Velocità - TAV SpA (now RFI - Rete Ferroviaria Italiana SpA) for the proper and timely completion of a project relating

to the Milan-Bologna fast track railway by CEPAV (Consorzio Eni per l'Alta Velocità) Uno (associated company of Saipem); the decrease of €5,623 million is due to the cancellation of the guarantees related to the completion of the main lots of the project; (ii) unsecured guarantees and other guarantees given to banks in relation to loans and lines of credit received for €1,664 million (€1,623 million at December 31, 2017), of which €1,397 million (€1,334 million at December 31, 2017) related to guarantees issued as part of the development project of the gas reserves at the Coral discovery in Area 4 offshore Mozambique on behalf of Coral South FLNG DMCC with respect to the financing agreements of the project with Export Credit Agencies and banks; and (iii) guarantees given to third parties relating to bid bonds and performance bonds for €1,644 million (€2,122 at December 31, 2017), of which €1,147 million (€1,094 million at December 31, 2017) related to guarantees issued for the construction of the FLNG as part of the development project of the gas reserves at the Coral project offshore Mozambique and €279 million given on behalf of Saipem Group (€1,008 million at December 31, 2017); (iv) a guarantee issued in favor of Gulf LNG Energy and Gulf LNG Pipeline and on behalf of Angola LNG Supply Service Llc (Eni's interest 13.60%) as security against payment commitments of fees in connection with the regasification activity for €177 million (€169 million at December 31, 2017). At December 31, 2018, the underlying commitment covered by such guarantees was €2,159 million (€2,594 million at December 31, 2017).

Commitments and risks

(€ million)	December 31, 2018	December 31, 2017
Commitments	54,611	14,498
Risks	673	691
	55,284	**15,189**

Commitments related to: (i) parent company guarantees that were issued in connection with certain contractual commitments for hydrocarbon exploration and production activities and quantified, on the basis of the capital expenditures to be incurred, to €52,397 million (€11,289 million at December 31, 2017).
The increase of €41,108 million essentially related to: (a) the issue of parent company guarantees, in relation to transactions with the Abu Dhabi State oil company, ADNOC, whereby Eni acquired participating interests in two offshore concessions in production of Lower Zakum (Eni's interest 5%) and Umm Shaif and Nasr (Eni's interest 10%) for a period of 40 years and for a maximum amount of €13,094 million and in the concession under development of Gasha (Eni's interest 25%) for a period of 40 years and a maximum amount of €21,824 million. These guarantees were issued to cover the contractual obligations towards the State company, deriving from oil operations related to the Concession Agreements including, in particular, the achievement of some production targets and recovery factors of reserves in the medium and long term, an asset integrity plan and optimization and maintenance of the production after reaching the plateau, the transfer of technologies and the adoption of best-in-class operating standards in HSE. The guarantees do not cover any loss of profit or production deriving from failure to achieve the targets; (b) the issue of parent company guarantees for €6,831 million following the awarding of new exploration licenses in the offshore of Mexico and the final investment decision for the development of the offshore reserves in Area 1; (ii) commitments assumed by Eni USA Gas Marketing Llc towards Angola LNG Supply Service Llc for the purchase of volumes of re-gasified gas at the Pascagoula plant (United States) over a twenty-year period (until 2031). The expected commitments were estimated at €2,079 million (€2,113 million at December 31, 2017) and included in off-balance sheet contractual commitments in the table "Future payments under contractual obligations" in the paragraph Liquidity risk. In 2018, the contractual commitment signed in December 2007 between Eni USA Gas Marketing Llc and Gulf LNG Energy Llc (GLE) and Gulf LNG Pipeline Llc (GLP) for the supply of long-term regasification and import services (until 2031) amounting at the opening balance to €948 million (undiscounted) ceased due to an arbitration award, ruling that the commitment was resolved by March 1, 2016 and recognizing to the counterparties an equitable compensation of €324 million, accounted as expense in the income statement. Despite the ruling of the arbitration Court invalidating the contract, GLE and GLP filed a claim with the Supreme Court of New York against Eni SpA demanding the enforcement of the parent company guarantee issued by Eni for the payment of the regasification fees until to the original due date of the contract (2031) for a maximum amount of €757 million. Eni believes that the claims by GLE and GLP have no merit and is defending the action. At the moment, the risk of losing the proceeding is considered unlikely; (iii) a memorandum of intent signed with the Basilicata Region, whereby Eni has agreed to invest €116 million (€128 million at December 31, 2017) in the future, also on account of Shell Italia E&P SpA, in connection with Eni's development plan of oilfields in Val d'Agri. The commitment has been included in the off-balance sheet contractual commitments in the following paragraph "Liquidity risk".
Risks concerned potential risks associated with contractual assurances given to acquirers of certain investments and businesses of Eni for €244 million (€235 million at December 31, 2017) and the value of assets of third parties under the custody of Eni for €429 million (€456 million at December 31, 2017).

Non-quantifiable commitments

A parent company guarantee was issued on behalf of Cardón IV SA (Eni's interest 50%), a joint venture that is currently operating the Perla gas field located in Venezuela, for the supplying to PDVSA GAS of the volumes of gas produced by the field until end of the concession agreement (2036). This guarantee cannot be quantified because the penalty clause for unilateral anticipated resolution originally set for Eni and the relevant quantification became ineffective due to a revision of the contractual terms. In case of failure on part of the operator to deliver the contractual gas volumes out of production, the claim under the guarantee will be determined by applying the local legislation. Eni share (50%) of the contractual volumes

of gas to be delivered to PDVSA GAS amounted to a total of €13 billion. Notwithstanding this amount does not properly represent the guarantee exposure, nonetheless such amount represents the maximum financial exposure at risk for Eni. A similar guarantee was issued by PDVSA on behalf of Eni for the fulfillment of the purchase commitments of the gas volumes by PDVSA GAS.
Eni is liable for certain non-quantifiable risks related to contractual assurances given to acquirers of certain Eni assets, including businesses and investments, against certain contingent liabilities deriving from tax, social security contributions, environmental issues and other matters applicable to periods during which such assets were operated by Eni. Eni believes such matters will not have a material adverse effect on Eni's results of operations and liquidity.

Risk factors

FINANCIAL RISKS

Financial risks are managed in respect of guidelines issued by the Board of Directors of Eni SpA in its role of directing and setting of the risk limits, targeting to align and centrally coordinate Group companies' policies on financial risks ("Guidelines on financial risks management and control"). The "Guidelines" define for each financial risk the key components of the management and control process, such as the aim of the risk management, the valuation methodology, the structure of limits, the relation model and the hedging and mitigation instruments.

MARKET RISK

Market risk is the possibility that changes in currency exchange rates, interest rates or commodity prices will adversely affect the value of the Group's financial assets, liabilities or expected future cash flows. The Company actively manages market risk in accordance with a set of policies and guidelines that provide a centralized model of handling finance, treasury and risk management operations based on the Company's departments of operational finance: the parent company's (Eni SpA) finance department, Eni Finance International SA, Eni Finance USA Inc and Banque Eni SA, which is subject to certain bank regulatory restrictions preventing the Group's exposure to concentrations of credit risk, and Eni Trading & Shipping that is in charge to execute certain activities relating to commodity derivatives. In particular, Eni's finance department and Eni Finance International SA manage subsidiaries' financing requirements in and outside Italy, respectively, covering funding requirements and using available surpluses. All transactions concerning currencies and derivative contracts on interest rates and currencies different from commodities are managed by the parent company, while Eni Trading & Shipping SpA executes the negotiation of commodity derivatives over the market. Eni SpA and Eni Trading & Shipping SpA (also through its subsidiary Eni Trading & Shipping Inc) perform trading activities in financial derivatives on external trading venues, such as European and non-European regulated markets, Multilateral Trading Facility (MTF), Organized Trading Facility (OTF), or similar and brokerage platforms (i.e. SEF), and over the counter on a bilateral basis with external counterparties. Other legal entities belonging to Eni that require financial derivatives enter into these operations through Eni Trading & Shipping and Eni SpA based on the relevant asset class expertise. Eni uses derivative financial instruments (derivatives) in order to minimize exposure to market risks related to fluctuations in exchange rates relating to those transactions denominated in a currency other than the functional currency (the euro) and interest rates, as well as to optimize exposure to commodity prices fluctuations taking into account the currency in which commodities are quoted. Eni monitors every activity in derivatives classified as risk-reducing (in particular, back-to-back activities, flow hedging activities, asset-backed hedging activities and portfolio-management activities) directly or indirectly related to covered industrial assets, so as to effectively optimize the risk profile to which Eni is exposed or could be exposed. If the result of the monitoring shows those derivatives should not be considered as risk reducing, these derivatives are reclassified in proprietary trading. As the proprietary trading is considered separately from the other activities in specific portfolios of Eni Trading & Shipping, its exposure is subject to specific controls, both in terms of Value at Risk (VaR) and stop loss and in terms of nominal gross value.
For Eni, the gross nominal value of proprietary trading activities is compared with the limits set by the relevant international standards. The framework defined by Eni's policies and guidelines provides that the valuation and control of market risk is performed on the basis of maximum tolerable levels of risk exposure defined in terms of: (i) limits of stop loss, which expresses the maximum tolerable amount of losses associated with a certain portfolio of assets over a pre-defined time horizon; (ii) limits of revision strategy, which consist in the triggering of a revision process of the strategy in the event of exceeding the level of profit and loss given; and (iii) VaR which measures the maximum potential loss of the portfolio, given a certain confidence level and holding period, assuming adverse changes in market variables and taking into account of the correlation among the different positions held in the portfolio. Eni's finance department defines the maximum tolerable levels of risk exposure to changes in interest rates and foreign currency exchange rates in terms of VaR, pooling Group companies' risk positions maximizing, when possible, the benefits of the netting activity. Eni's calculation and valuation techniques for interest rate and foreign currency exchange rate risks are in accordance with banking standards, as established by the Basel Committee for bank activities surveillance. Tolerable levels of risk are based on a conservative approach, considering the industrial nature of the Company. Eni's guidelines prescribe that Eni Group companies minimize such kinds of market risks by transferring risk exposure to the parent company finance department. Eni's guidelines define rules to manage the commodity risk aiming at optimizing core activities and pursuing preset targets of stabilizing industrial and commercial margins. The maximum tolerable level of risk exposure is defined in terms of VaR, limits of revision strategy, stop loss and volumes in connection with exposure deriving from commercial activities, as well as exposure deriving from proprietary trading, exclusively managed by Eni Trading & Shipping. Internal mandates to manage the commodity risk provide for a mechanism of allocation of the Group maximum tolerable risk level to each business unit. In this framework, Eni Trading & Shipping, in addition to managing risk exposure associated with its own commercial activity and proprietary trading, pools the requests for negotiating commodity derivatives and executes them on the marketplace.
According to the targets of financial structure included in the financial plan approved by the Board of Directors, Eni has decided to retain a cash reserve to face any extraordinary requirement. Eni's finance department, with the aim of optimizing the efficiency and ensuring maximum protection of the capital, manages such reserve and its

immediate liquidity within the limits assigned. The management of strategic cash is part of the asset management pursued through transactions on own risk in view of optimizing financial returns, while respecting authorized risk levels, safeguarding the Company's assets and retaining quick access to liquidity.
The four different market risks, whose management and control have been summarized above, are described below.

MARKET RISK - EXCHANGE RATE

Exchange rate risk derives from the fact that Eni's operations are conducted in currencies other than the euro (mainly the US dollar). Revenues and expenses denominated in foreign currencies may be significantly affected by exchange rates fluctuations due to conversion differences on single transactions arising from the time lag existing between execution and definition of relevant contractual terms (economic risk) and conversion of foreign currency-denominated trade and financing payables and receivables (transactional risk). Exchange rate fluctuations affect the Group's reported results and net equity as financial statements of subsidiaries denominated in currencies other than the euro are translated from their functional currency into euro. Generally, an appreciation of the US dollar versus the euro has a positive impact on Eni's results of operations, and vice versa. Eni's foreign exchange risk management policy is to minimize transactional exposures arising from foreign currency movements and to optimize exposures arising from commodity risk. Eni does not undertake any hedging activity for risks deriving from the translation of foreign currency denominated profits or assets and liabilities of subsidiaries, which prepare financial statements in a currency other than the euro, except for single transactions to be evaluated on a case-by-case basis. Effective management of exchange rate risk is performed within Eni's central finance department, which pools Group companies' positions, hedging the Group net exposure by using certain derivatives, such as currency swaps, forwards and options. Such derivatives are evaluated at fair value based on market prices provided by specialized info-providers. Changes in fair value of those derivatives are normally recognized through profit and loss, as they do not meet the formal criteria to be recognized as hedges. The VaR techniques are based on variance/covariance simulation models and are used to monitor the risk exposure arising from possible future changes in market values over a 24-hour period within a 99% confidence level and a 20-day holding period.

MARKET RISK - INTEREST RATE

Changes in interest rates affect the market value of financial assets and liabilities of the Company and the level of finance charges. Eni's interest rate risk management policy is to minimize risk with the aim to achieve financial structure objectives defined and approved in the management's finance plans. The Group's central finance department pools borrowing requirements of the Group companies in order to manage net positions and fund portfolio developments consistent with management plans, thereby maintaining a level of risk exposure within prescribed limits. Eni enters into interest rate derivative transactions, in particular interest rate swaps, to manage effectively the balance between fixed and floating rate debt. Such derivatives are evaluated at fair value based on market prices provided from specialized sources. Changes in fair value of those derivatives are normally recognized through the profit and loss account, as they do not meet the formal criteria to be accounted for under the hedge accounting method. VaR deriving from interest rate exposure is measured daily based on a variance/covariance model, with a 99% confidence level and a 20-day holding period.

MARKET RISK - COMMODITY

Eni's results of operations are affected by changes in the prices of commodities. A decrease in Oil & Gas prices generally has a negative impact on Eni's results of operations and vice versa and may jeopardize the achievement of the financial targets preset in the Company's four-year plans and budget. The commodity price risk arises in connection with the following exposures: (i) strategic exposure: exposures directly identified by the Board of Directors as a result of strategic investment decisions or outside the planning horizon of risk. These exposures include those associated with the program for the production of proved and unproved Oil & Gas reserves, long-term gas supply contracts for the portion not balanced by ongoing or highly probable sale contracts, refining margins identified by the Board of Directors as of strategic nature (the remaining volumes can be allocated to the active management of the margin or to asset-backed hedging activities) and minimum compulsory stocks; (ii) commercial exposure: includes the exposures related to the components underlying the contractual arrangements of industrial and commercial activities and, if related to take-or-pay commitments, to the components related to the time horizon of the four-year plan and budget and the relevant activities of risk management. Commercial exposures are characterized by a systematic risk management activity conducted based on risk/return assumptions by implementing one or more strategies and subjected to specific risk limits (VaR, revision strategy limits and stop loss). In particular, the commercial exposures include exposures subjected to asset-backed hedging activities, arising from the flexibility/optionality of assets; and (iii) proprietary trading exposure: includes operations independently conducted for profit purposes in the short term, and normally not finalized to the delivery, both within the commodity and financial markets, with the aim to obtain a profit upon the occurrence of a favorable result in the market, in accordance with specific limits of authorized risk (VaR, stop loss). In the proprietary trading exposures are included the origination activities, if not connected to contractual or physical assets.
Strategic risk is not subject to systematic activity of management/coverage that is eventually carried out only in case of specific market or business conditions. Because of the extraordinary nature, hedging activities related to strategic risks are delegated to the top management. Strategic risk is subject to measuring and monitoring but is not subject to specific risk limits. If previously authorized by the Board of Directors, exposures related to strategic risk can be used in combination with other commercial exposures in order to exploit opportunities for natural compensation between the risks (natural hedge) and consequently reduce the use of derivatives (by activating logics of internal market). Eni manages exposure to commodity price risk arising in normal trading and commercial activities in view of achieving stable economic results. Eni manages the commodity risk and the exposure to commodity prices through the trading unit of Eni Trading & Shipping by using derivatives traded on the organized markets MTF, OTF and derivatives traded over the counter (swaps, forward, contracts for differences and options on commodities) with the underlying commodities being crude oil, gas, refined products, electricity or emission certificates. Such derivatives are evaluated at fair value based on market prices provided from specialized sources or,

absent market prices, on the basis of estimates provided by brokers or suitable valuation techniques. VaR deriving from commodity exposure is measured daily based on a historical simulation technique, with a 95% confidence level and a one-day holding period.

MARKET RISK - STRATEGIC LIQUIDITY

Market risk deriving from liquidity management is identified as the possibility that changes in prices of financial instruments (bonds, money market instruments and mutual funds) would affect the value of these instruments when evaluated at fair value. The setting up and maintenance of the liquidity reserve is mainly aimed to guarantee a proper financial flexibility. Liquidity should allow Eni Group to fund any extraordinary need (such as difficulty in access to credit, exogenous shock, macroeconomic environment, as well as merger and acquisitions) and must be dimensioned to provide a coverage of short-term debts and a coverage of medium and long-term financial debts due within a time horizon of 24 months. In order to manage the investment activity of the strategic liquidity, Eni defined a specific investment policy with aims and constraints in terms of financial activities and operational boundaries, as well as Governance guidelines regulating management and control systems. In particular, strategic liquidity management is regulated in terms of VaR (measured based on a parametrical methodology with a one-day holding period and a 99% confidence level), stop loss and other operating limits in terms of concentration, issuing entity, business segment, Country of emission, duration, ratings and type of investing instruments in portfolio, aimed to minimize market and liquidity risks. Financial leverage or short selling is not allowed. Activities in terms of strategic liquidity management started in the second half of the year 2013 (Euro portfolio) and throughout the course of the year 2017 (USD portfolio). In 2018, the investment portfolio Euro has maintained an average credit rating of A-/BBB+, the investment portfolio USD has maintained an average credit rating of A+/A, both in line with the year 2017.
The following table shows amounts in terms of VaR, recorded in 2018 (compared with 2017) relating to interest rate and exchange rate risks in the first section and commodity risk. Regarding the management of strategic liquidity, the sensitivity to changes of interest rate is expressed by values of "Dollar value per Basis Point" (DVBP).

(Value at risk - parametric method variance/covariance; holding period: 20 days; confidence level: 99%)

	2018				2017			
(€ million)	High	Low	Average	At year end	High	Low	Average	At year end
Interest rate[a]	3.65	1.80	2.73	2.99	3.76	1.72	2.38	2.58
Exchange rate[a]	0.57	0.09	0.28	0.25	0.57	0.08	0.22	0.26

(a) Value at risk deriving from interest and exchange rates exposures include the following finance department: Eni Corporate Treasury Department, Eni Finance International SA, Banque Eni SA and Eni Finance USA Inc.

(Value at risk - Historic simulation weighted method; holding period: 1 day; confidence level: 95%)

	2018				2017			
(€ million)	High	Low	Average	At year end	High	Low	Average	At year end
Commercial exposures - Management Portfolio[a]	18.60	6.79	11.04	7.50	21.14	5.15	12.24	5.15
Trading[b]	2.28	0.26	0.73	0.27	2.29	0.21	0.79	0.66

(a) Refers to the Gas & LNG Marketing Power business line (risk exposure from Refining & Marketing business line and Gas & Power Division), Eni Trading & Shipping commercial portfolio, operating branches outside Italy pertaining to the Divisions and from October 2016 the Gas and Luce Business line. For the Gas & Power business lines, following the approval of the Eni's Board of Directors on December 12, 2013, VaR is calculated on the so-called Statutory view, with a time horizon that coincides with the year considering all the volumes delivered in the year and the relevant financial hedging derivatives. Consequently, in the year the VaR pertaining to GLP and EGL presents a decreasing trend following the progressive reaching of the maturity of the positions within the annual horizon.
(b) Cross-commodity proprietary trading, both for commodity contracts and financial derivatives, refers to Eni Trading & Shipping SpA (London-Bruxelles-Singapore) and Eni Trading & Shipping Inc (Houston).

(Sensitivity - Dollar value of 1 basis point - DVBP)

	2018				2017			
(€ million)	High	Low	Average	At year end	High	Low	Average	At year end
Strategic liquidity[a]	0.35	0.25	0.29	0.25	0.41	0.27	0.35	0.27

(a) Management of strategic liquidity portfolio starting from July 2013.

(Sensitivity - Dollar value of 1 basis point - DVBP)

	2018				2017			
($ million)	High	Low	Average	At year end	High	Low	Average	At year end
Strategic liquidity[a]	0.04	0.01	0.02	0.02	0.04	0.02	0.03	0.03

(a) Management of strategic liquidity portfolio in $ currency starting from August 2017.

CREDIT RISK

Credit risk is the potential exposure of the Group to losses in case counterparties fail to perform or pay amounts due. Eni defined credit risk management policies consistent with the nature and characteristics of the counterparties of commercial and financial transactions and with regard to the latter, among of the others, of the centralized finance model adopted.
The Company adopted a model to quantify and control the credit risk based on the evaluation of the expected loss for which the probability of default and the capacity to recover credits in default is estimated through the so-called Loss Given Default.
In the credit risk management and control model, credit exposures are distinguished by commercial nature, substantially in relation to the structured contracts on commodities related to Eni's core business, and by financial nature, substantially in relation to the financial instruments used by Eni, such as deposits, derivatives and securities.

Credit risk for commercial exposures

Credit risk arising from commercial counterparties is managed by the business units and by the specialized corporate finance and administration departments, and is operated on the basis of formal procedures for the assessment and assignment of commercial counterparties, the monitoring of credit exposures, credit recovery activities and disputes. At corporate level, the general guidelines and methods for quantifying and controlling customer risk, in particular for commercial counterparties, are assessed through an internal rating model that combines different default factors deriving from economic variables, financial indicators, payment experiences and information from primary info providers. The probability of default related to State Entities or their closely related counterparties (e.g. National Oil Company), essentially represented by the probability of late payments, is determined by using the country risk premiums adopted for the purposes of the determination of the WACCs for the impairment of non-financial assets. Furthermore, for retail positions without specific ratings, the risk is determined by distinguishing customers in homogeneous risk clusters based on historical series of data relating to payments made, periodically updated.

Credit risk for financial exposures

With regard to credit risk arising from financial counterparties deriving from current and strategic use of liquidity, derivative contracts and transactions with underlying financial assets valued at fair value, Eni has established internal policies providing exposure control and concentration through maximum credit risk limits corresponding to different classes of financial counterparties as defined by the Company's Board of Directors taking into account the credit ratings provided by primary credit rating agencies on the marketplace. Credit risk arising from financial counterparties is managed by the Group operating finance department, including Eni's subsidiary Eni Trading & Shipping which specifically engages in commodity derivatives transactions and by Group companies and Divisions, only in the case of physical transactions with financial counterparties consistently with the Group centralized finance model. Eligible financial counterparties are closely monitored by each counterpart and by group of belonging to check exposures against the limits assigned on a daily basis and the expected loss analysis and the concentration periodically.

LIQUIDITY RISK

Liquidity risk is the risk that suitable sources of funding for the Group may not be available, or the Group is unable to sell its assets on the marketplace in order to meet short-term finance requirements and to settle obligations. Such a situation would negatively affect Group results, as it would result in the Company incurring higher borrowing expenses to meet its obligations or under the worst of conditions the inability of the Company to continue as a going concern. Eni's risk management targets include the maintaining of an adequate level of liquidity readily available to deal with external shocks (drastic changes in the scenario, restrictions on access to capital markets, etc.) or to ensure an adequate level of operational flexibility for the development programs of the Company. The strategic liquidity reserve is employed in short-term marketable financial instruments, favouring investments with very low risk profile.
At present, the Group believes to have access to sufficient funding to meet the current foreseeable borrowing requirements as a consequence of the availability of financial assets and lines of credit and the access to a wide range of funding at competitive costs through the credit system and capital markets.
Eni has in place a program for the issuance of Euro Medium Term Notes up to €20 billion, of which about €16.7 billion were drawn as of December 31, 2018.
The Group has credit ratings of A- outlook stable and A-2, respectively for long and short-term debt, assigned by Standard & Poor's and Baa1 outlook stable and P-2, respectively for long and short-term debt, assigned by Moody's. Eni's credit rating is linked in addition to the Company's industrial fundamentals and trends in the trading environment to the sovereign credit rating of Italy. Based on the methodologies used by Standard & Poor's and Moody's, a downgrade of Italy's credit rating may trigger a potential knock-on effect on the credit rating of Italian issuers such as Eni. During 2018, Moody's reduced the rating of Eni by one notch (from A3 to Baa1) following the reduction in the rating assigned to Italy (from Baa2 to Baa3, outlook stable).
In the course of the 2018, Eni issued bonds amounting to €2.8 billion, of which €1.1 billion were issued under the Euro Medium Term Notes program and €1.7 billion through a dual-tranche issue on the US market and on international markets.
As of December 31, 2018, Eni maintained short-term unused borrowing facilities of €12,484 million. Long-term committed unused borrowing facilities amounted to €5,214 million due beyond 12 months. These facilities bore interest rates and fees for unused facilities that reflected prevailing market conditions.

Finance debt repayments including expected payments for interest charges and derivatives

The table below summarizes the Group main contractual obligations for finance liability repayments, including expected payments for interest charges and derivatives.

	Maturity year						
(€ million)	2019	2020	2021	2022	2023	2024 and thereafter	Total
December 31, 2018							
Non-current financial liabilities (including the current portion)	3,301	2,958	1,541	1,253	2,714	11,723	**23,490**
Current financial liabilities	2,182						**2,182**
Fair value of derivative instruments	1,445	13	1	21		5	**1,485**
	6,928	**2,971**	**1,542**	**1,274**	**2,714**	**11,728**	**27,157**
Interest on finance debt	655	545	436	330	320	1,677	**3,963**
Financial guarantees	668						**668**

	Maturity year						
	2018	2019	2020	2021	2022	2023 and thereafter	Total
December 31, 2017							
Non-current financial liabilities (including the current portion)	2,000	4,084	2,857	1,279	1,246	10,810	**22,276**
Current financial liabilities	2,242						**2,242**
Fair value of derivative instruments	1,011	64	10	1	16		**1,102**
	5,253	**4,148**	**2,867**	**1,280**	**1,262**	**10,810**	**25,620**
Interest on finance debt	582	511	411	304	250	1,455	**3,513**
Financial guarantees	473						**473**

Trade and other payables

The table below summarizes the Group trade and other payables by maturity.

	Maturity year			
(€ million)	2019	2020-2023	2024 and thereafter	Total
December 31, 2018				
Trade payables	11,645			**11,645**
Other payables and advances	5,102	59	96	**5,257**
	16,747	**59**	**96**	**16,902**

	Maturity year			
	2018	2019-2022	2023 and thereafter	Total
December 31, 2017				
Trade payables	10,890			**10,890**
Other payables and advances	5,858	19	26	**5,903**
	16,748	**19**	**26**	**16,793**

Expected payments by period under contractual obligations

In addition to trade and financial liabilities represented in the balance sheet, the Company is subject to non-cancellable contractual obligations or obligations, the cancellation of which requires the payment of a penalty. These obligations will require cash settlements in future reporting periods. These liabilities are valued based on the net cost for the Company to fulfill the contract, which consists of the lowest amount between the costs for the fulfillment of the contractual obligation and the contractual compensation/penalty in the event of the non-performance. The Company's main contractual obligations at the balance sheet date comprise: (i) take-or-pay clauses contained in the Company's gas supply contracts or shipping arrangements, whereby the Company obligations consist of off-taking minimum quantities of product or service or, in case of failure, paying the corresponding cash amount that entitles the Company the right to collect the product or the service in future years. Future obligations in connection with these contracts were calculated by applying the forecasted prices of energy or services included in the four-year business plan approved by the Company's Board of Directors; (ii) operating leases for tangible assets, of which primarily for FPSO units of the E&P segment, in particular FPSOs operating in the offshore projects at Cape Three Points in Ghana and at the 15/06 block in Angola, with a duration of between 11 and 14 years.

The table below summarizes the Group principal contractual obligations as of the balance sheet date, shown on an undiscounted basis.

	Maturity year						
(€ million)	2019	2020	2021	2022	2023	2024 and thereafter	Total
Operating lease obligations[a]	**776**	**601**	**481**	**303**	**268**	**1,524**	**3,953**
Decommissioning liabilities[b]	**335**	**294**	**407**	**260**	**124**	**12,394**	**13,814**
Environmental liabilities	**349**	**321**	**254**	**239**	**188**	**1,245**	**2,596**
Purchase obligations[c]	**14,674**	**11,258**	**10,649**	**9,683**	**9,546**	**76,014**	**131,824**
- Gas							
take-or-pay contracts	11,886	10,470	9,995	9,276	9,210	75,035	**125,872**
ship-or-pay contracts	1,164	558	482	382	324	941	**3,851**
- Other purchase obligations	1,624	230	172	25	12	38	**2,101**
Other obligations	**8**	**1**	**1**	**1**	**1**	**104**	**116**
- Memorandum of intent - Val d'Agri	8	1	1	1	1	104	116
	16,142	**12,475**	**11,792**	**10,486**	**10,127**	**91,281**	**152,303**

(a) There are no significant restrictions provided by these operating leases which limit the ability of the Company to pay dividend, use assets or to take on new borrowings.
(b) Represents the estimated future costs for the decommissioning of oil and natural gas production facilities at the end of the producing lives of fields, well-plugging, abandonment and site restoration.
(c) Represents any agreement to purchase goods or services that is enforceable and legally binding and that specifies all significant terms.

Capital investment and capital expenditure commitments

In the next four years, Eni expects capital investments and capital expenditures of €32.7 billion. The table below summarizes Eni's capital expenditure commitments for property, plant and equipment and capital projects. Capital expenditure is considered to be committed when the project has received the appropriate level of internal management approval. At this stage, procurement contracts to execute those projects have already been awarded or are being awarded to third parties. The amounts shown in the table below include committed expenditures to execute certain environmental projects.

	Maturity year					
(€ million)	2019	2020	2021	2022	2023 and thereafter	Total
Committed projects	6,492	4,917	3,458	1,910	3,629	**20,406**

Other information about financial instruments

The carrying amount of financial instruments and the relevant economic and equity effect consisted of the following:

	2018			2017		
		Finance income (expense) recognized in			Finance income (expense) recognized in	
(€ million)	Carrying amount	Profit and loss account	Other comprehensive income	Carrying amount	Profit and loss account	Other comprehensive income
Held-for-trading financial instruments						
Financial assets held for trading[a]	6,552	32		6,012	(111)	
Non-hedging and trading derivatives[b]	177	(178)		209	793	
Non-current financial instruments						
Held-to-maturity securities[a]				73		
Available-for-sale financial instruments						
Securities[a]				207	9	(4)
Other investments valued at fair value[c]	**919**	**231**	**15**			
Receivables and payables and other assets/liabilities valued at amortized cost						
Trade receivables and other[d]	14,145	(343)		15,583	(958)	
Financing receivables[e]	1,489	(139)		1,918	(116)	
Securities[a]	64					
Trade payables and other[a]	16,902	(28)		16,793	(51)	
Financing payables[f]	25,865	(615)		24,707	(1,137)	
Net assets (liabilities) for hedging derivatives[g]		642	(243)		(42)	(6)

(a) Income or expense were recognized in the profit and loss account within "Finance income (expense)".
(b) In the profit and loss account, economic effects were recognized as income within "Other operating income (loss)" for €129 million (loss for €44 million in 2017) and as loss within "Finance income (expense)" for €307 million (income for €837 million in 2017).
(c) Income or expense were recognized in the profit and loss account within "Income (expense) from investments - Dividends".
(d) Income or expense were recognized in the profit and loss account as net impairment losses within "Net (impairment losses) reversal of trade and other receivables" for €415 million (net impairment losses for €913 million in 2017) and as income within "Finance income (expense)" for €69 million (expenses for €45 million in 2017), including interest income calculated on the basis of the effective interest rate of € 38 million.
(e) In the profit and loss account, income or expense were recognized as expense within "Finance income (expense)" for €139 million (€116 million in 2017), including interest income calculated on the basis of the effective interest rate of €129 million (€128 million in 2017) and net impairment losses for €275 million.
(f) In the profit and loss account, income or expense were recognized as expense within "Finance income (expense)" for €615 million (€1,137 million in 2017), including interest income calculated on the basis of the effective interest rate of €605 million (€654 million in 2017).
(g) In the profit and loss account, income or expense were recognized within "Net sales from operations" and "Purchase, services and other" as income for €642 million (expense for €54 million in 2017), and as income within "Other operating income (expense)" for €12 million in 2017.

Disclosures about the offsetting of financial instruments

The table below summarizes the disclosures about the offsetting of financial instruments.

(€ million)	Gross amount of financial assets and liabilities	Gross amount of financial assets and liabilities subject to offsetting	Net amount of financial assets and liabilities
December 31, 2018			
Financial assets			
Trade and other receivables	15,634	1,533	14,101
Other current assets	3,894	1,636	2,258
Financial liabilities			
Trade and other liabilities	18,280	1,533	16,747
Other current liabilities	5,616	1,636	3,980
December 31, 2017			
Financial assets			
Trade and other receivables	16,636	1,215	15,421
Other current assets	2,852	1,279	1,573
Financial liabilities			
Trade and other liabilities	17,963	1,215	16,748
Other current liabilities	2,794	1,279	1,515

The offsetting of financial assets and liabilities related to the offsetting of: (i) assets and liabilities for current financial derivatives for €1,636 million (€1,279 million at December 31, 2017); and (ii) receivables and payables pertaining to the Exploration & Production segment towards state entities for €1,347 million (€1,041 million at December 31, 2017); (iii) trade receivables and trade payables pertaining to Eni Trading & Shipping Inc for €186 million (€174 million at December 31, 2017).

Legal Proceedings

Eni is a party in a number of civil actions and administrative arbitral and other judicial proceedings arising in the ordinary course of business. Based on information available to date, and taking into account the existing risk provisions disclosed in note 20 – Provisions for contingencies and that in some instances it is not possible to make a reliable estimate of contingency losses, Eni believes that the foregoing will likely not have a material adverse effect on the Group Consolidated Financial Statements. A description of the most significant proceedings currently pending is provided in the following paragraph. Unless otherwise indicated, no provisions have been made for these legal proceedings as Eni believes that negative outcomes are not probable or because the amount of the provision cannot be estimated reliably.

1. Environment, health and safety

1.1. Criminal proceedings in the matters of environment, health and safety

(i) **Syndial SpA (company incorporating EniChem Agricoltura SpA – Agricoltura SpA in liquidation – EniChem Augusta Industriale Srl – Fosfotec Srl) – Proceeding about the industrial site of Crotone.** In 2010 a criminal proceeding started before the Public Prosecutor of Crotone relating to allegations of environmental disaster, poisoning of substances used in the food chain and omitted clean-up due to the activity at a landfill site which was taken over by Eni's subsidiary in 1991 following the divestment of an industrial complex by Montedison (now Edison SpA). The landfill site had been filled with industrial waste from Montedison activities until 1989 and then no additional waste was discharged there. Eni's subsidiary carried out the clean-up of the landfill in 1999 through 2000. The defendants are certain managers at Eni's subsidiaries that have owned and managed the landfill since 1991. Independent consultants performed an assessment during the 2014. Once the consultants completed their work, the acts returned to the Public Prosecutor of Crotone for the next step and possible indictment. The proceeding continues with the examination of the dismissal request submitted by the defense. The Municipality of Crotone will act as plaintiff. The Prosecutor of Crotone notified the conclusion of the preliminary investigations. In March 2019, the Public Prosecutor requested the acquittal of all defendants. In April 2017, the Public Prosecutor of Crotone had started another criminal proceeding concerning the clean-up of the area called "Farina Trappeto". The Company presented a new clean-up project already deemed approvable by the Ministry of the Environment. Final authorizations for this project are pending. The Company requested to dismiss also this second proceeding.

(ii) **Syndial SpA and Versalis SpA – Porto Torres – Prosecuting body: Public Prosecutor of Sassari.** In July 2011, the Public Prosecutor of Sassari (Sardinia) resolved that a number of officers and senior managers of companies engaging in petrochemical operations at the site of Porto Torres, including the manager responsible for plant operations of the Company's subsidiary Syndial, would stand trial due to allegations of environmental damage and poisoning of water and crops. The Province of Sassari, the Municipality of Porto Torres and other entities have been acting as plaintiffs. The Judge for the Preliminary Hearing admitted as plaintiffs the above-mentioned parts, but based on the exceptions issued by Syndial on the lack of connection between the action and the charge, denied that the claimants would act as plaintiff with regard to the serious pathologies related to the existence of poisoning agents in the marine fauna of the industrial port of Porto Torres. In February 2013, the Prosecutor of Sassari notified the conclusion of preliminary investigations and requested a new imputation for negligent behaviour instead of illicit conduct. In the conclusions of the preliminary hearing, the Court of Sassari dismissed the accusation

because of the statute of limitations. The Public Prosecutor filed an appeal before the Third Instance Court. After a hearing on a question of constitutional legitimacy concerning the period for the statute of limitations for the crime of disaster, the Third Instance Court recognized its validity and therefore accepted the claim and sent all the acts to the Constitutional Court. The Constitutional Court declared the question unfounded, considering that the statute of limitations for fraudulent hypothesis and the corresponding culpable hypothesis is an expression of a non-unreasonable legislative discretion, assuming that, in relation to certain culpable offenses causing social alarm, the complexity of the necessary investigations justifies a lengthening of the limitation periods. The Third Instance Court returned the documents to the Public Prosecutor of Sassari who proceeded to resubmit the request for indictment. The preliminary hearing is underway.

(iii) **Syndial SpA and Versalis SpA – Porto Torres dock**. In July 2012, the Judge for the Preliminary Hearing, following a request of the Public Prosecutor of Sassari, requested the performance of a probationary evidence relating to the functioning of the hydraulic barrier of Porto Torres site (ran by Syndial SpA) and its capacity to avoid the dispersion of contamination released by the site in the near portion of sea. Syndial SpA and Versalis SpA have been notified that its chief executive officers and other managers are being investigated. The Public Prosecutor of the Municipality of Sassari requested that the above-mentioned individuals would stand trial. The plaintiffs, the Ministry of Environment and the Sardinia Region claimed environmental damage in an amount of €1.5 billion. On the hearing dated July 2016, the Judge pronounced an acquittal sentence for all defendants of Syndial and Versalis with respect to the crimes of environmental disaster. Three Syndial managers were found guilty of environmental disaster which took place in the area in the period limited to August 2010-January 2011 and condemned to one-year prison, with a suspended sentence. The Judge did not mention any possible malfunctioning of the hydraulic barrier of Porto Torres site or ineffective implementation of any emergency safety measure, as claimed by the Public Prosecutor. Syndial filed an appeal against this decision.

(iv) **Syndial SpA – The illegal landfill in Minciaredda area, Porto Torres site.** In July 2015, the Judge for the Preliminary Hearing of the Court of Sassari, on request of the Public Prosecutor, seized of the Minciaredda landfill area, near the western border of the Porto Torres site (Minciaredda area). All the indicted have been served a notice of investigation for alleged crimes of carrying out illegal waste disposal and environmental disaster. The seizure provision involved as well Syndial in accordance with the Legislative Degree No. 231/01. With reference to the clean-up activities in the Minciaredda area, on January 27, 2016 the relevant administrative body approved the project for the soil clean-up in the Minciaredda area. Syndial obtained all the necessary ministerial and judicial authorizations to start the remediation project. Following the preliminary investigations, the Public Prosecutor requested a referral to trial. Some environmental associations joined the proceeding as plaintiffs. The proceeding is still pending.

(v) **Syndial SpA – The Phosphate deposit at Porto Torres site (1).** In 2015, the Judge for the Preliminary Hearing of the Court of Sassari, accepting a request of the Public Prosecutor of Sassari, seized – as a preventive measure – the area of "Palte Fosfatiche" (phosphates deposit) located on the territory of Porto Torres site, in relation to alleged crimes of environmental disaster, carrying out of unauthorized disposal of hazardous wastes and other environmental crimes. Subsequent to a specific request, both the Public security officer of Sassari and the Judge for the Preliminary Hearing of the Court of Sassari authorized to implement better delimitations of the landfill area, to provide the area with devices for monitoring the level of environmental pollutants and meteoric waters. The investigations are underway.

(vi) **Syndial SpA – Phosphate deposit at Porto Torres site (2).** In 2015, the Public Prosecutor at the Court of Sassari seized — as a probative measure — the containment systems for the meteoric waters in the area "Palte Fosfatiche" (phosphates deposit). These waters are being collected by Syndial following authorizations of the Public security officer of Sassari and the Judge for the Preliminary Hearing of the Court of Sassari. The indicted have also been served a notice of investigation for alleged crimes of omitted clean-up and management of radioactive waste. The Public Prosecutor decided to suspend the activities of collection, containment and preservation of the area, in spite that those activities have already been authorized. The request filed for the removal of the phosphates deposit was authorized by the Public Prosecutor in October 2018. The investigations are underway.

(vii) **Syndial SpA – Proceeding on the asbestos at the Ravenna site.** A criminal proceeding is pending before the Tribunal of Ravenna about the crimes of culpable manslaughter, injuries and environmental disaster, which would have been allegedly committed by former Syndial employees at the site of Ravenna. The site was taken over by Syndial following a number of corporate mergers and acquisitions. The alleged crimes date back to 1991. In the proceeding there are 75 alleged victims. The plaintiffs include relatives of the alleged victims, various local administrations, and other institutional bodies, including local trade unions. The advocacy of Syndial claimed the statute of limitation about the instance of environmental disaster for certain instances of diseases and deaths. The Judge for the Preliminary Hearing at Ravenna decided that all defendants would stand trial and ascertained the statute of limitation only with reference to certain instances of crime of culpable injury. Syndial signed some settlements. In November 2016, the Judge acquitted the defendants for all the contested cases except for one for which ruled a decision of conviction. The defendants, the Prosecutor and the plaintiffs appealed the decision. The proceeding was suspended following the filing of an appeal before the Third Instance Court.

(viii) **Raffineria di Gela SpA – Eni Mediterranea Idrocarburi SpA – Alleged environmental disaster.** A criminal proceeding is pending in relation to crimes allegedly committed by the managers of the Raffineria di Gela SpA and EniMed SpA relating environmental disaster, unauthorized waste disposal and unauthorized spill of industrial wastewater. The Gela Refinery has been sued for administrative offence in accordance with the Legislative Decree No. 231/01. This criminal proceeding initially regarded soil pollution allegedly caused by spills from 14 tanks of the refinery storage, which had not been provided with double bottoms, and pollution of the sea water near the coastal area adjacent to the site due to the failure of the barrier system implemented as part of the clean-up activities conducted at the site. At the closing of the preliminary investigation, the Public Prosecutor of Gela

merged into this proceeding the other investigations related to the pollution occurred at the other sites of the Gela refinery as well as hydrocarbon spills at facilities of EniMed. The proceeding is pending at the preliminary hearings.

(ix) **Eni SpA – Proceeding Val d'Agri.** On March 2016, the Italian Public Prosecutor's Office of Potenza started a criminal investigation in order to ascertain the existence of an illegal handling of waste material produced at the Viggiano oil center (COVA), part of the Eni-operated Val d'Agri oil complex. After a two-year investigation, the Prosecutors decided for the domiciliary detention of 5 Eni employees and to put under seizure certain plants functional to the production activity of the Val d'Agri complex which, consequently, was shut down (60 KBOE/d net to Eni). From the commencement of the investigation, Eni has carried out several technical and environmental surveys, with support of independent experts of international reach, who recognized a full compliance of the plant and the industrial process with requirements of the applicable laws, as well as with best available technologies and international best practices. The Company studied certain corrective measures to upgrade plants which, although being not a structural solution, were intended to address the claims made by the Public Prosecutor about an alleged operation of blending which would have occurred during normal plant functioning. Those measures comprised building a gathering system of inherent liquid associated with the extraction of hydrocarbons at the gas lines. Those corrective measures were favourably reviewed by the Public Prosecutor. The Company restarted the plant through reinjections into the Costa Molina 2 well on August 2016. Simultaneously, a local administrative agency (the Region) requested a new administrative procedure to grant Eni a comprehensive environmental authorization to operate the facilities. In relation to the criminal proceeding, the Public Prosecutor's Office requested the indictment for all the defendants and the Company. At the preliminary hearing held in April 2017, prosecutor reiterated its request of indictment. The trial started in November 2017 and is in the hearings stage.

(x) **Eni SpA – Health investigation related to the COVA center.** Beside the criminal proceeding for illegal trafficking of waste, the Public Prosecutor started another investigation in relation to alleged health violations. The Public Prosecutor requested the formal opening of an investigation with respect to nine people in relation to alleged violations of the rules providing for the preparation of a Risk Assessment Document of the working conditions at the Val d'Agri Oil Center (COVA). In March 2017, following the request of the Consultant of the Prosecutor, the Labor Inspectorate of Potenza issued a fine against the employers of the COVA for omitted and incomplete assessment of the chemical risks for the COVA center. In October 2017, following the request of the Consultant of the Prosecutor, the National Mining Office for Hydrocarbons and Geo-resources (UNMIG) requested the transfer to a different task of 25 employees of the COVA center for improper assessment of their suitability to the current tasks expressed by the Eni personnel in charge of assessing the health risk profile of employees. Against this decision, the Company filed a formal objection and the UNMIG repealed the resolution issued. Furthermore, in October 2017, the Prosecutor's Office changed the crime allegations to disaster, murder and negligent personal injury, also alleging breaches of health and safety regulations. Given the level of risk, in December 2017, Eni filed a request for pre-trial hearing for gathering evidence on the matter that was rejected by the Judge.

(xi) **Eni SpA – Proceeding Val d'Agri – Tank spill.** On February 2017, the Italian police department of Potenza ascertained a stream of water contaminated by hydrocarbon traces of unknown origin, flowing inside a little shaft located outside the Val d'Agri Oil Center (COVA). The activities carried out by Eni at the COVA aimed at reconstructing the origin of the contamination and have identified the cause in a failure of a tank, while outside of the COVA, following the environmental monitoring implemented, emerged a risk — currently averted — of extension of the contamination in the downstream area of the plant. In executing these activities, Eni performed all the communications provided for by the Legislative Decree 152/06 and started certain emergency safe-keeping operations at the areas subject to contamination outside the COVA. Furthermore, the Company completed the arrangement plan for the internal and external areas of the COVA, whose final report was examined by the relevant authorities. Following this event, a criminal investigation was initiated in order to ascertain the existence of illicit environmental pollution against the former COVA officers, the Operation Managers in charge since 2011 and the HSE Manager in charge at the time of the accident, and also against Eni in relation to the same offense pursuant to the Legislative Decree 231/01 as communicated in December 2018 following the notification of the extension of the terms for preliminary investigations and of some public officials belonging to local administrations for official misconduct, false and fraudulent public statements committed in 2014 and of crime for environmental disaster and of culpable conduct committed in February 2017. Investigations are ongoing. In April 2017, Eni, on its own initiative, suspended the industrial activity at the COVA, anticipating the provisions of the Regional Council Resolution. In July 2017, Eni restarted the plant's operational activities. The resumption follows the approval from the Basilicata Region confirming the functionality of the plant and the presence of all necessary safety conditions. During the temporary closure, Eni performed all the requirements provided for by the relevant authorities, including the provision of a double bottom to the tank where the spillage occurred. The Company compensated the damage to certain landlords of areas close to the COVA, which were affected by the spillover. Discussions are ongoing with other claimants. In February 2018, Eni contested the reports presented in October and in December 2017 by the Italian Fire Department stating that it does not consider itself obliged to carry out the integration required, considering that the data acquired in the area affected by the event indicate that the loss was promptly and efficiently controlled and there were no situations of serious danger to human health and the environment.

(xii) **Raffineria di Gela SpA – Eni Mediterranea Idrocarburi SpA – Waste management of the landfill Camastra.** In June 2018, Eni's subsidiaries Raffineria di Gela SpA and Eni Mediterranea Idrocarburi SpA were notified by the Public Prosecutor of Palermo (Sicily) of a notice of conclusion of preliminary investigations relating allegations of unlawful disposal of industrial waste deriving from the reclaiming activities of soil, which were discharged at a landfill owned by a third party. The Prosecutor charged the alleged crime against the then chief executive officers of the two subsidiaries, whereas the legal entities have been charged with the liability pursuant by Legislative Decree No.

231/01. The alleged wrongdoing related to the willful falsification of the waste certification for purpose of discharging at the landfill.

(xiii) **Syndial SpA – Environmental disaster at Ferrandina.** In January 2018, the Public Prosecutor of Matera commenced a criminal proceeding against a manager of the Eni subsidiary Syndial based on allegations of unlawful handling of waste and environmental disaster as part of the reclaiming activities performed at an industrial site (Ferrandina/Pisticci in the south of Italy). The charge related to an alleged spillover of effluent in the subsoil and then in a nearby river due to a damaged pipe dedicated to the transportation of effluent to a disposal plant owned by a third party. Following an interrogation of the investigated manager, the prosecutor resolved to request his indictment.

(xiv) **Versalis SpA – Preventive seizure at the Priolo Gargallo plant.** In February 2019, the Court of Syracuse on request of the Public Prosecutor ordered the precautionary seizure of the Priolo/Gargallo plant as part of an ongoing investigation about air emissions at the industrial complex. However, the Eni subsidiary has been given permission to continue running the industrial activity at the plant. A preliminary review, performed by technical consultants appointed by the Public Prosecutor, found that the spots of the plant designed to channel and release emissions compliance failed to comply with best available techniques (BAT). The Tribunal measure comprised certain interrelations between BATs and the obtained Environmental Integrated Authorizations, which according to the consultants would not be legitimate because they have been found to be inconsistent with applicable regulations. Few years ago Versalis implemented certain plant upgradings designed to comply with measures requested by the Public Prosecutor and his consultants. Based on this, management filed an appeal against the measure of precautionary seizure of the plant before a Review Court. On March 26, 2019, the Review Court annulled the decree and ordered the release of seizure of the plant.

(xv) **Eni SpA – Fatal accident Ancona offshore platform.** On March 5, 2019, a fatal accident occurred at the Barbara F platform in the offshore of Ancona. On the basis of the first investigations, part of the structure on which a crane and the relative control cabin was installed fell into the sea striking a supply vessel and causing injuries to two contract workers and the death of an Eni employee who was inside the control cabin of the crane. The Public Prosecutor of Ancona opened an investigation against unknown persons and ordered further technical appraisals relating the crane.

1.2. Civil and administrative proceedings in the matters of environment, health and safety

(i) **Syndial SpA – Summon for alleged environmental damage caused by DDT pollution in the Lake Maggiore – Prosecuting body: Ministry for the Environment.** In May 2003, the Ministry for the Environment summoned Syndial requesting the compensation of an alleged environmental damage caused by the activity at the Pieve Vergonte plant in the years 1990 through 1996. With a temporarily executive sentence dated July 2008, the District Court of Turin sentenced the subsidiary Syndial SpA to compensate environmental damages amounting to €1,833.5 million, plus legal interests accrued from the filing of the decision. Eni and its subsidiary deemed the amount of the environmental damage to be absolutely groundless as the sentence lacked sufficient elements to support such a material amount of the liability charged with respect to the volume of pollutants ascertained by the Italian Environmental Minister. In July 2009, Syndial filed an appeal against the above-mentioned sentence, and consequently the proceeding continued before a Second Degree Court of Turin that requested a technical appraisal on the matter. The consultants validated the technical appraisal and the other technical assessments that were carried out by the Company together with local and national technical entities. The consultants concluded that: (i) no further measure for environmental restoration is required; (ii) there was no significant and measurable impact on the environment of the ecosystem, therefore no restoration or damage compensation should be claimed. The only impact which could be recorded concerned the fishing activity, with an estimated damage of €7 million which could be already restored through the measures proposed by Syndial; (iii) the necessity and convenience of dredging should be definitely excluded, both from the legal and scientific point of view, while confirming technical and scientific correctness of the Syndial's approach based on the monitoring of the process of natural recovery, which is estimated to require 20 years. In March 2017, the Second Degree Court: (i) excluded the application of compensation for monetary equivalent (Article 18 of Law 349/1986); (ii) annulled the monetary compensation of €1.8 billion requesting Syndial to perform the already approved cleanup project of the polluted areas, which comprise groundwater, as well as compensatory remediation works. The value of these compensatory works required by the Court, in case of Syndial failure or misperformance, is estimated at €9.5 million. The cleanup project filed by Syndial was ratified by local and governmental authorities and is currently being executed. Expenditures expected to be incurred have been provisioned in the environmental provision. Any other claims filed by the Italian Minister for the Environment were rejected (including compensation for non-material damage). In April 2018, the Ministry for the Environment filed an appeal to the Third Instance Court. In accordance with the law, the Company and its managers filed an appeal and a counter-appeal.

(ii) **Syndial SpA – Versalis SpA – Eni SpA (R&M) – Augusta harbor.** The Italian Ministry for the Environment with various administrative acts required companies that were running plants in the petrochemical site of Priolo to perform safety and environmental remediation works in the Augusta harbor. Companies involved include Eni subsidiaries Versalis, Syndial and Eni Refining & Marketing Division. Pollution has been detected in this area primarily due to a high mercury concentration that is allegedly attributed to the industrial activity of the Priolo petrochemical site. The above-mentioned companies contested these administrative actions, objecting in particular the nature of the remediation works decided and the methods whereby information on the pollutants concentration has been gathered. A number of administrative proceedings started on this matter were subsequently merged before the Regional Administrative Court of Catania. In October 2012, the Court ruled in favor of Eni's subsidiaries against the Ministry prescriptions about the removal of the pollutants and the construction of a physical barrier. In September 2017, the Ministry notified all the companies involved of a formal notice for the start of remediation and environmental restoration of the Augusta harbor within 90 days. The act, contested by the co-owner companies in December 2017, constitutes a formal notice for environmental damage. The Administrative Council of the Sicilian Region ruled on

the appeals pending against various sentences of the Regional Administrative Court and essentially confirmed the cancellation of all administrative provisions subject to the dispute. The prescriptive framework for the companies thus becomes clear and definitive. The annulment of the provisions has, inter alia, retroactive effect at the time of their adoption and therefore allows to exclude the risk of claims against any possible breach of administrative provisions.

(iii) **Eni SpA – Syndial SpA – Raffineria di Gela – Claim for preventive technical inquiry.** In February 2012, Eni's subsidiaries Raffineria di Gela SpA and Syndial SpA and the parent company Eni SpA (involved in this matter through the operations of the Refining & Marketing Division) were notified of a claim issued by the parents of children born malformed in the Municipality of Gela between 1992 and 2007. The claim for preventive technical inquiry aimed at verifying the relation of causality between the malformation pathologies suffered by the children of the plaintiffs and the environmental pollution caused by the Gela site (pollution deriving from activities conducted at the industrial plant by Raffineria di Gela SpA and Syndial SpA), quantifying the alleged damages suffered and eventually identifying the terms and conditions to settle the claim. In any case, the same issue was the subject of previous criminal proceedings, of which one closed without ascertainment of any illicit behavior on the part of Eni or its subsidiaries, while a further criminal proceeding is still pending. The consultants appointed by the Court and those designated by the plaintiffs performed a technical appraisal on the matter, reaching very different outcomes. Thus, parties failed to reach a settlement of the matter. On December 2015, the three companies involved were sued in relation to a total of 30 cases of compensation for damages in civil proceedings. The proceedings are still pending. In May 2018, the Court issued a first instance judgment concerning one case. The Judge rejected the claim for damages, acknowledging the goodness and reasonableness of the arguments of the defendant companies in relation to the absence of evidences concerning the existence of a causal link between the pathologies and the alleged industrial pollution. The first-degree sentence was appealed before the Court of Caltanissetta.

(iv) **Syndial – Environmental claim relating to the Municipality of Cengio.** The Ministry for the Environment and the Delegated Commissioner for Environmental Emergency in the territory of the Municipality of Cengio summoned Syndial before a Civil Court and sentenced Eni's subsidiary to compensate the environmental damage relating to the site of Cengio. The request for environmental damage amounted to €250 million to which add health damage to be quantified during the proceeding. The plaintiffs accused Syndial of negligence in performing the clean-up and remediation of the site. In February 2013, the Court ruled a technical appraisal to verify the existence of the environmental damage. Following failed attempts to define a settlement agreement on the matter among the parties involved, the Judge resumed the trial and requested an independent appraisal on the matter. A first stage of the trial was filed in September 2018. The proceeding is still at the preliminary stage.

(v) **Syndial SpA and Versalis SpA – Summon for alleged environmental damage caused by illegal waste disposal in the Municipality of Melilli (Sicily).** In May 2014, the Municipality of Melilli summoned Eni's subsidiaries Syndial and Versalis for the environmental damage allegedly caused by carrying out illegal waste disposal activities and unauthorized landfill. In particular, the plaintiff claimed the responsibilities of Syndial and Versalis for the production of waste and because they commissioned the waste disposal. The plaintiff stated that this illegal handling of waste was part of certain criminal proceedings dating back to 2001-2003 which would have allegedly traced the hazardous waste materials back to the Priolo and Gela industrial sites that are managed by the above-mentioned Eni's subsidiaries (in particular, the waste with high mercury concentration and railway sleepers no longer in use). Such waste was allegedly handled and disposed illegally at an unauthorized landfill owned by a third party (located about 2 kilometers away from the town of Melilli). Two subsidiaries of Eni and a third-party waste company were claimed to be jointly and severally liable of damage amounting to €500 million. The third-party company executed waste disposal at the site. In June 2017, the Judge accepted all the defensive instances of Syndial and Versalis, judging the requests of the Municipality to be inadmissible for lack of locus standi and considering the requests as unfounded or unproved, and sentenced the Municipality to the reimbursement of the expenses of the proceeding. In September 2017, the Municipality appealed the ruling requesting a new investigation and the admission of a technical appraisal, as well as the suspension of the enforcement of the sentence of first instance. The Court of Appeal rejected the counterclaim filed by the Municipality, which then filed an appeal before a third-degree Court to obtain the repeal of the part of the sentence about the expenses of the judgement, where Eni's subsidiaries are part. Furthermore, the Municipality filed an appeal to overturn the first-degree sentence before another Court in Sicily, where the Eni's subsidiaries are planning to take part.

2. Court inquiries

(i) **Eni SpA – Reorganization procedure of Alitalia Linee Aeree Italiane SpA under extraordinary administration.** On January 2013, the Italian airline company Alitalia, which was undergoing a reorganization procedure, summoned Eni, Exxon Italia and Kuwait Petroleum Italia SpA before the Court of Rome, to obtain a compensation for alleged damages caused by a presumed anti-competitive behavior on part of the three petroleum companies in the supply of jet fuel in the years 1998 through 2009. The claim was based on a deliberation filed by the Italian Antitrust Authority in June 2006. The antitrust deliberation accused Eni and other five petroleum companies of anti-competitive agreements designed to split the market for jet fuel supplies and blocking the entrance of new players in the years 1998 through 2006. The antitrust findings were substantially endorsed by an administrative Court. Alitalia has made a claim against the three petroleum companies jointly and severally presenting two alternative ways to assess the alleged damages. A first assessment of the overall damages amounted to €908 million. This was based on the presumption that the anti-competitive agreements among the defendants would have prevented Alitalia from autonomously purchasing supplies of jet fuel in the years when the existence of the anti-competitive agreements were ascertained by the Italian Antitrust Authority and in subsequent years until Alitalia ceased to operate airline activity. Alitalia asserted the incurrence of higher supply costs of jet fuel of €777 million excluding interest accrued and other items that add to lower profitability caused by a reduced competitive position in the marketplace estimated at €131 million. Another assessment of the overall damage made by Alitalia stand at €395 million of which €334 million of higher purchase costs

for jet fuel and €61 million of lower profitability due to the reduced competitive position on the marketplace. With a decision dated May 2014, the Court of Rome declared the connection with a judgment previously proposed by Alitalia itself before the Court of Milan against other oil companies participating to an alleged cartel agreement. The case was thus summed up by Alitalia before the Court of Milan. In September 2017, the Court of Milan ruled that: (i) the requests of Alitalia for the period 1998-2004 were prescribed; (ii) for the period subsequent to June 2006, no further assessment should be carried out, since Alitalia has failed to meet its burden of allegation; (iii) for the period between December 2004 and June 2006, a specific technical appraisal will be carried out. The judgment is pending in the first instance at the preliminary stage awaiting the fulfillment of the technical appraisal. Eni accrued a provision with respect to this proceeding.

(ii) **Eni's arbitration with GasTerra.** In 2013, Eni initiated an arbitration against GasTerra, as part of a long-term supply contract signed in 1986, to obtain a revision of the price charged by GasTerra to Eni for the gas supplied in the 2012-2015 period. On that occasion, Eni and GasTerra agreed to apply a provisional price, which was lower than the previous price, until the definition of a new contractual price based on an arrangement between parties or an arbitration award. The arbitration award dismissed Eni's claim for price revision, without however determining a new price applicable in the relevant period. GasTerra considered that, by dismissing Eni's claim, the award restored the original contract price, based on which GasTerra now claims an additional amount to be paid by Eni which corresponds to the difference between the provisional price and the contractual price. Eni, relying also on the opinion of its external consultants, does not agree with GasTerra's interpretation and considers GasTerra's claim groundless. However, GasTerra, based on its own interpretation, commenced an arbitration and obtained from a Dutch Court the provisional seizure of Eni's investment in its subsidiary Eni International BV (which at the time of the seizure i.e. at the reporting date June 30, 2016, stated consolidated net assets of €34.7 billion) for the alleged receivable due by Eni (equal to €1.01 billion). With respect to the interim seizure measure obtained by GasTerra, Eni offered to GasTerra, who in turn accepted, a bank guarantee of the same amount of the GasTerra claim. This guarantee is expected to remain effective until a final award by the arbitration procedure. The measure, which was granted after a summary review only and without Eni being heard, does not prejudice the outcome on the merits of the claims. The correct interpretation of the arbitration award and the 2012-2015 price revision will be subject to a new arbitration procedure.

3. Proceedings concerning criminal/administrative corporate responsibility

(i) **EniPower SpA.** In June 2004, the Public Prosecutor of Milan commenced inquiries into contracts awarded by Eni's subsidiary EniPower and on supplies from other companies to EniPower. It emerged that illicit payments were made by EniPower suppliers to a manager of EniPower who was immediately fired. The Court served EniPower (the commissioning entity) and Snamprogetti (now Saipem SpA) (contractor of engineering and procurement services) with notices of investigation in accordance with Legislative Decree No. 231/01 that establishes that the companies are liable for the crimes committed by their employees who acted on behalf of the employer. In August 2007, Eni was notified that the Public Prosecutor requested the dismissal of EniPower SpA and Snamprogetti SpA, while the proceeding continues against former employees of these companies and employees and managers of the suppliers under the provisions of Legislative Decree No. 231/01. Eni SpA, EniPower and Snamprogetti presented themselves as plaintiffs. In September 2011, the Court of Milan found that nine persons were guilty for the above-mentioned crimes. In addition, they were sentenced jointly and severally to the payment of all damages to be assessed through a specific proceeding and to the reimbursement of the proceeding expenses incurred by the plaintiffs. The Court also resolved to dismiss all the criminal indictments for 7 employees, representing some companies involved as a result of the statute of limitations, while the trial ended with an acquittal of 15 individuals. In relation to the companies involved in the proceeding, the Court found that 7 companies are liable based on the provisions of Legislative Decree No. 231/01, imposing a fine and the disgorgement of profit. Eni SpA and its subsidiaries, EniPower and Saipem, which took over Snamprogetti, acted as plaintiffs in the proceeding also against the mentioned companies. The Court rejected the position as plaintiffs of the Eni Group companies, reversing the prior decision made by the Court. This decision may have been made based on a pronouncement made by a Supreme Court that stated the illegitimacy of the constitution as plaintiffs against any legal entity, as indicted under the provisions of Legislative Decree No. 231/01. The condemned parties filed appeal against the above-mentioned decision. The Appeal Court issued a ruling that substantially confirmed the first-degree judgment except for the fact that it ascertained the statute of limitation with regard to certain defendants. In 2015, the Supreme Court annulled the judgment of the Second Degree Court ascribing the judgment to another section that, once more, confirmed the sentence of first instance, excepting the rulings of the previous appeal sentence not subject to annulment, including the statute of limitation. The grounds of the sentence have been filed confirming the motivations provided by the previous instance Courts. An appeal was filed at the Third Instance Court solely for the purposes of the civil proceeding.

(ii) **Algeria.** Legal proceedings are pending in Italy and outside Italy in connection with an allegation of corruption relating to the award of certain contracts to Eni's former subsidiary Saipem in Algeria. In February 2011, Eni received from the Public Prosecutor of Milan an information request pursuant to the Italian Code of Criminal Procedure. The request related to allegations of international corruption and pertained to certain activities performed by Saipem Group companies in Algeria (in particular the contract between Saipem and Sonatrach relating to the construction of the GK3 gas pipeline and the contract between Galsi, Saipem and Technip relating to the engineering of the ground section of a gas pipeline). The crime of international corruption is among the offenses contemplated by the Italian Legislative Decree No. 231/01 which provides for corporate liability for crimes committed by employees and prescribes punishments including fines and the disgorgement of profit. Eni also voluntarily provided to the Public Prosecutor documentation relating to the MLE project (in which Eni's Exploration & Production Division participates), with respect to which investigations in Algeria are ongoing. In November 2012, the Public Prosecutor served Saipem a notice stating that it had commenced an investigation for alleged liability of the company for international corruption in

accordance with Legislative Decree No. 231/01. Furthermore, the Public Prosecutor requested the production of certain documents relating to certain activities in Algeria. Subsequently, the Public Prosecutor's Office notified further measures and requests to Saipem, aimed at acquiring further documentation, in particular relating to certain intermediary contracts and sub-contracts entered into by Saipem in connection with its Algerian business. Several former Saipem employees were also involved in the proceeding, including the former CEO of Saipem, who resigned from the office in December of 2012, and the former Chief Operating Officer of the Business Unit Engineering & Construction of Saipem, the employment of whom was terminated at the beginning of 2013. In February 2013, on mandate from the Public Prosecutor of Milan, the Italian Finance Police visited Eni's headquarters in Rome and San Donato Milanese and executed searches and seized documents relating to Saipem's activity in Algeria. On the same occasion, Eni was served a notice that an investigation had commenced in accordance with Legislative Decree No. 231/01 with respect to Eni, Eni's former CEO, Eni's former CFO and another senior manager. Eni's former CFO had previously served as Saipem's CFO, including during the period in which alleged corruption took place and before being appointed as CFO of Eni on August 1, 2008. Following receipt of this notice, Eni conducted an internal investigation with the assistance of external consultants, in addition to the review activities performed by its audit and internal control departments and a team dedicated to the Algerian matters. During 2013, the external consultants reached the following results: (i) the review of the documents seized by the Milan prosecutors and the examination of internal records held by Eni's global procurement department did not find any evidence that Eni entered into intermediary or any other contractual arrangements with the third parties involved in the prosecutors' investigation; the brokerage contracts that were identified, were signed by Saipem or its subsidiaries or predecessor companies; and (ii) the internal review made on the MLE project, the only project that Eni understands to be under the prosecutors' investigation where the client is an Eni Group company did not find evidence that any Eni employee engaged in wrongdoing in connection with the award to Saipem of two main contracts to execute the project (EPC and Drilling). Furthermore, in 2014, with the assistance of external consultants, Eni completed a review of the extent of its operating control over Saipem with regard to both legal, accounting and administrative issues. The findings of that review confirmed the autonomy of Saipem from the parent company during the relevant periods. The findings of Eni's internal review have been provided to the Judicial Authority in order to reaffirm Eni's willingness to fully cooperate. In January 2015, the Public Prosecutor notified the conclusion of preliminary investigations relating to Eni, Saipem and eight persons (including, the former CEO and CFO of Eni and the Chief Upstream Officer of Eni who was responsible for Eni Exploration & Production activities in North Africa at the time of the events under investigation). The Public Prosecutor issued a notice of alleged international corruption against all such persons (including Eni and Saipem on the basis of the provisions of Legislative Decree No. 231/01) in connection with the entry into intermediary contracts by Saipem in Algeria. Furthermore, some of the defendants (including the former CEO and CFO of Eni and the Chief Upstream Officer of Eni) were accused of tax offenses for alleged fraudulent misrepresentation in relation to the accounting treatment of these contracts for the fiscal years 2009 and 2010. After receiving (i) the evidence collected in connection with the Public Prosecutor's request to take testimony of two individuals under investigation in late 2014, and (ii) the minutes of the preliminary hearing and the documents filed in connection with the conclusion of the preliminary investigation, Eni requested that its consultants perform additional analysis and investigation. As a result, Eni's consultants reaffirmed their conclusions previously reported to the Company. In February 2015, the Public Prosecutor requested the indictment of all the investigated persons for international corruption as well as the tax offenses mentioned above. In 2015, the Judge for the Preliminary Hearing of the Court of Milan dismissed the case and granted an acquittal in favor of Eni, former Chief Executive Officer and Chief Upstream Officer for all the alleged offenses. In February 2016, the Court of Third Instance, upholding an appeal presented by the Public Prosecutor, reversed the dismissal, annulled the verdict, and remanded the proceedings to another Judge for the Preliminary Hearing in the Court of Milan. As a result of the new preliminary hearing in July 2016, the Judge ordered the trial for all defendants, including Eni. Trial began in February 2017. At a hearing ion February 26, 2018, the Public Prosecutor, concluding his indictment, requested — among other things — the imposition on Eni of a pecuniary sanction. In September 2018, the Court of Milan rejected the requests of the Public Prosecutor and issued an acquittal verdict for Eni, for the former CEO and for the Company's Chief Upstream Officer in relation to all charges. The former CFO of Eni was also acquitted of charges relating to Eni's involvement in the MLE Project. In December 2018 the Court filed a written opinion setting forth the basis for its rulings. The Public Prosecutor and the other parties who were convicted in the first trial have appealed under the terms of the law. A hearing on those appeals is pending.

At the end of 2012, Eni contacted the US Department of Justice (DoJ) and the US SEC in order to voluntarily inform them about this matter, and has kept them informed about the developments in the Italian prosecutors' investigations. Following Eni's notification in 2012, both the US SEC and the DoJ started their own investigations regarding this matter. Eni has furnished various information and documents, including the findings of its internal reviews, in response to formal and informal requests.

(iii) **Block OPL 245 – Nigeria.** In July 2014, the Public Prosecutor of Milan served Eni with a notice of investigation relating to potential liability on the part of Eni arising from alleged international corruption, pursuant to Italian Legislative Decree No. 231/2001 whereby companies are liable for the crimes committed by their employees when performing their tasks. As part of the investigation, Eni was also subpoenaed for documents and other evidence. According to the subpoena, the proceeding was commenced following a claim filed by NGO ReCommon relating to alleged corruptive practices that according to the Public Prosecutor allegedly involved the Resolution Agreement made on April 29, 2011 relating to the Oil Prospecting License of the offshore oilfield that was discovered in Block 245 in Nigeria. Eni fully cooperated with the Public Prosecutor and promptly filed the requested documentation. Furthermore, Eni voluntarily reported the matter to the US Department of Justice and the US SEC. In July 2014, Eni's Board of Statutory Auditors jointly with the Eni Watch Structure resolved to engage an independent, US-based law firm, expert in anticorruption, to conduct a forensic, independent review of the matter, upon informing the Judicial Authorities. After reviewing the matter, the US lawyers concluded in summary that they detected no evidence of

wrongdoing by Eni side in relation to the 2011 transaction with the Nigerian government for the acquisition of the OPL 245 license. The outcome of this review was transmitted to the Judicial Authorities. In September 2014, the Public Prosecutor notified Eni of a restraining order issued by a British judge who ordered the seizure of a bank account not pertaining to Eni domiciled at a British bank following a request from the Public Prosecutor. During a hearing before a Court in London in September 2014, Eni and its current executive officers stated their non-involvement in the matter regarding the seized bank account. Following the hearing, the Court reaffirmed the seizure. In December 2016, the Public Prosecutor of Milan notified Eni of the conclusion of the preliminary investigation and requested the indictment of Eni's CEO, the Chief Development, Operations and Technological Officer and the Executive Vice President for international negotiations, as well as Eni's former CEO and Eni based on Italian law 231/2001 on corporate entity responsibility. Upon the notification to Eni of the conclusion of the preliminary investigation by the Public Prosecutor, the independent US-based law firm was requested to assess whether the new documentation made available from Italian prosecutors could modify the conclusions of the prior review. The US law firm was also provided with the documentation filed in the Nigerian proceeding mentioned below. The independent US law firm concluded that the reappraisal of the matter in light of the new documentations available did not alter the outcome of the prior review. In December 2017, the Judge for Preliminary Investigation ordered the indictment of all the parties mentioned above, and other parties under investigation by the Public Prosecutor, before the Court of Milan. During the first trial hearing in March 2018, the the Federal Republic of Nigeria requested permission to join the case as a civil party. Several NGOs, which had made the same request before the Judge of the Preliminary Hearing and been denied, also asked to join as civil parties. At a hearing in May 2018, a Non-Governmental Organization, Asso Consum, also requested to be recognized as a civil claimant in the proceeding. At the subsequent hearing in June 2018, counsel for the Federal Government of Nigeria ("FGN") reiterated the request for the admission as civil claimants in the proceedings of all the parties that sought leave to join the action as civil claimants in March 2018. At the same time, the attorney requested that Eni and Shell be recognized as defendants with respect to those parties' civil claims. Furthermore, a shareholder of Eni asked to be recognized as a civil claimant. At the hearing of July 20, 2018, the Judge (i) granted the FGN's request to join the proceeding as a civil claimant and (ii) rejected that request with respect to the NGOs, Asso Consum and the shareholder of Eni. Therefore, the FGN is the only civil party admitted by the Court. The first instance trial of the Milan Prosecutor's OPL 245 charges began before the Court of Milan on June 20, 2018 and is currently ongoing. In a separate criminal proceeding, two defendants, neither of whom is a current or former employee of the Company, chose to have their liability determined by the Judge for the Preliminary Hearing on the basis of the evidence presented by the Milan Prosecutor at the preliminary hearing. In September 2018, the Judge convicted these defendants and sentenced them both to four-year detention terms and the disgorgement of profits amounting to approximately €100 million. In December 2018, the Judge for the Preliminary Hearing filed a written opinion setting forth the basis for these rulings. The defendants filed an appeal against this sentence.

In January 2017, Eni's subsidiary Nigerian Agip Exploration Ltd ("NAE") became aware of an Interim Order of Attachment ("Order") issued by the Nigerian Federal High Court upon request from the Nigerian Economic and Financial Crimes Commission (EFCC), attaching OPL 245 temporarily pending a proceeding in Nigeria relating to alleged corruption and money laundering. After making this application, Eni became aware of a formal filing of charges by the EFCC against NAE and other parties. In March 2017, the Nigerian Court revoked the Order. To NAE's knowledge EFCC charges have not been dropped but none of the defendants were served nor arraigned. Eni has provided a copy of the Order and the attached documents, including the charges filed by the EFCC, to the US-based law firm engaged to review the OPL 245 transaction, who upon review of such documents, did not modify their conclusion that they did not detect evidence of wrongdoing by Eni in relation to the acquisition of the OPL 245 from the Nigerian government. In November 2018, Eni SpA and its subsidiaries NAE, NAOC and AENR (as well as some companies of the Shell Group) were notified of the intention of the FGN to bring a civil claim before an English Court to obtain compensation for the damages allegedly deriving from the transaction that resulted in assignment of the OPL 245 to NAE and SNEPCO (Shell subsidiary). Subsequently, Eni obtained a copy of the documentation reflecting the commencement of the case, but neither Eni nor other companies of the Group received any notification regarding this proceeding.

(iv) **Congo.** In March 2017, the Italian Finance Police served on Eni an information request pursuant to the Italian Code of Criminal Procedure connection with an investigative file opened by the Public Prosecutor of Milan against unknown persons. The request related in particular to the agreements signed by Eni Congo SA with the Ministry of Hydrocarbons of the Republic of Congo in 2013, 2014 and 2015 in relation to exploration, development and production activities concerning certain permits held by Eni Congo SA for Congolese projects and Eni's relationships with Congolese companies that hold stakes in those projects. In July 2017, the Italian Financial Police, on behalf of the Public Prosecutor of Milan, served Eni with another information request and a notice of investigation pursuant to Italian Legislative Decree No. 231/01 for alleged international corruption. The request expressly stated that it was based in part on the March 2017 information request and concerned the relationship of Eni and its subsidiaries with certain third-party companies from 2012 to the present. Eni produced all of the documentation requested in March and July 2017 and voluntarily disclosed this matter to the relevant US authorities (SEC and DoJ). On January 26, 2018, the Public Prosecutor's Office requested a six-months extension of the deadline for conducting its preliminary investigation into this matter, from January 31, 2018 until July 30, 2018. Subsequently in July 2018, the Public Prosecutor requested a second extension until February 28, 2019. In April 2018, the Public Prosecutor of Milan served on Eni SpA a further request for documentation and notified an Eni employee, who was the then Chief Development, Operation & Technology Officer, of a search order stating that he and another Eni manager had been placed under investigation. In October 2018, Public Prosecutor ordered the seizure of an e-mail account of another Eni manager, who was formerly the general director of Eni in Congo during the period 2010-2013.
In December 2018, the Public Prosecutor of Milan issued a request to the Company for documents pursuant to article 248 of the Code of Criminal Procedure, concerning some economic transactions

between Eni Group companies and certain companies. In February 2019, Eni received an informative note that the preliminary investigations would extend until October 2019.
In April 2018, the Board of Statutory Auditors, the Watch Structure and the Control and Risk Committee of Eni jointly appointed an independent law firm and a professional consulting company, knowleadgeable in the matter of anti-corruption, to carry out a forensic review of facts relating to Eni's work in Congo. Based on the preliminary results of such review, that is still on-going, there were no factual evidence about the involvement of Eni, nor of any Eni's employees and key managers in the alleged crimes.
On June 4, 2018, the Italian market regulator, Consob, requested information about the above mentioned proceeding from Eni and its Board of Statutory Auditors. Specifically, Eni was asked to provide information about the Congo investigations and the action implemented by the Company and any eventual outcome, including specific audit activities performed by the Company's staff and any task assigned to external parties to review the ongoing investigations. The Company was also asked to transmit supporting evidence and documentation. The Eni Board of Statutory Auditors was asked to report about the monitoring activity performed on the investigations. The Company and its Board of Statutory Auditors answered these requests for information on June 11 and 13, 2018, respectively.

4. Other proceedings concerning criminal matters

(i) **Eni SpA (R&M) – Criminal proceedings on fuel excise tax.** A criminal proceeding is currently pending, relating to alleged evasion of excise taxes in the context of the retail sales in the fuel market. In particular, the claim states that the quantity of oil products marketed by Eni was larger than the quantity subjected to the excise tax.
This proceeding (No. 7320/2014 RGNR) concerns the reunification of three distinct investigations: (i) a first proceeding, opened by the Public Prosecutor's Office of Frosinone involved a company (Turrizziani Petroli) purchaser of Eni's fuel. This investigation was subsequently extended to Eni. The Company fully cooperated and provided all data and information concerning the excise tax obligations for the quantities of fuel coming from the storage sites of Gaeta, Naples and Livorno. Eni collaborated fully providing all the required documentation. Such proceeding referred to quantities of oil products sold by Eni, allegedly larger than the quantity subjected to the excise tax. After the end of the investigation, the financial police of Frosinone, along with the local Customs Agency, in November 2013 issued a claim related to the missing payment of excise taxes in the 2007-2012 period for €1.55 million. In May 2014, the Customs Agency of Rome issued a payment notice relating to the abovementioned claim that was filed by the financial police and Customs Agency of Frosinone. The Company appealed to the Tributary Commission. In March 2018, the Commission filed the ruling of the sentence which accepted Eni's appeal against the claim of the Custom Agency and required the latter to refund the proceeding expenses; (ii) a second proceeding, concerning a line of investigation of the Public Prosecutor's Office of Prato, commenced in regard to the deposit of Calenzano and relates to subtraction of fuel through manipulation of the fuel dispensers, subsequently extended also to the Refinery of Stagno (Livorno); (iii) a third proceeding, opened by the Public Prosecutor's Office of Rome, regarded alleged missing payment of excise tax on the surplus of the unloading products, as the quantity of such products was larger than the quantity reported in the supporting fiscal documents. This proceeding represents a development of the first proceeding mentioned above and substantially concerns similar facts presenting, however, some differences with regard to the nature of the alleged crimes and the responsibility subjected to verification. The second and the third proceeding were merged in the proceeding commenced by Public Prosecutor's Office of Rome. In fact, the Public Prosecutor's Office of Rome has alleged the existence of a criminal conspiracy aimed at habitual subtraction of oil products at all of the 22 storage sites which are operated by Eni over the national territory. Eni is cooperating with the Prosecutor in order to defend the correctness of its operation. On September 2014, a search was conducted at the office of the former chief of the R&M Division in Rome. The motivations of the search are the same as the above-mentioned proceeding as the ongoing investigations also relates to a period of time when the officer was in charge at Eni's R&M Division. On March 2015, the Prosecutor of Rome ordered a search at all the storage sites of Eni's network in Italy as part of the same proceeding. The search was intended to verify the existence of fraudulent practices aimed at tampering with measuring systems functional to the tax compliance of excise duties in relation to fuel handling at the storage sites. In September 2015, the Public Prosecutor of Rome requested a one-off technical appraisal aimed to verify the compliance of the software installed at certain metric heads previously seized with those lodged by the manufacturer at the Ministry of Economic Development. The technical appraisal verified the compliance of the software tested. The proceeding was then extended to a large number of employees and former employees of the Company. In November 2017, the Court of Rome, following the request of the Public Prosecutor, ordered a preventive seizure of the oil products meters at Eni's refineries and depots in Italy. The Company, considering the consequences connected to a complete shutdown of the refining and fueling activities, requested the Public Prosecutor to minimize, as much as possible, the impact on customers, companies and service stations. The preventive seizure was revoked, due to the commitments undertaken by the Company which is a third party not subject to investigation. Eni continues to provide full cooperation to the authorities. In December 2017, technical consultants were designed by Eni to verify the integrity of the sites. The results will be provided to the judicial authorities. In March 2018, the Public Prosecutor of Rome notified the conclusion of the preliminary investigations in relation to the criminal proceeding No. 7320/2014 concerning the Calenzano, Livorno, Sannazzaro, Pomezia, Naples, Gaeta and Ortona sites. Based on the outcome of the investigations, as far as Eni is concerned, the proceeding involves former managers and directors of the refineries indicated above concerning alleged aggravated and continuous non-payment of excise duties, alteration and removal of seals, use and possession of false measures and weights. In addition for Calenzano, three employees and their manager of the storage site were indicted on charges of alleged procedural fraud. The attorneys of the defendants delivered documentations and requested the Public Prosecutor to dismiss the case.
In September 2018, Eni received, as offended party, the notification of the schedule of hearing issued by the Court of Rome, in relation to criminal association and other minor claims, against numerous persons under investigation – including over forty Eni employees –

subject of a separated proceeding (No. 22066/17 RGNR), for which, in May 2017, the Public Prosecutor's Office had requested the filing. At the end of the hearing in December 2018, the Judge accepted the request for dismissal for several persons under investigation, including thirteen Eni's employees, while he rejected the request, requiring the Public Prosecutor to pronounce the charge in terms and forms of law for twenty-eight Eni employees (including the former managers of the R&M Division) for criminal association. In October 2018, as regards the main criminal proceeding, the Public Prosecutor notified the date for the preliminary hearing and the related request for indictment.
In April 2018 as part of the administrative proceeding intended to collect taxes allegedly not paid by Eni, the tax police of Rome based on the findings of the investigations performed by the prosecutors of Frosinone, Prato and Rome issued a statement of objection against the Company claiming the missed payment of excise taxes due for the years 2008 up to 2017 for €34 million, as well as the related higher corporate profits before income taxes leading to the claim of additional taxes for €22 million related to income taxes and VAT. The Custom Agency that is in charge of issuing the notice of payment may also impose a fine and the recognition of interest expense. A part of the litigation, for which omitted payment is disputed, relates to the same transactions successfully challenged by the Company against the Tax Commission of Rome. The Company will appeal at the appropriate forum. Eni accrued a provision with respect to this proceeding.

(ii) **Eni SpA – Public Prosecutor of Milan – Criminal proceeding No. 12333/2017.** In February 2018, Eni was notified of a search and seizure decree in relation to allegations of associative crime aimed at slander and at reporting false information to a Public Prosecutor. In the decree, the Prosecutor of Milan included, among the other persons under investigation, the former Chief Legal and Regulatory Affairs Officer of Eni, currently the Chief Gas & LNG Marketing and Power Officer of the Company. Eni is not under investigation. According to the decree, the association would be allegedly aimed at interfering with the judicial activity in certain criminal proceedings that are involving, among others, Eni and some of its directors and managers. Afterwards, the Control and Risks Committee, having consulted the Board of Statutory Auditors, and together with the Watch Structure, agreed to engage auditing firm to perform an internal audit of all relevant facts and circumstances and all records and documentation on the matter with respect to the events of the aforementioned proceeding, including a forensic review. The final report, submitted to the Control and Risk Committee, the Watch Structure and the Board of Statutory Auditors on September 12, 2018, concluded that following the review carried out with respect to the allegations made by the Public Prosecutor of Milan, there would be no sufficient factual evidence about the involvement of the former Chief Legal manager and Regulatory Affairs manager of Eni in the alleged crimes.
In April 19, 2018, the Board of Directors appointed two external consultants, a criminal lawyer and a civil lawyer to provide independent legal advice in relation to the facts under investigation. The outcomes illustrated in two reports, dated November 22, 2018 and February 14, 2019, did not highlight circumstances in fact suitable any direct involvement of any Eni's employees in the crimes alleged by the Public Prosecutor. Both reports were presented to the Board of Directors, to the Board of Statutory Auditors and to the Watch Structure of Eni.
On June 4, 2018 Consob, the Italian market regulator, requested to be informed about the above mentioned proceeding. The request was addressed to the Company and to its Board of Statutory Auditors. Specifically, Consob asked for the outcome of the forensic review and to be updated about any other audit action taken in relation to the matter by the Company and by its board of Statutory Auditors. The Board of Statutory Auditors was also requested to report about the findings of the additional audit program agreed with the external auditor regarding the matter and to keep Consob updated about any further initiative adopted. The Company and its Board of Statutory Auditors answered the request of information on June 11 and June 13, 2018, respectively. Subsequently, the Company finalized its response by sending further documentation including the final report of the audit firm and the reports of the consultants.The Board of Statutory Auditors has periodically updated Consob of the initiatives taken as part of the Board's monitoring responsibilities with communications transmitted on September 21, December 3 and 20, 2018 and on February 19, 2019.
On June 13, 2018, Eni was notified of a request from the Prosecutor Office to transmitting certain documentation in accordance with the provision of the Italian penal code. The request targeted evidence and documents relating to the internal audit performed by the Company and any possible external review concerning certain tasks that were assigned to an external lawyer with respect to Eni. This lawyer appears to be investigated as part of this proceeding. The reports of the consultants of the Board of Directors and of the independent third party were sent to the Judicial Authority.

(iii) **Eni SpA – Public Prosecutor of Milan – Insider trading.** In March 2019, a request for extending certain investigations was notified to Eni's Chief Upstream Officer by the Public Prosecutor Office of Milan. The commencement of those investigation was otherwise not notified. The investigations related to an alleged breach of Italian provisions that regulate insider trading and access to market-sensitive information. The breach was allegedly made from November 1 to December 1, 2016. There were no more informative details about the alleged breach in the notified document.

5. Settled Proceedings

(i) **Syndial SpA – Clorosoda.** The proceeding, involving 17 former managers of the Eni Group, regards alleged crimes of culpable manslaughter and grievous bodily harm related to the death of 12 former employees and alleged work-related diseases that those persons may have contracted at the plant of Clorosoda. Alleged crimes relate to the period from 1969, when the Clorosoda plant commenced operations, until 1998 when the plant was shut down and clean-up activities were performed. The Public Prosecutor requested a medical appraisal on over 100 people who had been employed at the plant. This appraisal was performed by independent consultants designated by the Judge for preliminary investigation and did not find any evidence that the various diseases identified from the medical appraisal could be directly linked to the exposure to emissions related to the production of chlorine and caustic soda. The consultants also found that production activities were in compliance with applicable laws and regulations on health and safety. Following the outcome of the assessment, the Public Prosecutor of Gela issued a notice of conclusion of preliminary investigations in relation to 4 cases, contesting personal injuries and claimed the

indictment only in one case concerning a worker who died in the meantime. Therefore, compared to the initial claim that concerned several (more than one hundred) cases of personal injury and manslaughter, the proceeding was narrowed. In June 2017, the Judge issued a ruling of nonsuit because the case was judged groundless. The Public Prosecutor appealed the first-degree sentence. In September 2018, the Second Instance Court in its final decision did not accept the appeal presented by the Public Prosecutor. Also for the proceeding concerning the four cases that are part of a separate proceeding, the Judge issued a ruling of nonsuit, which became irrevocable in February 2018.

(ii) **Eni SpA – Raffineria di Gela SpA – Eni Mediterranea Idrocarburi SpA - Syndial SpA.** In December 2015, 273 Gela residents filed an appeal to the Court of Gela requesting to halt all the production activities conducted by Eni's subsidiaries at Gela site in order to put an end to alleged environmental pollution affecting the health of the local population. The claimants also requested the appointment of commissioners in charge of carrying out the plant shutdown and of continuing implementing of clean-up activities in the area. They also requested the Court to order the Municipality of Gela – as a competent body in the field of health protection – to adopt certain provisions aimed to preserve the health of the local population. This proceeding arose in connection with alleged environmental damage caused by the industrial activities of the site and consequent necessity to protect the population from serious harm to the health. The initiative was carried out by certain technical assessments performed by consultants appointed by the Court in the preliminary stage. The aim of these assessments was to establish cause-and-effect relationships between the industrial contamination and congenital anomalies reported in the town of Gela. Following the outcome of the investigation, in December 2017 the Court of Gela rejected all the claims of the plaintiffs and ordered them to pay the expenses of the proceeding. The plaintiffs appealed the decision. In September 2018, the Court rejected the appeal presented by the appellants, confirming the order issued by the First Instance Court. The precautionary procedure promoted is therefore definitively concluded.

Assets under concession arrangements

Eni operates under concession arrangements mainly in the Exploration & Production segment and the Refining & Marketing business line. In the Exploration & Production segment, contractual clauses governing mineral concessions, licenses and exploration permits regulate the access of Eni to hydrocarbon reserves. Such clauses can differ in each Country. In particular, mineral concessions, licenses and permits are granted by the legal owners and, generally, entered into with government entities, State oil companies and, in some legal contexts, private owners. Pursuant to the assignment of mineral concession, Eni sustains all the operational risks and costs related to the exploration and development activities and it is entitled to the productions realized. As a compensation for mineral concessions, Eni pays royalties and taxes in accordance with local tax legislation. In production sharing agreement and service contracts, realized productions are defined based on contractual agreements with State oil companies, which hold the concessions. Such contractual agreements regulate the recovery of costs incurred for the exploration, development and operating activities (Cost Oil) and give entitlement to the own portion of the realized productions (Profit Oil). In the Refining & Marketing business line, several service stations and other auxiliary assets of the distribution service are located in the motorway areas and they are granted by the motorway concession operators following a public tender for the sub-concession of the supplying of oil products distribution service and other auxiliary services. In exchange of the granting of the services described above, Eni provides to the motorway companies fixed and variable royalties based on quantities sold. At the end of the concession period, all non-removable assets are transferred to the grantor of the concession for no consideration.

Environmental regulations

Risks associated with the footprint of Eni's activities on the environment, health and safety are described in the "Financial Review", paragraph "Risk factors and uncertainties". In the future, Eni will sustain significant expenses in relation to compliance with environmental, health and safety laws and regulations and for reclaiming, safety and remediation works of areas previously used for industrial production and dismantled sites. In particular, regarding the environmental risk, management does not currently expect any material adverse effect upon Eni's Consolidated Financial Statements, taking account of ongoing remediation actions, existing insurance policies and the environmental risk provision accrued in the Consolidated Financial Statements. However, management believes that it is possible that Eni may incur material losses and liabilities in future years in connection with environmental matters due to: (i) the possibility of as yet unknown contamination; (ii) the results of ongoing surveys and other possible effects of statements required by Legislative Decree 152/2006; (iii) new developments in environmental regulation (i.e. Law No. 68/2015 on crimes against the environment and European Directive 2015/2193 on medium combustion plants); (iv) the effect of possible technological changes relating to future remediation; and (v) the possibility of litigation and the difficulty of determining Eni's liability, if any, as against other potentially responsible parties with respect to such litigation and the possible insurance recoveries.

Emission trading

From 2013, the third phase of the European Union Emissions Trading Scheme (EU-ETS) came in force. The new phase marked a significant change in the method of awarding emission allowance from a no-consideration scheme based on historical emissions to allocation through auctioning. For the period 2013-2020, the award of free emission allowances is performed based on European benchmarks specific to each industrial segment, except for the thermoelectric sector that is not eligible for allocations for no consideration. This regulatory scheme implies for Eni's plants subjected to emission trading a lower assignment of emission permits respect to the emissions recorded in the relevant year and, consequently, the necessity of covering the amounts in excess by purchasing the relevant emission allowances on the open market. In 2018, the emissions of carbon dioxide from Eni's plants were higher than the free allowances assigned to Eni. Against emissions of carbon dioxide amounting to approximately 19.93 million tonnes, Eni was awarded free emission allowances of 7.25 million tonnes, determining a deficit of 12.68 million tonnes. This deficit was entirely covered through the purchase of emission allowances in the open market.

28 | Revenues

NET SALES FROM OPERATIONS

(€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Total
2018					
Revenues from customers	9,943	43,109	22,594	176	75,822
Products sales and service revenues					
Sales of:					
- crude oil	3,982	18,471			22,453
- oil products	1,133	4,053	17,213		22,399
- natural gas and LNG	4,554	15,088			19,642
- chemical products		762	4,777	35	5,574
- other products	27	2,363	20	11	2,421
Services	247	2,372	584	130	3,333
Total	**9,943**	**43,109**	**22,594**	**176**	**75,822**
Transfer of goods and/or services					
Goods/Services transferred in a specific moment	9,676	42,979	22,535	106	75,296
Goods/Services transferred over a period of time	267	130	59	70	526

(€ million)	2018
Revenues associated with liabilities from customer contracts at the beginning of the period	342
Revenues associated with performance obligations totally or partially satisfied in previous years	11

Sales from operations by industry segment and geographical area of destination are disclosed in note 35 – Segment information and information by geographical area.

Sales from operations with related parties are disclosed in note 36 – Transactions with related parties.

OTHER INCOME AND REVENUES

(€ million)	2018	2017	2016
Gains from sale of assets and businesses	454	3.288	14
Other proceeds	662	770	917
	1,116	**4,058**	**931**

Gains from the sale of assets and businesses related to the divestment of a 10% stake in the Zohr project for €428 million. In 2017, the amount related million to the divestment of a 25% stake in natural gas-rich Area 4 offshore Mozambique (€1,985 million) and of a 40% stake in the Zohr project (€1,281 million).

Other income and revenues with related parties are disclosed in note 36 – Transactions with related parties.

29 | Costs

PURCHASE, SERVICES AND OTHER

(€ million)	2018	2017	2016
Production costs - raw, ancillary and consumable materials and goods	41,125	35,907	27,783
Production costs - services	10,625	12,228	12,727
Operating leases and other	1,820	1,684	1,672
Net provisions for contingencies	1,120	886	505
Expenses for price variation on overliftling and underlifting operations		145	240
Other expenses	1,130	931	666
	55,820	**51,781**	**43,593**
less:			
- capitalized direct costs associated with self-constructed assets - tangible assets	(192)	(224)	(297)
- capitalized direct costs associated with self-constructed assets - intangible assets	(6)	(9)	(18)
	55,622	**51,548**	**43,278**

Purchase, services and other charges include costs of geological and geophysical studies for €287 million (€273 million and €204 million in 2017 and 2016, respectively) and operating leases for €872 million (€1,022 million and €566 million in 2017 and 2016, respectively).
Costs incurred in connection with research and development activities expensed through profit and loss, as they did not meet the requirements to be recognized as long-lived assets, amounted to €197 million (€185 million and €161 million in 2017 and 2016, respectively).
Royalties on the extraction of hydrocarbons amounted to €1,043 million (€674 million and €572 million in 2017 and 2016, respectively).
Future minimum lease payments expected to be paid under non-cancelable operating leases are provided below:

(€ million)	2018	2017	2016
To be paid:			
- within 1 year	776	883	593
- between 2 and 5 years	1,653	1,710	1,040
- beyond 5 years	1,524	1,939	785
	3,953	**4,532**	**2,418**

Operating leases primarily comprised long-term rentals of FPSO vessels, offshore drilling rigs, time charter and land, service stations and office buildings. Such leases may not include renewal options. There are no significant restrictions provided by these operating leases that may limit the ability of Eni to pay dividends, use assets or take on new borrowing.
Additions to provisions for contingencies net of reversal of unused provisions related to net additions for litigations amounting to €101 million (net additions of €375 million and €55 million in 2017 and 2016, respectively) and net additions for environmental liabilities amounting to €266 million (net additions of €200 million and €198 million in 2017 and 2016, respectively). More information is provided in note 20 – Provisions for contingencies. Provisions for contingencies by segment are disclosed in note 35 – Segment information and information by geographical area.

PAYROLL AND RELATED COSTS

(€ million)	2018	2017	2016
Wages and salaries	2,409	2,447	2,491
Social security contributions	448	441	445
Cost related to employee benefit plans	220	113	81
Other costs	170	162	202
	3,247	**3,163**	**3,219**
less:			
- capitalized direct costs associated with self-constructed assets - tangible assets	(142)	(202)	(215)
- capitalized direct costs associated with self-constructed assets - intangible assets	(12)	(10)	(10)
	3,093	**2,951**	**2,994**

Other costs comprised provisions for redundancy incentives of €37 million (€18 million and €47 million in 2017 and 2016, respectively) and costs for defined contribution plans of €95 million (€90 million and €83 million in 2017 and 2016, respectively).

Cost related to employee benefit plans are described in note 21 – Provisions for employee benefits.
Costs with related parties are disclosed in note 36 – Transactions with related parties.

Average number of employees

The Group's average number and breakdown of employees by category is reported below:

	2018		2017		2016	
(number)	Subsidiaries	Joint operations	Subsidiaries	Joint operations	Subsidiaries	Joint operations
Senior managers	999	17	995	17	1,018	18
Junior managers	9,095	84	9,089	98	9,160	109
Employees	16,220	361	16,721	371	17,180	384
Workers	5,259	283	5,659	285	5,703	294
	31,573	**745**	**32,464**	**771**	**33,061**	**805**

The average number of employees was calculated as the average between the number of employees at the beginning and the end of the period. The average number of senior managers included managers employed in foreign Countries, whose position is comparable to a senior manager's status.

Long-term monetary incentive plan for the managers of Eni

On April 13, 2017, the Shareholders Meeting approved the Long-Term Monetary Incentive Plan 2017-2019 and empowered the Board of Directors to execute the Plan by authorizing it to dispose up to a maximum of 11 million of treasury shares in service of the Plan.
The Long-Term Monetary Incentive Plan 2017-2019 provides for three annual awards for the years 2017, 2018 and 2019 and is intended for the Chief Executive Officer of Eni and for the managers of Eni and its subsidiaries who qualify as "senior managers deemed critical for the business", selected among those who are in charge of tasks directly linked to the Group results or of strategic interest to the business.
The Plan provides the granting of Eni shares for no consideration to eligible managers after a three-year vesting period under the condition that they would remain in service until vesting. Considering that this incentive falls within the category of employee compensation, in accordance with IFRS, the cost of the plan is determined based on the fair value of the financial instruments awarded to the beneficiaries and the number of shares that will be granted at the end of the vesting period; the cost is accruing along the vesting period.
The number of shares that will be granted at the end of the vesting period is conditioned on a 50-50 basis to actual results of two performance parameters against preset targets: (i) a market condition in terms of Total Shareholder Return (TSR) of the Eni share compared to the TSR of the FTSE Mib index of the Italian Stock Exchange Market, and to a group of Eni's competitors ("Peers Group")[29] and the TSR of their corresponding stock exchange market[30]; (ii) growth in the Net Present Value (NPV) of proved reserves benchmarked against the Peer Group. Depending on the performance of the parameters mentioned above, the number of shares that will vest after three years may range between 0% and 180% of the initial award. Furthermore, 50% of the shares that will eventually vest is subject to a lock-up clause of one year after the vesting date.
At the grant date, the number of shares awarded was 1,517,975 and 1,719,061 respectively in 2018 and in 2017; the weighted average fair value of the shares at the same date was €11.73 and €7.99 per share.

(29) The group consists of the following oil companies: Anadarko, Apache, BP, Chevron, ConocoPhillips, ExxonMobil, Marathon Oil, Royal Dutch Shell, Statoil and Total.
(30) The performance condition connected with the TSR in accordance with the international accounting standards represents a so-called market condition.

The determination of the fair value was calculated by adopting specific valuation techniques regarding the different performance parameters provided by the plan (the stochastic method for the market condition of the plan and the Black-Scholes model for the component related to the NPV of the reserves), taking into account the fair value of the Eni share at the grant date (€14.246 per share in 2018; €13.81 per share in 2017), reduced by dividends expected along the vesting period (5.8% of the share price at vesting date), the volatility of the stock (20% for attribution 2018; 25% for attribution 2017), the forecasts for the performance parameters, as well as the lower value attributable to the shares considering the lock-up period at the end of the vesting period.

In 2018, the costs related to the long-term monetary incentive plan 2017-2019, recognized as a component of the payroll cost, amounted to €5.1 million (€0.4 million in 2017) with a contra-entry to equity reserves.

Compensation of key management personnel

Compensation (including contributions and ancillary costs) of personnel holding key positions in planning, directing and controlling Eni Group's subsidiaries, including executive and non-executive officers, general managers and managers with strategic responsibilities in service during the year consisted of the following:

(€ million)	2018	2017	2016
Wages and salaries	27	25	26
Post-employment benefits	2	2	2
Other long-term benefits	10	9	12
Indemnities upon termination of employment		7	4
	39	**43**	**44**

Compensation of Directors and Statutory Auditors

Compensation of Directors amounted to €9.6 million, €14.5 million and €7.1 million for 2018, 2017 and 2016, respectively. Compensation of Statutory Auditors amounted to €0.604 million, €0.760 million and €0.738 million in 2018, 2017 and 2016, respectively.

Compensation included emoluments and social security benefits due for the office as Director or Statutory Auditor held at the parent company Eni SpA or other Group subsidiaries, which was recognized as a cost to the Group, even if not subject to personal income tax.

30 | Finance income (expense)

(€ million)	2018	2017	2016
Finance income (expense)			
Finance income	3,967	3,924	5,850
Finance expense	(4,663)	(5,886)	(6,232)
Net finance income (expense) from financial assets held for trading	32	(111)	(21)
Income (expense) from derivative financial instruments	(307)	837	(482)
	(971)	**(1,236)**	**(885)**

The analysis of finance income (expense) was as follows:

(€ million)	2018	2017	2016
Finance income (expense) related to net borrowings			
- Interest and other finance expense on ordinary bonds	(565)	(638)	(639)
- Net finance income (expense) on financial assets held for trading	32	(111)	(21)
- Interest due to banks and other financial institutions	(120)	(113)	(118)
- Interest and other income on financial receivables and securities held for non-operating purposes	8	16	37
- Interest from banks	18	12	15
	(627)	**(834)**	**(726)**
Exchange differences	**341**	**(905)**	**676**
Income (expense) from derivative financial instruments	**(307)**	**837**	**(482)**
Other finance income (expense)			
- Interest and other income on financing receivables and securities held for operating purposes	132	128	143
- Capitalized finance expense	52	73	106
- Finance expense due to the passage of time (accretion discount)[a]	(249)	(264)	(312)
- Other finance income (expense)	(313)	(271)	(290)
	(378)	**(334)**	**(353)**
	(971)	**(1,236)**	**(885)**

(a) The item related to the increase in provisions for contingencies that are shown at present value in non-current liabilities.

The analisys of derivative financial income (expense) is disclosed in note 23 – Derivative financial instruments and hedge accounting.

Finance income (expense) with related parties are disclosed in note 36 – Transactions with related parties.

31 | Income (expense) from investments

SHARE OF PROFIT (LOSS) OF EQUITY-ACCOUNTED INVESTMENTS

More information is provided in note 14 – Investments. Share of profit or loss of equity-accounted investments by segment is disclosed in note 35 – Segment information and information by geographical area.

OTHER GAIN (LOSS) FROM INVESTMENTS

(€ million)	2018	2017	2016
Dividends	231	205	143
Net gain (loss) on disposals	22	163	(14)
Other net income (expense)	910	(33)	(183)
	1,163	**335**	**(54)**

Dividend income related to Nigeria LNG Ltd for €187 million and to Saudi European Petrochemical Co for €35 million (similarly in the comparative periods).

Other net income included the gain of €889 million deriving from the business combination between Eni Norge AS and Point Resources AS, fully-owned respectively by Eni and HitecVision AS, with the establishment of the joint venture Vår Energi AS, jointly controlled by the two shareholders and was determined as difference between the carrying amount of the equity investment, corresponding to the fair value of the combined net assets, and the book value of the divested net assets. In the comparative periods the expenses referred to the impairments of joint ventures and associates.

32 | Income taxes

(€ million)	2018	2017	2016
Current taxes:			
- Italian subsidiaries	301	712	195
- subsidiaries of the Exploration & Production segment - outside Italy	4,906	3,167	2,671
- other subsidiaries - outside Italy	163	142	133
	5,370	**4,021**	**2,999**
Net deferred taxes:			
- Italian subsidiaries	130	(464)	(243)
- subsidiaries of the Exploration & Production segment - outside Italy	497	(162)	(813)
- other subsidiaries - outside Italy	(27)	72	(7)
	600	**(554)**	**(1.063)**
	5,970	**3,467**	**1,936**

Current income taxes payable by Italian subsidiaries referred to foreign taxes for €241 million.
The reconciliation between the statutory tax charge calculated by applying the Italian statutory tax rate of 24% (24% in 2017 and 27.5% in 2016) and the effective tax charge is the following:

(€ million)	2018	2017	2016
Profit (loss) before taxation	**10,107**	**6,844**	**892**
Tax rate (IRES) (%)	24.0	24.0	27.5
Statutory corporation tax charge (credit) on profit or loss	**2,426**	**1,643**	**245**
Increase (decrease) resulting from:			
- higher tax charges related to subsidiaries outside Italy	3,096	1,882	1,152
- impact pursuant to the write-off of deferred tax assets and recalculation of tax rates	252	(96)	397
- effect due to the tax regime provided for intercompany dividends	47	1	87
- Italian regional income tax (IRAP)	50	77	42
- effect due to non-taxable gains/losses on sales of investments	(1)	(177)	8
- impact pursuant to redetermination of the Italian Windfall Corporate tax as per Law 7/2009		61	
- other adjustments	100	76	5
	3,544	**1,824**	**1,691**
Effective tax charge	**5,970**	**3,467**	**1,936**

The higher tax charges at non-Italian subsidiaries related to the Exploration & Production segment for €3,014 million (€1,811 million and €1,211 million in 2017 and in 2016, respectively).

33 | Earnings per share

Basic earnings per ordinary share are calculated by dividing net profit for the period attributable to Eni's shareholders by the weighted average number of ordinary shares issued and outstanding during the period, excluding treasury shares.
The average number of ordinary shares used for the calculation of the basic earnings per share in 2018 was 3,601,140,133 (same amount in 2017 and 2016).
Diluted earnings per share is calculated by dividing the net profit of the period attributable to Eni's shareholders by the weighted average number of shares fully-diluted including shares outstanding in the year and the number of potential shares to be issued in connection with stock-based compensation plans.
As of December 31, 2018, the shares that could be potentially issued related the estimation of new share that will vest in connection with the long-term monetary incentive plan. The weighted average number of outstanding shares used for calculating the diluted earnings per share is 2,782,584 for 2018 (1,691,413 for 2017). In 2016, there were no potential shares with dilutive effects.

Reconciliation of the weighted average number of shares used for the calculation for both basic and diluted earnings per share was as follows:

		2018	2017	2016
Weighted average number of shares used for the calculation of the basic earnings per share		**3,601,140,133**	**3,601,140,133**	**3,601,140,133**
Potential share to be issued for ILT incentive plan		2,782,584	1,691,413	
Weighted average number of shares used for the calculation of the diluted earnings per share		**3,603,922,717**	**3,602,831,546**	**3,601,140,133**
Eni's net profit	(€ million)	**4,126**	**3,374**	**(1,464)**
Basic earning (loss) per share	(euro per share)	1.15	0.94	(0.41)
Diluted earning (loss) per share	(euro per share)	1.15	0.94	(0.41)
Eni's net profit - Continuing operations	(€ million)	**4,126**	**3,374**	**(1,051)**
Basic earning (loss) per share	(euro per share)	1.15	0.94	(0.29)
Diluted earning (loss) per share	(euro per share)	1.15	0.94	(0.29)
Eni's net profit - Discontinued operations	(€ million)			**(413)**
Basic earning (loss) per share	(euro per share)			(0.12)
Diluted earning (loss) per share	(euro per share)			(0.12)

34 | Exploration for evaluation of Oil & Gas resources

(€ million)	2018	2017	2016
Revenues related to exploration activity and evaluation	**17**	**9**	**4**
Exploration activity and evaluation costs			
- write-off of exploration and evaluation costs	93	252	170
- costs of geological and geophysical studies	287	273	204
Exploration expense for the year	**380**	**525**	**374**
Intangible assets: proved and unproved exploration licence and leasehold property acquisition costs	1,081	995	1,092
Tangible assets: capitalized exploration and evaluation costs	1,267	1,371	1,905
Total tangible and intangible assets	**2,348**	**2,366**	**2,997**
Provision for decommissioning related to exploration activity and evaluation	**77**	**81**	**118**
Exploration expenditure (net cash used in investing activivties)	463	442	417
Geological and geophysical costs (cash flow from operating activities)	287	273	204
Total exploration effort	**750**	**715**	**621**

35 | Segment information and information by geographical area

SEGMENT INFORMATION

Eni's segmental reporting reflects the Group's operating segments, whose results are regularly reviewed by the chief operating decision maker (the CEO) to make decisions about resources to be allocated to each segment and to assess segment performance.

Segment performance is evaluated based on operating profit or loss. Other segment information presented to the CEO include segment revenues and directly attributable assets and liabilities.

As of December 31, 2018, Eni had the following reportable segments:

Exploration & Production: engages in the exploration, development and production of crude oil, LNG and natural gas, including projects to build and operate liquefaction plants of natural gas.

Gas & Power: engages in supply and marketing of natural gas at wholesale and retail markets, supply and marketing of LNG and supply, production and marketing of power at retail and wholesale markets. Gas & Power is engaged in supply and marketing of crude oil and oil products targeting the operational requirements of Eni's refining business and in commodity trading (including crude oil, natural gas, oil products, power, emission allowances, etc.) targeting to both hedge and stabilize the Group industrial and commercial margins according to an integrated view and to optimize margins.

Refining & Marketing and Chemicals: engages in the manufacturing, supply and distribution and marketing activities of oil products and chemical products. The results of the Chemicals business have been aggregated to those of the Refining & Marketing business in a single reportable segment, because these two operating segments exhibit similar economic characteristics.

Corporate and other activities: include the costs of the Group HQ functions which provide services to the operating subsidiaries, comprising holding, financing and treasury, IT, HR, real estate, legal assistance, captive insurance, planning and administration activities, as well as the results of the Group environmental cleanup and remediation activities performed by the subsidiary Syndial. The Energy Solutions Department, which engages in developing the business of renewable energy, is an operating segment, which is reported within Corporate and other activities because it does not meet the materiality threshold for separate segment reporting.

Information by segment is as follows:

(€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Adjustments of intragroup profits	Total
2018						
Net sales from operations[a]	25,744	55,690	25,216	1,589		
Less: intersegment sales	(15,801)	(12,581)	(2,622)	(1,413)		
Net sales to customers	9,943	43,109	22,594	176		75,822
Operating profit	10,214	629	(380)	(691)	211	9,983
Net provisions for contingencies	235	53	274	579	(21)	1,120
Depreciation and amortization	6,152	408	399	59	(30)	6,988
Impairments of tangible and intangible assets	1,025	56	193	18		1,292
Reversals of tangible and intangible assets	299	127				426
Write-off	97	1	2			100
Share of profit (loss) of equity-accounted investments	158	9	(67)	(168)		(68)
Identifiable assets[b]	63,051	9,989	11,692	1,171	(420)	85,483
Unallocated assets						32,890
Equity-accounted investments	4,972	494	275	1,303		7,044
Identifiable liabilities[c]	18,110	8,314	4,319	4,072	(275)	34,540
Unallocated liabilities						32,760
Capital expenditure in tangible and intangible assets	7,901	215	877	143	(17)	9,119
2017						
Net sales from operations[a]	19,525	50,623	22,107	1,462		
Less: intersegment sales	(12,394)	(10,777)	(2,336)	(1,291)		
Net sales to customers	7,131	39,846	19,771	171		66,919
Operating profit	7,651	75	981	(668)	(27)	8,012
Net provisions for contingencies	479	(20)	182	245		886
Depreciation and amortization	6,747	345	360	60	(29)	7,483
Impairments of tangible and intangible assets	650	56	131	25		862
Reversals of tangible and intangible assets	808	202	77			1,087
Write-off	260	2	1			263
Share of profit (loss) of equity-accounted investments	(99)	(10)	(57)	(101)		(267)
Identifiable assets[b]	66,661	11,058	11,599	1,108	(610)	89,816
Unallocated assets						25,112
Equity-accounted investments	1,234	509	321	1,447		3,511
Identifiable liabilities[c]	17,273	8,851	4,005	4,053	(306)	33,876
Unallocated liabilities						32,973
Capital expenditure in tangible and intangible assets	7,739	142	729	87	(16)	8,681
2016						
Net sales from operations[a]	16,089	40,961	18,733	1,343		
Less: intersegment sales	(9,711)	(8,898)	(1,605)	(1,150)		
Net sales to customers	6,378	32,063	17,128	193		55,762
Operating profit	2,567	(391)	723	(681)	(61)	2,157
Net provisions for contingencies	123	50	171	438	(277)	505
Depreciation and amortization	6,772	354	389	72	(28)	7,559
Impairments of tangible and intangible assets	740	167	120	40		1,067
Reversals of tangible and intangible assets	1,440	86	16			1,542
Write-off	153	2	195			350
Share of profit (loss) of equity-accounted investments	(198)	19	(3)	(144)		(326)
Identifiable assets[b]	75,716	12,014	10,712	1,146	(520)	99,068
Unallocated assets						25,477
Equity-accounted investments	1,626	592	289	1,533		4,040
Identifiable liabilities[c]	17,433	8,923	3,968	3,939	(332)	33,931
Unallocated liabilities						37,528
Capital expenditure in tangible and intangible assets	8,254	120	664	55	87	9,180

(a) Before elimination of intersegment sales.

(b) Includes assets directly associated with the generation of operating profit.

(c) Includes liabilities directly associated with the generation of operating profit.

FINANCIAL INFORMATION BY GEOGRAPHICAL AREA

Identifiable assets and investments by geographical area of origin.

(€ million)	Italy	Other European Union	Rest of Europe	Americas	Asia	Africa	Other areas	Total
2018								
Identifiable assets[a]	18,646	7,086	1,031	4,546	16,910	36,155	1,109	85,483
Capital expenditure in tangible and intangible assets	1,424	267	538	534	1,782	4,533	41	9,119
2017								
Identifiable assets[a]	18,449	7,706	6,160	4,406	16,527	35,385	1,183	89,816
Capital expenditure in tangible and intangible assets	1,090	316	387	278	898	5,699	13	8,681
2016								
Identifiable assets[a]	18,769	7,370	6,960	5,397	19,471	39,812	1,289	99,068
Capital expenditure in tangible and intangible assets	1,163	331	460	233	1,978	5,004	11	9,180

(a) Includes assets directly associated with the generation of operating profit.

Net sales from operations by geographical area of destination.

(€ million)	2018	2017	2016
Italy	25,279	21,925	21,280
Other European Union	20,408	19,791	15,808
Rest of Europe	7,052	5,911	4,804
Americas	5,051	5,154	3,212
Asia	9,585	7,523	5,619
Africa	8,246	6,428	4,865
Other areas	201	187	174
	75,822	**66,919**	**55,762**

36 | Transactions with related parties

In the ordinary course of its business, Eni enters into transactions with related parties regarding:

(a) exchange of goods, provision of services and financing with joint ventures, associates and non-consolidated subsidiaries;

(b) exchange of goods and provision of services with entities controlled by the Italian Government;

(c) exchange of goods and provision of services with companies related to Eni SpA through members of the Board of Directors. Most of these transactions are exempt from the application of the Eni internal procedure of Eni "Transactions involving interests of Directors and Statutory Auditors and transactions with related parties" pursuant to the Consob Regulation, since they relate to ordinary transactions conducted at market or standard conditions, or because under the materiality threshold provided for by the procedure. The solely non-exempted transaction, that was positively examined and valued in application of the procedure, concerned the remote monitoring of cars in the "enjoy" initiative (for an amount of lower than €1 million) conducted with Vodafone Italia SpA related to Eni SpA through of a member of the Board of Directors;

(d) contributions to non-profit entities correlated to Eni with the aim to develop solidarity, culture and research initiatives. In particular these related to: (i) Eni Foundation established by Eni as a non-profit entity with the aim of pursuing exclusively solidarity initiatives in the fields of social assistance, health, education, culture and environment, as well as scientific and technological research; and (ii) Eni Enrico Mattei Foundation established by Eni with the aim of enhancing, through studies, research and training initiatives, knowledge in the fields of economics, energy and environment, both at the national and international level.

Some low transactions with companies related to Eni SpA through some members of the Board of Directors were concluded at market or standard conditions, or in compliance with Eni's internal procedure "Transactions involving interests of Directors and Statutory Auditors and transactions with related parties", pursuant the Consob regulation.

Transactions with related parties were conducted in the interest of Eni companies and, with exception of those with entities whose aim is to develop charitable, cultural and research initiatives, are related to the ordinary course of Eni's business.

Investments in subsidiaries, joint arrangements and associates as of December 31, 2018 are presented in the annex "List of companies owned by Eni SpA as of December 31, 2018". This annex includes also the changes in the scope of consolidation.

TRADE AND OTHER TRANSACTIONS WITH RELATED PARTIES

2018

Name (€ million)	December 31, 2018			2018		
	Receivables and other assets	Payables and other liabilities	Guarantees	Costs	Revenues	Other operating (expense) income
Joint ventures and associates						
Agiba Petroleum Co	1	96		156		
Angola LNG Supply Services Llc			177			
Coral FLNG SA	14		1,147		62	
Gas Distribution Company of Thessaloniki-Thessaly SA	1	18		51		
Karachaganak Petroleum Operating BV	27	134		998	1	
Mellitah Oil & Gas BV	1	268		502	1	
Petrobel Belayim Petroleum Co	56	2,029		2,282	7	
Saipem Group	75	171	793	420	30	
Unión Fenosa Gas SA	4	7	57		123	37
Vår Energi AS	13	100	218			
Other(*)	44	25		104	111	(26)
	236	**2,848**	**2,392**	**4,513**	**335**	**11**
Unconsolidated entities controlled by Eni						
Eni BTC Ltd			177			
Industria Siciliana Acido Fosforico - ISAF SpA (in liquidation)	87	1	5		11	
Other	6	23	14	13	7	
	93	**24**	**196**	**13**	**18**	
	329	**2,872**	**2,588**	**4,526**	**353**	**11**
Entities controlled by the Government						
Enel Group	134	151		514	118	227
GSE - Gestore Servizi Energetici	67	85		588	555	74
Italgas Group	5	146		667	23	
Snam Group	237	289		1,184	109	(1)
Terna Group	26	47		231	150	8
Other	25	18		34	45	
	494	**736**		**3,218**	**1,000**	**308**
Other related parties	**1**	**2**		**32**	**4**	
Groupement Sonatrach – Agip «GSA» and Organe Conjoint des Opérations «OC SH/FCP»	**40**	**140**		**229**	**34**	
Total	**864**	**3,750**	**2,588**	**8,005**	**1,391**	**319**

(*) Each individual amount included herein was lower than €50 million.

2017

Name (€ million)	December 31, 2017			2017		
	Receivables and other assets	Payables and other liabilities	Guarantees	Costs	Revenues	Other operating (expense) income
Joint ventures and associates						
Agiba Petroleum Co	1	83		142		
Coral FLNG SA	20	4	1,094		28	
Karachaganak Petroleum Operating BV	36	121		951		
Mellitah Oil & Gas BV	5	220		495	2	
Petrobel Belayim Petroleum Co	86	1,205		3,168	8	
Saipem Group	63	76	7,270	450	44	
Unión Fenosa Gas SA			57	3	202	28
Other(*)	84	22		140	128	
	295	**1,731**	**8,421**	**5,349**	**412**	**28**
Unconsolidated entities controlled by Eni						
Eni BTC Ltd			169			
Industria Siciliana Acido Fosforico - ISAF SpA (in liquidation)	77	1	5		7	
Other	20	23	7	14	7	
	97	**24**	**181**	**14**	**14**	
	392	**1,755**	**8,602**	**5,363**	**426**	**28**
Entities controlled by the Government						
Enel Group	123	187		622	164	285
GSE - Gestore Servizi Energetici	69	219		506	702	2
Italgas Group	14	180	1	681	18	
Snam Group	187	351		1,221	85	
Terna Group	35	31		212	154	15
Other(*)	50	21		38	16	1
	478	**989**	**1**	**3,280**	**1,139**	**303**
Other related parties	**1**	**2**		**25**	**1**	
Groupement Sonatrach – Agip «GSA» and Organe Conjoint des Opérations «OC SH/FCP»	**39**	**145**		**530**	**42**	
Total	**910**	**2,891**	**8,603**	**9,198**	**1,608**	**331**

(*) Each individual amount included herein was lower than €50 million.

2016

Name (€ million)	December 31, 2016			2016		
	Receivables and other assets	Payables and other liabilities	Guarantees	Costs	Revenues	Other operating (expense) income
Joint ventures and associates						
Agiba Petroleum Co	1	50		156		
Karachaganak Petroleum Operating BV	47	187		918	27	
Mellitah Oil & Gas BV	7	134		477		
Petrobel Belayim Petroleum Co	225	532		1,940	2	
Saipem Group	64	224	8,094	781	51	
Unión Fenosa Gas SA			57		94	
Other(*)	114	25	1	145	143	47
	458	**1,152**	**8,152**	**4,417**	**317**	**47**
Unconsolidated entities controlled by Eni						
Eni BTC Ltd			192			
Industria Siciliana Acido Fosforico - ISAF SpA (in liquidation)	69	1	3		2	
Other(*)	9	16	51	8	10	
	78	**17**	**246**	**8**	**12**	
	536	**1,169**	**8,398**	**4,425**	**329**	**47**
Entities controlled by the Government						
Enel Group	151	254		808	201	182
GSE - Gestore Servizi Energetici	58	32		243	414	5
Italgas Group	54	1		4		
Snam Group	44	541	1	2,032	113	
Terna Group	33	46		232	117	13
Other(*)	43	24		37	68	
	383	**898**	**1**	**3,356**	**913**	**200**
Other related parties		**2**		**32**		
Groupement Sonatrach – Agip «GSA» and Organe Conjoint des Opérations «OC SH/FCP»	**176**	**331**		**423**	**70**	
Total	**1,095**	**2,400**	**8,399**	**8,236**	**1,312**	**247**

(*) Each individual amount included herein was lower than €50 million.

The most significant transactions with joint ventures, associates and unconsolidated subsidiaries concerned:
- Eni's share of expenses incurred to develop oil fields from Agiba Petroleum Co, Karachaganak Petroleum Operating BV, Mellitah Oil & Gas BV, Petrobel Belayim Petroleum Co, Groupement Sonatrach - Agip «GSA», Organe Conjoint des Opérations «OC SH/FCP» and, only for Karachaganak Petroleum Operating BV, purchase of oil products by Eni Trading & Shipping SpA; services charged to Eni's associates are invoiced on the basis of incurred costs;
- guarantees issued on behalf of Angola LNG Supply Services Llc to cover the commitments relating to the payment of the regasification fees;
- supply of upstream specialist services and guarantees issued on a pro-quota basis granted to Coral FLNG SA on behalf of the Consortium TJS for the contractual obligations assumed following the award of the EPCIC contract for the construction of a floating gas liquefaction plant (for more information see note 27 – Guarantees, commitments and risks);
- the acquisition of transport and distribution services from Gas Distribution Company of Thessaloniki-Thessaly SA;
- engineering, construction and drilling services by Saipem Group mainly for the Exploration & Production segment and the provision of services and residual guarantees issued by Eni SpA relating to bid bonds and performance bonds;
- performance guarantees given on behalf of Unión Fenosa Gas SA in relation to contractual commitments related to the results of operations, sales of LNG and fair value of derivative financial instruments;
- guarantees issued in compliance with contractual agreements in the interest of Vår Energi AS and trade and other receivables and payables;
- a guarantee issued in relation to the construction of an oil pipeline on behalf of Eni BTC Ltd; and
- services for environmental restoration to Industria Siciliana Acido Fosforico - ISAF SpA (in liquidation).

The most significant transactions with entities controlled by the Italian Government concerned:
- sale of fuel, sale and purchase of gas, acquisition of power distribution services and fair value of derivative financial instruments with Enel Group;
- acquisition of natural gas transportation, distribution and storage services with the Snam Group and the Italgas Group on the basis of tariffs set by the Italian Regulatory Authority for Energy, Networks and Environment and purchase and sale of natural gas for granting the balancing of the system on the basis of prices referred to the quotations of the main energy commodities;
- sale and purchase of electricity, the acquisition of domestic electricity transmission service on the basis of prices referred to the quotations of the main energy commodities, and derivatives on commodities entered to hedge the price risk related to the utilization of transport capacity rights with the Terna Group;
- sale and purchase of electricity, gas, environmental certificates, fair value of derivative financial instruments and sale of oil products with GSE - Gestore Servizi Energetici for the setting-up of a specific stock held by the Organismo Centrale di Stoccaggio Italiano (OCSIT) according to the Legislative Decree No. 249/2012.

Transactions with other related parties concerned:
- provisions to pension funds of €24 million; and
- contributions and service provisions to Eni Foundation of €3 million and to Eni Enrico Mattei Foundation for €4 million.

FINANCING TRANSACTIONS WITH RELATED PARTIES

2018

	December 31, 2018			2018	
(€ million)	Receivables	Payables	Guarantees	Charges	Gains
Joint ventures and associates					
Angola LNG Ltd			245		
Cardón IV SA	705	36			95
Coral FLNG SA	108				
Coral South FLNG DMCC			1,397		
Shatskmorneftegaz Sàrl				267	7
Société Centrale Electrique du Congo SA	64	30		5	
Vår Energi AS		494			
Other	38	4	22	9	13
	915	**564**	**1,664**	**281**	**115**
Unconsolidated entities controlled by Eni					
Other	49	25			
	49	**25**			
Entities controlled by the Government					
Enel Group		64			
Other		8		2	
		72		**2**	
Total	**964**	**661**	**1,664**	**283**	**115**

2017

	December 31, 2017			2017	
(€ million)	Receivables	Payables	Guarantees	Charges	Gains
Joint ventures and associates					
Angola LNG Ltd			233		
Cardón IV SA	955				86
Coral FLNG SA	56				71
Coral South FLNG D MCC			1,334		
Saipem Group		3	56		13
Shatskmorneftegaz Sarl	101				6
Société Centrale Electrique du Congo SA	66	43			
Other	48	49	2	1	14
	1,226	**95**	**1,625**	**1**	**190**
Unconsolidated entities controlled by Eni					
Servizi Fondo Bombole Metano SpA	60	9			1
Other(*)	1	52			
	61	**61**			**1**
Entities controlled by the Government					
Other		8		3	
		8		**3**	
Total	**1,287**	**164**	**1,625**	**4**	**191**

(*) Each individual amount included herein was lower than €50 million.

2016

	December 31, 2016			2016		
(€ million)	Receivables	Payables	Guarantees	Charges	Gains	Derivative financial instruments
Joint ventures and associates						
Cardón IV SA	1,054				96	
Matrìca SpA	125			93	9	
Shatskmorneftegaz Sarl	69			13	4	
Société Centrale Electrique du Congo SA	78			18		
Unión Fenosa Gas SA		85				
Saipem Group			82		43	27
Other(*)	52		2	17	4	
	1,378	**85**	**84**	**141**	**156**	**27**
Unconsolidated entities controlled by Eni						
Eni BTC Ltd		54				
Other(*)	46	52		1	1	
	46	**106**		**1**	**1**	
Entities controlled by the Government						
Other				3		
				3		
Total	**1,424**	**191**	**84**	**145**	**157**	**27**

(*) Each individual amount included herein was lower than €50 million.

The most significant transactions with joint ventures, associates and unconsolidated subsidiaries concerned:
- bank debt guarantees issued on behalf of Angola LNG Ltd;
- financing loans granted to Cardón IV SA for the exploration and development activities of the Perla offshore gas field in Venezuela;
- financing loans granted to Coral FLNG SA for the construction of a floating gas liquefaction plant in the Area 4 in Mozambique (for more information see note 27 – Guarantees, commitments and risks);
- a bank debt guarantee issued on behalf of Coral South FLNG DMCC (for more information see note 27 – Guarantees, commitments and risks);
- the impairment of financial receivables granted to Shatskmorneftegaz Sàrl;
- the loan granted to Société Centrale Electrique du Congo SA for the construction of a power plant in Congo and a cash deposit at Eni's financial companies;
- a cash deposit held at Eni's financial companies by Vår Energi AS.

The most significant transactions with entities controlled by the Italian Government concerned:
- restricted deposits in escrow of derivative financial instruments with Enel Group.

Impact of transactions and positions with related parties on the balance sheet, profit and loss account and statement of cash flows

The impact of transactions and positions with related parties on the balance sheet consisted of the following:

	December 31, 2018			December 31, 2017		
(€ million)	Total	Related parties	Impact %	Total	Related parties	Impact %
Other current financial assets	300	49	16.33	316	73	23.10
Trade and other receivables	14,101	633	4.49	15,421	834	5.41
Other current assets	2,258	71	3.14	1,573	30	1.91
Other non-current financial assets	1,253	915	73.02	1,675	1,214	72.48
Other non-current assets	792	160	20.20	1,323	46	3.48
Short-term debt	2,182	661	30.29	2,242	164	7.31
Trade and other payables	16,747	3,664	21.88	16,748	2,808	16.77
Other current liabilities	3,980	63	1.58	1,515	60	3.96
Other non-current liabilities	1,502	23	1.53	1,479	23	1.56

The impact of transactions with related parties on the profit and loss accounts consisted of the following:

	2018			2017			2016		
(€ million)	Total	Related parties	Impact %	Total	Related parties	Impact %	Total	Related parties	Impact %
Net sales from operations	75,822	1,383	1.82	66,919	1,567	2.34	55,762	1,238	2.22
Other income and revenues	1,116	8	0.72	4,058	41	1.01	931	74	7.95
Purchases, services and other	(55,622)	(8,009)	14.40	(51,548)	(9,164)	17.78	(43,278)	(8,212)	18.97
Net (impairment losses) reversals of trade and other receivables	(415)	26	..	(913)			(846)		
Payroll and related costs	(3,093)	(22)	0.71	(2,951)	(34)	1.15	(2,994)	(24)	0.80
Other operating income (expense)	129	319	..	(32)	331	..	16	247	..
Finance income	3,967	115	2.90	3,924	191	4.87	5,850	157	2.69
Finance expense	(4,663)	(283)	6.07	(5,886)	(4)	0.07	(6,232)	(145)	2.33
Derivative financial instruments	(307)			837			(482)	27	..

Main cash flows with related parties are provided below:

(€ million)	2018	2017	2016
Revenues and other income	1,391	1,608	1,312
Costs and other expenses	(5,210)	(5,360)	(5,623)
Other operating income (loss)	319	331	247
Net change in trade and other receivables and liabilities	683	391	182
Net interests	110	187	133
Net cash provided from operating activities	**(2,707)**	**(2,843)**	**(3,749)**
Capital expenditure in tangible and intangible assets	(2,768)	(3,838)	(2,613)
Disposal of investments			463
Net change in accounts payable and receivable in relation to investments	20	425	252
Change in financial receivables	(566)	298	5,650
Net cash used in investing activities	**(3,314)**	**(3,115)**	**3,752**
Change in financial liabilities	16	(16)	(192)
Net cash used in financing activities	**16**	**(16)**	**(192)**
Total financial flows to related parties	**(6,005)**	**(5,974)**	**(189)**

The impact of cash flows with related parties consisted of the following:

	2018			2017			2016		
(€ million)	Total	Related parties	Impact %	Total	Related parties	Impact %	Total	Related parties	Impact %
Cash provided from operating activities	13,647	(2,707)	..	10,117	(2,843)	..	7,673	(3,749)	..
Cash used in investing activities	(7,536)	(3,314)	43.98	(3,768)	(3,115)	82.67	(4,443)	3,752	..
Cash used in financing activities	(2,637)	16	..	(4,595)	(16)	0.35	(3,651)	(192)	5.26

37 | Other information about investments[31]

Information on Eni's consolidated subsidiaries with significant non-controlling interest

In 2018 and 2017, Eni did not own any consolidated subsidiaries with a significant non-controlling interest.
Total shareholders' equity pertaining to minority interests as of December 31, 2018, amounted to €57 million (€49 million December 31, 2017).

Changes in the ownership interest without loss of control

In 2018 and 2017, Eni did not report any changes in ownership interest without loss or acquisition of control.

(31) Investments in subsidiaries, joint arrangements and associates as of December 31, 2018 are presented in the annex "List of companies owned by Eni SpA as of December 31, 2018". This annex includes also the changes in the scope of consolidation.

Principal joint ventures, joint operations and associates as of December 31, 2018

Company name	Registered office	Country of operation	Business segment	% ownership interest	% voting rights
Joint Venture					
Gas Distribution Company of Thessaloniki-Thessaly SA	Ampelokipi-Menemeni (Greece)	Greece	Gas & Power	49.00	49.00
Saipem SpA	San Donato Milanese (MI) (Italy)	Italy	Other Activities	30.54	30.99
Unión Fenosa Gas SA	Madrid (Spain)	Spain	Gas & Power	50.00	50.00
Vår Energi AS	Forus (Norway)	Norway	Exploration & Production	69.60	69.60
Joint operation					
GreenStream BV	Amsterdam (Netherlands)	Lybia	Gas & Power	50.00	50.00
Mozambique Rovuma Venture SpA	San Donato Milanese (MI) (Italy)	Mozambique	Exploration & Production	35.71	35.71
Raffineria di Milazzo ScpA	Milazzo (ME) (Italy)	Italy	Refining & Marketing	50.00	50.00
Associates					
Angola LNG Ltd	Hamilton (Bermuda)	Angola	Exploration & Production	13.60	13.60
Coral FLNG SA	Maputo (Mozambique)	Mozambique	Exploration & Production	25.00	25.00

The main line items of profit and loss and balance sheet related to the principal joint ventures, represented by the amounts included in the reports accounted under IFRS of each company, are provided in the table below:

2018

	2018							
(€ million)	Vår Energi AS	Saipem SpA	Unión Fenosa Gas SA	Gas Distribution Company of Thessaloniki-Thessaly SA	Cardón IV SA	Lotte Versalis Elastomers Co Ltd	PetroJunín SA	Other joint ventures
Current assets	1,366	6,211	664	32	191	56	368	130
- of which cash and cash equivalent	*883*	*1,674*	*107*	*13*	*40*	*8*		*38*
Non-current assets	11,407	5,466	832	302	2,433	502	253	334
Total assets	**12,773**	**11,677**	**1,496**	**334**	**2,624**	**558**	**621**	**464**
Current liabilities	608	4,430	260	52	232	111	470	307
- current financial liabilities		*305*	*22*			*78*		*165*
Non-current liabilities	7,139	3,211	581	2	2,196	297	34	126
- non-current financial liabilities	*366*	*2,646*	*510*		*1,410*	*289*		*14*
Total liabilities	**7,747**	**7,641**	**841**	**54**	**2,428**	**408**	**504**	**433**
Net equity	**5,026**	**4,036**	**655**	**280**	**196**	**150**	**117**	**31**
Eni's ownership interest (%)	69.60	30.99	50.00	49.00	50.00	50.00	40.00	
Book value of the investment	**3,498**	**1,228**	**335**	**137**	**98**	**75**	**47**	**(2)**
Revenues and other operating income		8,530	1.521	53	610	22	112	731
Operating expense		(7,682)	(1,461)	(16)	(372)	(58)	(100)	(697)
Depreciation, amortization and impairments		(811)	(70)	(12)	(137)	(30)	(394)	(62)
Operating profit		**37**	**(10)**	**25**	**101**	**(66)**	**(382)**	**(28)**
Finance (expense) income		(165)	(31)		(208)	(12)	31	(5)
Income (expense) from investments		(88)	9					
Profit before income taxes		**(216)**	**(32)**	**25**	**(107)**	**(78)**	**(351)**	**(33)**
Income taxes		(194)	(1)	(8)	(35)		(19)	(10)
Net profit		**(410)**	**(33)**	**17**	**(142)**	**(78)**	**(370)**	**(43)**
Other comprehensive income		(46)	15		6		11	(4)
Total other comprehensive income		**(456)**	**(18)**	**17**	**(136)**	**(78)**	**(359)**	**(47)**
Net profit attributable to Eni		**(146)**	**(23)**	**8**	**(71)**	**(39)**	**(148)**	**(21)**
Dividends received from the joint venture				**8**				**11**

2017

	2017						
(€ million)	Saipem SpA	Unión Fenosa Gas SA	Petro Junín SA	Gas Distribution Company of Thessaloniki-Thessaly SA	Lotte Versalis Elastomers Co Ltd	Cardón IV SA	Other joint ventures
Current assets	6,743	610	365	86	43	816	275
- of which cash and cash equivalent	*1,751*	*32*		*15*	*30*	*42*	*64*
Non-current assets	5,847	877	628	289	547	2,756	916
Total assets	**12,590**	**1,487**	**993**	**375**	**590**	**3,572**	**1,191**
Current liabilities	4,487	234	434	94	70	644	985
- current financial liabilities	*189*	*40*			*38*		*640*
Non-current liabilities	3,504	580	34	2	292	2,928	124
- non-current financial liabilities	*2,929*	*506*			*288*	*1,912*	*79*
Total liabilities	**7,991**	**814**	**468**	**96**	**362**	**3,572**	**1,109**
Net equity	**4,599**	**673**	**525**	**279**	**228**		**82**
Eni's ownership interest (%)	31.00	50.00	40.00	49.00	50.00	50.00	
Book value of the investment	**1,413**	**350**	**210**	**137**	**114**		**28**
Revenues and other operating income	9,038	1,340	135	54		756	412
Operating expense	(8,172)	(1,308)	(66)	(14)	(4)	(608)	(433)
Depreciation, amortization and impairments	(740)	(89)	(29)	(15)		(357)	(113)
Operating profit	**126**	**(57)**	**40**	**25**	**(4)**	**(209)**	**(134)**
Finance (expense) income	(223)	(38)	47			(155)	(53)
Income (expense) from investments	(9)	3					(4)
Profit before income taxes	**(106)**	**(92)**	**87**	**25**	**(4)**	**(364)**	**(191)**
Income taxes	(201)	1	(22)	(7)		(4)	(11)
Net profit	**(307)**	**(91)**	**65**	**18**	**(4)**	**(368)**	**(202)**
Other comprehensive income	49	(41)	(68)		(6)	26	
Total other comprehensive income	**(258)**	**(132)**	**(3)**	**18**	**(10)**	**(394)**	**(202)**
Net profit attributable to Eni	**(101)**	**(63)**	**26**	**9**	**(2)**	**(184)**	**(56)**
Dividends received from the joint venture				**12**			**29**

The main line items of profit and loss and balance sheet related to the principal associates represented by the amounts included in the reports accounted under IFRS of each company are provided in the table below:

2018

	2018		
(€ million)	Angola LNG Ltd	Coral FLNG SA	Other associates
Current assets	1,027	109	926
- of which cash and cash equivalent	*698*	*109*	*178*
Non-current assets	9,079	2,434	2,296
Total assets	**10,106**	**2,543**	**3,222**
Current liabilities	472	117	785
- current financial liabilities			*134*
Non-current liabilities	1,500	2,018	1,755
- non-current financial liabilities	*1,328*	*2,016*	*1,473*
Total liabilities	**1,972**	**2,135**	**2,540**
Net equity	**8,134**	**408**	**682**
Eni's ownership interest (%)	13.60	25.00	
Book value of the investment	**1,106**	**102**	**241**
Revenues and other operating income	1,919		1,053
Operating expense	(872)	(1)	(887)
Depreciation, amortization and impairments	1,647		(58)
Operating profit	**2,694**	**(1)**	**108**
Finance (expense) income	(97)	(11)	(1)
Income (expense) from investments			16
Profit before income taxes	**2,597**	**(12)**	**123**
Income taxes			(26)
Net profit	**2,597**	**(12)**	**97**
Other comprehensive income	337	16	17
Total other comprehensive income	**2,934**	**4**	**114**
Net profit attributable to Eni	**353**	**(3)**	**25**
Dividends received from the associate			**25**

2017

(€ million)	2017 Angola LNG Ltd	Coral FLNG SA	Other associates
Current assets	662	36	338
- of which cash and cash equivalent	*370*	*19*	*89*
Non-current assets	7,048	1,261	528
Total assets	**7,710**	**1,297**	**866**
Current liabilities	203	155	220
- current financial liabilities			*42*
Non-current liabilities	1,610	926	124
- non-current financial liabilities	*1,418*	*926*	*71*
Total liabilities	**1,813**	**1,081**	**344**
Net equity	**5,897**	**216**	**522**
Eni's ownership interest (%)	13.60	25.00	
Book value of the investment	**802**	**54**	**205**
Revenues and other operating income	1,374		574
Operating expense	(563)		(454)
Depreciation, amortization and impairments	(399)		(40)
Operating profit	**412**		**80**
Finance (expense) income	(80)	4	3
Income (expense) from investments			(30)
Profit before income taxes	**332**	**4**	**53**
Income taxes			(19)
Net profit	**332**	**4**	**34**
Other comprehensive income	(817)	(13)	(39)
Total other comprehensive income	**(485)**	**(9)**	**(5)**
Net profit attributable to Eni	**45**	**1**	**8**
Dividends received from the associate			**13**

38 | Public assistance - Italian Law No. 124/2017 and subsequent modifications

Under art. 1, paragraphs 125 and 126, of the Italian Law No. 124/2017 and subsequent modifications, the disclosures about the assistance received from Italian public authorities and entities, as well as the assistance granted by Eni SpA and by its fully consolidated subsidiaries to companies, persons and public and private entities, are provided below. The consolidated disclosures include: (i) assistance received from Italian public authorities/entities; and (ii) assistance granted by Eni SpA and its subsidiaries[32].

The following disclosure requirements do not apply to: (i) incentives/subventions granted to all those entitled in accordance with a general assistance aid scheme; (ii) consideration in exchange for supplied goods/services, including sponsorships; (iii) reimbursements and indemnities paid to persons engaged in professional and orientation trainings; (iv) continuous training contributions to companies granted by inter-professional funds established in the legal form of association; (v) membership fees for the participation to industry trade and territorial associations, as well as to foundations or similar organizations, which perform activities linked with the company's business; (vi) costs incurred with reference to social projects linked to the investing activities of the Company. The assistance to be disclosed is identified on a cash basis.

The disclosure includes assistance exceeding €10,000, even though they are granted through several payments.

Under art. 3-quarter of the Italian Decree Law No. 135/2018, converted with amendments by Law 11 February 2019, n. 12, for the received assistance see the information included in the Italian State aid Register, prepared in accordance with the article 52 of the Italian Law 24 December 2012, No. 234.

(32) The following disclosures do not include assistance granted by foreign subsidiaries to foreign beneficiaries.

The granted assistance provided herein is mainly referred to foundations, associations and other entities for reputational purposes, donations and support for charitable and solidarity initiatives:

Assistance granted

Granted subject	Amount paid (€)
Fondazione Eni Enrico Mattei	4,403,686
Eni Foundation	3,389,902
Fondazione Teatro alla Scala	3,052,192
Fondazione Giorgio Cini	1,000,000
WEF - World Economic Forum	260,586
Comitato Sisma Centro Italia - Confindustria, CIGL, CISL e UIL - Fondo di solidarietà per le popolazioni Centro Italia	242,326
Council on Foreign Relations	83,358
Atlantic Council of the United States Inc	81,307
World Business Council for Sustainable Development	72,805
Associazione Pionieri e Veterani Eni	57,000
EITI - Extractive Industries Transparency Initiative	51,588
Bruegel	50,000
Parrocchia di S. Barbara a San Donato Milanese	40,000
Aspen Institute Italia	35,000
Italiadecide	35,000
Fondazione Camera Centro Italiano per la Fotografia	33,000
Istituto Giannina Gaslini	30,000
Center for Strategic & International Studies	29,687
Politecnico di Milano - Dipartimento di "Scienze e Tecnologie Energetiche e Nucleari"	26,000
Institute for Human Rights and Business (IHRB)	22,548
Associazione Civita	22,000
Foreign Policy Association - USA	21,985
The Metropolitan Museum of Arts	21,760
Associazione Amici della Luiss	20,000
Centro Studi Americani	20,000
Fondazione Human Foundation Giving and Innovating Onlus	20,000
Global Reporting Initiative	14,000
Lega Italiana Fibrosi Cistica Lazio Onlus	10,000

39 | Significant non-recurring events and operations

In 2018, in 2017 and 2016, Eni did not report any non-recurring events and operations.

40 | Positions or transactions deriving from atypical and/or unusual operations

In 2018, 2017 and 2016 no transactions deriving from atypical and/or unusual operations were reported.

41 | Subsequent events

No significant events were reported after December 31, 2018.

Supplemental oil and gas information (unaudited)

The following information pursuant to "International Financial Reporting Standards" (IFRS) is presented in accordance with FASB Extractive Activities - oil&gas (Topic 932). Amounts related to minority interests are not significant.

CAPITALIZED COSTS

Capitalized costs represent the total expenditures for proved and unproved mineral interests and related support equipment and facilities utilized in oil and gas exploration and production activities, together with related accumulated depreciation, depletion and amortization. Capitalized costs by geographical area consist of the following:

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2018										
Consolidated subsidiaries										
Proved property	16,569	6,236	14,140	17,474	40,607	11,240	12,711	15,347	1,967	136,291
Unproved property	18	332	456	56	2,311	3	1,530	861	193	5,760
Support equipment and facilities	369	21	1,516	208	1,281	108	38	52	12	3,605
Incomplete wells and other	653	103	1,554	1,504	2,307	1,382	562	595	127	8,787
Gross Capitalized Costs	**17,609**	**6,692**	**17,666**	**19,242**	**46,506**	**12,733**	**14,841**	**16,855**	**2,299**	**154,443**
Accumulated depreciation, depletion and amortization	(13,717)	(5,355)	(11,741)	(11,722)	(29,727)	(2,175)	(10,460)	(13,443)	(1,265)	(99,605)
Net Capitalized Costs consolidated subsidiaries[a]	**3,892**	**1,337**	**5,925**	**7,520**	**16,779**	**10,558**	**4,381**	**3,412**	**1,034**	**54,838**
Equity-accounted entities										
Proved property		9,102	58		1,481		2	1,912		12,555
Unproved property		1,045					11			1,056
Support equipment and facilities		25	6					7		38
Incomplete wells and other		364	10		10		19	224		627
Gross Capitalized Costs		**10,536**	**74**		**1,491**		**32**	**2,143**		**14,276**
Accumulated depreciation, depletion and amortization		(4,543)	(54)		(266)		(19)	(1,052)		(5,934)
Net Capitalized Costs equity-accounted entities[a][b]		**5,993**	**20**		**1,225**		**13**	**1,091**		**8,342**
2017										
Consolidated subsidiaries										
Proved property	16,277	17,600	12,514	15,211	36,976	10,547	12,493	14,840	1,950	138,408
Unproved property	18	356	471	32	2,157	3	1,023	785	185	5,030
Support equipment and facilities	359	39	1,436	191	1,212	101	34	46	14	3,432
Incomplete wells and other	681	345	2,050	1,297	2,679	1,417	421	280	124	9,294
Gross Capitalized Costs	**17,335**	**18,340**	**16,471**	**16,731**	**43,024**	**12,068**	**13,971**	**15,951**	**2,273**	**156,164**
Accumulated depreciation, depletion and amortization	(13,504)	(12,014)	(10,640)	(10,413)	(25,920)	(1,690)	(10,386)	(12,534)	(1,188)	(98,289)
Net Capitalized Costs consolidated subsidiaries[a]	**3,831**	**6,326**	**5,831**	**6,318**	**17,104**	**10,378**	**3,585**	**3,417**	**1,085**	**57,875**
Equity-accounted entities										
Proved property			67		1,419		581	1,833		3,900
Unproved property		4					85			89
Support equipment and facilities			7					6		13
Incomplete wells and other		1	6		4		93	225		329
Gross Capitalized Costs		**5**	**80**		**1,423**		**759**	**2,064**		**4,331**
Accumulated depreciation, depletion and amortization			(61)		(475)		(611)	(785)		(1,932)
Net Capitalized Costs equity-accounted entities[a]		**5**	**19**		**948**		**148**	**1,279**		**2,399**

(a) The amounts include net capitalized financial charges totalling €831 million in 2018 and €969 million in 2017 for the consolidated subsidiaries and €180 million in 2018 and €78 million in 2017 for equity-accounted entities.
(b) Includes Vår Energi AS asset fair value.

COSTS INCURRED

Costs incurred represent amounts both capitalized and expensed in connection with oil and gas producing activities. Costs incurred by geographical area consist of the following:

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2018										
Consolidated subsidiaries										
Proved property acquisitions							382			382
Unproved property acquisitions							487			487
Exploration	26	106	43	102	66	3	182	215	7	750
Development[a]	382	557	445	2,216	1,379	92	589	340	36	6,036
Total costs incurred consolidated subsidiaries	**408**	**663**	**488**	**2,318**	**1,445**	**95**	**1,640**	**555**	**43**	**7,655**
Equity-accounted entities										
Proved property acquisitions										
Unproved property acquisitions										
Exploration			2				103			105
Development[b]			3					(16)		(13)
Total costs incurred equity-accounted entities			**5**				**103**	**(16)**		**92**
2017										
Consolidated subsidiaries										
Proved property acquisitions					**5**					**5**
Unproved property acquisitions										
Exploration	31	242	77	110	65	3	76	106	5	715
Development[a]	251	364	785	3,041	1,939	246	714	292	14	7,646
Total costs incurred consolidated subsidiaries	**282**	**606**	**862**	**3,151**	**2,009**	**249**	**790**	**398**	**19**	**8,366**
Equity-accounted entities										
Proved property acquisitions										
Unproved property acquisitions										
Exploration		1					90			91
Development[b]			2		9		4	48		63
Total costs incurred equity-accounted entities		**1**	**2**		**9**		**94**	**48**		**154**
2016										
Consolidated subsidiaries										
Proved property acquisitions										
Unproved property acquisitions				2						2
Exploration	27	51	58	306	70		80	26	3	621
Development[a]	387	437	694	1,752	2,019	651	1,232	(5)	1	7,168
Total costs incurred consolidated subsidiaries	**414**	**488**	**752**	**2,060**	**2,089**	**651**	**1,312**	**21**	**4**	**7,791**
Equity-accounted entities										
Proved property acquisitions										
Unproved property acquisitions										
Exploration		1					13			14
Development[b]			1		28		12	95		136
Total costs incurred equity-accounted entities		**1**	**1**		**28**		**25**	**95**		**150**

(a) Includes the abandonment costs of the assets negative for €517 million in 2018, assets for €355 million in 2017, negative for €665 million in 2016.
(b) Includes the abandonment costs of the assets negative for €22 million in 2018, negative €23 million in 2017, negative for €15 million in 2016.

RESULTS OF OPERATIONS FROM OIL AND GAS PRODUCING ACTIVITIES

Results of operations from oil and gas producing activities represent only those revenues and expenses directly associated with such activities, including operating overheads. These amounts do not include any allocation of interest expenses or general corporate overheads and, therefore, are not necessarily indicative of the contributions to consolidated net earnings of Eni. Related income taxes are calculated by applying the local income tax rates to the pre-tax income from production activities. Eni is party to certain Production Sharing Agreements (PSAs), whereby a portion of Eni's share of oil and gas production is withheld and sold by its joint venture partners which are state owned entities, with proceeds being remitted to the state to meet Eni's PSA related tax liabilities. Revenue and income taxes include such taxes owed by Eni but paid by state-owned entities out of Eni's share of oil and gas production. Results of operations from oil and gas producing activities by geographical area consist of the following:

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2018										
Consolidated subsidiaries Revenues:										
- sales to consolidated entities	2,120	2,740	1,277		4,701	1,140	1,902	934	4	14,818
- sales to third parties		494	3,741	3,207	830	769	493	50	190	9,774
Total revenues	**2,120**	**3,234**	**5,018**	**3,207**	**5,531**	**1,909**	**2,395**	**984**	**194**	**24,592**
Operations costs	(410)	(630)	(413)	(354)	(1,016)	(405)	(227)	(250)	(48)	(3,753)
- of which production costs	(402)	(488)	(363)	(343)	(974)	(269)	(220)	(234)	(48)	(3,341)
- of which transportation costs	(8)	(142)	(50)	(11)	(42)	(136)	(7)	(16)		(412)
Production taxes	(171)		(243)		(435)		(191)		(6)	(1,046)
Exploration expenses	(25)	(85)	(48)	(22)	(44)	(3)	(79)	(69)	(5)	(380)
D.D. & A. and Provision for abandonment[a]	(281)	(664)	(582)	(795)	(2,490)	(387)	(941)	(594)	(67)	(6,801)
Other income (expenses)	(442)	(193)	(101)	(239)	(1,126)	(67)	(135)	(54)		(2,357)
Pretax income from producing activities	**791**	**1,662**	**3,631**	**1,797**	**420**	**1,047**	**822**	**17**	**68**	**10,255**
Income taxes	(170)	(1,070)	(2,494)	(542)	(264)	(308)	(678)	7	(26)	(5,545)
Results of operations from E&P activities of consolidated subsidiaries	**621**	**592**	**1,137**	**1,255**	**156**	**739**	**144**	**24**	**42**	**4,710**
Equity-accounted entities Revenues:										
- sales to consolidated entities										
- sales to third parties			15		257		6	420		698
Total revenues			**15**		**257**		**6**	**420**		**698**
Operations costs			(8)		(62)		(2)	(38)		(110)
- of which production costs			(7)		(34)		(2)	(36)		(79)
- of which transportation costs			(1)		(28)			(2)		(31)
Production taxes			(3)		(26)			(114)		(143)
Exploration expenses		(6)					(235)			(241)
D.D. & A. and Provision for abandonment			(1)		224		(3)	(222)		(2)
Other income (expenses)		(1)	2		(27)		(25)	(122)		(173)
Pretax income from producing activities		**(7)**	**5**		**366**		**(259)**	**(76)**		**29**
Income taxes			(3)				(2)	(35)		(40)
Results of operations from E&P activities of equity-accounted entities		**(7)**	**2**		**366**		**(261)**	**(111)**		**(11)**

(a) Includes asset net impairment amounting to €726 million.

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2017										
Consolidated subsidiaries										
Revenues:										
- sales to consolidated entities	1,619	1,897	1,056		3,888	681	911	932	3	10,987
- sales to third parties		481	3,184	2,128	547	713	291	96	168	7,608
Total revenues	**1,619**	**2,378**	**4,240**	**2,128**	**4,435**	**1,394**	**1,202**	**1,028**	**171**	**18,595**
Operations costs	(337)	(687)	(504)	(314)	(986)	(396)	(206)	(312)	(48)	(3,790)
- of which production costs	(332)	(523)	(455)	(303)	(952)	(271)	(202)	(258)	(48)	(3,344)
- of which transportation costs	(5)	(164)	(49)	(11)	(34)	(125)	(4)	(54)		(446)
Production taxes	(130)		(200)		(331)		(11)		(5)	(677)
Exploration expenses	(26)	(122)	(22)	(191)	(60)		(61)	(39)	(4)	(525)
D.D. & A. and Provision for abandonment[a]	(465)	(838)	(679)	(767)	(2,063)	(289)	(765)	(577)	(59)	(6,502)
Other income (expenses)	1,563	(141)	(162)	690	(716)	(221)	(84)	(342)	2	589
Pretax income from producing activities	**2,224**	**590**	**2,673**	**1,546**	**279**	**488**	**75**	**(242)**	**57**	**7,690**
Income taxes	(299)	(216)	(1,978)	(214)	(38)	(223)	(67)	(38)	(23)	(3,096)
Results of operations from E&P activities of consolidated subsidiaries	**1,925**	**374**	**695**	**1,332**	**241**	**265**	**8**	**(280)**	**34**	**4,594**
Equity-accounted entities										
Revenues										
- sales to consolidated entities										
- sales to third parties			14		129		22	517		682
Total revenues			**14**		**129**		**22**	**517**		**682**
Operations costs			(8)		(37)		(9)	(40)		(94)
- of which production costs			(6)		(19)		(9)	(39)		(73)
- of which transportation costs			(2)		(18)			(1)		(21)
Production taxes			(2)		(8)			(146)		(156)
Exploration expenses		(1)					(13)			(14)
D.D. & A. and Provision for abandonment			(1)		(54)		(13)	(271)		(339)
Other income (expenses)		(2)	(2)		26		3	(199)		(174)
Pretax income from producing activities		**(3)**	**1**		**56**		**(10)**	**(139)**		**(95)**
Income taxes			(1)				(4)	(20)		(25)
Results of operations from E&P activities of equity-accounted entities		**(3)**			**56**		**(14)**	**(159)**		**(120)**

(a) Includes asset net reversal amounting to €158 million.

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2016										
Consolidated subsidiaries Revenues:										
- sales to consolidated entities	1,217	1,673	932	9	3,178	252	1,027	833	4	9,125
- sales to third parties		432	2,841	1,471	485	606	114	102	165	6,216
Total revenues	**1,217**	**2,105**	**3,773**	**1,480**	**3,663**	**858**	**1,141**	**935**	**169**	**15,341**
Operations costs	(311)	(599)	(451)	(356)	(968)	(269)	(215)	(325)	(49)	(3,543)
- of which production costs	(307)	(436)	(404)	(343)	(929)	(177)	(212)	(262)	(49)	(3,119)
- of which transportation costs	(4)	(163)	(47)	(13)	(39)	(92)	(3)	(63)		(424)
Production taxes	(96)		(176)		(282)		(17)		(5)	(576)
Exploration expenses	(35)	(40)	(45)	(42)	(142)		(39)	(28)	(3)	(374)
D.D. & A. and Provision for abandonment[a]	(923)	(943)	(675)	(691)	(1,093)	(129)	(952)	(480)	(67)	(5,953)
Other income (expenses)	(342)	(232)	(201)	(265)	(917)	(57)	(130)	(120)	(8)	(2,272)
Pretax income from producing activities	**(490)**	**291**	**2,225**	**126**	**261**	**403**	**(212)**	**(18)**	**37**	**2,623**
Income taxes	159	(1)	(1,618)	(89)	97	(139)	32	(9)	(9)	(1,577)
Results of operations from E&P activities of consolidated subsidiaries	**(331)**	**290**	**607**	**37**	**358**	**264**	**(180)**	**(27)**	**28**	**1,046**
Equity-accounted entities Revenues:										
- sales to consolidated entities										
- sales to third parties			15				36	493		544
Total revenues			**15**				**36**	**493**		**544**
Operations costs			(9)				(10)	(54)		(73)
- of which production costs			(7)				(10)	(51)		(68)
- of which transportation costs			(2)					(3)		(5)
Production taxes			(3)					(121)		(124)
Exploration expenses							(13)			(13)
D.D. & A. and Provision for abandonment			(1)		(26)		(32)	(240)		(299)
Other income (expenses)		(3)	(1)		(26)		(16)	(25)		(71)
Pretax income from producing activities		**(3)**	**1**		**(52)**		**(35)**	**53**		**(36)**
Income taxes			(2)				(6)	(162)		(170)
Results of operations from E&P activities of equity-accounted entities		**(3)**	**(1)**		**(52)**		**(41)**	**(109)**		**(206)**

(a) Includes asset net reversal amounting to €700 million.

OIL AND NATURAL GAS RESERVES

Eni's criteria concerning evaluation and classification of proved developed and undeveloped reserves follow Regulation S-X 4-10 of the US Securities and Exchange Commission and have been disclosed in accordance with FASB Extractive Activities - Oil and Gas (Topic 932). Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with 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. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time. Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an un-weighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.
In 2018, the average price for the marker Brent crude oil was $71 per barrel.
Net proved reserves exclude interests and royalties owned by others.
Proved reserves are classified as either developed or undeveloped. Developed oil and gas reserves are reserves that can be expected to be recovered 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. Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.
Eni has its proved reserves audited on a rotational basis by independent oil engineering companies[33]. The description of qualifications of the person primarily responsible of the reserves audit is included in the third party audit report[34].
In the preparation of their reports, independent evaluators rely, without independent verification, upon data furnished by Eni with respect to property interest, production, current costs of operation and development, sale agreements, prices and other factual information and data that were accepted as represented by the independent evaluators. These data, equally used by Eni in its internal process, include logs, directional surveys, core and PVT (Pressure Volume Temperature) analysis, maps, oil/gas/water production/injection data of wells, reservoir studies and technical analysis relevant to field performance, long-term development plans, future capital and operating costs. In order to calculate the economic value of Eni equity reserves, actual prices applicable to hydrocarbon sales, price adjustments required by applicable contractual arrangements, and other pertinent information are provided.
In 2018, Ryder Scott Company, DeGolyer and MacNaughton and Societé Generale de Surveillance (SGS)[34] provided an independent evaluation of about 26% of Eni's total proved reserves as of December 31, 2018[35], confirming, as in previous years, the reasonableness of Eni's internal evaluations.
In the three years period from 2016 to 2018, 95% of Eni's total proved reserves were subject to independent evaluation. As of December 31, 2018, the principal property not subjected to independent evaluation in the last three years was M'Boundi (Congo).
Eni operates under production sharing agreements in several of the foreign jurisdictions where it has oil and gas exploration and production activities. Reserves of oil and natural gas to which Eni is entitled under PSA arrangements are shown in accordance with Eni's economic interest in the volumes of oil and natural gas estimated to be recoverable in future years. Such reserves include estimated quantities allocated to Eni for recovery of costs, income taxes owed by Eni but settled by its joint venture partners (which are state-owned entities) out of Eni's share of production and Eni's net equity share after cost recovery. Proved oil and gas reserves associated with PSAs represented 61%, 60% and 59% of total proved reserves as of December 31, 2018, 2017 and 2016, respectively, on an oil-equivalent basis. Similar effects as PSAs apply to service contracts; proved reserves associated with such contracts represented 3%, 4% and 5% of total proved reserves on an oil-equivalent basis as of December 31, 2018, 2017 and 2016, respectively.
Oil and gas reserves quantities include: (i) oil and natural gas quantities in excess of cost recovery which the Company has an obligation to purchase under certain PSAs with governments or authorities, whereby the Company serves as producer of reserves. Reserves volumes associated with oil and gas deriving from such obligation represent 4%, 1.6% and 1.8% of total proved reserves as of December 31, 2018, 2017 and 2016, respectively, on an oil equivalent basis; (ii) volumes of natural gas used for own consumption; (iii) the quantities of hydrocarbons related to the Angola LNG plant.
Numerous uncertainties are inherent in estimating quantities of proved reserves, in projecting future productions and development expenditures. The accuracy of any reserve estimate is a function of the quality of available data and engineering and geological interpretation and evaluation. The results of drilling, testing and production after the date of the estimate may require substantial upward or downward revisions. In addition, changes in oil and natural gas prices have an effect on the quantities of Eni's proved reserves since estimates of reserves are based on prices and costs relevant to the date when such estimates are made. Consequently, the evaluation of reserves could also significantly differ from actual oil and natural gas volumes that will be produced.

The following table presents yearly changes in estimated proved reserves, developed and undeveloped, of crude oil (including condensate and natural gas liquids) and natural gas as of December 31, 2018, 2017 and 2016.

(33) From 1991 to 2002 DeGolyer and McNaughton, from 2003 also Ryder Scott. In 2018, Societé Generale de Surveillance (SGS) also provided an independent certification.
(34) The reports of independent engineers are available on Eni website eni.com, section Publications/Annual Report 2018.
(35) Including reserves of equity-accounted entities.

CRUDE OIL (INCLUDING CONDENSATE AND NATURAL GAS LIQUIDS)

(million barrels)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2018										
Consolidated subsidiaries										
Reserves at December 31, 2017	215	360	476	280	764	766	232	162	7	3,262
of which: developed	169	219	306	203	546	547	81	144	5	2,220
undeveloped	46	141	170	77	218	219	151	18	2	1,042
Purchase of Minerals in Place							319			319
Revisions of Previous Estimates	15	6	73	21	30	(27)	(54)	23	(1)	86
Improved Recovery				7			6			13
Extensions and Discoveries					13		1	86		100
Production	(22)	(40)	(56)	(28)	(89)	(35)	(28)	(19)	(1)	(318)
Sales of Minerals in Place		(278)		(1)						(279)
Reserves at December 31, 2018	208	48	493	279	718	704	476	252	5	3,183
Equity-accounted entities										
Reserves at December 31, 2017			12		12			136		160
of which: developed			*12*		*6*			*25*		*43*
undeveloped					*6*			*111*		*117*
Purchase of Minerals in Place		297								297
Revisions of Previous Estimates					1			(96)		(95)
Improved Recovery										
Extensions and Discoveries										
Production			(1)		(1)			(3)		(5)
Sales of Minerals in Place										
Reserves at December 31, 2018		**297**	**11**		**12**			**37**		**357**
Reserves at December 31, 2018	**208**	**345**	**504**	**279**	**730**	**704**	**476**	**289**	**5**	**3,540**
Developed	**156**	**198**	**328**	**153**	**559**	**587**	**252**	**175**	**5**	**2,413**
consolidated subsidiaries	156	44	317	153	551	587	252	143	5	2,208
equity-accounted entities		154	11		8			32		205
Undeveloped	**52**	**147**	**176**	**126**	**171**	**117**	**224**	**114**		**1,127**
consolidated subsidiaries	52	4	176	126	167	117	224	109		975
equity-accounted entities		143			4			5		152

(million barrels)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2017										
Consolidated subsidiaries										
Reserves at December 31, 2016	176	264	454	281	809	767	307	163	9	3,230
of which: developed	*132*	*228*	*287*	*205*	*507*	*556*	*124*	*143*	*8*	*2,190*
undeveloped	*44*	*36*	*167*	*76*	*302*	*211*	*183*	*20*	*1*	*1,040*
Purchase of Minerals in Place					2					2
Revisions of Previous Estimates	59	29	73	21	31	29	(69)	19	(1)	191
Improved Recovery		1	6	7			9			23
Extensions and Discoveries		103	1		18		4	3		129
Production	(20)	(37)	(58)	(26)	(90)	(30)	(19)	(23)	(1)	(304)
Sales of Minerals in Place				(3)	(6)					(9)
Reserves at December 31, 2017	**215**	**360**	**476**	**280**	**764**	**766**	**232**	**162**	**7**	**3,262**
Equity-accounted entities										
Reserves at December 31, 2016			13		15			140		168
of which: developed			*13*		*8*			*22*		*43*
undeveloped					*7*			*118*		*125*
Purchase of Minerals in Place										
Revisions of Previous Estimates					(2)			1		(1)
Improved Recovery										
Extensions and Discoveries										
Production			(1)		(1)			(5)		(7)
Sales of Minerals in Place										
Reserves at December 31, 2017			**12**		**12**			**136**		**160**
Reserves at December 31, 2017	**215**	**360**	**488**	**280**	**776**	**766**	**232**	**298**	**7**	**3,422**
Developed	**169**	**219**	**318**	**203**	**552**	**547**	**81**	**169**	**5**	**2,263**
consolidated subsidiaries	169	219	306	203	546	547	81	144	5	2,220
equity-accounted entities			12		6			25		43
Undeveloped	**46**	**141**	**170**	**77**	**224**	**219**	**151**	**129**	**2**	**1,159**
consolidated subsidiaries	46	141	170	77	218	219	151	18	2	1,042
equity-accounted entities					6			111		117

(million barrels)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2016										
Consolidated subsidiaries										
Reserves at December 31, 2015	228	305	494	327	787	771	262	189	9	3,372
of which: developed	*171*	*237*	*312*	*230*	*511*	*355*	*126*	*149*	*9*	*2,100*
undeveloped	*57*	*68*	*182*	*97*	*276*	*416*	*136*	*40*		*1,272*
Purchase of Minerals in Place										
Revisions of Previous Estimates	(35)	(4)	19	(26)	113	20	73	(1)	1	160
Improved Recovery		1	1							2
Extensions and Discoveries		2	1	8						11
Production	(17)	(40)	(61)	(28)	(91)	(24)	(28)	(25)	(1)	(315)
Sales of Minerals in Place										
Reserves at December 31, 2016	**176**	**264**	**454**	**281**	**809**	**767**	**307**	**163**	**9**	**3,230**
Equity-accounted entities										
Reserves at December 31, 2015			13		16			158		187
of which: developed			*13*		*6*			*29*		*48*
undeveloped					*10*			*129*		*139*
Purchase of Minerals in Place										
Revisions of Previous Estimates			1		(1)			(13)		(13)
Improved Recovery										
Extensions and Discoveries										
Production			(1)					(5)		(6)
Sales of Minerals in Place										
Reserves at December 31, 2016			**13**		**15**			**140**		**168**
Reserves at December 31, 2016	**176**	**264**	**467**	**281**	**824**	**767**	**307**	**303**	**9**	**3,398**
Developed	**132**	**228**	**300**	**205**	**515**	**556**	**124**	**165**	**8**	**2,233**
consolidated subsidiaries	132	228	287	205	507	556	124	143	8	2,190
equity-accounted entities			13		8			22		43
Undeveloped	**44**	**36**	**167**	**76**	**309**	**211**	**183**	**138**	**1**	**1,165**
consolidated subsidiaries	44	36	167	76	302	211	183	20	1	1,040
equity-accounted entities					7			118		125

NATURAL GAS[a]

(billion cubic feet)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2018										
Consolidated subsidiaries										
Reserves at December 31, 2017	1,131	896	3,145	4,351	3,660	2,108	1,065	225	709	17,290
of which: developed	*987*	*771*	*1,233*	*1,421*	*1,693*	*1,878*	*862*	*171*	*519*	*9,535*
undeveloped	*144*	*125*	*1,912*	*2,930*	*1,967*	*230*	*203*	*54*	*190*	*7,755*
Purchase of Minerals in Place							69			69
Revisions of Previous Estimates	138	50	219	2,238	23	(22)	81	45	(16)	2,756
Improved Recovery										
Extensions and Discoveries	86				7		205	76		374
Production	(156)	(162)	(474)	(445)	(184)	(97)	(201)	(43)	(42)	(1,804)
Sales of Minerals in Place		(464)		(869)			(2)	(26)		(1,361)
Reserves at December 31, 2018	**1,199**	**320**	**2,890**	**5,275**	**3,506**	**1,989**	**1,217**	**277**	**651**	**17,324**
Equity-accounted entities										
Reserves at December 31, 2017			14		349			1,819		2,182
of which: developed			*14*		*83*			*1,819*		*1,916*
undeveloped					*266*					*266*
Purchase of Minerals in Place		360								360
Revisions of Previous Estimates			2		(6)			(22)		(26)
Improved Recovery										
Extensions and Discoveries										
Production			(2)		(33)			(81)		(116)
Sales of Minerals in Place							(19)			(19)
Reserves at December 31, 2018		**360**	**14**		**310**			**1,716**		**2,400**
Reserves at December 31, 2018	**1,199**	**680**	**2,904**	**5,275**	**3,816**	**1,989**	**1,217**	**1,993**	**651**	**19,724**
Developed	**980**	**576**	**1,461**	**3,331**	**1,928**	**1,846**	**822**	**1,870**	**452**	**13,266**
consolidated subsidiaries	980	300	1,447	3,331	1,871	1,846	822	154	452	11,203
equity-accounted entities		276	14		57			1,716		2,063
Undeveloped	**219**	**104**	**1,443**	**1,944**	**1,888**	**143**	**395**	**123**	**199**	**6,458**
consolidated subsidiaries	219	20	1,443	1,944	1,635	143	395	123	199	6,121
equity-accounted entities		84			253					337

(a) Values lower than 1 BCF are not disclosed in this table.

(billion cubic feet)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2017										
Consolidated subsidiaries										
Reserves at December 31, 2016	977	878	3,738	5,520	2,767	2,485	1,003	353	741	18,462
of which: developed	*845*	*801*	*1,732*	*799*	*1,651*	*2,239*	*280*	*338*	*559*	*9,244*
undeveloped	*132*	*77*	*2,006*	*4,721*	*1,116*	*246*	*723*	*15*	*182*	*9,218*
Purchase of Minerals in Place					1					1
Revisions of Previous Estimates	315	163	66	969	134	(281)	188	(61)	6	1,499
Improved Recovery			(19)							(19)
Extensions and Discoveries		29		64	1,839			4		1,936
Production	(161)	(174)	(640)	(315)	(162)	(96)	(126)	(71)	(38)	(1,783)
Sales of Minerals in Place				(1,887)	(919)					(2,806)
Reserves at December 31, 2017	**1,131**	**896**	**3,145**	**4,351**	**3,660**	**2,108**	**1,065**	**225**	**709**	**17,290**
Equity-accounted entities										
Reserves at December 31, 2016			15		368		4	3,484		3,871
of which: developed			*15*		*104*		*4*	*1,782*		*1,905*
undeveloped					*264*			*1,702*		*1,966*
Purchase of Minerals in Place										
Revisions of Previous Estimates					13			(1,565)		(1,552)
Improved Recovery										
Extensions and Discoveries										
Production			(1)		(32)		(4)	(100)		(137)
Sales of Minerals in Place										
Reserves at December 31, 2017			**14**		**349**			**1,819**		**2,182**
Reserves at December 31, 2017	**1,131**	**896**	**3,159**	**4,351**	**4,009**	**2,108**	**1,065**	**2,044**	**709**	**19,472**
Developed	**987**	**771**	**1,247**	**1,421**	**1,776**	**1,878**	**862**	**1,990**	**519**	**11,451**
consolidated subsidiaries	987	771	1,233	1,421	1,693	1,878	862	171	519	9,535
equity-accounted entities			14		83			1,819		1,916
Undeveloped	**144**	**125**	**1,912**	**2,930**	**2,233**	**230**	**203**	**54**	**190**	**8,021**
consolidated subsidiaries	144	125	1,912	2,930	1,967	230	203	54	190	7,755
equity-accounted entities					266					266

(billion cubic feet)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2016										
Consolidated subsidiaries										
Reserves at December 31, 2015	1,304	1,044	3,851	947	2,714	2,354	878	439	771	14,302
of which: developed	*1,051*	*919*	*1,744*	*822*	*1,390*	*1,830*	*185*	*373*	*585*	*8,899*
undeveloped	*253*	*125*	*2,107*	*125*	*1,324*	*524*	*693*	*66*	*186*	*5,403*
Purchase of Minerals in Place										
Revisions of Previous Estimates	(155)	18	471	25	223	224	200	8	12	1,026
Improved Recovery										
Extensions and Discoveries				4,767			15			4,782
Production	(172)	(184)	(584)	(219)	(170)	(93)	(90)	(94)	(42)	(1,648)
Sales of Minerals in Place										
Reserves at December 31, 2016	**977**	**878**	**3,738**	**5,520**	**2,767**	**2,485**	**1,003**	**353**	**741**	**18,462**
Equity-accounted entities										
Reserves at December 31, 2015			13		387		12	3,581		3,993
of which: developed			*13*		*85*		*9*	*1,295*		*1,402*
undeveloped					*302*		*3*	*2,286*		*2,591*
Purchase of Minerals in Place										
Revisions of Previous Estimates			4		(8)		(1)	(4)		(9)
Improved Recovery										
Extensions and Discoveries										
Production			(2)		(11)		(7)	(93)		(113)
Sales of Minerals in Place										
Reserves at December 31, 2016			**15**		**368**		**4**	**3,484**		**3,871**
Reserves at December 31, 2016	**977**	**878**	**3,753**	**5,520**	**3,135**	**2,485**	**1,007**	**3,837**	**741**	**22,333**
Developed	**845**	**801**	**1,747**	**799**	**1,755**	**2,239**	**284**	**2,120**	**559**	**11,149**
consolidated subsidiaries	845	801	1,732	799	1,651	2,239	280	338	559	9,244
equity-accounted entities			15		104		4	1,782		1,905
Undeveloped	**132**	**77**	**2,006**	**4,721**	**1,380**	**246**	**723**	**1,717**	**182**	**11,184**
consolidated subsidiaries	132	77	2,006	4,721	1,116	246	723	15	182	9,218
equity-accounted entities					264			1,702		1,966

STANDARDIZED MEASURE OF DISCOUNTED FUTURE NET CASH FLOWS

Estimated future cash inflows represent the revenues that would be received from production and are determined by applying the year-end average prices during the years ended.
Future price changes are considered only to the extent provided by contractual arrangements. Estimated future development and production costs are determined by estimating the expenditures to be incurred in developing and producing the proved reserves at the end of the year. Neither the effects of price and cost escalations nor expected future changes in technology and operating practices have been considered.
The standardized measure is calculated as the excess of future cash inflows from proved reserves less future costs of producing and developing the reserves, future income taxes and a yearly 10% discount factor.
Future production costs include the estimated expenditures related to the production of proved reserves plus any production taxes without consideration of future inflation. Future development costs include the estimated costs of drilling development wells and installation of production facilities, plus the net costs associated with dismantlement and abandonment of wells and facilities, under the assumption that year-end costs continue without considering future inflation. Future income taxes were calculated in accordance with the tax laws of the Countries in which Eni operates.

The standardized measure of discounted future net cash flows, related to the preceding proved oil and gas reserves, is calculated in accordance with the requirements of FASB Extractive Activities - Oil and Gas (Topic 932). The standardized measure does not purport to reflect realizable values or fair market value of Eni's proved reserves. An estimate of fair value would also take into account, among other things, hydrocarbon resources other than proved reserves, anticipated changes in future prices and costs and a discount factor representative of the risks inherent in the oil and gas exploration and production activity.
The standardized measure of discounted future net cash flows by geographical area consists of the following:

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
December 31, 2018										
Consolidated subsidiaries										
Future cash inflows	18,372	4,895	43,578	39,193	53,534	40,698	33,384	14,192	2,319	250,165
Future production costs	(5,659)	(1,438)	(6,653)	(12,193)	(16,417)	(8,276)	(9,492)	(6,038)	(511)	(66,677)
Future development and abandonment costs	(4,670)	(1,350)	(4,700)	(2,769)	(6,778)	(2,640)	(5,755)	(2,467)	(291)	(31,420)
Future net inflow before income tax	**8,043**	**2,107**	**32,225**	**24,231**	**30,339**	**29,782**	**18,137**	**5,687**	**1,517**	**152,068**
Future income tax	(1,671)	(798)	(17,514)	(7,829)	(11,566)	(6,524)	(11,980)	(1,791)	(289)	(59,962)
Future net cash flows	**6,372**	**1,309**	**14,711**	**16,402**	**18,773**	**23,258**	**6,157**	**3,896**	**1,228**	**92,106**
10% discount factor	(2,045)	(124)	(6,727)	(6,564)	(7,501)	(12,477)	(2,258)	(1,508)	(491)	(39,695)
Standardized measure of discounted future net cash flows	**4,327**	**1,185**	**7,984**	**9,838**	**11,272**	**10,781**	**3,899**	**2,388**	**737**	**52,411**
Equity-accounted entities										
Future cash inflows		18,608	347		2,675			8,292		29,922
Future production costs		(4,686)	(138)		(873)			(2,192)		(7,889)
Future development and abandonment costs		(3,633)	(3)		(75)			(191)		(3,902)
Future net inflow before income tax		**10,289**	**206**		**1,727**			**5,909**		**18,131**
Future income tax		(6,822)	(43)		(204)			(1,839)		(8,908)
Future net cash flows		**3,467**	**163**		**1,523**			**4,070**		**9,223**
10% discount factor		(1,104)	(76)		(793)			(2,009)		(3,982)
Standardized measure of discounted future net cash flows		**2,363**	**87**		**730**			**2,061**		**5,241**
Total consolidated subsidiaries and equity-accounted entities	**4,327**	**3,548**	**8,071**	**9,838**	**12,002**	**10,781**	**3,899**	**4,449**	**737**	**57,652**

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
December 31, 2017										
Consolidated subsidiaries										
Future cash inflows	14,339	19,507	31,793	29,156	41,136	30,263	11,826	6,205	2,593	186,818
Future production costs	(5,091)	(5,711)	(6,677)	(6,153)	(14,790)	(6,992)	(3,653)	(2,351)	(590)	(52,008)
Future development and abandonment costs	(3,943)	(5,483)	(4,350)	(4,496)	(6,522)	(2,787)	(3,694)	(1,011)	(318)	(32,604)
Future net inflow before income tax	**5,305**	**8,313**	**20,766**	**18,507**	**19,824**	**20,484**	**4,479**	**2,843**	**1,685**	**102,206**
Future income tax	(859)	(4,490)	(10,836)	(5,709)	(6,418)	(3,970)	(757)	(699)	(303)	(34,041)
Future net cash flows	**4,446**	**3,823**	**9,930**	**12,798**	**13,406**	**16,514**	**3,722**	**2,144**	**1,382**	**68,165**
10% discount factor	(1,633)	(1,050)	(4,566)	(6,698)	(5,430)	(9,172)	(1,239)	(777)	(607)	(31,172)
Standardized measure of discounted future net cash flows	**2,813**	**2,773**	**5,364**	**6,100**	**7,976**	**7,342**	**2,483**	**1,367**	**775**	**36,993**
Equity-accounted entities										
Future cash inflows			245		2,062		11	10,797		13,115
Future production costs			(119)		(930)		(6)	(3,291)		(4,346)
Future development and abandonment costs			(1)		(66)			(535)		(602)
Future net inflow before income tax			**125**		**1,066**		**5**	**6,971**		**8,167**
Future income tax			(21)		(57)		(1)	(2,459)		(2,538)
Future net cash flows			**104**		**1,009**		**4**	**4,512**		**5,629**
10% discount factor			(50)		(471)			(2,475)		(2,996)
Standardized measure of discounted future net cash flows			**54**		**538**		**4**	**2,037**		**2,633**
Total consolidated subsidiaries and equity-accounted entities	**2,813**	**2,773**	**5,418**	**6,100**	**8,514**	**7,342**	**2,487**	**3,404**	**775**	**39,626**

(€ million)	Italy	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
December 31, 2016										
Consolidated subsidiaries										
Future cash inflows	9,627	12,898	30,847	33,524	38,271	26,903	12,263	5,789	2,815	172,937
Future production costs	(4,136)	(5,240)	(7,481)	(7,927)	(13,913)	(9,247)	(3,498)	(2,935)	(658)	(55,035)
Future development and abandonment costs	(3,641)	(3,575)	(5,904)	(6,981)	(9,392)	(3,268)	(5,047)	(1,313)	(270)	(39,391)
Future net inflow before income tax	**1,850**	**4,083**	**17,462**	**18,616**	**14,966**	**14,388**	**3,718**	**1,541**	**1,887**	**78,511**
Future income tax	(237)	(1,308)	(9,253)	(5,941)	(4,525)	(2,596)	(953)	(298)	(341)	(25,452)
Future net cash flows	**1,613**	**2,775**	**8,209**	**12,675**	**10,441**	**11,792**	**2,765**	**1,243**	**1,546**	**53,059**
10% discount factor	(241)	(365)	(4,060)	(8,055)	(4,594)	(6,536)	(1,266)	(501)	(724)	(26,342)
Standardized measure of discounted future net cash flows	**1,372**	**2,410**	**4,149**	**4,620**	**5,847**	**5,256**	**1,499**	**742**	**822**	**26,717**
Equity-accounted entities										
Future cash inflows			259		2,429		33	16,430		19,151
Future production costs			(143)		(974)		(20)	(4,614)		(5,751)
Future development and abandonment costs			(1)		(64)			(1,186)		(1,251)
Future net inflow before income tax			**115**		**1,391**		**13**	**10,630**		**12,149**
Future income tax			(21)		(115)		(4)	(3,667)		(3,807)
Future net cash flows			**94**		**1,276**		**9**	**6,963**		**8,342**
10% discount factor			(46)		(734)			(4,441)		(5,221)
Standardized measure of discounted future net cash flows			**48**		**542**		**9**	**2,522**		**3,121**
Total consolidated subsidiaries and equity-accounted entities	**1,372**	**2,410**	**4,197**	**4,620**	**6,389**	**5,256**	**1,508**	**3,264**	**822**	**29,838**

CHANGES IN STANDARDIZED MEASURE OF DISCOUNTED FUTURE NET CASH FLOWS

Changes in standardized measure of discounted future net cash flows for the years ended December 31, 2018, 2017 and 2016, are as follows:

(€ million)	Consolidated subsidiaries	Equity-accounted entities	Total
2018			
Standardized measure of discounted future net cash flows at December 31, 2017	**36,993**	**2,633**	**39,626**
Increase (Decrease):			
- sales, net of production costs	(19,793)	(445)	(20,238)
- net changes in sales and transfer prices, net of production costs	27,970	671	28,641
- extensions, discoveries and improved recovery, net of future production and development costs	1,649		1,649
- changes in estimated future development and abandonment costs	(2,525)	216	(2,309)
- development costs incurred during the period that reduced future development costs	6,468	14	6,482
- revisions of quantity estimates	10,487	(803)	9,684
- accretion of discount	5,670	384	6,054
- net change in income taxes	(16,566)	193	(16,373)
- purchase of reserves in-place	5,369	6,700	12,069
- sale of reserves in-place	(8,363)		(8,363)
- changes in production rates (timing) and other	5,052	(4,322)	730
Net increase (decrease)	**15,418**	**2,608**	**18,026**
Standardized measure of discounted future net cash flows at December 31, 2018	**52,411**	**5,241**	**57,652**
2017			
Standardized measure of discounted future net cash flows at December 31, 2016	**26,717**	**3,121**	**29,838**
Increase (Decrease):			
- sales, net of production costs	(14,125)	(432)	(14,557)
- net changes in sales and transfer prices, net of production costs	23,940	1,482	25,422
- extensions, discoveries and improved recovery, net of future production and development costs	1,697		1,697
- changes in estimated future development and abandonment costs	(2,817)	495	(2,322)
- development costs incurred during the period that reduced future development costs	7,203	45	7,248
- revisions of quantity estimates	5,269	(2,285)	2,984
- accretion of discount	3,864	438	4,302
- net change in income taxes	(6,498)	238	(6,260)
- purchase of reserves in-place	10		10
- sale of reserves in-place	(2,995)		(2,995)
- changes in production rates (timing) and other	(5,272)	(469)	(5,741)
Net increase (decrease)	**10,276**	**(488)**	**9,788**
Standardized measure of discounted future net cash flows at December 31, 2017	**36,993**	**2,633**	**39,626**
2016			
Standardized measure of discounted future net cash flows at December 31, 2015	**34,469**	**3,321**	**37,790**
Increase (Decrease):			
- sales, net of production costs	(11,222)	(347)	(11,569)
- net changes in sales and transfer prices, net of production costs	(24,727)	(1,586)	(26,313)
- extensions, discoveries and improved recovery, net of future production and development costs	4,563		4,563
- changes in estimated future development and abandonment costs	(2,357)	650	(1,707)
- development costs incurred during the period that reduced future development costs	7,578	151	7,729
- revisions of quantity estimates	2,840	(131)	2,709
- accretion of discount	5,705	514	6,219
- net change in income taxes	9,200	386	9,586
- purchase of reserves in-place			
- sale of reserves in-place			
- changes in production rates (timing) and other	668	163	831
Net increase (decrease)	**(7,752)**	**(200)**	**(7,952)**
Standardized measure of discounted future net cash flows at December 31, 2016	**26,717**	**3,121**	**29,838**

Certification pursuant to rule 154-bis, paragraph 5 of the Legislative Decree No. 58/1998 (Testo Unico della Finanza)

1. The undersigned Claudio Descalzi and Massimo Mondazzi, in their quality as Chief Executive Officer and Officer responsible for the preparation of financial reports of Eni, also pursuant to article 154-bis, paragraphs 3 and 4 of Legislative Decree No. 58 of February 24, 1998, certify that internal controls over financial reporting in place for the preparation of the consolidated financial statements as of December 31, 2018 and during the period covered by the report, were:

- adequate to the Company structure, and
- effectively applied during the process of preparation of the report.

2. Internal controls over financial reporting in place for the preparation of the 2018 consolidated financial statements have been defined and the evaluation of their effectiveness has been assessed based on principles and methodologies adopted by Eni in accordance with the Internal Control-Integrated Framework Model issued by the Committee of Sponsoring Organizations of the Treadway Commission, which represents an internationally-accepted framework for the internal control system.

3. The undersigned officers also certify that:

3.1 2018 consolidated financial statements:

a) have been prepared in accordance with applicable international accounting standards adopted by the European Community pursuant to Regulation (CE) n. 1606/2002 of the European Parliament and European Council of July 19, 2002;

b) correspond to the accounting books and entries;

c) fairly and truly represent the financial position, the performance and the cash flows of the issuer and the companies included in the consolidation as of, and for, the period presented in this report.

3.2 The operating and financial review provides a reliable analysis of business trends and results, including trend analysis of the issuer and the companies included in the consolidation, as well as a description of the main risks and uncertainties to which they are exposed.

March 14, 2019

/s/ Claudio Descalzi
Claudio Descalzi
Chief Executive Officer

/s/ Massimo Mondazzi
Massimo Mondazzi
Chief Financial Officer and
Officer responsible for the
preparation of financial reports

Report of Independent Auditors

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Independent auditor's report pursuant to article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014

(Translation from the original Italian text)

To the Shareholders of
Eni S.p.A.

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Eni Group (the Group), which comprise the consolidated balance sheet as at December 31, 2018, and the consolidated profit and loss account, the consolidated statement of comprehensive income (loss), the consolidated statement of changes in shareholders' equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as at December 31, 2018, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing article 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of Eni S.p.A. in accordance with the regulations and standards on ethics and independence applicable to audits of financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. 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 these matters.

We identified the following key audit matters:

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Iscritta all'Albo Speciale delle società di revisione
Consob al progressivo n. 2 delibera n.10831 del 16/7/1997

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Key Audit Matter	Audit Response
Oil and natural gas reserves	
The estimate of oil and natural gas reserves is considered a key audit matter due to the technical uncertainties involved in assessing quantities and the complex contractual arrangements regulating the terms and conditions of exploitation of the oil and natural gas fields. These estimates have significant impacts on certain financial statements line items, such as depreciation and impairment of tangible and intangible assets within the Exploration & Production segment (E&P), as well as the related abandonment and restoration provisions. Such reserves are also a key indicator of the Group's potential future performance. The Group provides disclosures of oil and natural gas reserves in the paragraph "Significant accounting estimates and judgements: oil and natural gas activities" of note 1 "Significant accounting policies, estimates and judgements".	Our audit procedures in response to the key matter included, among others: (i) the understanding of the process adopted by the Group for estimating the oil and natural gas reserves; (ii) the assessment of the design and operating effectiveness of the key controls; (iii) the assessment of the competence and the objectivity of internal personnel responsible for such estimates and the third party experts engaged by the Group to develop an independent valuation of the reserves; (iv) the assessment of the key assumptions, such as production profiles, investments, operating costs, and costs for the decommissioning and restoration of the site; (v) the assessment of the assumptions supporting the recognition of "proved undeveloped" reserves; (vi) the comparison of the results of the Group internal appraisal process with the results reported by the third party experts; (vii) the assessment of the consistency of the estimated reserve volumes with the volumes used for the impairment test analysis, for the depreciation calculation and for the estimate of the abandonment and restoration provisions. Lastly, we have verified the information provided in the notes to the consolidated financial statements in respect of the key audit matter.
Recoverable amount of certain Exploration & Production (E&P) assets	
The analysis of the recoverability of non-current assets within the E&P segment –in particular of tangible and intangible assets and equity-accounted investments– is considered a key audit matter due to the degree of estimate involved in the underlying future cash flows projections. In such circumstances, the assumptions related to the long term commodities price expectations, also considering the volatility of the oil market, the productions, the operating costs and the investments are of most significance. Moreover, the worsening of the operational	Our audit procedures in response to the key matter included, among others: (i) the understanding of the process adopted by the Group for assessing the recoverability of such assets; (ii) the assessment of design and operating effectiveness of the related key controls; (iii) the assessment of the key assumptions formulated by management, also with the support of our specialists in valuation methodologies. Specifically, we assessed the methodology adopted by the Group for the estimation of the medium and long-term commodities price -also in comparison with forward market curves and industry analysts

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performance of certain countries in which the Group operates, represents an additional element of uncertainty in the recoverability assessment of the related assets.

The Group provides disclosures related to the assessment of the recoverability of assets in notes 7 "Trade and other receivables", 13 "Net reversal (impairment) of tangible and intangible assets", 14 "Equity-accounted investments", 15 "Other financial assets" and, with reference to the complexity of the estimation process, in the paragraphs "Significant accounting estimates and judgments: Impairment of non-financial assets" and "Significant accounting estimates and judgments: Impairment of financial assets" of note 1 "Significant accounting policies, estimates and judgements".

forecasts-, and we verified that the assumptions developed by management for estimating the recoverable amount of non-current assets are consistent with the assumptions used for the estimation of oil and natural gas reserves; (iv) furthermore, with regards to the recoverability assessments of the assets, also influenced by the worsening of the operating environment of certain countries, we have obtained information on the economic and financial situation of such countries, assessed the overdue positions and the related subsequent cash collections, compared also with the assumptions used by management in the previous year, reviewed recovery plans and possible agreements, obtained information about the ongoing negotiations with counterparties, and assessed the forecasted cash flows projections and the discount rates applied.
Lastly, we have verified the information provided in the notes to the consolidated financial statements in respect of the key audit matter.

Proceedings concerning administrative corporate responsibility

The Group is involved in certain proceedings for administrative corporate responsibility in connection with operations carried out in foreign countries. The assessment of the possible implications for the Group resulting from such proceedings is a complex process that involves management judgments, supported by the information provided by internal and external lawyers in charge of the aforementioned proceedings and, therefore, it was considered as a key audit matter.

The Group provides disclosures related to the risks associated with the administrative corporate responsibility proceedings in the section "Legal Proceedings" of note 27 "Guarantees, commitments and risks".

Our audit procedures in response to the key matter, performed with also the support of our internal specialists, included, among others: (i) the understanding of the process adopted by the Group in the overall analysis of the legal proceedings and the assessment of the expected outcomes; (ii) the assessment of the design and operating effectiveness of the related key controls; (iii) the assessment of the key assumptions developed by management in the evaluation of the expected outcome, also supported by the information obtained from the internal and external lawyers, the Internal Audit, the Board of Statutory Auditors and the Control and Risk Committee; (iv) the assessment of the key documents related to these proceedings, as well as the reports prepared by the third party experts engaged by the Group.
Lastly, we have verified the disclosure provided in the notes to the consolidated financial statements in respect of the key audit matter.

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Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

The Directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing article 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The Directors are responsible for assessing the Group's ability to continue as a going concern and, when preparing the consolidated financial statements, for the appropriateness of the going concern assumption, and for appropriate disclosure thereof. The Directors prepare the consolidated financial statements on a going concern basis unless they either intend to liquidate the Parent Company Eni S.p.A. or to cease operations, or have no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our 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;
- we have obtained 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 Group's internal control;
- we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
- we have concluded on the appropriateness of Directors' 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 Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements

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or, if such disclosures are inadequate, to consider this matter in forming our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company the Group to cease to continue as a going concern;

- we have evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- we have obtained 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. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor's report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholders of Eni S.p.A., in the general meeting held on April 29, 2010, engaged us to perform the audits of the consolidated financial statements for each of the years ending December 31, 2010 to December 31, 2018.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Group in conducting the audit.

We confirm that the opinion on the consolidated financial statements included in this report is consistent with the content of the additional report to the audit committee (Collegio Sindacale) in their capacity as audit committee, prepared pursuant to article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of Eni S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and Ownership Structure of Group Eni as at December 31, 2018,

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including their consistency with the related consolidated financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and Ownership Structure as provided for by article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998, with the consolidated financial statements of Eni Group as at December 31, 2018 and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operations and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the consolidated financial statements of Eni Group as at December 31, 2018 and comply with the applicable laws and regulations.

With reference to the statement required by article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of Eni S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Rome, April 5, 2019

EY S.p.A.
Signed by: Riccardo Rossi, partner

This report has been translated into the English language solely for the convenience of international readers.

Annex
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LIST OF COMPANIES OWNED BY ENI SPA AS OF DECEMBER 31, 2018

INVESTMENTS OWNED BY ENI AS OF DECEMBER 31, 2018

In accordance with the provisions of articles 38 and 39 of the Legislative Decree No. 127/1991 and Consob communication No. DEM/6064293 of July 28, 2006, the list of subsidiaries, associates and significant investments owned by Eni SpA as of December 31, 2018, is presented below. Companies are divided by business segment and, within each segment, they are ordered between Italy and outside Italy and alphabetically. For each company are indicated: company name, registered head office, operating office, share capital, shareholders and percentage of ownership; for consolidated subsidiaries is indicated the equity ratio attributable to Eni; for unconsolidated investments owned by consolidated companies is indicated the valuation method. In the footnotes are indicated which investments are quoted in the Italian regulated markets or in other regulated markets of the European Union and the percentage of the ordinary voting rights entitled to shareholders if different from the percentage of ownership.
The currency codes indicated are reported in accordance with the International Standard ISO 4217. As of December 31, 2018, the breakdown of the companies owned by Eni is provided in the table below:

	Subsidiaries			Joint arrangements and associates			Other significant investments[a]		
	Italy	Outside Italy	Total	Italy	Outside Italy	Total	Italy	Outside Italy	Total
Fully consolidated subsidiaries	**28**	**147**	**175**						
Consolidated joint operations				**7**	**5**	**12**			
Investments owned by consolidated companies[b]									
Equity-accounted investments	4	26	30	18	36	54			
Investments valued at cost	4	4	8	3	31	34			
Investments valued at fair value							3	22	25
	8	**30**	**38**	**21**	**67**	**88**	**3**	**22**	**25**
Investments owned by unconsolidated companies									
Owned by joint arrangements					3	3			
					3	**3**			
Total	**36**	**177**	**213**	**28**	**75**	**103**	**3**	**22**	**25**

(a) Relates to investments other than subsidiaries, joint arrangements and associates with an ownership interest greater than 2% for listed companies or 10% for unlisted companies.
(b) Investments in subsidiaries accounted for using the equity method and valued at cost relate to non-significant companies.

SUBSIDIARIES AND JOINT ARRANGEMENTS RESIDENT IN STATES OR TERRITORY WITH A PRIVILEGED TAX REGIME

The Law of December 28, 2015, No. 208 (Stability Law 2016), effective from January 1, 2016, amended the article No. 167, paragraph 4, of the Presidential Decree of December 22, 1986 No. 917, identifying all the tax regimes, even special, of states or territories to be considered as privileged with reference, exclusively, to a nominal level of taxation lower than 50 percent of the one applicable in Italy. Furthermore, the regimes of states or territories that are part of the European Union, or of states that are part of the European Economic Area that have concluded agreements with Italy ensuring an effective exchange of information are not considered as privileged. At December 31, 2018, Eni controls 10 companies based in states with a privileged tax regime as identified by article No. 167, paragraph 4 of the Italian Income Tax Code. Of these 10 companies, 6 are subject to taxation in Italy because they are included in the tax return of Eni. The remaining 4 companies are not subject to Italian taxation, but to the specific local tax regimes, as a consequence of the exemption obtained by the Italian Revenue Agency by taking into account of the taxation level applied. Of these 10 companies, 8 come from the acquisitions of Lasmo Plc, the activities carried out in Congo by Maurel & Prom, Burren Energy Plc and Hess Indonesia. These subsidiaries, resident or located in states identified by the Decree, did not issued any financial instrument and all the financial statements for 2018 will be audited by Ernst & Young.

PARENT COMPANY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership
Eni SpA[#]	Rome	Italy	EUR	4,005,358,876	Cassa Depositi e Prestiti SpA Ministero dell'Economia e delle Finanze Eni SpA Other shareholders	25.76 4.34 0.91 68.99

SUBSIDIARIES

Exploration & Production

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni Angola SpA	San Donato Milanese (MI)	Angola	EUR	20,200,000	Eni SpA	100.00	100.00	F.C.
Eni Mediterranea Idrocarburi SpA	Gela (CL)	Italy	EUR	5,200,000	Eni SpA	100.00	100.00	F.C.
Eni Mozambico SpA	San Donato Milanese (MI)	Mozambique	EUR	200,000	Eni SpA	100.00	100.00	F.C.
Eni Timor Leste SpA	San Donato Milanese (MI)	East Timor	EUR	6,841,517	Eni SpA	100.00	100.00	F.C.
Eni West Africa SpA	San Donato Milanese (MI)	Angola	EUR	10,000,000	Eni SpA	100.00	100.00	F.C.
Eni Zubair SpA (in liquidation)	San Donato Milanese (MI)	Italy	EUR	120,000	Eni SpA	100.00		Co.
EniProgetti SpA	Venezia Marghera (VE)	Italy	EUR	2,064,000	Eni SpA	100.00	100.00	F.C.
Floaters SpA	San Donato Milanese (MI)	Italy	EUR	200,120,000	Eni SpA	100.00	100.00	F.C.
Ieoc SpA	San Donato Milanese (MI)	Egypt	EUR	7,518,000	Eni SpA	100.00	100.00	F.C.
Società Petrolifera Italiana SpA	San Donato Milanese (MI)	Italy	EUR	13,877,600	Eni SpA Third parties	99.96 0.04	99.96	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(#) Company with shares quoted in the regulated market of Italy or of other EU Countries.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Agip Caspian Sea BV	Amsterdam (Netherlands)	Kazakhstan	EUR	20,005	Eni International BV	100.00	100.00	F.C.
Agip Energy and Natural Resources (Nigeria) Ltd	Abuja (Nigeria)	Nigeria	NGN	5,000,000	Eni International BV Eni Oil Holdings BV	95.00 5.00	100.00	F.C.
Agip Karachaganak BV	Amsterdam (Netherlands)	Kazakhstan	EUR	20,005	Eni International BV	100.00	100.00	F.C.
Agip Oil Ecuador BV	Amsterdam (Netherlands)	Ecuador	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Agip Oleoducto de Crudos Pesados BV	Amsterdam (Netherlands)	Ecuador	EUR	20,000	Eni International BV	100.00		Eq.
Burren Energy (Bermuda) Ltd[9]	Hamilton (Bermuda)	United Kingdom	USD	12,002	Burren Energy Plc	100.00	100.00	F.C.
Burren Energy (Egypt) Ltd	London (United Kingdom)	Egypt	GBP	2	Burren Energy Plc	100.00		Eq.
Burren Energy Congo Ltd[9]	Tortola (British Virgin Islands)	Republic of the Congo	USD	50,000	Burren En. (Berm) Ltd	100.00	100.00	F.C.
Burren Energy India Ltd	London (United Kingdom)	United Kingdom	GBP	2	Burren Energy Plc	100.00	100.00	F.C.
Burren Energy Plc	London (United Kingdom)	United Kingdom	GBP	28,819,023	Eni UK Holding Plc Eni UK Ltd	99.99 (..)	100.00	F.C.
Burren Shakti Ltd[8]	Hamilton (Bermuda)	United Kingdom	USD	65,300,000	Burren En. India Ltd	100.00	100.00	F.C.
Eni Abu Dhabi BV	Amsterdam (Netherlands)	United Arab Emirates	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni AEP Ltd	London (United Kingdom)	Pakistan	GBP	73,471,000	Eni UK Ltd	100.00	100.00	F.C.
Eni Algeria Exploration BV	Amsterdam (Netherlands)	Algeria	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Algeria Ltd Sàrl	Luxembourg (Luxembourg)	Algeria	USD	20,000	Eni Oil Holdings BV	100.00	100.00	F.C.
Eni Algeria Production BV	Amsterdam (Netherlands)	Algeria	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Ambalat Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni America Ltd	Dover, Delaware (USA)	USA	USD	72,000	Eni UHL Ltd	100.00	100.00	F.C.
Eni Angola Exploration BV	Amsterdam (Netherlands)	Angola	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Angola Production BV	Amsterdam (Netherlands)	Angola	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Argentina Exploración y Explotación SA	Buenos Aires (Argentina)	Argentina	ARS	24,136,336	Eni International BV Eni Oil Holdings BV	95.00 5.00		Eq.
Eni Arguni I Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Australia BV	Amsterdam (Netherlands)	Australia	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Australia Ltd	London (United Kingdom)	Australia	GBP	20,000,000	Eni International BV	100.00	100.00	F.C.
Eni Bahrain BV	Amsterdam (Netherlands)	Netherlands	EUR	20,000	Eni International BV	100.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(8) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the profit pertaining to the Group is subject to the Italian taxation.
(9) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the company is not subject to the Italian taxation following the admission of the instance by the Italian Revenue Agency.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni BB Petroleum Inc	Dover, Delaware (USA)	USA	USD	1,000	Eni Petroleum Co Inc	100.00	100.00	F.C.
Eni BTC Ltd	London (United Kingdom)	United Kingdom	GBP	23,214,400	Eni International BV	100.00		Eq.
Eni Bukat Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Bulungan BV	Amsterdam (Netherlands)	Indonesia	EUR	20,000	Eni International BV	100.00		Eq.
Eni Canada Holding Ltd	Calgary (Canada)	Canada	USD	1,453,200,001	Eni International BV	100.00	100.00	F.C.
Eni CBM Ltd	London (United Kingdom)	Indonesia	USD	2,210,728	Eni Lasmo Plc	100.00	100.00	F.C.
Eni China BV	Amsterdam (Netherlands)	China	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Congo SA	Pointe-Noire (Republic of the Congo)	Republic of the Congo	USD	17,000,000	Eni E&P Holding BV Eni Int. NA NV Sàrl Eni International BV	99.99 (..) (..)	100.00	F.C.
Eni Côte d'Ivoire Ltd	London (United Kingdom)	Ivory Coast	GBP	1	Eni UK Ltd	100.00	100.00	F.C.
Eni Cyprus Ltd	Nicosia (Cyprus)	Cyprus	EUR	2,006	Eni International BV	100.00	100.00	F.C.
Eni Denmark BV	Amsterdam (Netherlands)	Greenland	EUR	20,000	Eni International BV	100.00	100,00	F.C.
Eni do Brasil Investimentos em Exploração e Produção de Petróleo Ltda	Rio de Janeiro (Brazil)	Brazil	BRL	1,593,415,000	Eni International BV Eni Oil Holdings BV	99.99 (..)		Eq.
Eni East Ganal Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni East Sepinggan Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Elgin/Franklin Ltd	London (United Kingdom)	United Kingdom	GBP	100	Eni UK Ltd	100.00	100.00	F.C.
Eni Energy Russia BV	Amsterdam (Netherlands)	Netherlands	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Exploration & Production Holding BV	Amsterdam (Netherlands)	Netherlands	EUR	29,832,777.12	Eni International BV	100.00	100.00	F.C.
Eni Gabon SA	Libreville (Gabon)	Gabon	XAF	13,132,000,000	Eni International BV	100.00	100.00	F.C.
Eni Ganal Ltd	London (United Kingdom)	Indonesia	GBP	2	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Gas & Power LNG Australia BV	Amsterdam (Netherlands)	Australia	EUR	10,000,000	Eni International BV	100.00	100.00	F.C.
Eni Ghana Exploration and Production Ltd	Accra (Ghana)	Ghana	GHS	21,412,500	Eni International BV	100.00	100.00	F.C.
Eni Hewett Ltd	Aberdeen (United Kingdom)	United Kingdom	GBP	3,036,000	Eni UK Ltd	100.00	100.00	F.C.
Eni Hydrocarbons Venezuela Ltd	London (United Kingdom)	Venezuela	GBP	8,050,500	Eni Lasmo Plc	100.00	100.00	F.C.
Eni India Ltd	London (United Kingdom)	India	GBP	44,000,000	Eni UK Ltd	100.00	100.00	F.C.
Eni Indonesia Ltd	London (United Kingdom)	Indonesia	GBP	100	Eni ULX Ltd	100.00	100.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni Indonesia Ots 1 Ltd[8]	Grand Cayman (Cayman Islands)	Indonesia	USD	1.01	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni International NA NV Sàrl	Luxembourg (Luxembourg)	United Kingdom	USD	25,000	Eni International BV	100.00	100.00	F.C.
Eni Investments Plc	London (United Kingdom)	United Kingdom	GBP	750,050,000	Eni SpA Eni UK Ltd	99.99 (..)	100.00	F.C.
Eni Iran BV	Amsterdam (Netherlands)	Iran	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Iraq BV[24]	Amsterdam (Netherlands)	Iraq	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Ireland BV	Amsterdam (Netherlands)	Ireland	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Isatay BV	Amsterdam (Netherlands)	Kazakhstan	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni JPDA 03-13 Ltd	London (United Kingdom)	Australia	GBP	250,000	Eni International BV	100.00	100.00	F.C.
Eni JPDA 06-105 Pty Ltd	Perth (Australia)	Australia	AUD	80,830,576	Eni International BV	100.00	100.00	F.C.
Eni JPDA 11-106 BV	Amsterdam (Netherlands)	Australia	EUR	50,000	Eni International BV	100.00	100.00	F.C.
Eni Kenya BV	Amsterdam (Netherlands)	Kenya	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Krueng Mane Ltd	London (United Kingdom)	Indonesia	GBP	2	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Lasmo Plc	London (United Kingdom)	United Kingdom	GBP	337,638,724.25	Eni Investments Plc Eni UK Ltd	99.99 (..)	100.00	F.C.
Eni Lebanon BV	Amsterdam (Netherlands)	Lebanon	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Liberia BV	Amsterdam (Netherlands)	Liberia	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Liverpool Bay Operating Co Ltd	London (United Kingdom)	United Kingdom	GBP	1	Eni UK Ltd	100.00		Eq.
Eni LNS Ltd	London (United Kingdom)	United Kingdom	GBP	80,400,000	Eni UK Ltd	100.00	100.00	F.C.
Eni Marketing Inc	Dover, Delaware (USA)	USA	USD	1,000	Eni Petroleum Co Inc	100.00	100.00	F.C.
Eni Maroc BV	Amsterdam (Netherlands)	Morocco	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni México S. de RL de CV	Lomas De Chapultepec, Mexico City (Mexico)	Mexico	MXN	3,000	Eni International BV Eni Oil Holdings BV	99.90 0.10	100.00	F.C.
Eni Middle East Ltd	London (United Kingdom)	United Kingdom	GBP	1	Eni ULT Ltd	100.00	100.00	F.C.
Eni MOG Ltd (in liquidation)	London (United Kingdom)	United Kingdom	GBP	220,711,147.50	Eni Lasmo Plc Eni LNS Ltd	99.99 (..)	100.00	F.C.
Eni Montenegro BV	Amsterdam (Netherlands)	Montenegro	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Mozambique Engineering Ltd	London (United Kingdom)	United Kingdom	GBP	1	Eni UK Ltd	100.00	100.00	F.C.
Eni Mozambique LNG Holding BV	Amsterdam (Netherlands)	Netherlands	EUR	20,000	Eni International BV	100.00	100.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(8) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the profit pertaining to the Group is subject to the Italian taxation.
(24) The company has a branch in Iraq and in Dubai, United Arab Emirates, state or territory with a privileged tax regime as provided in article 167, paragraph 4 of Presidential Decree of December 22, 1986, No.917: the profit pertaining to the Group is subject to the Italian taxation.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni Muara Bakau BV	Amsterdam (Netherlands)	Indonesia	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Myanmar BV	Amsterdam (Netherlands)	Myanmar	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni North Africa BV	Amsterdam (Netherlands)	Libya	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni North Ganal Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Oil & Gas Inc	Dover, Delaware (USA)	USA	USD	100,800	Eni America Ltd	100.00	100.00	F.C.
Eni Oil Algeria Ltd	London (United Kingdom)	Algeria	GBP	1,000	Eni Lasmo Plc	100.00	100.00	F.C.
Eni Oil Holdings BV	Amsterdam (Netherlands)	Netherlands	EUR	450,000	Eni ULX Ltd	100.00	100.00	F.C.
Eni Oman BV	Amsterdam (Netherlands)	Oman	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Pakistan Ltd	London (United Kingdom)	Pakistan	GBP	90,087	Eni ULX Ltd	100.00	100.00	F.C.
Eni Pakistan (M) Ltd Sàrl	Luxembourg (Luxembourg)	Pakistan	USD	20,000	Eni Oil Holdings BV	100.00	100.00	F.C.
Eni Petroleum Co Inc	Dover, Delaware (USA)	USA	USD	156,600,000	Eni SpA Eni International BV	63.86 36.14	100.00	F.C.
Eni Petroleum US Llc	Dover, Delaware (USA)	USA	USD	1,000	Eni BB Petroleum Inc	100.00	100.00	F.C.
Eni Portugal BV	Amsterdam (Netherlands)	Portugal	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Rapak Ltd	London (United Kingdom)	Indonesia	GBP	2	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni RD Congo SA	Kinshasa (Democratic Republic of the Congo)	Democratic Republic of the Congo	CDF	750,000,000	Eni International BV Eni Oil Holdings BV	99.99 (..)		Eq.
Eni Rovuma Basin BV	Amsterdam (Netherlands)	Mozambique	EUR	20,000	Eni Mozambique LNG H. BV	100.00	100.00	F.C.
Eni Sharjah BV	Amsterdam (Netherlands)	Netherlands	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni South Africa BV	Amsterdam (Netherlands)	Republic of South Africa	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni South China Sea Ltd Sàrl	Luxembourg (Luxembourg)	China	USD	20,000	Eni International BV	100.00		Eq.
Eni TNS Ltd	Aberdeen (Regno Unito)	United Kingdom	GBP	1,000	Eni UK Ltd	100.00	100.00	F.C.
Eni Tunisia BV	Amsterdam (Netherlands)	Tunisia	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Turkmenistan Ltd(9)	Hamilton (Bermuda)	Turkmenistan	USD	20,000	Burren En.(Berm)Ltd	100.00	100.00	F.C.
Eni UHL Ltd	London (United Kingdom)	United Kingdom	GBP	1	Eni ULT Ltd	100.00	100.00	F.C.
Eni UK Holding Plc	London (United Kingdom)	United Kingdom	GBP	424,050,000	Eni Lasmo Plc Eni UK Ltd	99.99 (..)	100.00	F.C.
Eni UK Ltd	London (United Kingdom)	United Kingdom	GBP	250,000,000	Eni International BV	100.00	100.00	F.C.
Eni UKCS Ltd	London (United Kingdom)	United Kingdom	GBP	100	Eni UK Ltd	100.00	100.00	F.C.

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(9) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the company is not subject to the Italian taxation following the admission of the instance by the Italian Revenue Agency.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni Ukraine Holdings BV	Amsterdam (Netherlands)	Netherlands	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni Ukraine Llc	Kiev (Ukraine)	Ukraine	UAH	42,004,757.64	Eni Ukraine Hold. BV Eni International BV	99.99 0.01	100.00	F.C.
Eni Ukraine Shallow Waters BV	Amsterdam (Netherlands)	Ukraine	EUR	20,000	Eni Ukraine Hold. BV	100.00		Eq.
Eni ULT Ltd	London (United Kingdom)	United Kingdom	GBP	93,215,492.25	Eni Lasmo Plc	100.00	100.00	F.C.
Eni ULX Ltd	London (United Kingdom)	United Kingdom	GBP	200,010,000	Eni ULT Ltd	100.00	100.00	F.C.
Eni US Operating Co Inc	Dover, Delaware (USA)	USA	USD	1,000	Eni Petroleum Co Inc	100.00	100.00	F.C.
Eni USA Gas Marketing Llc	Dover, Delaware (USA)	USA	USD	10,000	Eni Marketing Inc	100.00	100.00	F.C.
Eni USA Inc	Dover, Delaware (USA)	USA	USD	1,000	Eni Oil & Gas Inc	100.00	100.00	F.C.
Eni Venezuela BV	Amsterdam (Netherlands)	Venezuela	EUR	20,000	Eni Venezuela E&P H.	100.00	100.00	F.C.
Eni Venezuela E&P Holding SA	Bruxelles (Belgium)	Belgium	USD	254,057,680	Eni International BV Eni Oil Holdings BV	99.99 (..)	100.00	F.C.
Eni Ventures Plc (in liquidation)	London (United Kingdom)	United Kingdom	GBP	278,050,000	Eni International BV Eni Oil Holdings BV	99.99 (..)		Co.
Eni Vietnam BV	Amsterdam (Netherlands)	Vietnam	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Eni West Timor Ltd	London (United Kingdom)	Indonesia	GBP	1	Eni Indonesia Ltd	100.00	100.00	F.C.
Eni Yemen Ltd	London (United Kingdom)	United Kingdom	GBP	1,000	Burren Energy Plc	100.00		Eq.
EniProgetti Egypt Ltd	Cairo (Egypt)	Egypt	EGP	50,000	EniProgetti SpA Eni SpA	99.00 1.00		Eq.
Eurl Eni Algérie	Algiers (Algeria)	Algeria	DZD	1,000,000	Eni Algeria Ltd Sàrl	100.00		Eq.
First Calgary Petroleums LP	Wilmington (USA)	Algeria	USD	1	Eni Canada Hold. Ltd FCP Partner Co ULC	99.99 0.01	100.00	F.C.
First Calgary Petroleums Partner Co ULC	Calgary (Canada)	Canada	CAD	10	Eni Canada Hold. Ltd	100.00	100.00	F.C.
Ieoc Exploration BV	Amsterdam (Netherlands)	Egypt	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Ieoc Production BV	Amsterdam (Netherlands)	Egypt	EUR	20,000	Eni International BV	100.00	100.00	F.C.
Lasmo Sanga Sanga Ltd[9]	Hamilton (Bermuda)	Indonesia	USD	12,000	Eni Lasmo Plc	100.00	100.00	F.C.
Liverpool Bay Ltd	London (United Kingdom)	United Kingdom	USD	1	Eni ULX Ltd	100.00		Eq.
Nigerian Agip CPFA Ltd	Lagos (Nigeria)	Nigeria	NGN	1,262,500	NAOC Ltd Agip En Nat Res. Ltd Nigerian Agip E. Ltd	98.02 0.99 0.99		Co.
Nigerian Agip Exploration Ltd	Abuja (Nigeria)	Nigeria	NGN	5,000,000	Eni International BV Eni Oil Holdings BV	99.99 0.01	100.00	F.C.
Nigerian Agip Oil Co Ltd	Abuja (Nigeria)	Nigeria	NGN	1,800,000	Eni International BV Eni Oil Holdings BV	99.89 0.11	100.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(9) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the company is not subject to the Italian taxation following the admission of the instance by the Italian Revenue Agency.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
000 "Eni Energhia"	Moscow (Russia)	Russia	RUB	2,000,000	Eni Energy Russia BV Eni Oil Holdings BV	99.90 0.10	100.00	F.C.
Zetah Congo Ltd(8)	Nassau (Bahamas)	Republic of the Congo	USD	300	Eni Congo SA Burren En. Congo Ltd	66.67 33.33		Co.
Zetah Kouilou Ltd(8)	Nassau (Bahamas)	Republic of the Congo	USD	2,000	Eni Congo SA Burren En. Congo Ltd Third parties	54.50 37.00 8.50		Co.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(8) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the profit pertaining to the Group is subject to the Italian taxation.

Gas & Power

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni gas e luce SpA	San Donato Milanese (MI)	Italy	EUR	750,000,000	Eni SpA	100.00	100.00	F.C.
Eni Gas Transport Services Srl	San Donato Milanese (MI)	Italy	EUR	120,000	Eni SpA	100.00		Co.
Eni Trading & Shipping SpA	Rome	Italy	EUR	60,036,650	Eni SpA	100.00	100.00	F.C.
EniPower Mantova SpA	San Donato Milanese (MI)	Italy	EUR	144,000,000	EniPower SpA Third parties	86.50 13.50	86.50	F.C.
EniPower SpA	San Donato Milanese (MI)	Italy	EUR	944,947,849	Eni SpA	100.00	100.00	F.C.
LNG Shipping SpA	San Donato Milanese (MI)	Italy	EUR	240,900,000	Eni SpA	100.00	100.00	F.C.
Trans Tunisian Pipeline Co SpA	San Donato Milanese (MI)	Tunisia	EUR	1,098,000	Eni SpA	100.00	100.00	F.C.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Adriaplin Podjetje za distribucijo zemeljskega plina doo Ljubljana	Ljubljana (Slovenia)	Slovenia	EUR	12,956,935	Eni gas e luce SpA Third parties	51.00 49.00	51.00	F.C.
Eni G&P Trading BV	Amsterdam (Netherlands)	Turkey	EUR	70,000	Eni International BV	100.00	100.00	F.C.
Eni Gas & Power France SA	Levallois Perret (France)	France	EUR	29,937,600	Eni gas e luce SpA Third parties	99.87 0.13	99.87	F.C.
Eni Trading & Shipping Inc	Dover, Delaware (USA)	USA	USD	36,000,000	ETS SpA	100.00	100.00	F.C.
Eni Transporte y Suministro México, S. de RL de CV	Mexico City (Mexico)	Mexico	MXN	3,000	Eni International BV Eni Oil Holdings BV	99.90 0.10		Eq.
Gas Supply Company Thessaloniki-Thessalia SA	Thessaloniki (Greece)	Greece	EUR	13,761,788	Eni gas e luce SpA	100.00	100.00	F.C.
Société de Service du Gazoduc Transtunisien SA - Sergaz SA	Tunisi (Tunisia)	Tunisia	TND	99,000	Eni International BV Third parties	66.67 33.33	66.67	F.C.
Société pour la Construction du Gazoduc Transtunisien SA - Scogat SA	Tunisi (Tunisia)	Tunisia	TND	200,000	Eni International BV Eni SpA LNG Shipping SpA Trans Tunis. P. Co SpA	99.85 0.05 0.05 0.05	100.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.

Refining & Marketing and Chemicals

Refining & Marketing

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Ecofuel SpA	San Donato Milanese (MI)	Italy	EUR	52,000,000	Eni SpA	100.00	100.00	C.I.
Eni Fuel SpA	Rome	Italy	EUR	58,944,310	Eni SpA	100.00	100.00	C.I.
Raffineria di Gela SpA	Gela (CL)	Italy	EUR	15,000,000	Eni SpA	100.00	100.00	C.I.
SeaPad SpA	Genova	Italy	EUR	12,400,000	Ecofuel SpA Third parties	80.00 20.00		P.N.
Servizi Fondo Bombole Metano SpA	Rome	Italy	EUR	13,580,000.20	Eni SpA	100.00		Co.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Eni Abu Dhabi Refining & Trading Bv	Amsterdam (Netherlands)	Netherlands	EUR	20,000	Eni International BV	100.00		Eq.
Eni Austria GmbH	Wien (Austria)	Austria	EUR	78,500,000	Eni International BV Eni Deutsch. GmbH	75.00 25.00	100.00	F.C.
Eni Benelux BV	Rotterdam (Netherlands)	Netherlands	EUR	1,934,040	Eni International BV	100.00	100.00	F.C.
Eni Deutschland GmbH	Munich (Germany)	Germany	EUR	90,000,000	Eni International BV Eni Oil Holdings BV	89.00 11.00	100.00	F.C.
Eni Ecuador SA	Quito (Ecuador)	Ecuador	USD	103,142.08	Eni International BV Esain SA	99.93 0.07	100.00	F.C.
Eni France Sàrl	Lyon (France)	France	EUR	56,800,000	Eni International BV	100.00	100.00	F.C.
Eni Iberia SLU	Alcobendas (Spain)	Spain	EUR	17,299,100	Eni International BV	100.00	100.00	F.C.
Eni Lubricants Trading (Shangai) Co Ltd	Shanghai (China)	China	EUR	5,000,000	Eni International BV	100.00	100.00	F.C.
Eni Marketing Austria GmbH	Wien (Austria)	Austria	EUR	19,621,665.23	Eni Mineralölh. GmbH Eni International BV	99.99 (..)	100.00	F.C.
Eni Mineralölhandel GmbH	Wien (Austria)	Austria	EUR	34,156,232.06	Eni Austria GmbH	100.00	100.00	F.C.
Eni Schmiertechnik GmbH	Wurzburg (Germany)	Germany	EUR	2,000,000	Eni Deutsch. GmbH	100.00	100.00	F.C.
Eni Suisse SA	Lausanne (Switzerland)	Switzerland	CHF	102,500,000	Eni International BV	100.00	100.00	F.C.
Eni USA R&M Co Inc	Wilmington (USA)	USA	USD	11,000,000	Eni International BV	100.00	100.00	F.C.
Esacontrol SA	Quito (Ecuador)	Ecuador	USD	60,000	Eni Ecuador SA Third parties	87.00 13.00		Eq.
Esain SA	Quito (Ecuador)	Ecuador	USD	30,000	Eni Ecuador SA Tecnoesa SA	99.99 (..)	100.00	F.C.
Oléoduc du Rhône SA	Valais (Switzerland)	Switzerland	CHF	7,000,000	Eni International BV	100.00		Eq.
OOO "Eni-Nefto"	Moscow (Russia)	Russia	RUB	1,010,000	Eni International BV Eni Oil Holdings BV	99.01 0.99		Eq.
Tecnoesa SA	Quito (Ecuador)	Ecuador	USD	36,000	Eni Ecuador SA Esain SA	99.99 (..)		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.

Chemical

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Versalis SpA	San Donato Milanese (MI)	Italy	EUR	1,364,790,000	Eni SpA	100.00	100.00	F.C.

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Consorzio Industriale Gas Naturale (in liquidation)	San Donato Milanese (MI)	Italia	EUR	124,000	Versalis SpA Raff. di Gela SpA Eni SpA Syndial SpA Raff. Milazzo ScpA	53.55 18.74 15.37 0.76 11.58		Eq.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Dunastyr Polisztirolgyártó Zártkörûen Mûködõ Részvénytársaság	Budapest (Hungary)	Hungary	HUF	8,092,160,000	Versalis SpA Versalis Deutschland GmbH Versalis International SA	96.34 1.83 1.83	100.00	F.C.
Versalis Americas Inc	Dover, Delaware (USA)	USA	USD	100,000	Versalis International SA	100.00	100.00	F.C.
Versalis Congo Sarlu	Pointe-Noire (Republic of the Congo)	Republic of the Congo	CDF	1,000,000	Versalis International SA	100.00		Eq.
Versalis Deutschland GmbH	Eschborn (Germany)	Germany	EUR	100,000	Versalis SpA	100.00	100.00	F.C.
Versalis France SAS	Mardyck (France)	France	EUR	126,115,582.90	Versalis SpA	100.00	100.00	F.C.
Versalis International SA	Bruxelles (Belgium)	Belgium	EUR	15,449,173.88	Versalis SpA Versalis Deutschland GmbH Dunastyr Zrt Versalis France	59.00 23.71 14.43 2.86	100.00	F.C.
Versalis Kimya Ticaret Limited Sirketi	Istanbul (Turkey)	Turkey	TRY	20,000	Versalis International SA	100.00		Eq.
Versalis Pacific (India) Private Ltd	Mumbai (India)	India	INR	238,700	Versalis Singapore P. Ltd Third parties	99.99 (..)		Eq.
Versalis Pacific Trading (Shanghai) Co Ltd	Shanghai (China)	China	CNY	1,000,000	Versalis SpA	100.00	100.00	F.C.
Versalis Singapore Pte Ltd	Singapore (Singapore)	Singapore	SGD	80,000	Versalis SpA	100.00	100.00	F.C.
Versalis UK Ltd	London (United Kingdom)	United Kingdom	GBP	4,004,042	Versalis SpA	100.00	100.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.

Corporate and other activities

Corporate and financial companies

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Agenzia Giornalistica Italia SpA	Rome	Italy	EUR	2,000,000	Eni SpA	100.00	100.00	F.C.
Eni Adfin SpA (in liquidation)	Rome	Italy	EUR	85,537,498.80	Eni SpA Third parties	99.67 0.33	99.67	F.C.
Eni Corporate University SpA	San Donato Milanese (MI)	Italy	EUR	3,360,000	Eni SpA	100.00	100.00	F.C.
EniServizi SpA	San Donato Milanese (MI)	Italy	EUR	13,427,419.08	Eni SpA	100.00	100.00	F.C.
Serfactoring SpA	San Donato Milanese (MI)	Italy	EUR	5,160,000	Eni SpA Third parties	49.00 51.00	49.00	F.C.
Servizi Aerei SpA	San Donato Milanese (MI)	Italy	EUR	79,817,238	Eni SpA	100.00	100.00	F.C.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Banque Eni SA	Bruxelles (Belgium)	Belgium	EUR	50,000,000	Eni International BV Eni Oil Holdings BV	99.90 0.10	100.00	F.C.
Eni Finance International SA	Bruxelles (Belgium)	Belgium	USD	2,474,225,632	Eni International BV Eni SpA	66.39 33.61	100.00	F.C.
Eni Finance USA Inc	Dover, Delaware (USA)	USA	USD	15,000,000	Eni Petroleum Co Inc	100.00	100.00	F.C.
Eni Insurance Designated Activity Company	Dublin (Ireland)	Ireland	EUR	500,000,000	Eni SpA	100.00	100.00	F.C.
Eni International BV	Amsterdam (Netherlands)	Netherlands	EUR	641,683,425	Eni SpA	100.00	100.00	F.C.
Eni International Resources Ltd	London (United Kingdom)	United Kingdom	GBP	50,000	Eni SpA Eni UK Ltd	99.99 (..)	100.00	F.C.
Eni Next Llc	Houston (USA)	USA	USD	100	Eni Petroleum Co Inc	100.00	100.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.

Other Activities

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Anic Partecipazioni SpA (in liquidation)	Gela (CL)	Italy	EUR	23,519,847.16	Syndial SpA Third parties	99.97 0.03		Eq.
Eni Energia Srl	San Donato Milanese (MI)	Italy	EUR	10,000	Eni SpA	100.00		Co.
Eni New Energy SpA	San Donato Milanese (MI)	Italy	EUR	9,296,000	Eni SpA	100.00	100.00	F.C.
Industria Siciliana Acido Fosforico - ISAF - SpA (in liquidation)	Gela (CL)	Italy	EUR	1,300,000	Syndial SpA Third parties	52.00 48.00		Eq.
Ing. Luigi Conti Vecchi SpA	Assemini (CA)	Italy	EUR	5,518,620.64	Syndial SpA	100.00	100.00	F.C.
Syndial Servizi Ambientali SpA	San Donato Milanese (MI)	Italy	EUR	425,647,621.42	Eni SpA Third parties	99.99 (..)	100.00	F.C.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Arm Wind Llp	Astana (Kazakhstan)	Kazakhstan	KZT	2,133,967,100	Windirect BV	100.00	90.00	F.C.
Eni New Energy Egypt SAE	Cairo (Egypt)	Egypt	EGP	250,000	Eni International BV Ieoc Exploration BV Ieoc Production BV	99.98 0.01 0.01		Eq.
Oleodotto del Reno SA	Coira (Switzerland)	Switzerland	CHF	1,550,000	Syndial SpA	100.00		Eq.
Windirect BV	Amsterdam (Netherlands)	Netherlands	EUR	10,000	Eni International BV Soci Terzi	90.00 10.00	90.00	F.C.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.

JOINT ARRANGEMENTS AND ASSOCIATES

Exploration & Production

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Mozambique Rovuma Venture SpA(†)	San Donato Milanese (MI)	Mozambique	EUR	20,000,000	Eni SpA Third parties	35.71 64.29	35.71	J.O.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Agiba Petroleum Co(†)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	50.00 50.00		Co.
Angola LNG Ltd	Hamilton (Bermuda)	Angola	USD	10,082,000,000	Eni Angola Prod. BV Third parties	13.60 86.40		Eq.
Ashrafi Island Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	25.00 75.00		Co.
Barentsmorneftegaz Sàrl(†)	Luxembourg (Luxembourg)	Russia	USD	20,000	Eni Energy Russia BV Third parties	33.33 66.67		Eq.
Cabo Delgado Gas Development Limitada(†)	Maputo (Mozambique)	Mozambique	MZN	2,500,000	Eni Mozambique LNG H. BV Third parties	50.00 50.00		Co.
Cardón IV SA(†)	Caracas (Venezuela)	Venezuela	VES	172.1	Eni Venezuela BV Third parties	50.00 50.00		Eq.
Compañia Agua Plana SA	Caracas (Venezuela)	Venezuela	VES	0.001	Eni Venezuela BV Third parties	26.00 74.00		Co.
Coral FLNG SA	Maputo (Mozambique)	Mozambico	MZN	100,000,000	Eni Mozambique LNG H. BV Third parties	25.00 75.00		Eq.
Coral South FLNG DMCC	Dubai (United Arab Emirates)	United Arab Emirates	AED	500,000	Eni Mozambique LNG H. BV Third parties	25.00 75.00		Eq.
East Delta Gas Co (in liquidation)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	37.50 62.50		Co.
East Kanayis Petroleum Co(†)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	50.00 50.00		Co.
East Obaiyed Petroleum Company(†)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc SpA Third parties	50.00 50.00		Co.
El-Fayrouz Petroleum Co(†) (in liquidation)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Exploration BV Third parties	50.00 50.00		Co.
El Temsah Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	25.00 75.00		Co.
Fedynskmorneftegaz Sàrl(†)	Luxembourg (Luxembourg)	Russia	USD	20,000	Eni Energy Russia BV Third parties	33.33 66.67		Eq.
Isatay Operating Company Llp(†)	Astana (Kazakhstan)	Kazakhstan	KZT	400,000	Eni Isatay Third parties	50.00 50.00		Co.
Karachaganak Petroleum Operating BV	Amsterdam (Netherlands)	Kazakhstan	EUR	20,000	Agip Karachaganak BV Third parties	29.25 70.75		Co.
Karachaganak Project Development Ltd (KPD)	Reading, Berkshire (United Kingdom)	United Kingdom	GBP	100	Agip Karachaganak BV Third parties	38.00 62.00		Eq.
Khaleej Petroleum Co WII	Safat (Kuwait)	Kuwait	KWD	250,000	Eni Middle E. Ltd Third parties	49.00 51.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(†) Jointly controlled entity.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Liberty National Development Co Llc	Wilmington (USA)	USA	USD	0[a]	Eni Oil & Gas Inc Third parties	32.50 67.50		Eq.
Mediterranean Gas Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	25.00 75.00		Co.
Mellitah Oil & Gas BV(†)	Amsterdam (Netherlands)	Libya	EUR	20,000	Eni North Africa BV Third parties	50.00 50.00		Co.
Nile Delta Oil Co Nidoco	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	37.50 62.50		Co.
Norpipe Terminal Holdco Ltd	London (United Kingdom)	Norway	GBP	55.69	Eni SpA Third parties	14.20 85.80		Eq.
North Bardawil Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Exploration BV Third parties	30.00 70.00		Eq.
North El Burg Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc SpA Third parties	25.00 75.00		Co.
Petrobel Belayim Petroleum Co(†)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	50.00 50.00		Co.
PetroBicentenario SA(†)	Caracas (Venezuela)	Venezuela	VES	3,790	Eni Lasmo Plc Third parties	40.00 60.00		Eq.
PetroJunín SA(†)	Caracas (Venezuela)	Venezuela	VES	24,021	Eni Lasmo Plc Third parties	40.00 60.00		Eq.
PetroSucre SA	Caracas (Venezuela)	Venezuela	VES	2,203	Eni Venezuela BV Third parties	26.00 74.00		Eq.
Pharaonic Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	25.00 75.00		Co.
Point Resources FPSO Holding AS	Sandnes (Norway)	Norway	NOK	60,000	Vår Energi AS	100.00		
Point Resources FPSO AS	Sandnes (Norway)	Norway	NOK	150,100,000	PR FPSO Holding AS	100.00		
PR Jotun DA	Sandnes (Norway)	Norway	NOK	0[a]	PR FPSO AS PR FPSO Holding AS	95.00 5.00		
Port Said Petroleum Co(†)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	50.00 50.00		Co.
Raml Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	22.50 77.50		Co.
Ras Qattara Petroleum Co	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	37.50 62.50		Co.
Rovuma Basin LNG Land Limitada(†)	Maputo (Mozambique)	Mozambique	MZN	140,000	Mozambique Rovuma Venture SpA Third parties	33.33 66.67		Co.
Shorouk Petroleum Company	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Production BV Third parties	25.00 75.00		Co.
Société Centrale Electrique du Congo SA	Pointe-Noire (Republic of the Congo)	Republic of the Congo	XAF	44,732,000,000	Eni Congo SA Third parties	20.00 80.00		Eq.
Société Italo Tunisienne d'Exploitation Pétrolière SA(†)	Tunisi (Tunisia)	Tunisia	TND	5,000,000	Eni Tunisia BV Third parties	50.00 50.00		Eq.
Sodeps - Société de Developpement et d'Exploitation du Permis du Sud SA(†)	Tunisi (Tunisia)	Tunisia	TND	100,000	Eni Tunisia BV Third parties	50.00 50.00		Co.
Tapco Petrol Boru Hatti Sanayi ve Ticaret AS(†) (in liquidation)	Istanbul (Turkey)	Turkey	TRY	9,850,000	Eni International BV Third parties	50.00 50.00		Co.
Tecninco Engineering Contractors Llp(†)	Aksai (Kazakhstan)	Kazakhstan	KZT	29,478,455	EniProgetti SpA Third parties	49.00 51.00		Eq.
Thekah Petroleum Co (in liquidation)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Exploration BV Third parties	25.00 75.00		Co.
United Gas Derivatives Co	Cairo (Egypt)	Egypt	USD	153,000,000	Eni International BV Third parties	33.33 66.67		Eq.
VIC CBM Ltd(†)	London (United Kingdom)	Indonesia	USD	1,315,912	Eni Lasmo Plc Third parties	50.00 50.00		Eq.
Virginia Indonesia Co CBM Ltd(†)	London (United Kingdom)	Indonesia	USD	631,640	Eni Lasmo Plc Third parties	50.00 50.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(†) Jointly controlled entity.
(a) Shares without nominal value.

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Vår Energi AS(†) (ex Eni Norge AS)	Forus (Norway)	Norway	NOK	399,425,000	Eni International BV Third parties	69.60 30.40		Eq.
West Ashrafi Petroleum Co(†) (in liquidation)	Cairo (Egypt)	Egypt	EGP	20,000	Ieoc Exploration BV Third parties	50.00 50.00		Co.

Gas & Power

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Mariconsult SpA(†)	Milan	Italy	EUR	120,000	Eni SpA Third parties	50.00 50.00		Eq.
Società EniPower Ferrara Srl(†)	San Donato Milanese (MI)	Italy	EUR	140,000,000	EniPower SpA Third parties	51.00 49.00	51.00	J.O.
Transmed SpA(†)	Milan	Italy	EUR	240,000	Eni SpA Third parties	50.00 50.00		Eq.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Angola LNG Supply Services Llc	Wilmington (USA)	USA	USD	19,278,782	Eni USA Gas M. Llc Third parties	13.60 86.40		Eq.
Blue Stream Pipeline Co BV(†)	Amsterdam (Netherlands)	Russia	USD	22,000	Eni International BV Third parties	50.00 50.00	50.00	J.O.
Gas Distribution Company of Thessaloniki-Thessaly SA(†)	Ampelokipi-Menemeni (Greece)	Greece	EUR	247,127,605	Eni gas e luce SpA Third parties	49.00 51.00		Eq.
GreenStream BV(†)	Amsterdam (Netherlands)	Libya	EUR	200,000,000	Eni North Africa BV Third parties	50.00 50.00	50.00	J.O.
Premium Multiservices SA	Tunisi (Tunisia)	Tunisia	TND	200,000	Sergaz SA Third parties	49.99 50.01		Eq.
SAMCO Sagl	Lugano (Switzerland)	Switzerland	CHF	20,000	Eni International BV Transmed. Pip. Co Ltd Third parties	5.00 90.00 5.00		Eq.
Transmediterranean Pipeline Co Ltd(†)(19)	St. Helier (Jersey)	Jersey	USD	10,310,000	Eni SpA Third parties	50.00 50.00	50.00	J.O.
Unión Fenosa Gas SA(†)	Madrid (Spain)	Spain	EUR	32,772,000	Eni SpA Third parties	50.00 50.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(†) Jointly controlled entity.
(19) Company located in a state or territory with a privileged tax regime as provided in article 167 paragraph 4 of Presidential Decree of December 22, 1986, No. 917: the profit pertaining to the Group is subject to the Italian taxation. The company is considered as a controlled subsidiary as provided by article 167, paragraph 3, of the Italian Tax Consolidated Text.

Refining & Marketing and Chemical

Refining & Marketing

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Arezzo Gas SpA(†)	Arezzo	Italy	EUR	394,000	Eni Fuel SpA Third parties	50.00 50.00		Eq.
CePIM Centro Padano Interscambio Merci SpA	Fontevivo (PR)	Italy	EUR	6,642,928.32	Ecofuel SpA Third parties	44.78 55.22		Eq.
Consorzio Operatori GPL di Napoli	Napoli	Italy	EUR	102,000	Eni Fuel SpA Third parties	25.00 75.00		Co.
Costiero Gas Livorno SpA(†)	Livorno	Italy	EUR	26,000,000	Eni Fuel SpA Third parties	65.00 35.00	65.00	J.O.
Disma SpA	Segrate (MI)	Italy	EUR	2,600,000	Eni Fuel SpA Third parties	25.00 75.00		Eq.
Livorno LNG Terminal SpA	Livorno	Italy	EUR	200,000	Costiero Gas L. SpA Third parties	50.00 50.00		Eq.
Petroven Srl(†)	Genova	Italy	EUR	156,000	Ecofuel SpA Third parties	68.00 32.00	68.00	J.O.
Porto Petroli di Genova SpA	Genova	Italy	EUR	2,068,000	Ecofuel SpA Third parties	40.50 59.50		Eq.
Raffineria di Milazzo ScpA(†)	Milazzo (ME)	Italy	EUR	171,143,000	Eni SpA Third parties	50.00 50.00	50.00	J.O.
Seram SpA	Fiumicino (RM)	Italy	EUR	852,000	Eni SpA Third parties	25.00 75.00		Co.
Sigea Sistema Integrato Genova Arquata SpA	Genova	Italy	EUR	3,326,900	Ecofuel SpA Third parties	35.00 65.00		Eq.
Società Oleodotti Meridionali - SOM SpA(†)	San Donato Milanese (MI)	Italy	EUR	3,085,000	Eni SpA Third parties	70.00 30.00	70.00	J.O.
Termica Milazzo Srl(†)	Milazzo (ME)	Italy	EUR	100,000	Raff. Milazzo ScpA	100.00	50.00	J.O.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(†) Jointly controlled entity.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
AET - Raffineriebeteiligungsgesellschaft mbH(†)	Schwedt (Germany)	Germany	EUR	27,000	Eni Deutsch. GmbH Third parties	33.33 66.67		Eq.
Bayernoil Raffineriegesellschaft mbH(†)	Vohburg (Germany)	Germany	EUR	10,226,000	Eni Deutsch. GmbH Third parties	20.00 80.00	20.00	J.O.
City Carburoil SA(†)	Rivera (Switzerland)	Switzerland	CHF	6,000,000	Eni Suisse SA Third parties	49.91 50.09		Eq.
Egyptian International Gas Technology Co	Cairo (Egypt)	Egypt	EGP	100,000,000	Eni International BV Third parties	40.00 60.00		Co.
ENEOS Italsing Pte Ltd	Singapore (Singapore)	Singapore	SGD	12,000,000	Eni International BV Third parties	22.50 77.50		Eq.
FSH Flughafen Schwechat Hydranten-Gesellschaft OG	Vienna (Austria)	Austria	EUR	7,798,020.99	Eni Marketing A. GmbH Eni Mineralölh. GmbH Eni Austria GmbH Third parties	14.56 14.56 14.56 56.32		Co.
Fuelling Aviation Services GIE	Tremblay en France (France)	France	EUR	1	Eni France Sàrl Third parties	25.00 75.00		Co.
Mediterranée Bitumes SA	Tunisi (Tunisia)	Tunisia	TND	1,000,000	Eni International BV Third parties	34.00 66.00		Eq.
Routex BV	Amsterdam (Netherlands)	Netherlands	EUR	67,500	Eni International BV Third parties	20.00 80.00		Eq.
Saraco SA	Meyrin (Switzerland)	Switzerland	CHF	420,000	Eni Suisse SA Third parties	20.00 80.00		Co.
Supermetanol CA(†)	Jose Puerto La Cruz (Venezuela)	Venezuela	VES	120.867	Ecofuel SpA Supermetanol CA Third parties	34.51(a) 30.07 35.42	50.00	J.O.
TBG Tanklager Betriebsgesellschaft GmbH(†)	Salisburgo (Austria)	Austria	EUR	43,603.70	Eni Marketing A. GmbH Third parties	50.00 50.00		Eq.
Weat Electronic Datenservice GmbH	Düsseldorf (Germany)	Germany	EUR	409,034	Eni Deutsch. GmbH Third parties	20.00 80.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(†) Jointly controlled entity.
(a) Controlling interest: Ecofuel SpA 50.00
Third parties 50.00

Chemical

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Brindisi Servizi Generali Scarl	Brindisi	Italy	EUR	1,549,060	Versalis SpA Syndial SpA EniPower SpA Third parties	49.00 20.20 8.90 21.90		Eq.
IFM Ferrara ScpA	Ferrara	Italy	EUR	5,270,466	Versalis SpA Syndial SpA S.E.F. Srl Third parties	19.74 11.58 10.70 57.98		Eq.
Matrìca SpA(†)	Porto Torres (SS)	Italy	EUR	37,500,000	Versalis SpA Third parties	50.00 50.00		Eq.
Newco Tech SpA(†) (in liquidation)	Novara	Italy	EUR	179,000	Versalis SpA Genomatica Inc	80.00 20.00		Eq.
Novamont SpA	Novara	Italy	EUR	13,333,500	Versalis SpA Third parties	25.00 75.00		Eq.
Priolo Servizi ScpA	Melilli (SR)	Italy	EUR	28,100,000	Versalis SpA Syndial SpA Third parties	33.11 4.61 62.28		Eq.
Ravenna Servizi Industriali ScpA	Ravenna	Italy	EUR	5,597,400	Versalis SpA EniPower SpA Ecofuel SpA Third parties	42.13 30.37 1.85 25.65		Eq.
Servizi Porto Marghera Scarl	Porto Marghera (VE)	Italy	EUR	8,695,718	Versalis SpA Syndial SpA Third parties	48.44 38.39 13.17		Eq.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Lotte Versalis Elastomers Co Ltd(†)	Yeosu (South Korea)	South Korea	KRW	301,800,000,000	Versalis SpA Third parties	50.00 50.00		Eq.
Versalis Zeal Ltd(†)	Takoradi (Ghana)	Ghana	GHS	5,650,000	Versalis International SA Third parties	80.00 20.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(†) Jointly controlled entity.

Corporate and other activities

Corporate and financial companies

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Commonwealth Fusion Systems Llc	Wilmington (USA)	USA	USD	148,291,710.38	Eni Next Llc Third parties	35.72 66.28		Eq.

Other activities

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Filatura Tessile Nazionale Italiana - FILTENI SpA (in liquidation)	Ferrandina (MT)	Italy	EUR	4,644,000	Syndial SpA Third parties	59.56[a] 40.44		Co.
Ottana Sviluppo ScpA (in liquidation)	Nuoro	Italy	EUR	516,000	Syndial SpA Third parties	30.00 70.00		Eq.
Saipem SpA[(#)(†)]	San Donato Milanese (MI)	Italy	EUR	2,191,384,693	Eni SpA Saipem SpA Third parties	30.54[b] 1.46 68.00		Eq.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	% Equity ratio	Consolidation or valutation method(*)
Grid Edge (Private) Ltd[(†)]	Saddar Town - Karachi (Pakistan)	Pakistan	PKR	1,200,000	Eni International BV Third parties	40.00 60.00		Eq.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(#) Company with shares quoted in the regulated market of Italy or of other EU countries.
(†) Jointly controlled entity.
(a) Controlling interest: Syndial SpA 48.00
Third parties 52.00
(b) Controlling interest: Eni SpA 30.99
Third parties 69.01

OTHER SIGNIFICANT INVESTMENTS

Exploration & Production

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	Consolidation or valutation method(*)
Consorzio Universitario in Ingegneria per la Qualità e l'Innovazione	Pisa	Italy	EUR	135,000	Eni SpA Third parties	25.00 75.00	F.V.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	Consolidation or valutation method(*)
Administradora del Golfo de Paria Este SA	Caracas (Venezuela)	Venezuela	VES	0.001	Eni Venezuela BV Third parties	19.50 80.50	F.V.
Brass LNG Ltd	Lagos (Nigeria)	Nigeria	USD	1,000,000	Eni Int. NA NV Sàrl Third parties	20.48 79.52	F.V.
Darwin LNG Pty Ltd	West Perth (Australia)	Australia	AUD	530,060,381.89	Eni G&P LNG Aus. BV Third parties	10.99 89.01	F.V.
New Liberty Residential Co Llc	West Trenton (USA)	USA	USD	0[a]	Eni Oil & Gas Inc Third parties	17.50 82.50	F.V.
Nigeria LNG Ltd	Port Harcourt (Nigeria)	Nigeria	USD	1,138,207,000	Eni Int. NA NV Sàrl Third parties	10.40 89.60	F.V.
North Caspian Operating Co NV	Amsterdam (Netherlands)	Kazakhstan	EUR	128,520	Agip Caspian Sea BV Third parties	16.81 83.19	F.V.
OPCO - Sociedade Operacional Angola LNG SA	Luanda (Angola)	Angola	AOA	7,400,000	Eni Angola Prod. BV Third parties	13.60 86.40	F.V.
Petrolera Güiria SA	Caracas (Venezuela)	Venezuela	VES	10	Eni Venezuela BV Third parties	19.50 80.50	F.V.
SOMG - Sociedade de Operações e Manutenção de Gasodutos SA	Luanda (Angola)	Angola	AOA	7,400,000	Eni Angola Prod. BV Third parties	13.60 86.40	F.V.
Torsina Oil Co	Cairo (Egypt)	Egitto	EGP	20,000	Ieoc Production BV Third parties	12.50 87.50	F.V.

(*) F.C. = full consolidation, J.O. = joint operation, Eq. = equity-accounted, Co. = valued at cost, F.V. = valued at fair value.
(a) Shares without nominal value.

Gas & Power

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	Consolidation or valutation method(*)
Norsea Gas GmbH	Emden (Germany)	Germany	EUR	1,533,875.64	Eni International BV Third parties	13.04 86.96	F.V.

Refining & Marketing e Chimica

Refining & Marketing

IN ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	Consolidation or valutation method(*)
Consorzio Nazionale per la Gestione Raccolta e Trattamento degli Oli Minerali Usati	Rome	Italy	EUR	36,149	Eni SpA Third parties	12.43 87.57	F.V.
Società Italiana Oleodotti di Gaeta SpA(14)	Rome	Italy	ITL	360,000,000	Eni SpA Third parties	72.48 27.52	F.V.

OUTSIDE ITALY

Company name	Registered office	Country of operation	Currency	Share Capital	Shareholders	% Ownership	Consolidation or valutation method(*)
BFS Berlin Fuelling Services GbR	Hamburg (Germany)	Germany	EUR	89,199	Eni Deutsch. GmbH Third parties	12.50 87.50	F.V.
Compania de Economia Mixta "Austrogas"	Cuenca (Ecuador)	Ecuador	USD	3,028,749	Eni Ecuador SA Third parties	13.31 86.69	F.V.
Dépôt Pétrolier de Fos SA	Fos-Sur-Mer (France)	France	EUR	3,954,196.40	Eni France Sàrl Third parties	16.81 83.19	F.V.
Dépôt Pétrolier de la Côte d'Azur SAS	Nanterre (France)	France	EUR	207,500	Eni France Sàrl Third parties	18.00 82.00	F.V.
Joint Inspection Group Ltd	London (United Kingdom)	United Kingdom	GBP	0[a]	Eni SpA Third parties	12.50 87.50	F.V.
Saudi European Petrochemical Company 'IBN ZAHR'	Al Jubail (Saudi Arabia)	Saudi Arabia	SAR	1,200,000,000	Ecofuel SpA Third parties	10.00 90.00	F.V.
S.I.P.G. Société Immobilier Pétrolier de Gestion Snc	Tremblay en France (France)	France	EUR	40,000	Eni France Sàrl Third parties	12.50 87.50	F.V.
Sistema Integrado de Gestion de Aceites Usados	Madrid (Spain)	Spain	EUR	175,713	Eni Iberia SLU Third parties	15.44 84.56	F.V.
Tanklager - Gesellschaft Tegel (TGT) GbR	Hamburg (Germany)	Germany	EUR	4,953	Eni Deutsch. GmbH Third parties	12.50 87.50	F.V.
TAR - Tankanlage Ruemlang AG	Ruemlang (Switzerland)	Switzerland	CHF	3,259,500	Eni Suisse SA Third parties	16.27 83.73	F.V.
Tema Lube Oil Co Ltd	Accra (Ghana)	Ghana	GHS	258,309	Eni International BV Third parties	12.00 88.00	F.V.

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(a) Shares without nominal value.
(14) Company under extraordinary administration procedure pursuant to law No. 95 of april 3, 1979. The liquidation was concluded on april 28, 2015. The cancellation has been filed and is pending the authorization by the Ministry of Economic Development.

CHANGES IN THE SCOPE OF CONSOLIDATION FOR 2018

Fully consolidated subsidiaries

COMPANIES INCLUDED (NO. 10)

Arm Wind LIp	**Astana**	Other activities	Acquisition
Eni East Ganal Ltd	**London**	Exploration & Production	Constitution
Eni Lebanon BV	**Amsterdam**	Exploration & Production	Relevancy
Eni Next LIc	**Houston**	Corporate and financial companies	Constitution
Eni Rovuma Basin BV	**Amsterdam**	Exploration & Production	Relevancy
Eni Sharjah BV	**Amsterdam**	Exploration & Production	Constitution
Gas Supply Company Thessaloniki-Thessalia SA	**Thessaloniki**	Gas & Power	Acquisition of the control
Mestni Plinovodi distribucija plina doo	**Koper**	Gas & Power	Acquisition
Versalis Singapore Pte Ltd	**Singapore**	Chemical	Relevancy
Windirect BV	**Amsterdam**	Other activities	Acquisition

COMPANIES EXCLUDED (NO. 10)

Eni Bulungan BV	**Amsterdam**	Exploration & Production	Irrelevancy
Eni Croatia BV	**Amsterdam**	Exploration & Production	Sale
Eni Trinidad and Tobago Ltd	**Port of Spain**	Exploration & Production	Sale
Eni Engineering E&P Ltd	**London**	Exploration & Production	Cancellation
Eni Liverpool Bay Operating Co Ltd	**London**	Exploration & Production	Irrelevancy
Liverpool Bay Ltd	**London**	Exploration & Production	Irrelevancy
Mestni Plinovodi distribucija plina doo	**Koper**	Gas & Power	Merger
Eni Norge AS	**Forus**	Exploration & Production	Loss of control
Tigáz Tiszántúli Gázszolgáltató Zártkörûen Mûködõ Részvénytársaság	**Hajdúszoboszló**	Gas & Power	Sale
Tigáz-Dso Földgázelosztó kft	**Hajdúszoboszló**	Gas & Power	Sale

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(14) Company under extraordinary administration procedure pursuant to law No. 95 of april 3, 1979. The liquidation was concluded on april 28, 2015. The cancellation has been filed and is pending the authorization by the Ministry of Economic Development.

Eni SpA

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Piazzale Enrico Mattei, 1 - Rome - Italy
Capital Stock as of December 31, 2018: € 4,005,358,876.00 fully paid
Tax identification number 00484960588

Branches
Via Emilia, 1 - San Donato Milanese (Milan) - Italy
Piazza Ezio Vanoni, 1 - San Donato Milanese (Milan) - Italy

Publications
Relazione Finanziaria Annuale pursuant to rule 154-ter paragraph 1 of Legislative Decree No. 58/1998 (in Italian)
Annual Report
Annual Report on Form 20-F for the Securities and Exchange Commission
Fact Book (in Italian and English)
Interim Consolidated Report as of June 30 pursuant to rule 154-ter paragraph 2 of Legislative Decree No. 58/1998 (in Italian and English)
Corporate Governance Report pursuant to rule 123-bis of Legislative Decree No. 58/1998 (in Italian and English)
Remuneration Report pursuant to rule 123-ter of Legislative Decree No. 58/1998 (in Italian and English)

ENI IN 2018 – Summary Annual Review (in English)
ENI FOR 2018 – Sustainability Report (in Italian and English)

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