

Eni Fact Book **2018** 



# 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.

# Eni Fact Book **2018**

Eni's Fact Book is a supplement to Eni's Annual Report and is designed to provide supplemental financial and operating information. It contains certain forward-looking statements regarding capital expenditure, dividends, allocation of future cash flow from operations, evolution of financial structure, future operating performance, targets of production and sale growth, execution 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&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 pricing of oil, gas and refined products; operational problems; general economic conditions; geopolitical factors including international tensions, social and political instability, changes in the economic and legal frameworks in Eni's Countries of operations, regulation of the oil&gas industry, power generation and environmental field, development and use of new technologies; changes in public expectations and other changes in business conditions; the actions of competitors.

# Contents

	Eni at a glance	4
	Main data	6
	Exploration & Production	11
	Gas & Power	63
	Refining & Marketing and Chemicals	72
8 7	TABLES	
	Financial data	87
	Employees	101
	Quarterly information	102

EUROPE	E&P	G&P	R&M&C
Austria		•	•
Belgium		•	•
Cyprus	•		
Czech Republic			•
Denmark			•
France		•	•
Germany		•	•
Greece		•	•
Greenland	•		
Hungary			•
Ireland	•		
Italy	•	•	•
Luxembourg		•	
Montenegro	•		
Norway	•		
Poland			•
Romania			•
Slovakia			•
Slovenia		•	
Spain		•	•
Sweden			•
Switzerland		•	•
the Netherlands		•	•
the United Kingdom	•	•	•
Turkey		•	•

ASIA AND OCEANIA	E&P	G&P	R&M&C
Australia	•		
Bahrain	•		
China	•	•	•
India	•	•	•
Indonesia	•	•	
Iraq	•		
Japan		•	
Kazakhstan	•		
Kuwait		•	
Lebanon	•		
Myanmar	•		
0man	•	•	
Pakistan	•	•	
Russia	•	•	•
Saudi Arabia			•
Singapore		•	•
South Korea		•	•
Taiwan		•	
the United Arab Emirates	•		•
Timor Leste	•		
Turkmenistan	•		
Vietnam	•		

AFRICA	E&P	G&P	R&M&C
Algeria	•		
Angola	•		
Congo	•		•
Egypt	•	•	•
Gabon	•		•
Ghana	•		•
Ivory Coast	•		
Kenya	•		
Lybia	•	•	
Morocco	•		
Mozambique	•		
Nigeria	•		
South Africa	•		
Tunisia	•	•	•

AMERICA	E&P	G&P	R&M&C
Argentina	•		
Canada	•		
Ecuador	•		•
Mexico	•		
the United States	•	•	•
Venezuela	•		•

		47	
<b>ENI OPERATES I</b>	ΝÍ		COUNTRIES

# **ENI AT A GLANCE**

# 2018: year of outstanding financial and industrial results achieved thanks to the 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.

€11.24 BLN

+94% vs. 2017

GROUP ADJUSTED OPERATING PROFIT

€13.45 BLN

+35% vs. 2017

ADJUSTED NET CASH FLOW FROM OPERATIONS

€8.29 BLN

-24% vs. 2017

**NET BORROWINGS** 

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	2015	2014
Operating profit (loss) (€ million)	9,983	8,012	2,157	(3,076)	8,965
Adjusted operating profit (loss)	11,240	5,803	2,315	5,708	12,337
Net cash flow from operations	13,647	10,117	7,673	12,875	14,469
TRIR (Total recordable (total recordable injuries/injury rate) (total recordable injuries/worked hours) x 1,000,000		0.33	0.35	0.45	0.71
Leverage	0.16	0.23	0.28	0.29	0.21

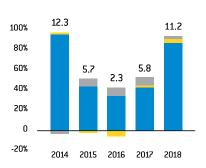
-6% vs. 2017

UPSTREAM GHG INTENSITY INDEX

**0.35** TRIR

AMONG THE LOWEST LEVEL COMPARED TO THE AVERAGE OF THE INDUSTRY

# ADJUSTED OPERATING PROFIT (€ bln)

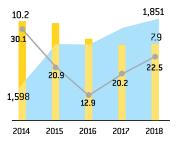


Exploration & Production

Gas & Power

Refining & Marketing and Chemicals

# PROFITABLE AND DISCIPLINED GROWTH



Hydrocarbon production (kboe/d)

E&P capex (€ bln)

Cash flow per boe (\$/boe)

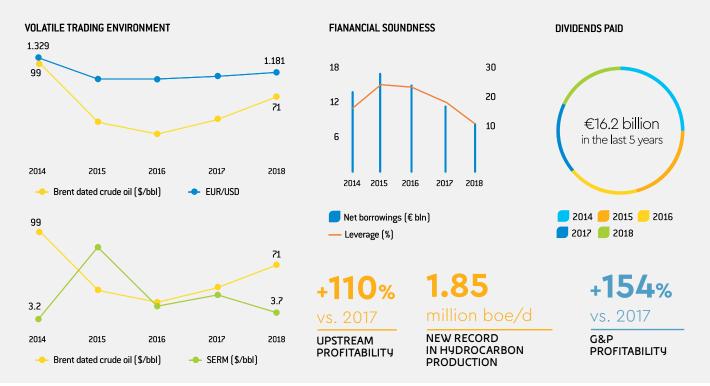
52\$/barrel

2018 CASH NEUTRALITY

0.16 leverage

THE LOWEST LEVEL IN THE LAST 12 YEARS

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.



# **OUR TRANSFORMATION AND OUR TARGETS**

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. Eni also pursues a strategy targeted to the long-term **carbon neutrality** through a defined path, in addition, Eni, confirming its tradition, will also continue to **promote local development**.

2018 results	Target	Actual 2018 - New plan 2019-2021	2018-2021 plan
620 mmboe	Discovered resources	2.5 bboe	2 bboe
2.5% vs. 2017 at constant prices	CAGR Production	~3.5%	3.5%
25 \$/barrel	Upstream new projects breakeven	25 \$/barrel	30 \$/barrel
8.8 MTPA	LNG contracted volumes @ 2025	16 MTPA	14 MTPA
3 \$/barrel	Refining long-term breakeven margin	1.5 \$/barrel	3 \$/barrel
GHG upstream emissive intensity index -6%	Decarbonization strategy	Zero upstream carbon footprint by 2030	

# **MAIN DATA**

# **KEY FINANCIAL DATA**(\*)

	(€ million)	2018	2017	2016	2015	2014
Net sales from operations		75,822	66,919	55,762	72,286	98,218
of which: Exploration & Production		25,744	19,525	16,089	21,436	28,488
Gas & Power		55,690	50,623	40,961	52,096	73,434
Refining & Marketing and Chemicals		25,216	22,107	18,733	22,639	28,994
Corporate and other activities		1,589	1,462	1,343	1,468	1,429
Impact of unrealized intragroup profit elimination and consolidation adjustments		(32,417)	(26,798)	(21,364)	(25,353)	(34,127)
Operating profit (loss)		9,983	8,012	2,157	(3,076)	8,965
of which: Exploration & Production		10,214	7,651	2,567	(959)	10,727
Gas & Power		629	75	(391)	(1,258)	64
Refining & Marketing and Chemicals		(380)	981	723	(1,567)	(2,811)
Corporate and other activities		(691)	(668)	(681)	(497)	(518)
Impact of unrealized intragroup profit elimination		211	(27)	(61)	1,205	1,503
Operating profit (loss)		9,983	8,012	2,157	(3,076)	8,965
Exclusion of special items		1,161	(1,990)	333	7,648	1,912
Exclusion of inventory holding (gains) losses		96	(219)	(175)	1,136	1,460
Adjusted operating profit (loss) <sup>(a)</sup>		11,240	5,803	2,315	5,708	12,337
of which: Exploration & Production		10,850	5,173	2,494	4,182	11,679
Gas & Power		543	214	(390)	(126)	168
Refining & Marketing and Chemicals		380	991	583	695	(412)
Corporate and other activities		(606)	(542)	(452)	(369)	(443)
Impact of unrealized intragroup profit elimination and consolidation adjustments		73	(33)	80	1,326	1,345
Net profit (loss) <sup>(b)</sup>		4,126	3,374	(1,464)	(8,778)	1,303
of which: continuing operations		4,126	3,374	(1,051)	(7,952)	1,720
discontinuing operations				(413)	(826)	(417)
Adjusted net profit (loss) <sup>(a)(b)</sup>		4,583	2,379	(340)	803	3,723
Net cash flow from operating activities		13,647	10,117	7,673	12,875	14,469
Net cash flow from operating activities - standalone $^{(a)}$		13,647	10,117	7,673	12,155	13,544
Capital expenditure		9,119	8,681	9,180	10,741	11,178
Shareholders' equity including non-controlling interests at year end		51,073	48,079	53,086	57,409	65,641
Net borrowings at year end		8,289	10,916	14,776	16,871	13,685
Leverage		0.16	0.23	0.28	0.29	0.21
Net capital employed at year end		59,362	58,995	67,862	74,280	79,326
of which: Exploration & Production		50,358	49,801	57,910	53,968	51,061
Gas & Power		3,143	3,394	4,100	5,803	9,031
Refining & Marketing and Chemicals		7,371	7,440	6,981	6,986	9,711

# **KEY MARKET INDICATORS**

		2018	2017	2016	2015	2014
Average price of Brent dated crude oil in US dollars <sup>[a]</sup>	(\$/barrel)	71.04	54.27	43.69	52.46	98.99
Average EUR/USD exchange rate <sup>[b]</sup>		1.181	1.130	1.107	1.110	1.329
Average price of Brent dated crude oil	(€)	60.15	48.03	39.47	47.26	74.48
Standard Eni Refining Margin (SERM) <sup>[c]</sup>	(\$)	3.7	5.0	4.2	8.3	3.2
TTF	(€/kcm)	243	183	148	210	221
PSV	(€/kcm)	260	211	168	234	246

<sup>(\*)</sup> Pertaining to continuing operations.

(a) Non-GAAP measures. 2014-2015 results are calculated on a standalone basis, i.e. by excluding the results of Saipem earned from both third parties and the Group's continuing operations, therefore determining its deconsolidation.

<sup>(</sup>b) Attributable to Eni's shareholders.

<sup>(</sup>a) Source: Platt's Oilgram.
(b) Source: BCE.
(c) Source: 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.

# SELECTED OPERATING DATA(\*)

		2018	2017	2016	2015	2014
Employees at year end	(number)	31,701	32,934	33,536	34,196	34,846
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.35	0.33	0.35	0.45	0.71
of which: employees		0.37	0.30	0.36	0.41	0.56
contractors		0.34	0.34	0.35	0.47	0.79
Total volume of oil spills (>1 barrel)	(barrels)	6,362	6,559	5,913	16,481	15,562
of which: due to sabotage and terrorism		3,697	3,236	4,682	14,847	14,401
operational		2,665	3,323	1,231	1,634	1,161
Direct GHG emissions	$(mmtonnes CO_2eq)$	43.35	43.15	42.15	43.28	42.88
of which: $\mathrm{CO_2}$ equivalent from combustion and process		33.89	33.03	32.39	32.48	31.34
CO <sub>2</sub> equivalent from flaring		6.26	6.83	5.40	5.51	5.73
CO <sub>2</sub> equivalent from venting		2.12	2.15	2.35	2.75	2.64
${\it CO}_2$ equivalent from methane fugitive emissions		1.08	1.14	2.01	2.54	3.18
R&D expenditure	(€ million)	197	185	161	176	174
First patent filing application	(number)	43	27	40	33	64

Exploration & Production		2018	2017	2016	2015	2014
Employees at year end	(number)	11,645	11,970	12,494	12,821	12,777
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.30	0.28	0.34	0.34	0.56
Net proved reserves of hydrocarbons	(mmboe)	7,153	6,990	7,490	6,890	6,602
Average reserve life index	(years)	10.6	10.5	11.6	10.7	11.3
Hydrocarbon production <sup>[a]</sup>	(kboe/d)	1,851	1,816	1,759	1,760	1,598
Organic reserve replacement ratio	[%]	100	103	193	148	112
Profit per boe <sup>(b)</sup>	(\$/boe)	9.3	8.7	2.0	(3.8)	9.9
Opex per boe <sup>(a)</sup>		6.8	6.6	6.2	7.2	8.4
Cash flow per boe <sup>[a]</sup>		22.5	20.2	12.9	20.9	30.1
Finding & Development cost per boe <sup>[a][c]</sup>		10.40	10.4	13.2	19.3	21.5
Direct GHG emissions	(mmtonnes CO <sub>2</sub> eq)	24.06	24.02	22.46	24.50	24.30
GHG emissions/100% operated hydrocarbon gross production	$[mmtonnes CO_2 eq/kboe]$	21.44	22.75	23.56	25.32	26.83
% produced water reinjected - upstream	[%]	60	59	58	56	56
Volumes of hydrocarbon sent to flaring - upstream	(bcm)	1.9	2.3	1.9	2.0	1.8
of which: sent to flaring process		1.4	1.6	1.5	1.6	1.7
Total volume of oil spills due to operations (>1 barrel)	(barrels)	2,665	3,323	1,231	1,177	936

<sup>(\*)</sup> Pertaining to continuing operations. Following the disinvestment in 2016, 2014-2016 results excluded Saipem contribution.

(a) Includes Eni's share in joint ventures and equity-accounted entities.

(b) Related to consolidated subsidiaries.

(c) Three-year average.

(d) Hydrocarbon production from fields fully operated by Eni (Eni's interest 100%) amounting to 1,067 mmboe, 998 mmboe, 894 mmboe, 913 mmboe and 853 mmmboe respectively in 2018, 2017, 2016, 2015 e 2014.

Gas & Power		2018	2017	2016	2015	2014
Employees at year end	(number)	3,040	4,313	4,261	4,484	4,561
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.56	0.37	0.29	0.89	0.82
Worldwide gas sales	(bcm)	76.71	80.83	86.31	87.72	86.11
of which: Italy		39.03	37.43	38.43	38.44	34.04
outside Italy		37.68	43.40	47.88	52.44	52.27
LNG sales		10.3	8.3	8.1	9.0	8.9
Retail customers in Italy	(million)	7.7	7.7	7.7	7.8	7.9
Direct GHG emissions	$(mmtonnes CO_2 eq)$	11.08	11.30	11.17	10.57	10.12
GHG emissions/kWheq (EniPower)	(gCO <sub>2</sub> eq/kWheq)	402	395	398	409	409
Installed capacity power plants	(GW)	4.7	4.7	4.7	4.9	4.9
Electricity produced	(TWh)	21.62	22.42	21.78	20.69	19.55
Electricity sold		37.07	35.33	37.05	34.88	33.58

Refining & Marketing and Chemicals		2018	2017	2016	2015	2014
Employees at year end	(number)	11,136	10,916	10,858	10,995	11,884
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.56	0.62	0.38	1.07	1.51
Total volume of oil spills due to operations (>1 barrel)	(barrels)	1,069	289	134	427	225
Direct GHG emissions	$(mmtonnes CO_2eq)$	8.19	7.82	8.50	8.19	8.45
SO <sub>x</sub> emissions (sulphur oxide)	(ktonnes SO <sub>2</sub> eq)	4.80	5.18	4.35	6.17	6.84
Refinery throughputs on own account	(mmtonnes)	23.23	24.02	24.52	26.41	25.03
Retail market share in Italy	[%]	24.0	24.3	24.3	24.5	25.5
Retail sales of petroleum products in Europe	(mmtonnes)	8.39	8.54	8.59	8.89	9.21
Service stations in Europe at year end	(number)	5,448	5,544	5,622	5,846	6,220
Average throughput of service stations in Europe	(kliters)	1,776	1,783	1,742	1,754	1,725
Balanced capacity of refineries	(kbbl/d)	548	548	548	548	617
Capacity of biorefineries	(ktonnes/year)	360	360	360	360	360
Production of biofuels	(ktonnes)	219	206	191	179	105
GHG emissions/products (crude oil and semifinished) processed in refineries	(tonnes CO <sub>2</sub> eq/kt)	253	258	278	253	301
Production of petrochemical products	(ktonnes)	9,483	8,955	8,809	8,670	7,926
Sales of petrochemical products		4,938	4,646	4,745	4,813	4,681
Average chemical plant utilization rate	[%]	76	73	72	73	71

# **ENI SHARE PERFORMANCE**

# Share data

		2018	2017	2016	2015	2014
Net profit (loss) <sup>(a)(b)</sup>	(€)	1.15	0.94	(0.29)	(2.21)	0.48
Dividend pertaining to the year		0.83	0.80	0.80	0.80	1.12
Dividend to Eni's shareholders pertaining to the year <sup>(c)</sup>	(€ million)	2,989	2,881	2.,881	2,880	4,037
Cash dividend to Eni's shareholders		2,954	2,880	2,881	3,457	4,006
Cash flow	(€)	3.79	2.81	2.13	3.58	4.01
Dividend yield <sup>[d]</sup>	(%)	5.9	5.7	5.4	5.7	7.6
Net profit (loss) per ADR <sup>[b]</sup> [e]	(\$)	2.72	2.12	(0.65)	(4.90)	1.27
Dividend per ADR <sup>[e]</sup>		1.96	1.81	1.77	1.77	2.65
Cash flow per ADR <sup>[e]</sup>		8.95	6.35	4.72	7.95	10.66
Dividend yield per ADR <sup>(d)[e)</sup>	(%)	5.9	5.7	5.4	5.7	7.6
Pay-out Pay-out		72	85	(197)	(33)	310
Number of shares at period-end	(million)	3,601.1	3,601.1	3,634.2	3,634.2	3,634.2
Weighted average number of shares outstanding $^{(f)}$ [fully diluted]		3,601.1	3,601.1	3,601.1	3,601.1	3,610.4
Total Shareholders Return (TSR)	(%)	4.8	(5.6)	19.2	1.1	(11.9)

- (a) Calculated on the average number of Eni shares outstanding during the year. (b) Pertaining to Eni's shareholders.
- (c) The amount of dividends for the year 2018 is based on the Board's proposal.
- (d) Ratio between dividend of the year and average share price in December.

  (e) One ADR represents 2 shares. Net profit, dividends and cash flow data were converted using average exchange rates. Dividends data were converted at the Noon Buying Rate of the pay-out date.

  (f) Calculated by excluding own shares in portfolio.

# Share information

		2018	2017	2016	2015	2014
Share price - Milan Stock Exchange				'		
High	(€)	16.76	15.72	15.47	17.43	20.41
Low		13.33	12.96	10.93	13.14	13.29
Average		15.25	14.16	13.42	15.47	17.83
Year end		13.75	13.80	15.47	13.80	14.51
ADR price <sup>(a)</sup> - New York Stock Exchange						
High	(\$)	40.09	34.09	33.33	39.29	55.30
Low		30.00	29.54	25.00	29.28	32.81
Average		35.98	31.98	29.74	34.31	47.37
Year end		31.50	33.19	32.24	29.80	34.91
Average daily exchanged shares	(million shares)	12.99	13.89	18.41	20.30	17.21
Value	(€ million)	197	197	246	312	304
Weighted average number of shares outstanding <sup>(b)</sup>	(million shares)	3,601.1	3,601.1	3,601.1	3,601.1	3,610.4
Market capitalization <sup>[c]</sup>						
EUR	(billion)	50.0	50.2	56.2	50.2	52.4
USD		57.3	60.2	59.3	55.7	63.6

- (a) One ADR represents 2 Eni's shares.
- (b) Excluding treasury shares.
- (c) Number of outstanding shares by reference price at period end.

# Data on Eni share placement

		2001	1998	1997	1996	1995
Offer price	(€/share)	13.60	11.80	9.90	7.40	5.42
Number of share placed	(million shares)	200.1	608.1	728.4	647.5	601.9
of which: through bonus share		39.6	24.4	15.0	1.9	
Percentage of share capital <sup>(a)</sup>	(%)	5.0	15.2	18.2	16.2	15.0
Proceeds	(€ million)	2,721	6,714	6,869	4,596	3,254

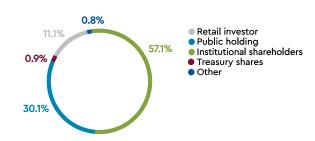
(a) Refers to share capital at December 31, 2018.

# SHAREHOLDERS DISTRIBUTION BY GEOGRAPHIC AREA(\*)

# 17.9% 9.3% 1.7% 19.1% Rest of world Italy UK and Ireland USA and Canada Other Rest of Europe 7.8%

(\*) As of January 11, 2019.

# **CLASS OF SHAREHOLDERS**(\*)



(\*) As of January 11, 2019.

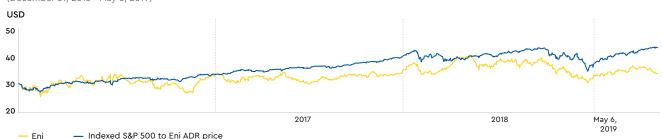
# **ENI SHARE PRICE IN MILAN**



Source: Eni calculations based on BLOOMBERG data.

# **ENI ADR PRICE IN NEW YORK**

(December 31, 2015 - May 6, 2019)



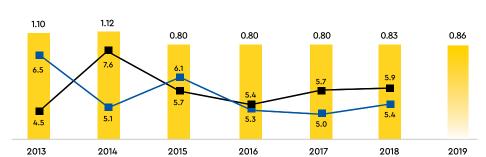
Source: Eni calculations based on BLOOMBERG data.

# **DIVIDEND PER SHARE**



--- Eni's dividend yield (%)

Dividend yield - average of Oil & Gas petroleum companies<sup>(a)</sup> (%)



(a) Refer to: BP, Chevron, Repsol, ExxonMobil, Royal Dutch Shell and Total.



#### SELECTED OPERATING DATA

		2018	2017	2016	2015	2014
TRIR (Total Recordable Injury Rate)	(recordable injuries/worked hours) x 1,000,000	0.30	0.28	0.34	0.34	0.56
of which: employees		0.29	0.23	0.34	0.22	0.20
contractors		0.30	0.30	0.34	0.39	0.68
Net sales from operations <sup>(a)</sup>	(€ million)	25,744	19,525	16,089	21,436	28,488
Operating profit (loss)		10,214	7,651	2,567	(959)	10,727
Adjusted operating profit (loss)		10,850	5,173	2,494	4,182	11,679
Adjusted net profit (loss)		4,955	2,724	508	991	4,569
Capital expenditure		7,901	7,739	8,254	9,980	10,156
Profit per boe <sup>[b]</sup>	(\$/boe)	9.3	8.7	2.0	(3.8)	9.9
Opex per boe <sup>[c]</sup>		6.8	6.6	6.2	7.2	8.4
Cash Flow per boe <sup>[c]</sup>		22.5	20.2	12.9	20.9	30.1
Finding & Development cost per boe <sup>[c][d]</sup>		10.4	10.4	13.2	19.3	21.5
Average hydrocarbon realizations		47.48	35.06	29.14	36.47	65.49
Hydrocarbon production <sup>[c]</sup>	(kboe/d)	1,851	1,816	1,759	1,760	1,598
Estimated net proved hydrocarbon reserves	(mmboe)	7,153	6,990	7,490	6,890	6,602
Reserves life index	(years)	10.6	10.5	11.6	10.7	11.3
Organic reserves replacement ratio	(%)	100	103	193	148	112
Employees at period end	(number)	11,645	11,970	12,494	12,821	12,777
Total volume of oil spills (>1 barrel)	(barrels)	1,595	3,022	1,097	1,177	936
Produced water re-injected	(%)	60	59	58	56	56
Direct GHG emissions	(mmtonnes CO <sub>2</sub> eq)	24.06	24.02	22.46	24.50	24.30
GHG emissions/100% operated hydrocarbon gross production <sup>[e]</sup>	(mmtonnes CO <sub>2</sub> eq/kboe)	21.44	22.75	23.56	25.32	26.83

- (a) Before elimination of intragroup sales.
- (b) Related to consolidated subsidiaries.
- (c) Includes Eni's share in joint ventures and equity-accounted entities.
- (d) Three-year average.
- [e] Hydrocarbon production from fields fully operated by Eni (Eni's interest 100%) amounting to 1,067 mmboe, 998 mmboe, 894 mmboe, 913 mmboe and 853 mmboe respectively in 2018, 2017, 2016, 2015 and 2014.

# 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 longterm 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).

# **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 reservers 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).

# **ACTIVITY AREAS**

# Maps of the E&P activity areas are available on eni.com/Publications

#### **ITALY**

Eni has been operating in Italy since 1926. In 2018, Eni's oil and gas production amounted to 138 kboe/d. Eni's activities in Italy are deployed in the Adriatic and Ionian Seas, the Central Southern Apennines, mainland and offshore Sicily and the Po Valley, on a total developed and undeveloped acreage of 18,833 square kilometers (14,987 square kilometers net to Eni). Eni's exploration and development activities in Italy are regulated by concession contracts (48 operated onshore and 62 operated offshore) and exploration licenses (11 onshore and 9 offshore).

# Adriatic and Ionian Seas

Production Fields in the Adriatic and Ionian Seas accounted for 40% of Eni's domestic production in 2018, mainly gas. Main operated fields are Barbara, Cervia/Arianna, Annamaria, Clara NW (Eni's interest 51%), Luna, Angela, Hera Lacinia, and Bonaccia. Production is operated by means of 68 fixed platforms (4 of these are manned) installed on the main fields, to which satellite fields are linked by underwater infrastructures. Production is carried by sealine to the mainland where it is input in the national gas network. The system is subject continuously to rigorous safety control, maintenance activities and production optimization. **Development** Development activities concerned: (i) maintenance and production optimization in the Adriatic offshore; 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, schoolwork alternation projects and first-level apprenticeship were completed.

# **Central Southern Apennines**

**Production** Eni is the operator of the Val d'Agri concession (Eni's interest 60.77%) in the Basilicata Region in Southern Italy. Production from the Monte Alpi, Monte Enoc and Cerro Falcone fields which accounts for 46% of Eni's domestic production, is treated by the Viggiano Oil Center.

**Development** 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 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.

# Sicilu

Production Eni operates 12 production concessions onshore and 3 offshore in Sicily. The main operated fields are Gela, Tresauro (Eni's interest 45%], Giaurone, Fiumetto, Prezioso and Bronte, which in 2018 accounted for approximately 9% of Eni's production in Italy. **Development** 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.

# **United Kingdom**

Eni has been present in the United Kingdom since 1964. Eni's activities are carried out in the British section of the North Sea and the Irish Sea, on a total developed and undeveloped acreage of 4,628 square kilometers (4,018 square kilometers net to Eni). In 2018, Eni's net production of oil and gas averaged 58 kboe/d. Exploration and production activities in the UK are regulated by concession contracts.

**Production** Eni holds interests in 4 production areas of which the Liverpool Bay is operated by Eni with a 100% interest and Hewett Area is operated with an 89.3% interest. The other non-operated fields are Elgin/Franklin (Eni's interest 21.87%), Glenelg (Eni's interest 8%), J Block and Jasmine (Eni's interest 33%) as well as Jade (Eni's interest 7%).

**Development** Development activities mainly concerned: (i) two infilling wells drilled in Elgin/Franklin fields, one in production from September and the second one to be completed in 2019; and (ii) two infilling wells in Joanne and Jasmine fields, both of them in production since May and September, moreover a workover activity started and was completed at the beginning of 2019.

**Exploration** Eni holds interest in 34 exploration licenses, 29 of these are operated, with interest ranging from 9% to 100%.

# **NORTH AFRICA**

# Algeria

Eni has been present in Algeria since 1981. In 2018, Eni's oil and gas production averaged 85 kboe/d. Developed and undeveloped

acreage of Eni's interests was 3,470 square kilometers (1,155 square kilometers net to Eni).

Operated activities are located in the Bir Rebaa desert, in the Central-Eastern area of the Country in the following operated exploration and production assets: (i) Blocks 403a/d (Eni's interest from 65% to 100%); (ii) Block ROM North (Eni's interest 35%); (iii) Blocks 401a/402a (Eni's interest 55%); (iv) Block 403 (Eni's interest 50%); and (v) Block 405b (Eni's interest 75%). In addition, Eni holds interest in the non-operated Block 404 and Block 208 with a 12.25% stake. Exploration and production activities in Algeria are regulated by Production Sharing Agreements (PSAs) and concession contracts. 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 and of the MLE fields in the Block 405b 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 Il 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.

## Blocks 403a/d and ROM North

**Production** Production in Blocks 403a/d and ROM North comes mainly from the HBN and ROM and satellites fields and represented approximately 18% of Eni's production in Algeria in 2018. Production from ROM and satellites (ZEA, ZEK and REC) is treated at the ROM Central Production Facilities (CPF) and sent to the BRN treatment plant for final treatment, while production from the HBN field is treated at the HBNS oil center operated by the Groupment Berkine. **Development** Development activities concerned production optimization, in particular at the ROM North field.

# Blocks 401a/402a

**Production** Production in Blocks 401a/402a comes mainly from the ROD/SFNE and satellites fields and accounted for approximately 16% of Eni's production in Algeria in 2018.

**Development** Development activities concerned production optimization at the ROD field.

#### Block 403

**Production** The main fields in Block 403 are BRN, BRW and BRSW, which accounted for approximately 7% of Eni's production in Algeria in 2018.

#### Block 404

**Production** The main fields in Block 404 are HBN and HBNS fields, which accounted for approximately 20% of Eni's production in Algeria in 2018.

**Development** Development activities concerned production optimization.

#### Block 405b

**Production** Production in Block 405b comes from the MLE-CAFC project and accounted for approximately 18% of Eni's production in the Country in 2018. Four export pipelines link it to the national grid system. **Development** Development activities concerned drilling activities

**Development** Development activities concerned drilling activities at the CAFC Oil and MLE projects, as well as upgrading activity of existing treatment facilities.

#### Block 208

**Production** The El-Merk field is the main production project in the Block 208 and accounted for approximately 21% of Eni's production in Algeria in 2018. Production is treated by means of a gas treatment plant for approximately 600 mmcf/d and two oil trains for 65 kbbl/d each. **Development** Activities concerned progress in the development program of the El Merk field with the drilling of production and water injection wells.

# Libya

Eni started operations in Libya in 1959. Developed and undeveloped acreage were 26,636 square kilometers (13,294 square kilometers net to Eni). Production activity is carried out in the Mediterranean Sea near Tripoli and in the Libyan Desert area and includes six contractual areas. Onshore contract areas are: (i) Area A, consisting in the former concession 82 (Eni's interest 50%); (ii) Area B, former concessions 100 (Bu-Attifel field) and the NC 125 Block (Eni's interest 50%); (iii) Area E, with El Feel field (Eni's interest 33.3%); (iv) Area F, with Block 118 (Eni's interest 50%); and (v) Area D with Block NC 169 that feeds the Western Libyan Gas Project (Eni's interest 50%). Offshore contract areas are: (i) Area C, with the Bouri oil field (Eni's interest 50%); and (ii) Area D, with Block NC 41 that feed the Western Libuan Gas Project. In 2018, Eni's production in Libya was 302 kboe/d. In the last months the Country reported a resurgence of socio-political instability coupled with internal clashes. Management is closely monitoring the situation and is evaluating any possible measure to safeguard safety of personnel and security of plants and production infrastructures. For further information on this matter, see Risk factors of the Annual Report 2018.

Exploration and production activities in Libya are regulated by Exploration and Production Sharing Agreement contracts (EPSA). The rights to produce of Eni's assets in Libya will expire in 2038 for Area C, in 2041 for Area E, in 2042 for Area A and B as well as in 2043 for Area D.

**Development** During the year, development activities concerned: (i) production start-up of the Bahr Essalam Phase 2 (Eni's interest 50%) offshore project 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 and Sabratha platform; and (iii) production optimization plan in the Wafa field. 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 December 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 and the El Feel production areas; (ii) health and Oil & Gas training program; and (iii) renovation and construction of facilities for social purposes as well as drugs supplies.

**Exploration** 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.

# Tunisia

Eni has been present in Tunisia since 1961. In 2018, Eni's production amounted to 9 kboe/d. Eni's activities are located mainly in the Southern Desert areas and in the Mediterranean offshore facing Hammamet, over a developed and undeveloped acreage of 3,600 square kilometers (1,558 square kilometers net to Eni). Exploration and production in this Country are regulated by concessions

**Production** Production mainly comes from the following operated fields: Maamoura and Baraka offshore fields (Eni's interest 49%); Adam (Eni's interest 25%), Oued Zar (Eni's interest 50%), Djebel Grouz (Eni's interest 50%), MLD (Eni's interest 50%) and El Borma (Eni's interest 50%) onshore fields.

**Development** Development activities concerned production optimization at the producing concessions to mitigate mature fields declines.

# **EGYPT**

Eni has been present in Egypt since 1954. In 2018, Eni's share of production in this Country amounted to 300 kboe/d and accounted for approximately 16% of Eni's total annual hydrocarbon production. Developed and undeveloped acreage in Egypt was 15,903 square kilometers (5,248 square kilometers net to Eni).

Eni's main producing operated activities are located in: (i) the Shorouk block (Eni's interest 50%) in the Mediterranean Offshore with the giant Zohr gas field; (ii) the Sinai concession, mainly in the Belayim Marine-Land and Abu Rudeis fields (Eni's interest 100%); (iii) the Western Desert in the Melehia (Eni's interest 76%), Ras Qattara (Eni's interest 75%) and West Abu Gharadig (Eni's interest 45%) concessions; and (iv) Ashrafi (Eni's interest 50%), Baltim (Eni's interest 50%), Nile Delta (Eni's interest 75%), North Port Said (Eni's interest 100%), North Razzak (Eni's interest 100%) and Temsah (Eni's interest 50%) concessions. Furthermore Eni participates in the Ras el Barr (Eni's interest 50%) and South Ghara (Eni's interest 25%) concessions. Exploration and production activities in Egypt are regulated by Production Sharing Agreements.

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 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 in the Western Desert; and (v) an extension of the Faramid development lease.

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 (Eni's interest 100%); and (iii) the Nour-1 gas well in the Nour exploration license.

# Shorouk block

In June 2018, Eni completed the disposal of a 10% interest of the Zohr project to Mubadala Petroleum, for a cash consideration of \$934 million. 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.

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.

# Sinai

**Production** Production for the year amounted to 66 kbbl/d (44 kbbl/d net to Eni) and mainly comes from the Belayim Marine and Belayim Land fields.

**Development** During the year, infilling activities and production optimization were performed to mitigate mature fields declines. Furthermore, the water reinjection project is completed in the area, achieving the zero water discharge.

## North Port Said

**Production** Production for the year amounted to approximately 20 kboe/d (approximately 15 kboe/d net to Eni), approximately 90 mmcf/d of natural gas and approximately 2 kbbl/d of condensates. Part of the production of this concession is supplied to the United Gas Derivatives Co (Eni's interest 33.33%) with a treatment capacity of 1.3 bcf/d of natural gas and a yearly production of approximately 133 ktonnes of propane, 72 ktonnes of LPG and approximately 1 mmbbl of condensates.

# Baltim

**Production** In 2018, production amounted to approximately 18 kboe/d (approximately 6 kboe/d net to Eni); approximately 70 mmcf/d of natural gas and 3 kbbl/d of condensates.

**Development** Development activities concerned the Baltim South West project in the offshore of the Country. The project sanctioned in 2018 and start-up is expected during 2019.

#### Nile Delta

**Production** Production comes mainly from the Nidoco NW and satellites fields as part of the Great Nooros Area project, in the Abu Madi West concession; in 2018 produced 213 kboe/d (105 kboe/d net to Eni).

**Development** Development activities concerned the completion and start-up of two additional productive wells of the Nooros field 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.

**Exploration** In February 2019, Eni was awarded the operatorship with a 50% interest in the West Sherbean block in the onshore of the Nile Delta nearby to the Nooros producing fields. In case of exploration success, the development activities will benefit from the existing facilities.

# Ras el Barr

**Production** In 2018, the production amounted to 40 kboe/d (15 kboe/d net to Eni), mainly gas from Ha'py and Seth fields.

#### El Temsah

**Production** This concession includes the Tuna, Temsah and Denise fields. Production in 2018 amounted to approximately 47 kboe/d (approximately 12 kboe/d net to Eni); approximately 230 mmcf/d of natural gas and approximately 3 kbbl/d of condensates net to Eni.

# Western Desert

**Production** This area includes Meleiha, Ras Qattara and West Abu Gharadig concessions and in 2018 the production amounted to approximately 49 kboe/d (approximately 24 kboe/d net to Eni). In 2018 were performed infilling activities and production optimization.

**Exploration** In February 2019, Eni was awarded a 100% interest in the South East Siwa onshore block.

# **SUB-SAHARAN AFRICA**

# Angola

Eni has been present in Angola since 1980. In 2018, Eni's production averaged 146 kboe/d. Eni's activities are concentrated in the conventional and deep offshore, over a developed and undeveloped acreage of 21,441 square kilometers (5,303 square kilometers net to Eni).

The main Eni's asset in Angola is the Block 15/06 (Eni operator with a 36.84% interest) with the West Hub and the East Hub projects. Eni participates in other producing blocks: (i) Block 0 in Cabinda offshore (Eni's interest 9.8%) north of the Angolan coast; (ii) Development Areas in the Block 3 and 3/05-A (Eni's interest 12%) offshore of the Country; (iii) Development Areas in the Block 14 (Eni's interest 20%) in the deep offshore west of Block 0; (iv) the Lianzi Development Area in the Block 14 K/A IMI (Eni's interest 10%); and (v) Development Areas in the Block 15 (Eni's interest 20%) in the deep offshore.

Exploration and production activities in Angola are regulated by concessions and PSAs.

Eni 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.

#### Block 15/06

**Production** Production comes from the West Hub and the East Hub projects that in 2018 produced 155 kboe/d.

The development program plans to hook up the blocks discoveries to two FPS0 in order to support production plateau.

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** Development activities mainly concerned the two producing projects in the area. 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.

**Exploration** Exploration activities yielded positive results with: (i) the Kalimba and Afoxé oil discoveries in the East Hub project area with an estimated resources of 400-500 mmbbl of oil in place; and (ii) the Agogo oil discovery in the West Hub project area with an estimated resources of 450-650 mmbbl of oil in place. The development of the discoveries will leverage on synergies with existing facilities.

# Block 0

**Production** Block 0 is divided into Areas A and B. In 2018, production from this block amounted to approximately 283 kbbl/d (approximately 28 kbbl/d net to Eni). Oil production from Area A, deriving mainly from the Takula, Malongo and Mafumeira fields amounted to 19 kbbl/d net to Eni. Production of Area B derives

mainly from the Bomboco, Kokongo, Lomba, N'Dola, Nemba and Sanha fields, and amounted to 9 kbbl/d net to Eni. Associated gas of the area was delivered via the Congo River Crossing pipeline to the A-LNG liquefaction plant (see below) and partially supplied to the domestic market, for the power generation in Cabinda.

**Development** Planned drilling activities were completed at the Mafumeira Sul production project.

# Block 3 and 3/05-A

**Production** Block 3 is divided into three production offshore areas. Oil production is treated at the Palanca terminal and delivered to storage vessel unit and then exported. In 2018, production from this area amounted to approximately 25 kbbl/d [2 kbbl/d net to Eni].

#### Block 14

**Production** In 2018, Development Areas in Block 14 produced approximately 84 kbbl/d (12 kbbl/d net to Eni). Its main fields are Landana and Tombua as well as Benguela-Belize/Lobito-Tomboco and Lianzi. Associated gas of the area was delivered via the Congo River Crossing pipeline to the A-LNG liquefaction plant (see below).

# Block 15

**Production** The block produced approximately 256 kbbl/d (32 kbbl/d net to Eni) in 2018. Its main fields are: (i) the Hungo/Chocalho, started up in 2004 and Marimba started up in 2007 as part of phase A of the global development plan of the Kizomba reserves; (ii) the Kissanje/Dikanza, started-up in 2005 as part of Phase Kizomba B; (iii) Saxi/Batuque and Mondo, started-up in 2008 and operated by two added FPSO units; (iv) Clochas and Mavacola, started-up in 2012 as part of Kizomba Satellites Phase 1; and (v) Bavuca, Kakocha and Mondo South, started-up in 2015 as part of Kizomba Satellites Phase 2.

# The LNG business in Angola

Eni holds a 13.6% interest of the Angola LNG (A-LNG) which runs the plant, located in Soyo, with treatment capacity of approximately 350 bcf/year of feed gas and a liquefaction capacity of 5.2 mmtonnes/y of LNG. In 2018 production net to Eni averaged approximately 20 kboe/d.

# Congo

Eni has been present in Congo since 1968. In 2018, production averaged 92 kboe/d net to Eni. Eni's activities are concentrated in the conventional and deep offshore facing Pointe-Noire and onshore Koilou region over a developed and undeveloped acreage of 2,750 square kilometers (1,471 square kilometers net to Eni). Exploration and production activities in Congo are regulated by Production Sharing Agreements.

**Production** Eni's main operated producing interests in Congo are the Nené Marine and Litchendjili (Eni's interest 65%), Zatchi (Eni's interest 55,25%), Loango (Eni's interest 42.5%), Ikalou (Eni's interest 100%), Djambala (Eni's interest 50%), Foukanda and Mwafi (Eni's interest 58%), Kitina (Eni's interest 52%), Awa Paloukou

(Eni's interest 90%), M'Boundi (Eni's interest 82%), Kouakouala (Eni's interest 74.25%), Zingali and Loufika (Eni's interest 100%) fields with an overall production of approximately 96 kboe/d (74 kbbl/d net to Eni). Other relevant non-operated producing areas are represented by a 35% interest in the Pointe Noire Grand Fond and Likouala permits, with an overall production of approximately 51 kboe/d (18 kboe/d).

**Development** Development activity carried out in 2018 was related to: (i) the Nené Marine Phase 2A producing project in the Marine XII block 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 and Zatchi 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

Eni has been present in Ghana since 2009. Developed and undeveloped acreage in deep offshore was 1,353 square kilometers [579 square kilometers net to Eni].

Eni is the operator with a 44.44% interest of the Offshore Cape Three Points (OCTP) permit which is regulated by a concession agreement and also operates the offshore exploration license Cape Three Points Block 4 (Eni's interest 42.47%).

**Production** In 2018, production averaged 18 kboe/d net to Eni and comes from the OCTP project.

In 2018, the non-associated gas production started up at the OCTP project. 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<sub>2</sub> emissions in the medium-term by means of combating deforestation, access to energy and energy efficiency programs.

# Mozambique

Eni has been present in Mozambique since 2006, following the award of the exploration license relating to Area 4 offshore the Rovuma Basin block, located in the north of the Country. The Rovuma Basin represents a new frontier in oil and gas industry thanks to extraordinary gas discoveries made during intense only three-year exploration campaign. To date, resource base reached 85 Tcf. 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 exclusive rights of exploration, development and production of Area 4 are assigned to the company Mozambique Rovuma Venture (MRV) - co-owned by Eni and ExxonMobil, each with an interest of 35.7% and by CNPC which holds the remaining 28.6% interest  $-\mbox{ in}$ participation with the state company ENH, Galp and Kogas. The development activities of the Area 4 (Eni's interest 25%) 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, storage and export 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) 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 particular: (i) the scholarship programs in Pemba, also by means of ordinary and extraordinary schools maintenance activities and training initiatives also with an 0il & 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

Eni has been present in Nigeria since 1962. In 2018, Eni's oil and gas production averaged 100 kboe/d, over a developed and undeveloped acreage of 30,769 square kilometers (7,722 square kilometers net to Eni).

In the development/production phase Eni operates onshore Oil Mining Leases (OML) 60, 61, 62 and 63 (Eni's interest 20%) and offshore OML 125 (Eni's interest 100%) and OPL 245 (Eni's interest 50%), holding interests in OML 118 (Eni's interest 12.5%) and OML 116 Service Contract. As partner of SPDC JV, the largest joint venture in the Country, Eni also holds a 5% interest in 17 onshore blocks and in 1 conventional offshore block and with a 12.86% interest in 2 conventional offshore blocks.

In the exploration phase Eni operates offshore OML 134 (Eni's interest 100%), OPL 2009 (Eni's interest 49%), and onshore OPL 282 (Eni's interest 90%) and OPL 135 (Eni's interest 48%). Eni also holds a 12.5% interest in OML 135.

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) access 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.

Exploration and production activities in Nigeria are regulated mainly by Production Sharing Agreements and concession contracts as well as a service contract where Eni acts as contractor for State-owned Company.

#### Blocks OMLs 60, 61, 62 e 63

**Production** Onshore four licenses produced approximately 44 kboe/d net to Eni in 2018. Liquid and gas production is supported by the NGL plant at Obiafu-Obrikom with a treatment capacity of approximately 1 bcf/d and by the oil tanker terminal at Brass with a storage capacity

of approximately 3,5 mmbbl. A large portion of the gas reserves of these four OMLs is destined to supply the Bonny Island liquefaction plant (see below). Another portion of gas production is employed in firing the combined cycle power plant at Okpai with a 480 MW generation capacity. In 2018, supplies to this power station were an overall amount of approximately 35 mmcf/d.

**Development** 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; (ii) the completion of the water injection project of the Ebocha field, achieving a produced water reinjection capacity of approximately 30 kbbl/day; and (iii) the phase 2 activities of the Okpai plant to double the installed power capacity.

# Block OML 118

**Production** The Bonga oil field produced over 13 kboe/d net to Eni in 2018. Production is supported by an FPS0 unit with a 225 kboe/d treatment capacity and a 2 mmboe storage capacity. Associated gas is carried to a collection platform on the EA field and, from there, is delivered to the Bonny liquefaction plant.

**Development** Development activities mainly concerned the drilling activities to increase production and workover activities to mitigate mature field decline.

# Block OML 125

**Production** Production derived mainly from the Abo field which yielded approximately 12 kboe/d net to Eni in 2018. Production is supported by an FPSO unit with a 40 kboe/d capacity and an 800 kboe storage capacity.

**Development** Development activities mainly concerned the drilling activities to increase production and workover activities to mitigate mature field decline of the Abo field.

# SPDC Joint Venture (NASE)

**Production** In 2018, production from the SPDC JV amounted to approximately 29 kboe/d.

**Development** The development activities mainly concerned 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.

**Exploration** Exploration activities yielded positive results with the EPU-05 deep offshore gas discovery in the Gbaran-Kolo Creek-Epu [Eni's interest 5%] area.

# The LNG business in Nigeria

Eni holds a 10.4% interest in the Nigeria LNG Ltd joint venture, which runs the Bonny liquefaction plant located in the Eastern Niger Delta. The plant has a treatment capacity of approximately 1,236 bcf/y of feed gas corresponding to a production of 22 mmtonnes/y of LNG. Natural gas supplies to the plant are currently provided under gas supply agreements from the SPDC JV, 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**

Eni has been present in Kazakhstan since 1992, over a developed and undeveloped acreage of 6,281 square kilometers (1,543 square kilometers net to Eni). Eni is co-operator of the Karachaganak field and partner in the North Caspian Sea Production Sharing Agreement (NCSPSA).

Eni cooperates with state company KazMunayGas (KMG) the Isatay block (Eni's interest 50%) located in the Kazakh sector of the Caspian Sea. The Isatay block is estimated to have significant potential oil resources.

# Kashagan

Eni holds a 16.81% interest in the North Caspian Sea Production Sharing Agreement (NCSPSA). The NCSPSA defines terms and conditions for the exploration and development of the giant Kashagan field, which was discovered in the Northern section of the contractual area in the year 2000 over an area extending for 4,600 square kilometers. The NCSPSA expires at the end of 2041. Production In 2018, production of the Kashagan field averaged 303 kbbl/d of liquids (50 kbbl net to Eni) and 451 mmcf/d of natural gas (74.6 mmcf/d net to Eni). The treated gas is delivered to the national gas marketing and transportation company (KazTransGas) and the remaining volume was utilized as fuel gas for internal use. The remaining untreated gas volume (approximately 30%) is reinjected in the reservoir. The liquid production is stabilized at Bolashak facilities and exported to Western markets through the Caspian Pipeline Consortium (Eni's interest 2%) and the Atyrau-Samara pipeline.

**Development** In 2019, Experimental Program development of the field 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 0il & Gas sector, in addition to the realization of infrastructures with social purpose.

# Karachaganak

Located onshore in West Kazakhstan, Karachaganak (Eni's interest 29.25%) is a liquid and gas giant field. Operations are conducted by the Karachaganak Petroleum Operating consortium (KPO) and are regulated by a PSA. Eni and Shell are co-operators of the venture. **Production** In 2018, production of the Karachaganak field averaged 240 kbbl/d of liquids (44 kbbl/d net to Eni) and 998 mmcf/d of natural gas (190.6 mmcf/d net to Eni).

This field is developed by producing liquids from the deeper layers of the reservoir. The gas is marketed (about 50%) at the Russian gas plant in Orenburg and the remaining volumes is utilized for reinjecting in the higher layers and the production of fuel gas. Approximately 95% of liquid production are stabilized at the Karachaganak Processing Complex (KPC) and exported to Western markets through the Caspian Pipeline Consortium and the Atyrau-Samara pipeline. The remaining volumes of non-stabilized liquid production was marketed at the Russian terminal in Orenburg until September 2018, when the purchase agreement expired.

**Development** Within the gas treatment expansion projects of the Karachaganak field, 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.

#### **REST OF ASIA**

#### Indonesia

Eni has been present in Indonesia since 2001. In 2018, Eni's production mainly composed of gas, amounted to 72 kboe/d. Activities are concentrated in the Eastern offshore of East Kalimantan, offshore Sumatra, and offshore and onshore of West Timor and West Papua, over a developed and undeveloped acreage of 30,173 square kilometers (23,769 square kilometers net to Eni); in total, Eni holds interests in 13 blocks.

Development and production activities are regulated by PSAs. In 2018, within the portfolio rationalization, Eni divested entire interest in the Sanga Sanga permit.

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.

Production Production derives mainly from the operated Muara Bakau block (Eni's interest 55%) where Jangkrik gas field started up. Production in the Jangkrik gas project is ensured by means of ten subsea wells linked to the Floating Production Unit (FPU). 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. The LNG is sold under long-term contracts, partly to state company Pertamina and to Eni, which will sell over the Asiatic market.

**Development** Development activities concerned the offshore Merakes gas project in the operated East Sepinggan block (Eni's interest 85%). In December 2018, the development plan was sanctioned by 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 fields. Natural gas production will be processed by the FPU and then delivered by pipeline to the onshore plant, 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.

**Exploration** Exploration activities yielded positive results with the Merakes East discovery in the operated East Sepinggan block. In May 2018, Eni was awarded a 100% interest in the East Ganal exploration block in the deep offshore Kutei area nearby the Muara Bakau block.

# Iraq

Eni has been present in Iraq since 2009 and is performing development activities over a developed acreage of 1,074 square kilometers (446 square kilometers net to Eni).

Development and production activities are regulated by a technical service contract.

**Production** Production comes from Zubair oil field (Eni's interest 41.6%) with a production of 34 kbbl/d net to Eni in 2018.

**Development** Development activities concerned the execution of an additional development phase of the ERP (Enhanced Redevelopment Plan) for the Zubair field, to achieve a production plateau of 700 KBBL/d. This phase also contemplates utilization of the associated gas for power generation. The production capacity and relevant facilities to treat the targeted production plateau have been already installed; the field reserves will be progressively put into production by drilling additional productive wells over the next few years.

# Pakistan

Eni has been present in Pakistan since 2000. In 2018, Eni's production mainly composed of gas amounted to 106 mmcf/d, over a developed and undeveloped acreage of 14,876 square kilometers (5,786 square kilometers net to Eni).

Exploration and production activities in Pakistan are regulated by concessions (onshore) and PSAs (offshore).

**Production** Eni's main operated permits are Bhit/Bhadra (Eni's interest 40%) and Kadanwari (Eni's interest 18.42%). Furthermore Eni participates in the Latif (Eni's interest 33.3%), Zamzama (Eni's interest 17.75%) and Sawan (Eni's interest 23.7%).

**Development** Development activities concerned production optimization through drilling activities of new wells, optimization of onshore existing facilities and rigless activity of productive wells to mitigate the natural fields production decline.

#### Turkmenistan

Eni started its activities in Turkmenistan with the purchase of the British company Burren Energy plc in 2008. Activities are focused on the onshore Nebit Dag Area in the Western part of the Country, over a developed acreage of 200 square kilometers (180 square

kilometers net to Eni), in four areas. In 2018, Eni's production averaged 11 kboe/d.

Exploration and production activities in Turkmenistan are regulated by PSAs.

**Production** Production derives mainly from the Burun oil field. Oil production is shipped to the Turkmenbashi refinery plant. Eni receives, by means of a swap arrangement with the Turkmen Authorities, an equivalent amount of oil at the Okarem terminal, close to the South coast of the Caspian Sea. Eni's entitlement is sold FOB. Associated natural gas is used for gas lift system. The remaining amount is delivered to the national oil company Turkmenneft, via national grid.

**Development** Drilling activities of new wells and workover program represent main activities currently performed in the area to mitigate the natural field production declines.

# **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. Furthermore, in April 2019, Eni acquired an offshore exploration concession in the Emirate of Ras al Khaimah, awarded the operatorship with a 90% share in the Area A.

# **AMERICAS**

# **Ecuador**

Eni has been present in Ecuador since 1988. Operations are performed in Block 10 (Eni's interest 100%) located in the Oriente Basin, in the Amazon Forest, over a developed acreage of 1,985 square kilometers net to Eni. In 2018, Eni's production averaged 12 kbbl/d.

Exploration and production activities in Ecuador are regulated by a service contract.

**Production** Production deriving from the Villano oil field, started in 1999, is processed by a Central Production Facility and transported to storage facility in the Pacific Coast through a pipeline network.

#### Mexico

Eni has been present in Mexico since 2015, over a undeveloped acreage of 4,387 square kilometers (3,000 square kilometers net to Eni). Eni's activities are concentrated in the Gulf of Mexico. Eni is operator of: (i) the offshore Area 1 license (Eni's interest 100%) where the development activities of the Amoca, Miztón and Tecoalli discoveries progressed; and (ii) the Area 10 (Eni's interest 100%), the Area 14 (Eni's interest 60%) and the Area 7 (Eni's interest 45%) exploration licenses located in the Sureste basin.

In 2018, Eni signed the following agreements: (i) with the Lukoil company to swap interest in three exploration licenses. In particular, based on the agreement Eni will divest its 20% interest in Area 10 and Area 14 licenses and purchases a 40% interest in Area 12 license operated by Lukoil; and (ii) to divest its 35% interest of the Area 1 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 offshore license and with 75% of the Area 28 license.

Exploration and production activities in Mexico are regulated by PSA and concession contract for the Area 24 license.

**Development** 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**

Eni has been present in the United States since 1968. Activities are performed in the Gulf of Mexico, Alaska, and in Texas onshore, over a developed and undeveloped acreage of 3,122 square kilometers (2,191 square kilometers net to Eni). In 2018, Eni's oil and gas production was 56 kboe/d.

Exploration and production activities in the United States are regulated by concessions.

#### Gulf of Mexico

Eni holds interests in 62 exploration and production blocks in the shallow and deep offshore of the Gulf of Mexico, of which 26 are operated by Eni.

**Production** The main operated fields are Allegheny and Appaloosa (Eni's interest 100%), Pegasus (Eni's interest 85%), Longhorn, Devils Towers and Triton (Eni's interest 75%). Eni also holds interests in Europa (Eni's interest 32%), Medusa (Eni's interest 25%), Lucius (Eni's interest 8.5%), K2 (Eni's interest 13.4%), Frontrunner (Eni's interest 37.5%) and Heidelberg (Eni's interest 12.5%) fields. In 2018, production amounted to 35 kboe/d net to Eni.

**Development** Development activities concerned the Lucius Subsequent Development 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.

#### **Texas**

**Production** Production comes from the Alliance area (Eni's interest 27.5%), in the Fort Worth Basin. This asset includes unconventional gas reserves (shale gas). In 2018, Eni's production amounted to approximately 4 kboe/d.

#### Alaska

Eni holds interests in 166 exploration and development blocks in Alaska

In August 2018, Eni was awarded a 100% interest of 124 licenses in Alaska. The exploration licenses are located in the Eastern North Slope in Alaska with high mineral potential and nearby to existing production facilities.

In December 2018, Eni signed an agreement to purchase of 70% interest and the operatorship of the Oooguruk field, where Eni already holds 30% interest. The agreement has been finalized in 2019.

**Production** The main fields are Nikaitchuq (Eni operator with a 100% interest) and Oooguruk fields with a 2018 overall net production of 17 kbbl/d.

# Venezuela

Eni has been present in Venezuela since 1998. In 2018, Eni's production averaged 48 kboe/d. Activity is concentrated both offshore (Gulf of Venezuela and Gulf of Paria) and onshore in the Orinoco Oil Belt, over a developed and undeveloped acreage of 2,804 square kilometers (1,066 square kilometers net to Eni).

Production Eni's production comes from the Perla gas field in the Gulf of Venezuela (Eni's interest 50%), the Junin 5 oil field (Eni's interest 40%) located in the Orinoco Oil Belt and from the Corocoro oil field (Eni's interest 26%) in the Gulfo de Paria.

**Exploration** Eni is also participating with a 19.5% interest in Petrolera Güiria for oil exploration and with a 40% interest in Punta Pescador and Gulfo de Paria Ovest for gas exploration, both located offshore in the eastern Venezuela.

# **AUSTRALIA AND OCEANIA**

# Australia

Eni has been present in Australia since 2001. In 2018, Eni's production of oil and natural gas averaged 23 kboe/d. Activities are focused on deep offshore fields, over a developed and undeveloped acreage of 5,751 square kilometers (3,757 square kilometers net to Eni).

The main production blocks in which Eni holds interests are WA-33-L (Eni's interest 100%) and JPDA 03-13 (Eni's interest 10.99%). In the appraisal and development phase, Eni holds interests in NT/RL8 (Eni's interest 100%) and NT/RL7 (Eni operator with a 65% interest).

In addition, Eni holds interest in 4 exploration licenses, of which 1 in the JPDA.

Exploration and production activities in Australia are regulated by concession agreements, whereas in the cooperation zone between Timor Leste and Australia (JDPA) they are regulated by PSAs.

#### Block WA-33-L

**Production** The Blacktip gas field started-up in 2009 and produced approximately 23 bcf/y in 2018 (12 kboe/d). The project is supported by a production platform and carried by a 108-kilometer long pipeline to an onshore treatment plant with a capacity of 42 bcf/y. Natural gas extracted from this field is sold under a 25-year contract to supply a power plant, signed with Australian society Power & Water Utility Co.

# Block JPDA 03-13

**Production** The liquids and gas Bayu Undan field started-up in 2004 and produced 116 kboe/d (11 kboe/d net to Eni) in 2018. Liquid production is supported by three treatment platforms and an FSO unit. Production of natural gas is carried by a 500-kilometer long pipeline and is treated at the Darwin liquefaction plant which has a capacity of 3.6 mmtonnes/y of LNG (equivalent to approximately 177 bcf/y of feed gas). LNG is sold to Japanese power generation companies under long-term contracts.

**Development** The Bayu Undan Phase 3b project was completed. The project included drilling and completion of three new wells aiming to increase the liquids production and to support LNG production.

	[mmboe]	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		422	525	1,052	1,078	1,436	1,150	427	203	137	6,430
of which: developed		350	360	532	463	856	891	238	176	101	3,967
undeveloped		72	165	520	615	580	259	189	27	36	2,463
Purchase of minerals in place								332			332
Revisions of previous estimates		40	15	114	431	34	(32)	(39)	31	[4]	590
Improved recovery					7		,	6		. ,	13
Extensions and discoveries		16				14		39	100		169
Production		(50)	(71)	[144]	(110)	[123]	(52)	(65)	(27)	(8)	(650)
Sales of minerals in place		. ,	(363)	. ,	(160)	. ,	` ,	, ,	(5)	. ,	(528)
Reserves at December 31, 2018		428	106	1,022	1,246	1,361	1,066	700	302	125	6,356
Equity-accounted entities											
Reserves at December 31, 2017				14		75		1	470		560
of which: developed				14		20		1	359		394
undeveloped						55			111		166
Purchase of minerals in place			363								363
Revisions of previous estimates				1					(100)		(99)
Improved recovery											
Extensions and discoveries											
Production				(1)		(7)			[18]		(26)
Sales of minerals in place								(1)			[1]
Reserves at December 31, 2018			363	14		68			352		797
Reserves at December 31, 2018		428	469	1,036	1,246	1,429	1,066	700	654	125	7,153
Developed		336	304	596	764	912	925	403	517	87	4,844
consolidated subsidiaries		336	99	582	764	895	925	403	170	87	4,261
equity-accounted entities			205	14		17			347		583
Undeveloped		92	165	440	482	517	141	297	137	38	2,309
consolidated subsidiaries		92	7	440	482	466	141	297	132	38	2,095
equity-accounted entities			158			51			5		214
Reserves life index	(year)	8.6	6.6	7.1	11.3	11.0	20.5	10.8	14.5	15.6	10.6
Reserves replacement ratio, organic	(%)	112	21	79	398	37		9	69		100
Reserves replacement ratio, all sources		112	21	79	253	37		518	58		124

	_										
	(mmboe)	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		354	426	1,139	1,293	1,317	1,221	491	227	145	6,613
of which: developed		287	374	605	352	809	966	175	205	111	3,884
undeveloped		67	52	534	941	508	255	316	22	34	2,729
Purchase of minerals in place						2					2
Revisions of previous estimates		117	59	86	198	56	(23)	(35)	8		466
Improved recovery			1	2	7			10			20
Extensions and discoveries			108		12	355		4	4		483
Production		(49)	(69)	(175)	(84)	(119)	(48)	(43)	(36)	(8)	(631)
Sales of minerals in place					(348)	(175)					(523)
Reserves at December 31, 2017		422	525	1,052	1,078	1,436	1,150	427	203	137	6,430
Equity-accounted entities											
Reserves at December 31, 2016				14		82		2	779		877
of which: developed				14		26		2	349		391
undeveloped						56			430		486
Purchase of minerals in place											
Revisions of previous estimates				1					(286)		(285)
Improved recovery											
Extensions and discoveries											
Production				(1)		(7)		(1)	(23)		(32)
Sales of minerals in place											
Reserves at December 31, 2017				14		75		1	470		560
Reserves at December 31, 2017		422	525	1,066	1,078	1,511	1,150	428	673	137	6,990
Developed		350	360	546	463	876	891	239	535	101	4,361
consolidated subsidiaries		350	360	532	463	856	891	238	176	101	3,967
equity-accounted entities				14		20		1	359		394
Undeveloped		72	165	520	615	635	259	189	138	36	2,629
consolidated subsidiaries		72	165	520	615	580	259	189	27	36	2,463
equity-accounted entities						55			111		166
Reserves life index	(year)	8.6	7.6	6.1	12.8	12.0	24.0	9.7	11.4	17.1	10.5
Reserves replacement ratio, organic	(%)	239	243	51	258	326	(48)	(48)	(464)		103
Reserves replacement ratio, all sources		239	243	51	(156)	189	(48)	(48)	(464)		25

Part												
Consolidated subsidiaries   Reserves at December 31, 2015   A65   A95   A95		(mmhne)	taly	Rest of Europe	North Africa	Egypt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	lotal
Reserves at December 31, 2015   365   495   1,194   500   1,282   1,198   422   269   150   5,295   grinchic developed   362   404   630   380   764   689   219   217   115   3,720   grinchic developed   362   404   630   380   764   689   269   263   520   2,525   grinchiase of minerals in place   Revisions of previous estimates   [62]   1   110   [70]   157   63   111   1   1   4   365   Improved recovery   1   1   1   1   3   3   3   3   3   3	2016	(IIIIIBOC)	<u> </u>	_	_	_	٠, ٦	_	_			
Reserves at December 31, 2015         465         495         1,194         500         1,282         1,198         422         269         150         5,975           of which: developed         362         404         630         360         764         689         159         217         115         3,220           Purchase of minerals in place         Revisions of previous estimates         [62]         1         110         [20]         157         63         111         1         4         365           Improved recovery         1         1         1         881         3         11         1         4         365           Extensions and discoveries         493         (73)         (167)         (68)         112         (40)         (45)         (43)         (9)         (616)           Extensions and discoveries         426         1,39         1,293         1,317         1,212         491         227         145         6,613           Equity-accounted entities         2         1         2         2         2         2         2         2         2         303           Geserves at December 31, 2016         2         1         2         2												
of which: developed         362         404         630         380         764         689         159         217         115         3,720           undeveloped         103         91         564         120         518         509         263         52         35         2,255           Furchase of minerals in place         687         1         10         1         1         1         1         1         1         1         4         33         1         1         887           Extensions and discoveries         689         723         1687         688         1221         491         433         198         688           Production         499         73         1687         688         1221         491         433         193         688           Production         499         73         1689         1289         1289         1281         481			465	<b>105</b>	1 10/	500	1 282	1 100	122	260	150	5 075
Marchaele   Marc					•							
Purchase of minerals in place	,											
Resistations of previous estimates   62  1   110   120   157   63   111   1   4   365     Improved recovery	•		103	31	304	120	310	303	203	JL	33	2,233
Improved recovery	·		(ES)	1	110	(ວດ)	157	63	111	1	1	365
Extensions and discoveries   2	•		(OL)			(20)	131	05	111	-	7	
Production   (49)   (73)   (167)   (68)   (122)   (40)   (45)   (43)   (9)   (616)	,					881			3			
Sales of minerals in place         Reserves at December 31, 2016         354         426         1,139         1,293         1,317         1,212         491         227         145         6,613           Equity-accounted entities           Reserves at December 31, 2015         14         87         4         810         915           of which: developed         14         22         2         265         303           undeveloped         5         14         22         2         265         303           Purchase of minerals in place         8         1         (2)         5         5         612           Revisions of previous estimates         1         (1)         (2)			(49)				(122)	(40)		(43)	(a)	
Reserves at December 31, 2016   354   426   1,139   1,293   1,317   1,221   491   227   145   6,613			(43)	(13)	(101)	(00)	(122)	(40)	(43)	(43)	(3)	(010)
Equity-accounted entities           Reserves at December 31, 2015         14         87         4         810         915           of which: developed         14         22         2         265         303           undeveloped         65         2         545         612           Purchase of minerals in place         8         1         (2)         9         9         (10)           Improved recovery         Extensions and discoveries         8         8         2         (2)         (2)         (22)         (28)           Sales of minerals in place         1         (3)         (3)         (2)         (22)         (28)         (28)           Reserves at December 31, 2016         354         426         1,153         1,293         1,399         1,221         493         1,006         145         7,490           Developed         287         374         619         352         835         966         177         554         111         4,275           consolidated subsidiaries         287         374         605         352         839         966         175         524         111         4,275           consolidated subsidiaries	•		354	426	1.139	1.293	1.317	1.221	491	227	145	6.613
Reserves at December 31, 2015												0,020
14   22   265   303   305	• •				14		87		4	810		915
Purchase of minerals in place   Purchase of minerals in place   Revisions of previous estimates   1   (2)   (9)   (10)												
Purchase of minerals in place Revisions of previous estimates I (2) (9) (10) Improved recovery Extensions and discoveries Production Sales of minerals in place Reserves at December 31, 2016 14 82 2 779 877 Reserves at December 31, 2016 354 426 1,153 1,293 1,399 1,221 493 1,006 145 7,490 Developed 287 374 619 352 835 966 177 554 111 4,275 consolidated subsidiaries 287 374 605 352 809 966 175 205 111 3,884 equity-accounted entities 14 26 2 349 391 Undeveloped 67 52 534 941 564 255 316 452 34 3,215 consolidated subsidiaries 67 52 534 941 508 255 316 22 34 2,729 equity-accounted entities Feserves ife index (year) 7.2 5.8 6.9 19.0 11.2 30.5 10.5 15.5 16.1 11.6 Reserves replacement ratio, organic (%) [127] 5 67 1,266 124 158 243 [12] 44 193	•											
Revisions of previous estimates 1 (2) (9) (10) Improved recovery Extensions and discoveries Production [1] (3) (3) (2) (22) (28) Sales of minerals in place Reserves at December 31, 2016 14 82 2 779 877 Reserves at December 31, 2016 354 426 1,153 1,293 1,399 1,221 493 1,006 145 7,490 Developed 287 374 619 352 835 966 177 554 111 4,275 consolidated subsidiaries 287 374 605 352 809 966 175 205 111 3,884 equity-accounted entities 14 26 2 349 391 Undeveloped 67 52 534 941 26 25 316 452 34 3,215 consolidated subsidiaries 67 52 534 941 564 255 316 452 34 3,215 consolidated subsidiaries 67 52 534 941 508 255 316 22 34 2,729 equity-accounted entities (9ar) 7.2 5.8 6.9 19.0 11.2 30.5 10.5 15.5 16.1 11.6 Reserves replacement ratio, organic (%) (127) 5 67 1,266 124 158 243 (12) 44 193												
Improved recovery   Extensions and discoveries   Froduction   [1]   [3]   [2]   [22]   [28]	•				1		[2]			(9)		[10]
Extensions and discoveries           Production         (1)         (3)         (2)         (22)         (28)           Sales of minerals in place         82         2         779         877           Reserves at December 31, 2016         354         426         1,153         1,293         1,399         1,221         493         1,006         145         7,490           Developed         287         374         619         352         835         966         177         554         111         4,275           consolidated subsidiaries         287         374         605         352         809         966         175         205         111         3,884           equity-accounted entities         14         26         2         349         391           Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         452         34         2,729           equity-accounted entities         56         52         534         941         508	·						( )			. ,		, ,
Sales of minerals in place           Reserves at December 31, 2016         14         82         2         779         877           Reserves at December 31, 2016         354         426         1,153         1,293         1,399         1,221         493         1,006         145         7,490           Developed         287         374         619         352         835         966         177         554         111         4,275           consolidated subsidiaries         287         374         605         352         809         966         175         205         111         3,884           equity-accounted entities         14         26         25         349         391           Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         452         34         2,729           equity-accounted entities         56         430         486           Reserves life index         [y]         7,2         5,8         6,9         19.0         11	·											
Sales of minerals in place           Reserves at December 31, 2016         14         82         2         779         877           Reserves at December 31, 2016         354         426         1,153         1,293         1,399         1,221         493         1,006         145         7,490           Developed         287         374         619         352         835         966         177         554         111         4,275           consolidated subsidiaries         287         374         605         352         809         966         175         205         111         3,884           equity-accounted entities         14         26         25         349         391           Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         452         34         2,729           equity-accounted entities         56         430         486           Reserves life index         [y]         7,2         5,8         6,9         19.0         11	Production				[1]		(3)		(2)	(22)		(28)
Reserves at December 31, 2016         14         82         2         779         877           Reserves at December 31, 2016         354         426         1,153         1,293         1,399         1,221         493         1,006         145         7,490           Developed         287         374         619         352         835         966         177         554         111         4,275           consolidated subsidiaries         287         374         605         352         809         966         175         205         111         3,884           equity-accounted entities         14         26         2         349         391           Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         422         34         2,729           equity-accounted entities         56         430         486           Reserves life index         (year)         7.2         5.8         6.9         19.0         11.2         30.5         10.5         15.5	Sales of minerals in place				. ,		, ,		. ,	` '		, ,
Developed         287         374         619         352         835         966         177         554         111         4,275           consolidated subsidiaries         287         374         605         352         809         966         175         205         111         3,884           equity-accounted entities         14         26         2         349         391           Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         22         34         2,729           equity-accounted entities         56         430         486           Reserves life index         (year)         7.2         5.8         6.9         19.0         11.2         30.5         10.5         15.5         16.1         11.6           Reserves replacement ratio, organic         (%)         (127)         5         67         1,266         124         158         243         (12)         44         193	•				14		82		2	779		877
consolidated subsidiaries       287       374       605       352       809       966       175       205       111       3,884         equity-accounted entities       14       26       2       349       391         Undeveloped       67       52       534       941       564       255       316       452       34       3,215         consolidated subsidiaries       67       52       534       941       508       255       316       22       34       2,729         equity-accounted entities       56       56       56       430       486         Reserves life index       (year)       7.2       5.8       6.9       19.0       11.2       30.5       10.5       15.5       16.1       11.6         Reserves replacement ratio, organic       (%)       (127)       5       67       1,266       124       158       243       (12)       44       193	Reserves at December 31, 2016		354	426	1,153	1,293	1,399	1,221	493	1,006	145	7,490
equity-accounted entities         14         26         2         349         391           Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         22         34         2,729           equity-accounted entities         56         430         486           Reserves life index         (year)         7.2         5.8         6.9         19.0         11.2         30.5         10.5         15.5         16.1         11.6           Reserves replacement ratio, organic         (%)         (127)         5         67         1,266         124         158         243         (12)         44         193	Developed		287	374	619	352	835	966	177	554	111	4,275
Undeveloped         67         52         534         941         564         255         316         452         34         3,215           consolidated subsidiaries         67         52         534         941         508         255         316         22         34         2,729           equity-accounted entities         56         430         486           Reserves life index         (year)         7.2         5.8         6.9         19.0         11.2         30.5         10.5         15.5         16.1         11.6           Reserves replacement ratio, organic         (%)         (127)         5         67         1,266         124         158         243         (12)         44         193	consolidated subsidiaries		287	374	605	352	809	966	175	205	111	3,884
consolidated subsidiaries         67         52         534         941         508         255         316         22         34         2,729           equity-accounted entities         56         430         486           Reserves life index         (year)         7.2         5.8         6.9         19.0         11.2         30.5         10.5         15.5         16.1         11.6           Reserves replacement ratio, organic         (%)         (127)         5         67         1,266         124         158         243         (12)         44         193	equity-accounted entities				14		26		2	349		391
equity-accounted entities         56         430         486           Reserves life index         (year)         7.2         5.8         6.9         19.0         11.2         30.5         10.5         15.5         16.1         11.6           Reserves replacement ratio, organic         [%]         (127)         5         67         1,266         124         158         243         (12)         44         193	Undeveloped		67	52	534	941	564	255	316	452	34	3,215
Reserves life index (year) 7.2 5.8 6.9 19.0 11.2 30.5 10.5 15.5 16.1 11.6 Reserves replacement ratio, organic (%) (127) 5 67 1,266 124 158 243 (12) 44 193	consolidated subsidiaries		67	52	534	941	508	255	316	22	34	2,729
Reserves replacement ratio, organic [%] [127] 5 67 1,266 124 158 243 [12] 44 193	equity-accounted entities						56			430		486
	Reserves life index	(year)	7.2	5.8	6.9	19.0	11.2	30.5	10.5	15.5	16.1	11.6
Reserves replacement ratio, all sources [127] 5 67 1,266 124 158 243 [12] 44 193	Reserves replacement ratio, organic	[%]	(127)	5	67	1,266	124	158	243	(12)	44	193
	Reserves replacement ratio, all sources		(127)	5	67	1,266	124	158	243	(12)	44	193

	_									
	(mmboe)	ltaly	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2015										
Consolidated subsidiaries										
Reserves at December 31, 2014	(mmboe)	503	544	1,740	1,239	1,069	285	232	160	5,772
of which: developed		401	335	904	702	589	112	188	135	3,366
undeveloped		102	209	836	537	480	173	44	25	2,406
Purchase of minerals in place										
Revisions of previous estimates		23	19	168	169	164	163	76	(1)	781
Improved recovery				2						2
Extensions and discoveries		1		24	14		21	6		66
Production		(62)	(68)	(240)	[124]	(35)	(47)	(44)	(9)	(629)
Sales of minerals in place					(16)			(1)		[17]
Reserves at December 31, 2015		465	495	1,694	1,282	1,198	422	269	150	5,975
Equity-accounted entities										
Reserves at December 31, 2014				16	81		5	728		830
of which: developed				15	23		3	26		67
undeveloped				1	58		2	702		763
Purchase of minerals in place										
Revisions of previous estimates					6		1	91		98
Improved recovery										
Extensions and discoveries										
Production				(2)			(2)	(9)		(13)
Sales of minerals in place										
Reserves at December 31, 2015				14	87		4	810		915
Reserves at December 31, 2015		465	495	1,708	1,369	1,198	426	1,079	150	6,890
Developed		362	404	1,024	786	689	161	482	115	4,023
consolidated subsidiaries		362	404	1,010	764	689	159	217	115	3,720
equity-accounted entities				14	22		2	265		303
Undeveloped		103	91	684	583	509	265	597	35	2,867
consolidated subsidiaries		103	91	684	518	509	263	52	35	2,255
equity-accounted entities					65		2	545		612
Reserves life index	(year)	7.5	7.3	7.1	11.0	34.5	8.6	20.1	16.0	10.7
Reserves replacement ratio, organic	(%)	38	28	80	153	473	375	324		148
Reserves replacement ratio, all sources		38	28	80	139	473	375	322		145

	(mmboe)	Italy	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2014		Ì	Ì		· ·		·			
Consolidated subsidiaries										
Reserves at December 31, 2013		499	557	1,783	1,155	1,035	263	240	176	5,708
of which: developed		408	343	1,003	701	566	90	153	123	3,387
undeveloped		91	214	780	454	469	173	87	53	2,321
Purchase of minerals in place			4							4
Revisions of previous estimates		68	53	154	110	64	45	26	(7)	513
Improved recovery				3	1	2				6
Extensions and discoveries		1	1	5	98		11	8		124
Production		(65)	(70)	(205)	(118)	(32)	(34)	[42]	(9)	(575)
Sales of minerals in place			(1)		(7)					(8)
Reserves at December 31, 2014		503	544	1,740	1,239	1,069	285	232	160	5,772
Equity-accounted entities										
Reserves at December 31, 2013				19	75		7	726		827
of which: developed				19			3	18		40
undeveloped					75		4	708		787
Purchase of minerals in place										
Revisions of previous estimates				(1)	7			5		11
Improved recovery										
Extensions and discoveries										
Production				(2)	(1)		(2)	(3)		(8)
Sales of minerals in place										
Reserves at December 31, 2014				16	81		5	728		830
Reserves at December 31, 2014		503	544	1,756	1,320	1,069	290	960	160	6,602
Developed		401	335	919	725	589	115	214	135	3,433
consolidated subsidiaries		401	335	904	702	589	112	188	135	3,366
equity-accounted entities				15	23		3	26		67
Undeveloped		102	209	837	595	480	175	746	25	3,169
consolidated subsidiaries		102	209	836	537	480	173	44	25	2,406
equity-accounted entities				1	58		2	702		763
Reserves life index	(year)	7.7	7.8	8.5	11.1	33.4	8.1	21.3	17.8	11.3
Reserves replacement ratio, organic	(%)	106	77	78	182	206	156	87		112
Reserves replacement ratio, all sources		106	81	78	176	206	156	87		112

	(mmbbl)	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	3	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	3		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

(ı	mmppi]	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

					i			i		
(mmi	italy Bigitaly	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

	(mmbbl)	Italy	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2015										
Consolidated subsidiaries										
Reserves at December 31, 2014		243	331	776	739	697	131	147	13	3,077
of which: developed		184	174	521	470	306	64	116	12	1,847
undeveloped		59	157	255	269	391	67	31	1	1,230
Purchase of minerals in place										
Revisions of previous estimates		10	5	139	143	94	159	64	(2)	612
Improved recovery				2						2
Extensions and discoveries				2	14			6		22
Production		(25)	(31)	(98)	(93)	(20)	(28)	(28)	(2)	(325)
Sales of minerals in place					(16)					(16)
Reserves at December 31, 2015		228	305	821	787	771	262	189	9	3,372
Equity-accounted entities										
Reserves at December 31, 2014				14	17		1	117		149
of which: developed				13	7			26		46
undeveloped				1	10		1	91		103
Purchase of minerals in place										
Revisions of previous estimates					(1)			45		44
Improved recovery										
Extensions and discoveries										
Production				(1)			(1)	(4)		(6)
Sales of minerals in place										
Reserves at December 31, 2015				13	16			158		187
Reserves at December 31, 2015		228	305	834	803	771	262	347	9	3,559
Developed		171	237	555	517	355	126	178	9	2,148
consolidated subsidiaries		171	237	542	511	355	126	149	9	2,100
equity-accounted entities				13	6			29		48
Undeveloped		57	68	279	286	416	136	169		1,411
consolidated subsidiaries		57	68	279	276	416	136	40		1,272
equity-accounted entities					10			129		139

	(mmbbl)	Italy	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total	
2014											
Consolidated subsidiaries											
Reserves at December 31, 2013		220	330	830	723	679	128	147	22	3,079	
of which: developed		177	179	561	465	295	38	96	20	1,831	
undeveloped		43	151	269	258	384	90	51	2	1,248	
Purchase of minerals in place			1							1	
Revisions of previous estimates		49	35	32	70	35	16	22	(7)	252	
Improved recovery				3	1	2				6	
Extensions and discoveries		1		2	36			5		44	
Production		(27)	(34)	(91)	(84)	(19)	(13)	(27)	(2)	(297)	
Sales of minerals in place			(1)		(7)					(8)	
Reserves at December 31, 2014		243	331	776	739	697	131	147	13	3,077	
Equity-accounted entities											
Reserves at December 31, 2013				16	15		1	116		148	
of which: developed				16				19		35	
undeveloped					15		1	97		113	
Purchase of minerals in place											
Revisions of previous estimates				(1)	3			5		7	
Improved recovery											
Extensions and discoveries											
Production				(1)	(1)			(4)		(6)	
Sales of minerals in place											
Reserves at December 31, 2014				14	17		1	117		149	
Reserves at December 31, 2014		243	331	790	756	697	132	264	13	3,226	
Developed		184	174	534	477	306	64	142	12	1,893	
consolidated subsidiaries		184	174	521	470	306	64	116	12	1,847	
equity-accounted entities				13	7			26		46	
Undeveloped		59	157	256	279	391	68	122	1	1,333	
consolidated subsidiaries		59	157	255	269	391	67	31	1	1,230	
equity-accounted entities				1	10		1	91		103	

[bcf]	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

(bcf)	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

[bcf]	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

	(bcf)	ltaly	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2015								·	·	
Consolidated subsidiaries										
Reserves at December 31, 2014		1,432	1,171	5,291	2,744	2,049	846	468	807	14,808
of which: developed		1,192	887	2,110	1,271	1,553	261	393	675	8,342
undeveloped		240	284	3,181	1,473	496	585	<i>7</i> 5	132	6,466
Purchase of minerals in place										
Revisions of previous estimates		68	74	163	145	385	24	69	5	933
Improved recovery										
Extensions and discoveries		4		124			114			242
Production		(200)	(201)	(780)	(171)	(80)	(106)	(94)	(41)	(1,673)
Sales of minerals in place					(4)			(4)		(8)
Reserves at December 31, 2015		1,304	1,044	4,798	2,714	2,354	878	439	771	14,302
Equity-accounted entities										
Reserves at December 31, 2014				15	351		18	3,353		3,737
of which: developed				15	89		10	6		120
undeveloped					262		8	3,347		3,617
Purchase of minerals in place										
Revisions of previous estimates					36		3	253		292
Improved recovery										
Extensions and discoveries										
Production				(2)			(9)	(25)		(36)
Sales of minerals in place										
Reserves at December 31, 2015				13	387		12	3,581		3,993
Reserves at December 31, 2015		1,304	1,044	4,811	3,101	2,354	890	4,020	771	18,295
Developed		1,051	919	2,579	1,475	1,830	194	1,668	585	10,301
consolidated subsidiaries		1,051	919	2,566	1,390	1,830	185	373	585	8,899
equity-accounted entities				13	85		9	1,295		1,402
Undeveloped		253	125	2,232	1,626	524	696	2,352	186	7,994
consolidated subsidiaries		253	125	2,232	1,324	524	693	66	186	5,403
equity-accounted entities					302		3	2,286		2,591

	_									
	(bcf)	ltaly	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2014										
Consolidated subsidiaries										
Reserves at December 31, 2013		1,532	1,247	5,231	2,374	1,957	744	509	848	14,442
of which: developed		1,266	904	2,432	1,295	1,488	286	310	561	8,542
undeveloped		266	343	2,799	1,079	469	458	199	287	5,900
Purchase of minerals in place			21							21
Revisions of previous estimates		113	99	668	214	165	156	23	(1)	1,437
Improved recovery										
Extensions and discoveries				19	341		59	16		435
Production		(213)	(195)	(627)	(185)	(73)	(113)	(80)	(40)	(1,526)
Sales of minerals in place			(1)							(1)
Reserves at December 31, 2014		1,432	1,171	5,291	2,744	2,049	846	468	807	14,808
Equity-accounted entities										
Reserves at December 31, 2013				15	330		28	3,353		3,726
of which: developed				15			14	5		34
undeveloped					330		14	3,348		3,692
Purchase of minerals in place										
Revisions of previous estimates				2	25		(2)			25
Improved recovery										
Extensions and discoveries										
Production				(2)	(4)		(8)			[14]
Sales of minerals in place										
Reserves at December 31, 2014				15	351		18	3,353		3,737
Reserves at December 31, 2014		1,432	1,171	5,306	3,095	2,049	864	3,821	807	18,545
Developed		1,192	887	2,125	1,360	1,553	271	399	675	8,462
consolidated subsidiaries		1,192	887	2,110	1,271	1,553	261	393	675	8,342
equity-accounted entities				15	89		10	6		120
Undeveloped		240	284	3,181	1,735	496	593	3,422	132	10,083
consolidated subsidiaries		240	284	3,181	1,473	496	585	75	132	6,466
equity-accounted entities					262		8	3,347		3,617

### Hydrocarbons production(a)

Italy Rest of Europe Croatia Norway United Kingdom North Africa Algeria Libya Tunisia Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	138 194 2 134 58 392 85 302 5 300 337 127 92 18 100 143 177 1	134 189 3 129 57 479 90 384 5 230 327 126 83 9 109 132 116 2	133 201 5 133 63 458 98 353 7 185 333 118 98 117 111 123 2	169 185 4 105 76 469 96 365 8 189 341 101 103	179 190 7 112 71 356 109 239 8 206 323 82 106 135 88 93
Croatia Norway United Kingdom North Africa Algeria Libya Tunisia Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	2 134 58 392 85 302 5 300 337 127 92 18 100 143 177 1	3 129 57 479 90 384 5 230 327 126 83 9 109 132 116	5 133 63 458 98 353 7 185 333 118 98	4 105 76 469 96 365 8 189 341 101 103	7 112 71 356 109 239 8 206 323 82 106
Norway United Kingdom North Africa Algeria Libya Tunisia Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	134 58 392 85 302 5 300 337 127 92 18 100 143 177	129 57 479 90 384 5 230 327 126 83 9 109 132 116	133 63 458 98 353 7 185 333 118 98	105 76 469 96 365 8 189 341 101 103	112 71 356 109 239 8 206 323 82 106
United Kingdom  North Africa  Algeria Libya Tunisia Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates  Americas Ecuador	58 392 85 302 5 300 337 127 92 18 100 143 177 1	57 479 90 384 5 230 327 126 83 9 109 132 116	63 458 98 353 7 185 333 118 98 117 111 123	76 469 96 365 8 189 341 101 103	71 356 109 239 8 206 323 82 106
North Africa Algeria Libya Tunisia Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	392 85 302 5 300 337 127 92 18 100 143 177	479 90 384 5 230 327 126 83 9 109 132 116	458 98 353 7 185 333 118 98 117 111 123	469 96 365 8 189 341 101 103	356 109 239 8 206 323 82 106 135 88
Algeria Libya Tunisia Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	85 302 5 300 337 127 92 18 100 143 177	90 384 5 230 327 126 83 9 109 132 116	98 353 7 185 333 118 98 117 111	96 365 8 189 341 101 103 137 95	109 239 8 206 323 82 106 135 88
Libya Tunisia  Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	302 5 300 337 127 92 18 100 143 177 1	384 5 230 327 126 83 9 109 132 116	353 7 185 333 118 98 117 111 123	365 8 189 341 101 103 137 95 130	239 8 206 323 82 106 135 88 93
Tunisia  Egypt  Sub-Saharan Africa  Angola  Congo  Ghana  Nigeria  Kazakhstan  Rest of Asia  China  India  Indonesia  Iran  Iraq  Pakistan  Turkmenistan  United Arab Emirates  Americas  Ecuador	5 300 337 127 92 18 100 143 177	5 230 327 126 83 9 109 132 116	7 185 333 118 98 117 111 123	8 189 341 101 103 137 95 130	8 206 323 82 106 135 88 93
Egypt Sub-Saharan Africa Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	300 337 127 92 18 100 143 177	230 327 126 83 9 109 132 116	185 333 118 98 117 111 123	189 341 101 103 137 95 130	206 323 82 106 135 88 93
Sub-Saharan Africa  Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	337 127 92 18 100 143 177	327 126 83 9 109 132 116	333 118 98 117 111 123	341 101 103 137 95 130	323 82 106 135 88 93
Angola Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Ecuador	127 92 18 100 143 177	126 83 9 109 132 116	118 98 117 111 123	101 103 137 95 130	82 106 135 88 93
Congo Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	92 18 100 <b>143</b> <b>177</b>	83 9 109 132 116	98 117 111 123	103 137 95 130	106 135 88 93
Ghana Nigeria Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	18 100 143 177 1	9 109 132 116	117 111 123	137 95 130	135 88 93
Nigeria  Kazakhstan  Rest of Asia  China India Indonesia Iran Iraq Pakistan  Turkmenistan United Arab Emirates  Americas Ecuador	100 143 177 1	109 132 116	111 123	95 130	88 93
Kazakhstan Rest of Asia China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	143 177 1	132 116	111 123	95 130	88 93
Rest of Asia China India India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	<b>177</b> 1	116	123	130	93
China India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	1				
India Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador		2	2	3	4
Indonesia Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	71				4
Iran Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador	71			1	1
Iraq Pakistan Turkmenistan United Arab Emirates Americas Ecuador		38	12	12	11
Pakistan Turkmenistan United Arab Emirates Americas Ecuador				22	1
Turkmenistan United Arab Emirates Americas Ecuador	34	43	67	40	21
United Arab Emirates  Americas  Ecuador	20	24	32	41	45
Americas Ecuador	11	9	10	11	10
Ecuador	40				
	75	99	116	122	115
7111 10 71	12	12	10	11	12
Trinidad & Tobago	7	10	13	13	11
United States	56	77	93	98	92
Australia and Oceania	23	22	24	26	26
Australia	23	22	24	26	26
	1,779	1,728	1,684	1,726	1,576
Equity-accounted entities					
Angola	19	20	6		2
Indonesia	1	3	4	5	5
Tunisia	4	4	4	4	5
Venezuela	48	61	61	25	10
	72	88	75	34	22
Total	1,851	1,816	1,759	1,760	1,598

 $<sup>\</sup>hbox{ (a) Includes volumes of hydrocarbons consumed in operations (119, 97, 88, 73 and 81 kboe/d in 2018, 2017, 2016, 2015 and 2014 respectively). } \\$ 

### Liquids production

Consolidated subsidiaries	(kbbl/d)	2018	2017	2016	2015	2014
Italy		60	53	47	69	73
Rest of Europe		113	102	109	85	93
Croatia						
Norway		89	81	86	57	62
United Kingdom		24	21	23	28	31
North Africa		154	158	165	172	160
Algeria		65	68	77	79	83
Libya		86	87	84	89	73
Tunisia		3	3	4	4	4
Egypt		77	72	76	96	88
Sub-Saharan Africa		244	247	247	256	231
Angola		111	119	108	96	75
Congo		65	63	71	78	80
Ghana		15	8			
Nigeria		53	57	68	82	76
Kazakhstan		94	83	65	56	52
Rest of Asia		77	53	78	77	36
China		1	2	2	3	4
Indonesia		3	3	3	2	1
Iran					22	1
Iraq		28	40	64	40	21
Pakistan						
Turkmenistan		6	8	9	10	9
United Arab Emirates		39				
Americas		52	63	69	75	74
Ecuador		12	12	10	11	12
United States		40	51	59	64	62
Australia and Oceania		2	2	3	5	6
Australia		2	2	3	5	6
		873	833	859	891	813
Fundamental description						
Equity-accounted entities		2	2	4		
Angola		3	3	1	4	4
Indonesia		_	1	1	1	1
Tunisia		3	3	3	4	4
Venezuela		8	12	14	12	10
		14	19	19	17	15
Total		887	852	878	908	828

### Natural gas production

Consolidated subsidiaries [mmcf/d	2018	2017	2016	2015	2014
Italy	426.2	441.6	471.2	546.6	583.8
Rest of Europe	444.9	476.4	501.8	551.8	535.2
Croatia	11.4	16.9	26.5	21.2	38.2
Norway	241.8	265.4	258.3	264.6	274.2
United Kingdom	191.7	194.1	217.0	266.0	222.8
North Africa	1,299.1	1,753.0	1,594.8	1,627.9	1,069.1
Algeria	105.5	117.2	115.5	94.1	141.3
Libya	1,180.3	1,623.1	1,464.8	1,517.3	911.2
Tunisia	13.3	12.7	14.5	16.5	16.6
Egypt	1,218.5	862.7	597.4	510.1	649.8
Sub-Saharan Africa	505.4	444.3	464.3	468.3	507.5
Angola	84.2	45.9	49.0	31.6	38.3
Congo	150.3	112.6	148.5	136.8	145.1
Ghana	19.3	2.7			
Nigeria	251.6	283.1	266.8	299.9	324.1
Kazakhstan	265.2	263.7	254.0	218.3	200.7
Rest of Asia	550.7	345.9	245.8	289.8	310.4
China		0.1			
India				2.6	3.7
Indonesia	376.5	188.8	48.5	54.8	52.6
Iraq	36.7	19.6	19.2		
Pakistan	106.1	131.5	172.1	226.4	248.2
Turkmenistan	27.2	5.9	6.0	6.0	5.9
United Arab Emirates	4.2				
Americas	118.9	194.0	256.4	257.1	217.8
Trinidad & Tobago	35.7	55.4	69.7	70.4	60.3
United States	83.2	138.6	186.7	186.7	157.5
Australia and Oceania	114.3	105.0	113.9	111.8	110.5
Australia	114.3	105.0	113.9	111.8	110.5
	4,943.2	4,886.6	4,499.6	4,581.7	4,184.8
Equity-accounted entities					
Angola	89.2	89.0	29.1	0.9	10.3
Indonesia	2.2	11.0	18.8	24.1	23.2
Tunisia	4.4	4.1	4.9	5.2	5.3
Venezuela	221.7	270.5	254.8	68.9	0.8
	317.5	374.6	307.6	99.1	39.6
	521.5	0.1 7.0	551.0		
Total	5,260.7	5,261.2	4,807.2	4,680.8	4,224.4

### Oil and natural gas production sold

		2018	2017	2016	2015	2014
Oil and natural gas production	(mmboe)	675.6	662.7	643.8	642.4	583.1
Change in inventories other		(7.1)	(5.2)	(3.1)	(1.9)	[4.2]
Own consumption of hydrocarbons		(43.5)	(35.2)	(32.1)	(26.4)	(29.4)
Oil and natural gas production sold <sup>(a)</sup>		625.0	622.3	608.6	614.1	549.5
Oil	(mmbbl)	319.97	308.34	320.13	330.12	299.78
- of which to R&M		221.33	216.55	216.24	201.92	184.74
Natural gas	(bcf)	1,665	1,713	1,574	1,560	1,371
- of which to G&P		349	344	347	394	371

 $<sup>\</sup>hbox{(a) Includes 25.1 mmboe of equity-accounted entities production sold in 2018 \{27.3,24,11.4\,\text{and}\,6.1\,\text{mmboe}\,\text{in}\,2017,2016,2015\,\text{and}\,2014,\text{respectively}\}. }$ 

# Principal oil and natural gas interests at December 31, 2018

	Commencement of operations	Number of interests	Gross developed <sup>(a)(b)</sup> acreage	Net developed <sup>(a)(b)</sup> acreage	Gross undeveloped <sup>(a)</sup> acreage	Net undeveloped <sup>(a)</sup> acreage	Types of fields/acreage	Number of producing fields	Number of other fields
EUROPE	<u> </u>	317	13,757	9,409	58,376	36,923		101	97
Italy	1926	140	9,962	8,303	8,871	6,684	Onshore/Offshore	72	56
Rest of Europe		177	3,795	1,106	49,505	30,239		29	41
Cyprus	2013	6			22,790	17,111	Offshore		
Greenland	2013	2			4,890	1,909	Offshore		
Montenegro	2016	1			1,228	614	Offshore		
Norway	1965	106	2,886	492	9,630	2,136	Offshore	19	39
Portugal	2014	3	_,		4,547	3,182	Offshore		
United Kingdom	1964	57	909	614	3,719	3,404	Offshore	10	2
Other Countries	1301	2	303	011	2,701	1,883	Offshore	10	_
AFRICA		261	46,263	11,844	258,232	153,855	Ojjsnore	273	123
North Africa		64	8,846	3,640	48,760	30,292		68	27
	1981	42	3,283	1,124	187	31	Onshore	34	9
Algeria									
Libya	1959	11	1,963	958	24,673	12,336	Onshore/Offshore	11	15
Morocco	2016	1		. ===	23,900	17,925	Offshore		
Tunisia	1961	10	3,600	1,558			Onshore/Offshore	23	3
Egypt	1954	53	5,423	2,018	10,480	3,230	Onshore/Offshore	40	23
Sub-Saharan Africa		144	31,994	6,186	198,992	120,333		165	73
Angola	1980	58	8,200	1,064	13,241	4,239	Onshore/Offshore	60	25
Congo	1968	25	1,430	843	1,320	628	Onshore/Offshore	23	3
Gabon	2008	4			4,107	4,107	Onshore/Offshore		1
Ghana	2009	3	226	100	1,127	479	0ffshore	1	
Ivory Coast	2015	3			4,010	2,905	Offshore		
Kenya	2012	6			50,677	43,948	Offshore		
Mozambique	2007	6			3,911	978	0ffshore		6
Nigeria	1962	34	22,138	4,179	8,631	3,543	Onshore/Offshore	81	38
South Africa	2014	1			65,505	26,202	Offshore		
Other Countries		4			46,463	33,304	Onshore		
ASIA		61	13,024	3,368	285,289	178,046		24	22
Kazakhstan	1992	7	2,391	442	3,890	1,101	Onshore/Offshore	2	4
Rest of Asia		54	10,633	2,926	281,399	176,945		22	18
China	1984	7	77	13	5,215	5,215	Offshore	5	
India	2005	1		13	13,110	5,244	Offshore	5	
Indonesia	2003	13	2,943	1,198	27,230	22,571	Onshore/Offshore	2	9
					21,230	22,311	**		5
Iraq	2009	1	1,074	446	2.052	1 161	Onshore	1	
Lebanon	2018	2			3,653	1,461	Offshore		
Myanmar	2014	4			24,080	13,558	Onshore/Offshore		
0man	2017	1			90,760	77,146	Offshore	_	
Pakistan	2000	12	3,390	872	11,486	4,914	Onshore/Offshore	9	
Russia	2007	2			53,930	17,975	0ffshore		
Timor Leste	2006	1			1,538	1,230	0ffshore		
Turkmenistan	2008	1	200	180			Onshore	2	
United Arab Emirates	2018	3	2,949	217	5,020	1,255	0ffshore	3	9
Vietnam	2013	5			30,777	23,132	Offshore		
Other Countries		1			14,600	3,244	Offshore		
AMERICAS		252	4,419	3,056	12,543	6,247		42	15
Ecuador	1988	1	1,985	1,985			Onshore	1	2
Mexico	2015	8			4,387	3,000	Offshore		3
United States	1968	230	1,173	574	1,949	1,617	Onshore/Offshore	38	8
Venezuela	1998	6	1,261	497	1,543	569	Onshore/Offshore	3	1
Other Countries		7	-,		4,664	1,061	Offshore	Č	1
AUSTRALIA AND OCEANIA		11	1,140	709	4,611	3,048	бјузного	2	4
Australia	2001	11	1,140	709	4,611	3,048	Offshore	2	4
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_001		±,±=0	105	1,011	5,040	0))311016	_	-+

<sup>(</sup>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.

# Net developed and undeveloped acreage

(!	square kilometers)	2018	2017	2016	2015	2014
Europe		46,332	51,206	45,380	45,123	44,842
Italy		14,987	16,380	16,767	16,975	17,297
Rest of Europe		31,345	34,826	28,613	28,148	27,545
Africa		165,699	161,981	152,676	157,441	159,341
North Africa		33,932	25,797	18,727	16,031	16,747
Egypt		5,248	9,192	10,665	9,668	4,946
Sub-Saharan Africa		126,519	126,992	123,284	131,742	137,648
Asia		181,414	184,029	109,761	117,183	109,237
Kazakhstan		1,543	1,543	869	869	869
Rest of Asia		179,871	182,486	108,892	116,314	108,368
Americas		9,303	6,641	5,696	6,628	7,943
Australia and Oceania		3,757	11,061	10,383	16,333	13,376
Total		406,505	414,918	323,896	342,708	334,739

### Average realizations

		201	18	20:	17	201	16	201	15	201	<b>L</b> 4
Liquids	(\$/bbl)	Consolidated subsidiaries	Equity- accounted entities								
Italy		61.58		46.51		33.19		43.46		87.80	
Rest of Europe		64.51		47.81		39.97		45.88		88.80	
North Africa		65.95	17.92	52.68	17.95	42.37	17.93	46.66	18.03	88.99	17.94
Egypt		62.97		46.06		33.05					
Sub-Saharan Africa		68.76	39.48	53.66	38.34	41.92		49.91		93.45	
Kazakhstan		66.78		50.62		39.61		48.26		91.86	
Rest of Asia		68.35	49.86	48.94	44.43	36.89	34.95	40.10	27.89	77.99	65.90
Americas		57.22	54.86	44.24	41.49	34.86	32.39	43.36	38.18	79.13	81.48
Australia and Oceania		68.72		49.36		37.96		45.84		91.61	
		65.79	45.19	50.33	38.65	39.33	30.85	46.46	35.15	88.90	70.56
Natural gas	(\$/kcf)										
Italy		8.37		6.45		4.93		6.92		8.74	
Rest of Europe		7.99		5.81		4.49		6.30		8.49	
North Africa		4.97	3.58	2.96	2.63	3.10	1.85	4.69	3.78	8.08	6.08
Egypt		4.85		4.19		3.82					
Sub-Saharan Africa		2.38	9.50	1.87	7.34	1.41		1.49		2.12	
Kazakhstan		0.77		0.58		0.34		0.47		0.62	
Rest of Asia		6.11	9.32	3.75	6.06	3.50	5.92	4.83	9.27	6.18	15.64
Americas		2.38	4.28	2.35	4.19	1.94	4.17	2.20	4.24	3.96	
Australia and Oceania		4.80		4.05		3.60		5.07		7.46	
		5.17	5.59	3.62	4.64	3.20	4.25	4.54	5.30	6.83	14.13
Hydrocarbons	(\$/boe)										
Italy		53.01		39.96		29.27		40.36		64.80	
Rest of Europe		56.07		40.51		33.27		40.21		67.87	
North Africa		43.34	18.14	28.62	17.35	26.52	16.27	34.61	18.60	65.36	21.43
Egypt		36.22		30.64		26.29					
Sub-Saharan Africa		58.59	48.79	44.85	39.65	35.08		40.92		73.18	
Kazakhstan		46.98		34.60		24.52		30.02		57.20	
Rest of Asia		50.98	50.64	36.69	36.76	31.18	32.76	35.18	49.42	52.75	83.12
Americas		46.63	28.59	33.31	26.50	25.45	24.95	31.71	30.72	59.94	81.48
Australia and Oceania		28.99		25.29		22.00		31.51		52.46	
		48.04	33.63	35.39	28.30	29.30	25.05	36.54	31.95	65.36	72.19

ENI's GROUP		2018	2017	2016	2015	2014
Liquids	(\$/bbl)	65.47	50.06	39.18	46.30	88.71
Natural gas	(\$/kcf)	5.20	3.69	3.27	4.55	6.87
Hydrocarbon	(\$/boe)	47.48	35.06	29.14	36.47	65.49

### Exploratory wells activity

		Wells completed <sup>(a)</sup>								Wells in pr at of Dec		
	201	8	2017		2016		2015		2014		201	8
(units)	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Gross	Net
Italy	1.8					1.0				0.6	1.0	0.5
Rest of Europe		0.5	1.2	1.3	0.1	0.4		2.2		4.3	12.0	3.5
North Africa		0.5	0.5		0.5	1.0		1.0	3.5	4.3	8.0	7.0
Egypt	1.7	1.5	2.5	5.4	5.5	0.8	3.3	4.8			11.0	8.9
Sub-Saharan Africa	0.4		2.9	0.3	0.1	1.1	0.6	2.9	7.3	7.3	31.0	15.1
Kazakhstan											6.0	1.0
Rest of Asia	2.2	2.6				0.9		3.4	1.3	4.3	8.0	2.5
Americas	4.0		0.5			1.0	1.0	0.3	2.0	1.4	2.0	1.5
Australia and Oceania										0.9	1.0	0.3
	10.1	5.1	7.6	7.0	6.2	6.2	4.9	14.6	14.1	23.1	80.0	40.3

### Development wells activity

	Wells completed <sup>(a)</sup>								Wells in pr at of De			
	201	8	8 2017		2016		2015		2014		2018	
(units)	Productive	Dry <sup>(e)</sup>	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Productive	Dry <sup>(c)</sup>	Gross	Net
Italy	3.0		2.6		4.0		6.0		12.5			
Rest of Europe	2.8	0.3	2.7	0.2	5.6		10.2	0.1	9.8	1.0	16.0	1.3
North Africa	9.6	0.5	5.1		6.2	0.7	4.5		54.5	1.0	3.0	1.4
Egypt	30.7		49.7	2.3	32.4	0.5	26.0	2.8			5.0	2.1
Sub-Saharan Africa	7.3	0.1	8.6		21.2	0.2	22.0	2.5	31.6		6.0	2.5
Kazakhstan	0.9		1.2		4.6		4.7		1.5		1.0	0.3
Rest of Asia	21.9		15.0	0.2	31.6	0.5	29.7	5.9	54.2	1.6	7.0	3.0
Americas	2.3		3.1		9.9	1.3	17.4	0.1	22.1	0.7		
Australia and Oceania	0.8						0.5		0.1	0.4		
	79.3	9.3 0.9 88.0 2.7			115.5	3.2	121.0	11.4	186.3	4.7	38.0	10.6

### Productive oil and gas wells $^{(d)}$

		20	18	
	Oil w	rells	Natural g	as wells
(units)	Gross	Net	Gross	Net
	202.0	157.0	479.0	415.9
of Europe	477.0	86.5	135.0	65.3
n Africa	592.0	242.8	116.0	63.2
	1,194.0	508.3	147.0	48.3
aran Africa	2,747.0	550.4	181.0	23.0
stan	200.0	55.1		
sia	955.0	336.7	167.0	62.0
	270.0	132.1	284.0	81.7
and Oceania	3.0	1.2	21.0	7.1
	6,640.0	2,070.1	1,530.0	766.5

<sup>(</sup>a) Number of wells net to Eni.
(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.
(d) 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.

	Italy	Rest of Europe	North Africa	Egupt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
(€ million)	+	∝	z	ш	νĀ	ᅩ	~	₹	₹ ल	ř
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 $^{\text{[b]}}$	(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] 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.

<sup>(</sup>b) Includes asset net impairment amounting to €726 million.

(6 million)	taly	Rest of Europe	North Africa	Egupt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	[otal
(€ million)	_		_	ш	0, 4	_			~ "	
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	1,013	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 <sup>[a]</sup>	(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)

<sup>(</sup>a) Includes asset net reversal amounting to £158 million.

(€ million)	Italy	Rest of Europe	North Africa	Egupt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2016	_	_		_	5. 4					
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 <sup>[a]</sup>	(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)

<sup>(</sup>a) Includes asset net reversal amounting to  $\ensuremath{\mathfrak{e}} 700$  million.

	(€ million)	ltaly	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2015		·	·		·		·			
Consolidated subsidiaries										
Revenues:										
- sales to consolidated entities		2,124	1,828	1,403	3,514	231	628	1,118	29	10,875
- sales to third parties			501	5,681	914	659	854	131	226	8,966
Total revenues		2,124	2,329	7,084	4,428	890	1,482	1,249	255	19,841
Operations costs		(403)	(642)	(948)	(1,099)	(239)	(235)	(453)	(108)	(4,127)
Production taxes		(184)		(240)	(405)		(30)		(9)	(868)
Exploration expenses		(35)	(205)	(164)	(216)		(210)	(35)	(6)	(871)
D.D. & A. and Provision for abandonment <sup>[a]</sup>		(750)	(2,022)	(2,938)	(3,835)	(109)	(1,491)	(1,775)	(111)	(13,031)
Other income (expenses)		(215)	(142)	(564)	(290)	(156)	(282)	(9)	(23)	(1,681)
Pretax income from producing activities		537	(682)	2,230	(1,417)	386	(766)	(1,023)	(2)	(737)
Income taxes		(182)	589	(2,148)	272	(142)	90	406	(25)	(1,140)
Results of operations from E&P activities of consolidated subsidiaries		355	(93)	82	(1,145)	244	(676)	(617)	(27)	(1,877)
Equity-accounted entities										
Revenues:										
- sales to consolidated entities										
- sales to third parties				19			68	248		335
Total revenues				19			68	248		335
Operations costs				(9)			(13)	(49)		(71)
Production taxes				(3)				(82)		(85)
Exploration expenses							(16)			(16)
D.D. & A. and Provision for abandonment			(1)	(3)	(432)		(77)	(78)		(591)
Other income (expenses)			(3)	(1)	(35)		(6)	(48)		(93)
Pretax income from producing activities			(4)	3	(467)		(44)	(9)		(521)
Income taxes				(3)			8	(29)		(24)
Results of operations from E&P activities of equity-accounted entities			(4)		(467)		(36)	(38)		(545)

<sup>(</sup>a) Includes asset impairments amounting to  ${\it \&}5,\!051$  million.

		9		_					
(€ million)	Italy	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2014									
Consolidated subsidiaries									
Revenues:									
- sales to consolidated entities	3,028	2,721	2,010	4,716	346	589	1,691	67	15,168
- sales to third parties		596	7,415	1,369	976	774	129	299	11,558
Total revenues	3,028	3,317	9,425	6,085	1,322	1,363	1,820	366	26,726
Operations costs	(423)	(687)	(694)	(935)	(208)	(223)	(357)	(124)	(3,651)
Production taxes	(293)		(291)	(648)		(33)		(15)	(1,280)
Exploration expenses	(36)	(245)	(72)	(681)		(204)	[171]	(69)	(1,478)
D.D. & A. and Provision for abandonment <sup>[a]</sup>	(819)	(1,082)	(1,330)	(1,985)	(90)	(860)	(1,295)	(175)	(7,636)
Other income (expenses)	[184]	(96)	(773)	(358)	(251)	[124]	(78)	(30)	(1,894)
Pretax income from producing activities	1,273	1,207	6,265	1,478	773	(81)	(81)	(47)	10,787
Income taxes	(503)	(785)	(3,992)	(1,155)	(291)	(102)	29	43	(6,756)
Results of operations from E&P activities of consolidated subsidiaries	770	422	2,273	323	482	(183)	(52)	(4)	4,031
Equity-accounted entities									
Revenues:									
- sales to consolidated entities									
- sales to third parties			19			87	232		338
Total revenues			19			87	232		338
Operations costs			[11]			[11]	[27]		(49)
Production taxes			(3)				(94)		(97)
Exploration expenses		(1)	(2)			(31)	[1]		(35)
D.D. & A. and Provision for abandonment		(1)	(2)			(40)	(60)		(103)
Other income (expenses)		(1)	1	(32)		(3)	(41)		(76)
Pretax income from producing activities		(3)	2	(32)		2	9		(22)
Income taxes			(2)			(23)	[18]		(43)
Results of operations from E&P activities of equity-accounted en	ntities	(3)		(32)		(21)	(9)		(65)

<sup>(</sup>a) Includes asset impairment amounting to £851 million.

### Capitalized cost(a)

(€ million)	Italy	Rest of Europe	North Africa	Egupt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2018		·					•			
Consolidated subsidiaries										
Proved mineral interests	16,569	6,236	14,140	17,474	40,607	11,240	12,711	15,347	1,967	136,291
Unproved mineral interests	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 <sup>(b)</sup>	3,892	1,337	5,925	7,520	16,779	10,558	4,381	3,412	1,034	54,838
Equity-accounted entities										
Proved mineral interests		9,102	58		1,481		2	1,912		12,555
Unproved mineral interests		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		(4.542)	(= 4)		(200)		(4.0)	(4.052)		(5.024)
and amortization  Net Capitalized Costs equity-accounted		(4,543)	(54)		(266)		(19)	(1,052)		(5,934)
entities <sup>(b)(c)</sup>		5,993	20		1,225		13	1,091		8,342
2017										
Consolidated subsidiaries										
Proved mineral interests	16,277	17,600	12,514	15,211	36,976	10,547	12,493	14,840	1,950	138,408
Unproved mineral interests	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 <sup>(b)</sup>	3,831	6,326	5,831	6,318	17,104	10,378	3,585	3,417	1,085	57,875
Equity-accounted entities										
Proved mineral interests			67		1,419		581	1,833		3,900
Unproved mineral interests		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 <sup>(b)</sup>		5	19		948		148	1,279		2,399

<sup>(</sup>a) 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 (a) Capitalized Costs represent the total experiutures 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.
(b) 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.
(c) Includes Vår Energi AS asset fair value.

### Capitalized cost

		d)								
(€ million)	Italy	Rest of Europe	North Africa	Egupt	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2016					· ·			`		
Consolidated subsidiaries										
Proved mineral interests	15,951	18,678	13,492	15,262	38,539	10,790	11,680	17,127	2,085	143,604
Unproved mineral interests	18	301	416	55	2,461	1	1,155	903	210	5,520
Support equipment and facilities	357	42	1,627	203	1,375	111	37	77	15	3,844
Incomplete wells and other	724	242	2,347	1,828	5,117	2,565	2,248	317	134	15,522
Gross Capitalized Costs	17,050	19,263	17,882	17,348	47,492	13,467	15,120	18,424	2,444	168,490
Accumulated depreciation, depletion and amortization	(13,022)	(12,113)	(11,374)	(11,022)	(27,264)	(1,608)	(11,000)	[14,301]	(1,227)	(102,931)
Net Capitalized Costs consolidated subsidiaries <sup>(a)</sup>	4,028	7,150	6,508	6,326	20,228	11,859	4,120	4,123	1,217	65,559
Equity-accounted entities										
Proved mineral interests		2	82		14		657	2,037		2,792
Unproved mineral interests		15					96			111
Support equipment and facilities			8					7		15
Incomplete wells and other		9	5		1,596		24	253		1,887
Gross Capitalized Costs		26	95		1,610		777	2,297		4,805
Accumulated depreciation, depletion		(0.0)	(==)		( )		(222)	(222)		ć>
and amortization  Net Capitalized Costs equity-accounted		(20)	(72)		(482)		(682)	(602)		(1,858)
entities <sup>(a)</sup>		6	23		1,128		95	1,695		2,947
2015										
Consolidated subsidiaries										
Proved mineral interests	15,280	15,110	26,904		35,241	3,364	10,424	16,156	2,037	124,516
Unproved mineral interests	18	297	444		2,443	1	1,229	874	203	5,509
Support equipment and facilities	355	42	1,758		1,318	112	34	74	15	3,708
Incomplete wells and other	1,114	3,501	2,280		4,932	8,900	1,665	729	123	23,244
Gross Capitalized Costs	16,767	18,950	31,386		43,934	12,377	13,352	17,833	2,378	156,977
Accumulated depreciation, depletion and amortization	(12,184)	(11,431)	(20,268)		(25,235)	(1,422)	(9,691)	[13,344]	(1,122)	(94,697)
Net Capitalized Costs consolidated subsidiaries <sup>(a)</sup>	4,583	7,519	11,118		18,699	10,955	3,661	4,489	1,256	62,280
Equity-accounted entities										
Proved mineral interests		3	89		23		624	2,010		2,749
Unproved mineral interests		17					93			110
Support equipment and facilities			8					6		14
Incomplete wells and other		10	5		1,508		23	112		1,658
Gross Capitalized Costs		30	102		1,531		740	2,128		4,531
Accumulated depreciation, depletion and amortization		(23)	(77)		(441)		(628)	(338)		(1,507)
Net Capitalized Costs equity-accounted entities <sup>(a)</sup>		7	25		1,090		112	1,790		3,024

<sup>(</sup>a) The amounts include net capitalized financial charges totalling  $\[ \le \]$ 1,090 million in 2016 and  $\[ \le \]$ 1,029 million in 2015 for the consolidates subsidiaries and  $\[ \le \]$ 5 million in 2016 and  $\[ \le \]$ 95 million in 2016 and  $\[ \le \]$ 95 million in 2016 and  $\[ \le \]$ 97 million in 2016 and  $\[ \le \]$ 98 million in 2016 and  $\[ \le \]$ 99 million in 2016 and  $\[ \le \]$ 90 million in 2016 and  $\[ \le \]$ 90 million in 2016 and  $\[ \le \]$ 90 million in 2016 and  $\[ \le \]$ 91 millio

### Capitalized cost

	(€ million)	Italy	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
2014										
Consolidated subsidiaries										
Proved mineral interests		14,862	13,754	21,549	27,697	2,917	8,827	13,050	1,825	104,481
Unproved mineral interests		31	399	493	3,263	43	1,590	1,588	214	7,621
Support equipment and facilities		346	42	1,569	1,164	94	35	66	13	3,329
Incomplete wells and other		816	3,527	1,411	2,988	7,140	690	819	120	17,511
Gross Capitalized Costs		16,055	17,722	25,022	35,112	10,194	11,142	15,523	2,172	132,942
Accumulated depreciation, depletion and amortization		(11,154)	(9,519)	(14,335)	(20,039)	(1,241)	(8,042)	(10,605)	(1,009)	(75,944)
Net Capitalized Costs consolidated subsidiaries <sup>(a)(b)</sup>		4,901	8,203	10,687	15,073	8,953	3,100	4,918	1,163	56,998
Equity-accounted entities										
Proved mineral interests			2	77	24		539	549		1,191
Unproved mineral interests			31				84			115
Support equipment and facilities				7			1	4		12
Incomplete wells and other			12	5	1,241			776		2,034
Gross Capitalized Costs			45	89	1,265		624	1,329		3,352
Accumulated depreciation, depletion and amortization			(39)	(69)			(522)	(230)		(860)
Net Capitalized Costs equity-accounted entities (a)(b)			6	20	1,265		102	1,099		2,492

<sup>(</sup>a) The amounts include net capitalized financial charges totalling €868 million for the consolidates subsidiaries and €46 million for equity-accounted entities.
(b) The amounts do not include costs associated with exploration activities which are capitalized in order to reflect their investment nature and amortized in full when incurred. The "Successful Effort Method" application according to Eni accounting policy would have led to an increase in net capitalized costs, mainly in relation to exploration costs, of €4,804 million for the consolidated subsidiaries and €123 million for equity-accounted entities.

### Cost incurred<sup>(a)</sup>

(€ million)	Italy	Rest of Europe	North Africa	Egu pt	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 <sup>[b]</sup>	382	557	445	2,216	1,379	92	589	340	36	6,036
Total costs incurred	302	331	113	L,L10	1,51 5	JL	303	310	30	0,000
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 <sup>[c]</sup>			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 <sup>(b)</sup>	251	364	785	3,041	1,939	246	714	292	14	7,646
Total costs incurred		301	100	3,0 11	1,555	210	111			1,010
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 <sup>[c]</sup>			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 <sup>[b]</sup>	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 <sup>[c]</sup>			1		28		12	95		136
Total costs incurred										
equity-accounted entities		1	1		28		25	95		150

<sup>(</sup>a) Costs incurred represent amounts both capitalized and expensed in connection with oil and gas producing activities.
(b) 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.
(c) Includes the abandonment costs of the assets negative for €22 million in 2018, negative €23 million in 2017, negative for €15 million in 2016.

### Cost incurred

		Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	i. Ga	Australia and Oceania	
[€ million]	taly	Rest	Nort	Sub. Afric	Kaza	Rest	America	Aust and	Total
2015							- 1	-	
Consolidated subsidiaries									
Proved property acquisitions									
Unproved property acquisitions									
Exploration	28	176	289	196		71	54	6	820
Development <sup>(a)</sup>	207	1,006	1,574	2,957	819	1,332	745	18	8,658
Total costs incurred consolidated subsidiaries	235	1,182	1,863	3,153	819	1,403	799	24	9,478
Equity-accounted entities									
Proved property acquisitions									
Unproved property acquisitions									
Exploration		1				14	1		16
Development <sup>[b]</sup>		1	1	112		35	554		703
Total costs incurred equity-accounted entities		2	1	112		49	555		719
2014									
Consolidated subsidiaries									
Proved property acquisitions									
Unproved property acquisitions									
Exploration	29	188	227	635		160	139	20	1,398
Development <sup>[a]</sup>	1,382	2,395	955	3,479	572	1,118	1,169	122	11,192
Total costs incurred consolidated subsidiaries	1,411	2,583	1,182	4,114	572	1,278	1,308	142	12,590
Equity-accounted entities									
Proved property acquisitions									
Unproved property acquisitions									
Exploration		2				33	1		36
Development [b]			1	22		38	375		436
Total costs incurred equity-accounted entities		2	1	22		71	376		472

<sup>(</sup>a) Includes the abandonment costs of assets for €2,062 million in 2014 and negative for €817 million in 2015.
(b) Includes the abandonment costs of the assets negative for €47 million in 2014 and costs for €54 million in 2015.

(€ million)	Italy	Rest of Europe	North Africa	Egupt	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	4,327	3,548	8,071	9,838	12,002	10,781	3,899	4,449	737	57,652

(a) 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 & 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.

(€ million)	Italy	Rest of Europe	North Africa	Egupt	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	2,813	2,773	5,418	6,100	8,514	7,342	2,487	3,404	775	39,626

		Rest of Europe	North Africa	ŧ.	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	_
(€ million)	Italy	Res	Nor	Egupt	Sub	Kaz	Res	Ame	Aus	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	1,372	2,410	4,197	4,620	6,389	5,256	1,508	3,264	822	29,838

	<b>u</b>							
	Europ	frica	haran	stan	Asia	æ	ia eania	
ži.	est of	orth A	ıb-Sal rica	azakh	est of	nerica	ıstrali nd Oce	Total
<u> </u>	ž	ž	A St	<u> </u>	ž	₹	a A	은
16,760	18,692	58,390	44,114	34,589	13,027	8,101	3,519	197,192
(4,995)	(5,554)	[13,481]	[14,645]	(8,846)	(4,585)	(3,091)	(804)	(56,001)
(4,299)	(4,379)	(9,457)	(9,359)	(4,108)	(4,964)	[1,644]	(218)	(38,428)
7,466	8,759	35,452	20,110	21,635	3,478	3,366	2,497	102,763
(1,657)	(4,349)	(17,195)	(8,222)	(4,682)	(1,230)	(933)	(604)	(38,872)
5,809	4,410	18,257	11,888	16,953	2,248	2,433	1,893	63,891
(2,077)	(817)	(7,844)	(4,976)	(10,561)	(1,276)	(970)	(901)	(29,422)
2 722	2 502	40.442	6.042	C 202	072	4.400	000	24.400
3,732	3,583	10,413	6,912	6,392	912	1,463	992	34,469
		313	3,047		85	18,519		21,964
		[177]	[1,021]		(32)	(5,370)		(6,600)
		(5)	(95)		(22)	(2,118)		(2,240)
		131	1,931		31	11,031		13,124
		(8)	(251)		(10)	(4,088)		(4,357)
		123	1,680		21	6,943		8,767
		(70)	(1,016)		(2)	(4,358)		(5,446)
		53	664		19	2,585		3,321
3,732	3,593	10,466	7,576	6,392	991	4,048	992	37,790
	(4,995) (4,299) <b>7,466</b> (1,657) <b>5,809</b> (2,077) <b>3,732</b>	16,760 18,692 (4,995) (5,554) (4,299) (4,379) <b>7,466 8,759</b> (1,657) (4,349) <b>5,809 4,410</b> (2,077) (817) <b>3,732 3,593</b>	16,760 18,692 58,390 (4,995) [5,554) [13,481] (4,299) (4,379) (9,457) <b>7,466 8,759 35,452</b> (1,657) (4,349) (17,195) <b>5,809 4,410 18,257</b> (2,077) (817) (7,844) <b>3,732 3,593 10,413</b> 313 (177) (5) 131 (8) 123 (70)	16,760 18,692 58,390 44,114 (4,995) (5,554) (13,481) (14,645) (4,299) (4,379) (9,457) (9,359) <b>7,466 8,759 35,452 20,110</b> (1,657) (4,349) (17,195) (8,222) <b>5,809 4,410 18,257 11,888</b> (2,077) (817) (7,844) (4,976) <b>3,732 3,593 10,413 6,912</b> 313 3,047 (177) (1,021) (5) (95) 131 1,931 (8) (251) 123 1,680 (70) (1,016)	16,760 18,692 58,390 44,114 34,589 (4,995) (5,554) (13,481) (14,645) (8,846) (4,299) (4,379) (9,457) (9,359) (4,108) <b>7,466 8,759 35,452 20,110 21,635</b> (1,657) (4,349) (17,195) (8,222) (4,682) <b>5,809 4,410 18,257 11,888 16,953</b> (2,077) (817) (7,844) (4,976) (10,561) <b>3,732 3,593 10,413 6,912 6,392</b> 313 3,047 (177) (1,021) (5) (95) 131 1,931 (8) (251) 123 1,680 (70) (1,016)	16,760       18,692       58,390       44,114       34,589       13,027         (4,995)       (5,554)       (13,481)       (14,645)       (8,846)       (4,585)         (4,299)       (4,379)       (9,457)       (9,359)       (4,108)       (4,964) <b>7,466 8,759 35,452 20,110 21,635 3,478</b> (1,657)       (4,349)       (17,195)       (8,222)       (4,682)       (1,230) <b>5,809 4,410 18,257 11,888 16,953 2,248</b> (2,077)       (817)       (7,844)       (4,976)       (10,561)       (1,276) <b>3,732 3,593 10,413 6,912 6,392 972</b> 313       3,047       85         (177)       (1,021)       (32)         (5)       (95)       (22)         131 <b>1,931 31</b> (8)       (251)       (10)         123 <b>1,680 21</b> (70)       (1,016)       (2)	16,760       18,692       58,390       44,114       34,589       13,027       8,101         (4,995)       (5,554)       (13,481)       (14,645)       (8,846)       (4,585)       (3,091)         (4,299)       (4,379)       (9,457)       (9,359)       (4,108)       (4,964)       (1,644)         7,466       8,759       35,452       20,110       21,635       3,478       3,366         (1,657)       (4,349)       (17,195)       (8,222)       (4,682)       (1,230)       (933)         5,809       4,410       18,257       11,888       16,953       2,248       2,433         (2,077)       (817)       (7,844)       (4,976)       (10,561)       (1,276)       (970)         3,732       3,593       10,413       6,912       6,392       972       1,463         (177)       (1,021)       (32)       (5,370)         (5)       (95)       (22)       (2,118)         131       1,931       31       11,031         (8)       (251)       (10)       (4,088)         123       1,680       21       6,943         (70)       (1,016)       (2)       (4,358)	16,760       18,692       58,390       44,114       34,589       13,027       8,101       3,519         (4,995)       (5,554)       (13,481)       (14,645)       (8,846)       (4,585)       (3,091)       (804)         (4,299)       (4,379)       (9,457)       (9,359)       (4,108)       (4,964)       (1,644)       (218)         7,466       8,759       35,452       20,110       21,635       3,478       3,366       2,497         (1,657)       (4,349)       (17,195)       (8,222)       (4,682)       (1,230)       (933)       (604)         5,809       4,410       18,257       11,888       16,953       2,248       2,433       1,893         (2,077)       (817)       (7,844)       (4,976)       (10,561)       (1,276)       (970)       (901)         3,732       3,593       10,413       6,912       6,392       972       1,463       992         313       3,047       85       18,519       (177)       (1,021)       (32)       (5,370)       (5)       (95)       (22)       (2,118)         131       1,931       31       11,031       (8)       (251)       (10)       (4,088)         123

(€ million)	Italy	Rest of Europe	North Africa	Sub-Saharan Africa	Kazakhstan	Rest of Asia	America	Australia and Oceania	Total
December 31, 2014									
Consolidated subsidiaries									
Future cash inflows	24,951	29,140	96,372	65,853	55,740	13,664	10,955	4,849	301,524
Future production costs	(6,374)	(6,856)	(19,906)	(18,236)	(9,878)	(4,158)	(2,680)	(1,092)	(69,180)
Future development and abandonment costs	(4,698)	(5,292)	(9,673)	(9,139)	(4,576)	(4,600)	(1,892)	(356)	(40,226)
Future net inflow before income tax	13,879	16,992	66,793	38,478	41,286	4,906	6,383	3,401	192,118
Future income tax	(3,583)	(10,595)	(35,484)	(20,514)	(10,400)	(1,462)	(2,401)	(989)	(85,428)
Future net cash flows	10,296	6,397	31,309	17,964	30,886	3,444	3,982	2,412	106,690
10% discount factor	(4,064)	[1,464]	(13,905)	(7,164)	(19,699)	(1,900)	(1,353)	(1,106)	(50,655)
Standardized measure of discounted future net cash flows	6,232	4,933	17,404	10,800	11,187	1,544	2,629	1,306	56,035
Equity-accounted entities									
Future cash inflows			485	3,861		200	18,871		23,417
Future production costs			(165)	(692)		(33)	(5,724)		(6,614)
Future development and abandonment costs			[18]	[104]		(51)	(2,032)		(2,205)
Future net inflow before income tax			302	3,065		116	11,115		14,598
Future income tax			(23)	(426)		(45)	(4,608)		(5,102)
Future net cash flows			279	2,639		71	6,507		9,496
10% discount factor			[158]	[1,442]		[11]	(4,327)		(5,938)
Standardized measure of discounted future net cash flows			121	1,197		60	2,180		3,558
Total	6,232	4,933	17,525	11,997	11,187	1,604	4,809	1,306	59,593

# Changes in standardized measure of discounted future net cash flows

						Increase	(Decreas	se):						
(€ million)	Value at beginning of the year	sales, net of production costs	net changes in sales and transfer prices, net of production costs	extensions, discoveries and improved recovery, net of future production and development costs	changes in estimated future development and abandonment costs	development costs incurred during the period that reduced future development costs	revisions of quantity estimates	accretion of discount	net change in income taxes	purchase of reserves in-place	sale of reserves in-place	changes in production rates (timing) and other	Net increase (decrease)	Value at end of the year
2018		·	·	·										
Consolidated subsidiaries Equity-accounted	36,993	(19,793)	27,970	1,649	(2,525)	6,468	10,487	5,670	[16,566]	5,369	(8,363)	5,052	15,418	52,411
entities	2,633	(445)	671		216	14	(803)	384	193	6,700		(4,322)	2,608	5,241
Total	39,626	(20,238)	28,641	1,649	(2,309)	6,482	9,684	6,054	(16,373)	12,069	(8,363)	730	18,026	57,652
2017 Consolidated subsidiaries Equity-accounted entities Total	26,717 3,121 <b>29,838</b>	(14,125) (432) (14,557)	23,940 1,482 <b>25,422</b>	1,697 <b>1,697</b>	(2,817) 495 <b>(2,322)</b>	7,203 45 <b>7,248</b>	5,269 (2,285) <b>2,984</b>	3,864 438 <b>4,302</b>	(6,498) 238 <b>(6,260)</b>	10 10	(2,995) (2,995)	(5,272) (469) <b>(5,741)</b>	10,276 (488) <b>9,788</b>	36,993 2,633 <b>39,626</b>
2016 Consolidated subsidiaries Equity-accounted	34,469	[11,222]	[24,727]	4,563	(2,357)	7,578	2,840	5,705	9,200			668	(7,752)	26,717
entities	3,321	(347)	(1,586)		650	151	(131)	514	386			163	(200)	3,121
Total	37,790	(11,569)	(26,313)	4,563	(1,707)	7,729	2,709	6,219	9,586			831	(7,952)	29,838
2015 Consolidated subsidiaries	56,035	(14,846)	(70,909)	524	(1,711)	8,960	12,322	11,288	29,530		[114]	3,390	(21,566)	34,469
Equity-accounted entities	3,558	(179)	(2,858)		[241]	604	915	629	530			363	(237)	3,321
Total	59,593	(15,025)		524	(1,952)	9,564			<b>30,060</b>		[114]		(21,803)	37,790
2014 Consolidated subsidiaries	56,177		(12,053)	1,667	(6,047)	8,745		11,064	7,049	67	(271)	3,347	(142)	56,035
Equity-accounted														
entities	2,327	(192)	(500)		223	451	(325)	512	704		40-11	358	1,231	3,558
Total	58,504	(21,987)	(12,553)	1,667	(5,824)	9,196	7,760	11,576	7,753	67	(271)	3,705	1,089	59,593

# Capital expenditure

(€ million)	2018	2017	2016	2015	2014
Acquisition of proved and unproved properties	869	5	2		
Egypt			2		
Sub-Saharan Africa		5			
Rest of Asia	869				
Exploration	463	442	417	566	1,030
Italy	1	5			1
Rest of Europe	52	186	11	133	132
North Africa	20	55	42	64	108
Egypt	80	70	270	168	69
Sub-Saharan Africa	22	25	30	157	511
Kazakhstan		3			
Rest of Asia	140	20	57	15	89
America	146	76	7	29	109
Australia and Oceania	2	2			11
Development	6,506	7,236	7,770	9,341	9,021
Italy	380	260	407	679	880
Rest of Europe	600	399	590	1,264	1,574
North Africa	525	626	747	641	305
Egypt	2,205	3,030	1,700	929	527
Sub-Saharan Africa	1,635	1,852	2,176	2,998	3,085
Kazakhstan	193	197	707	835	521
Rest of Asia	550	666	1,213	1,333	1,105
America	381	195	220	637	921
Australia and Oceania	37	11	10	25	103
Other expenditure	63	56	65	73	105
	7,901	7,739	8,254	9,980	10,156



#### **KEY PERFORMANCE INDICATORS**

		2018	2017	2016	2015	2014
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.56	0.37	0.29	0.89	0.82
of which: employees		0.34	0.45	0.28	0.91	0.87
contractors		0.99	0.23	0.31	0.81	0.70
Net sales from operations <sup>[a]</sup>	(€ million)	55,690	50,623	40,961	52,096	73,434
Operating profit (loss)		629	75	(391)	[1,258]	64
Adjusted operating profit (loss)		543	214	(390)	[126]	168
Adjusted net profit (loss)		310	52	(330)	(168)	86
Capital expenditure		215	142	120	154	172
Worldwide gas sales	[bcm]	76.71	80.83	86.31	87.72	86.11
LNG sales <sup>[b]</sup>		10.3	8.3	8.1	9.0	8.9
Retail customers in Italy	(million)	7.7	7.7	7.7	7.8	7.9
Electricity sold	(TWh)	37.07	35.33	37.05	34.88	33.58
Employees at year end	(number)	3,040	4,313	4,261	4,484	4,561
of which: outside Italy		951	2,031	2,229	2,461	2,494
Direct GHG emissions	(mmtonnes CO <sub>2</sub> eq)	11.08	11.30	11.17	10.57	10.12

<sup>(</sup>a) Before elimination of intragroup sales.

### 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.
- Ocapital expenditure amounting to €215 million mainly related the gas marketing activities and the power business.

<sup>(</sup>b) Refers to LNG sales of the Gas & Power segment (included in worldwide gas sales).

#### AGREEMENTS FOR THE PURCHASE OF LNG VOLUMES

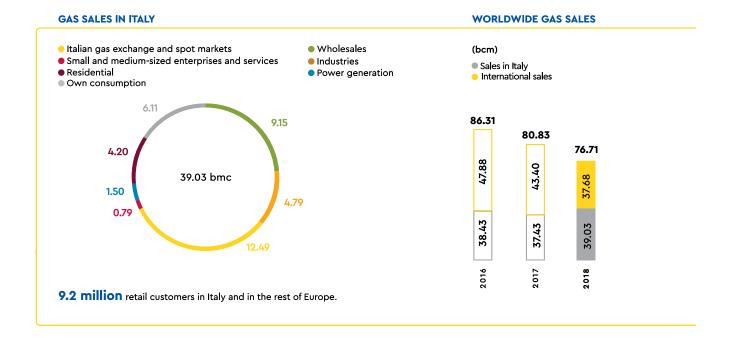
In order to strengthen the integration with upstream business Eni, obtained from the partners of Area 4 joint venture, long-term agreements for the purchase of LNG volumes. For more details see the "Mozambique" section in the Exploration & Production segment.

#### **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.



#### **MARKETING**

### 1. Natural gas

#### Supply

The supply of natural gas is a free activity where prices are determined by free negotiations of demand and supply involving natural gas resellers and producers. In order to secure mid and

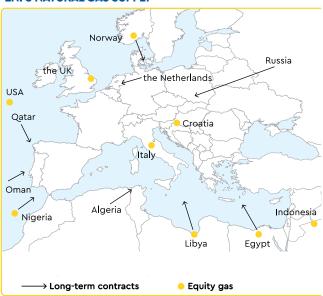
long-term access to gas availability, Eni has signed a number of long-term gas supply contracts with key producing Countries that supply the European gas markets. In recent years Eni

renegotiated a number of the main long-term supply Contracts, thus better aligning gas prices and related trends to market conditions. Eni could also leverage on the availability of natural gas deriving from equity production, the access to all phases of the LNG chain (liquefaction, shipping and regasification) and to other gas infrastructures, and by trading and risk management activity. Eni's long-term gas requirements are met by natural gas from a total of 18 Countries, where Eni signed long-term gas supply contracts or holds upstream activities and by access to continental Europe's spot markets.

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

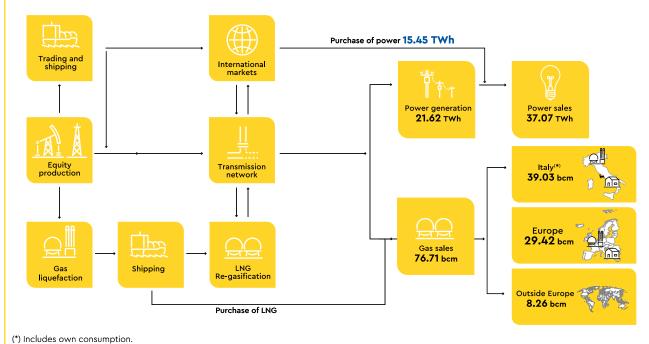
bcm). Supplies in Italy (5.33 bcm) increased by 5.5% from the full year 2017 due to higher supplied gas volumes from equity production.

#### **ENI'S NATURAL GAS SUPPLY**



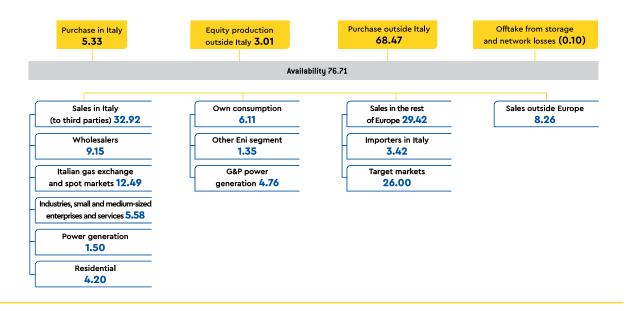
#### GAS & POWER VALUE CHAIN

Eni's Gas & Power segment engages in all phases of the natural gas value chain: supply, trading and marketing of natural gas and and LNG. This segment also includes power generation and marketing of electricity. Eni's leading position in the European gas market is ensured by a set of competitive advantages, including our multi-Country approach, long-term gas availability, access to infrastructures, market knowledge and a strong customer base, in addition to long-term relations with producing Countries. Furthermore, integration with our upstream operations provides valuable growth options whereby the Company targets to monetize its large gas reserves.



#### **ENI'S AVAILABILITY OF NATURAL GAS**

(bcm)



#### Marketing in Italy and Europe

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 in 2018 (down by 3% in the Italian market and down by 2% in the European Union compared to the previous year) 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.

### Sales and market shares on the Italian gas market

[bcm]	ocm) 2018		201	7	
	Volumes sold	Market share (%)	Volumes sold	Market share (%)	% Ch. 2018 vs. 2017
Italy to third parties	32.92	45.3	31.25	41.6	5.3
Wholesalers	9.15		8.36		9.4
Italian gas exchange and spot markets	12.49		10.81		15.5
Industries	4.79		4.42		8.4
Medium-sized enterprises and services	0.79		0.93		(15.1)
Power generation	1.50		2.22		(32.4)
Residential	4.20		4.51		(6.9)
Own consumption	6.11		6.18		[1.1]
TOTAL SALES IN ITALY	39.03	53.7	37.43	49.8	4.3
Gas demand <sup>(a)</sup>	72.70		75.15		(3.3)

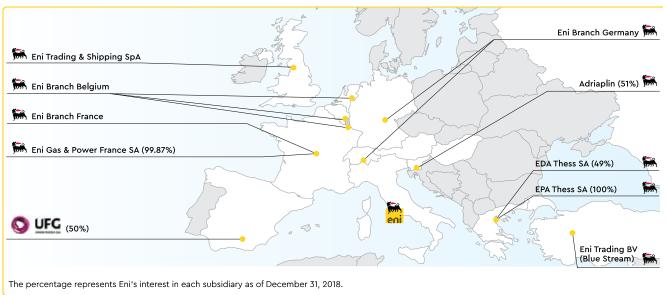
(a) Source: Italian Ministry of Economic Development.

#### Gas sales by market

(bcm)	2018	2017	2016	2015	2014
ITALY	39.03	37.43	38.43	38.44	34.04
Wholesalers	9.15	8.36	7.93	4.19	4.05
Italian gas exchange and spot markets	12.49	10.81	12.98	16.35	11.96
Industries	4.79	4.42	4.54	4.66	4.93
Medium-sized enterprises and services	0.79	0.93	1.72	1.58	1.60
Power generation	1.50	2.22	0.77	0.88	1.42
Residential	4.20	4.51	4.39	4.90	4.46
Own consumption	6.11	6.18	6.10	5.88	5.62
INTERNATIONAL SALES	37.68	43.40	47.88	49.28	52.07
Rest of Europe	29.42	38.23	42.43	42.89	46.22
Importers in Italy	3.42	3.89	4.37	4.61	4.01
European markets	26.00	34.34	38.06	38.28	42.21
Iberian Peninsula	4.65	5.06	5.28	5.40	5.31
Germany/Austria	1.83	6.95	7.81	5.82	7.44
Benelux	5.29	5.06	7.03	7.94	10.36
Hungary			0.93	1.58	1.55
UK	2.22	2.21	2.01	1.96	2.94
Turkey	6.53	8.03	6.55	7.76	7.12
France	4.95	6.38	7.42	7.11	7.05
Other	0.53	0.65	1.03	0.71	0.44
Extra European markets	8.26	5.17	5.45	6.39	5.85
WORLDWIDE GAS SALES	76.71	80.83	86.31	87.72	86.11

A review of Eni's presence in key European markets is presented below:

#### **ENI'S PRESENCE IN EUROPE**



#### Benelux

Eni operates in Benelux in the industrial, wholesalers and thermoelectric segments. In 2018, sales amounted to 5.29 bcm, up by 0.23 bcm, or 4.5% compared to 2017, thanks to the optimization initiatives.

#### France

Eni is present in all the market segments through its direct commercial activities and its subsidiary Eni Gas & Power France SA. In 2018, sales in the Country amounted to 4.95 bcm, a decrease of 1.43 bcm, or 22.4%, from a year ago.

#### Germany/Austria

Eni operates in Germany-Austria through Gas & Power branches. In 2018, total sales in Germany-Austria amounted to 1.83 bcm, a decrease of 5.12 bcm, or 73.7% from 2017 due to lower volumes marketed to local distribution companies. A process of complete exit from these markets is ongoing.

#### Spain

Eni operates in the Spanish gas market through Unión Fenosa Gas (UFG) joint venture (Eni's interest 50%) which mainly supplies natural gas to industrial clients, wholesalers and power generation utilities. In 2018, UFG gas sales amounted to 3.50 bcm (1.75 bcm Eni's share). UFG holds an 80% interest in the Damietta liquefaction plant, on the Egyptian coast, and a 7.36% interest in a liquefaction plant in Oman. In 2018, total sales in the Iberian Peninsula amounted to 4.65 bcm, a decrease of 0.41 bcm, or down by 8.1%.

#### Turkey

Eni sells gas supplied from Russia and transported via the Blue Stream pipeline. In 2018, sales amounted to 6.53 bcm, a decrease of 1.50 bcm, or 18.7% from a year ago due to lower sales to Botas.

#### United Kingdom

Eni through its subsidiary ETS markets in the United Kingdom the equity gas produced at Eni's fields in the North Sea and operates in the main continental natural gas hubs (NBP, Zeebrugge, TTF). In 2018, sales amounted to 2.22 bcm, substantially in line compared to 2017.

#### Greece

Eni operates in the Country through the supply and marketing activities of natural gas and electricity and the natural gas distribution.

These businesses are carried on, respectively, by EPA Thess SA, Eni's interest 100%, after the acquisition in 2018 of a further 51% and by the joint operation EDA Thess SA (Eni's interest 49%). In 2018, natural gas sales amounted to 0.23 bcm (0.17 bcm in 2017) and were supplied approximately 300 thousand gas and power customers.

#### 2. LNG

Eni is present in all phases of the LNG business: liquefaction, gas feeding, shipping, regasification and sale through a direct presence and interests in joint ventures and associates. The LNG business registered a good profitability, leveraging on the growing energy demand in Asia. In the next years Eni intends to increase sales in premium markets, redirecting the availability through portfolio optimization and a higher integration with the upstream segment. LNG sales amounted to 10.3 bcm (included in worldwide gas sales), an increase of 24.1% compared to 2017 and mainly concerned LNG

from Indonesia, Qatar, Nigeria, Oman and Algeria and marketed in Europe, China, Japan, Pakistan and Taiwan.

### 3. Power generation

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.

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).

#### **ENIPOWER PLANTS AND SITES IN ITALY**



# **Installed and operational generation capacity** as of December 31, 2018: 4,652 MW.

The combined cycle gas fired technology (CCGT) ensures an high level of efficiency and low environmental impact. In particular, management estimates that for a given amount of energy (electricity and steam) produced, using the CCGT technology instead of conventional power generation technology, the emission of carbon dioxide is reduced by about 5 mmtonnes, on an energy production of 24.1 TWh.

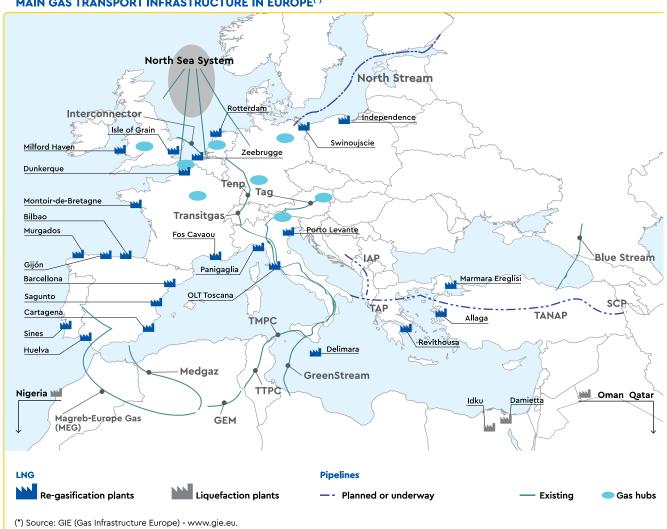
### INTERNATIONAL TRANSPORT

Eni, as shipper, has transport rights on a large European and North African networks for transporting natural gas in Italy and Europe, which link key consumption basins with the main producing areas (Russia, Algeria, the North Sea, including the Netherlands, Norway and Libya). The Company participates to both entities which operate the pipelines and entities which manage transport rights. A description of the main international pipelines currently participated or operated by Eni is provided below:

- the TTPC pipeline, 740-kilometer long, is made up of two lines that are each 370-kilometer long with a transport capacity of 34.3 bcm/y and five compression stations. This pipeline transports natural gas from Algeria across Tunisia from Oued Saf Saf at the Algerian border to Cap Bon on the Sicily Channel where it links with the TMPC pipeline;
- the TMPC pipeline for the import of Algerian gas is 775-kilometer long and consists of five lines that are each 155-kilometer long

- with a transport capacity of 33.5 bcm/y. It crosses the Sicily Channel from Cap Bon to Mazara del Vallo in Sicily, the point of entry into the Italian natural gas transport system;
- the GreenStream pipeline for the import of Libyan gas produced at the Eni operated fields of Bahr Essalam and Wafa. It is 520-kilometer long with a transport capacity of 8 bcm/y crossing the Mediterranean Sea from Mellitah on the Libyan coast to Gela in Sicily, the point of entry into the Italian natural gas transport system;
- Eni holds a 50% interest in the **Blue Stream underwater** pipeline (with a record water depth of more than 2,150 meters) linking the Russian coast to the Turkish coast of the Black Sea. This pipeline is 774-kilometer long on two lines and has transport capacity of 16 bcm/y. It is part of a joint venture to sell gas produced in Russia on the Turkish market. These assets generate a steady operating profit thanks to the sale of transport rights on a long-term basis.

#### MAIN GAS TRANSPORT INFRASTRUCTURE IN EUROPE<sup>(\*)</sup>



### Supply of natural gas

	(bcm)	2018	2017	2016	2015	2014
Italy		5.33	5.05	6.00	6.73	6.92
Russia		26.24	28.09	27.99	30.33	26.68
Algeria (including LNG)		12.02	13.18	12.90	6.05	7.51
Libya		4.55	4.76	4.87	7.25	6.66
Netherlands		3.95	5.20	9.60	11.73	13.46
Norway		6.75	7.48	8.18	8.40	8.43
United Kingdom		2.21	2.36	2.08	2.35	2.64
Indonesia (LNG)		3.06	0.74			
Qatar (LNG)		2.56	2.36	3.28	3.11	2.98
Other supplies of natural gas		5.52	6.75	5.83	7.42	5.94
Other supplies of LNG		1.96	2.31	1.91	2.02	1.69
Outside Italy		68.82	73.23	76.64	78.66	75.99
Total supplies of Eni's consolidated subsidiaries		74.15	78.28	82.64	85.39	82.91
Offtake from (input to) storage		0.08	0.31	1.40		(0.20)
Network losses, measurement differences and other changes		(0.18)	(0.45)	(0.21)	(0.34)	(0.25)
Available for sale at Eni's consolidated subsidiaries		74.05	78.14	83.83	85.05	82.46
Available for sale at Eni's affiliates		2.66	2.69	2.48	2.67	3.65
NATURAL GAS VOLUMES AVAILABLE FOR SALE		76.71	80.83	86.31	87.72	86.11

### Gas sales by entity

	(bcm)	2018	2017	2016	2015	2014
Sales of consolidated companies		73.70	77.52	83.34	84.94	81.73
Italy (including own consumption)		39.03	37.43	38.43	38.44	34.04
Rest of Europe		27.58	36.10	40.52	41.14	43.07
Outside Europe		7.09	3.99	4.39	5.36	4.62
Sales of Eni's affiliates (net to Eni)		3.01	3.31	2.97	2.78	4.38
Rest of Europe		1.84	2.13	1.91	1.75	3.15
Outside Europe		1.17	1.18	1.06	1.03	1.23
WORLDWIDE GAS SALES		76.71	80.83	86.31	87.72	86.11

### LNG sales

[bcm]	2018	2017	2016	2015	2014
G&P sales	10.3	8.3	8.1	9.0	8.9
Rest of Europe	4.7	5.2	5.2	4.8	5.0
Extra European markets	5.6	3.1	2.9	4.2	3.9

### Power sales

(TWh)	2018	2017	2016	2015	2014
Free market	25.91	26.53	27.49	25.90	24.86
Italian Exchange for electricity	7.17	5.21	5.64	5.09	4.71
Industrial plants	3.49	3.01	3.11	3.23	3.17
Other <sup>(a)</sup>	0.50	0.58	0.81	0.66	0.84
Power sales	37.07	35.33	37.05	34.88	33.58
Power generation	21.62	22.42	21.78	20.69	19.55
Power traded <sup>(a)</sup>	15.45	12.91	15.27	14.19	14.03

(a) Include positive and negative network imbalances (difference between electricity placed on the market vs. planned quantities).

## Power stations

	Installed capacity <sup>(a)</sup> as of December 31, 2018 (MW)	Effective/planned start-up	Technology	Fuel
Brindisi	1,321	2006	CCGT	Gas
Ferrera Erbognone	1,030	2004	CCGT	Gas/syngas
Mantova	836	2005	CCGT	Gas
Ravenna	972	2004	CCGT	Gas
Ferrara <sup>[b]</sup>	429	2008	CCGT	Gas
Bolgiano	64	2012	Power Station	Gas
Photovoltaic sites <sup>[c]</sup>	2	2011-2014	Photovoltaic	Photovoltaic
	4,654			

<sup>(</sup>a) Installed operational capacity.

#### Power generation

•		2018	2017	2016	2015	2014
Purchases						
Purchases of natural gas	(mmcm)	4,300	4,359	4,334	4,270	4,074
Purchases of other fuels	(ktep)	356	392	360	313	338
Production						
Power generation	(TWh)	21.62	22.42	21.78	20.69	19.55
Steam	(ktonnes)	7,919	7,551	7,974	9,318	9,010
Installed generation capacity	(GW)	4.7	4.7	4.7	4.9	4.9

# Transport infrastructure

INFRASTRUCTURES	Lines (units)	<b>Lenght</b> (km)	<b>Diameter</b> (inch)	Transport capacity <sup>(a)</sup> (bcm/y)	Transit capacity <sup>(b)</sup> (bcm/y)	Compression stations (No.)
TTPC (Oued Saf Saf-Cap Bon)	2 lines of 370 km	740	48	34.3	33.2	5
TMPC (Cap Bon-Mazara del Vallo)	5 lines of 155 km	775	20/26	33.5	33.5	
GreenStream (Mellitah-Gela)	1 line of 520 km	520	32	8.0	8.0	1
Blue Stream (Beregovaya-Samsun)	2 lines of 387 km	774	24	16.0	16.0	1

<sup>(</sup>a) Includes both transit capacity and volumes of natural gas destined to local markets and withdrawn at various points along the pipeline.
(b) The maximum volume of natural gas which is input at various entry points along the pipeline and transported to the next pipeline.

## Capital expenditure

	(€ million)	2018	2017	2016	2015	2014
Italy		139	99	73	100	128
Outside Italy		76	43	47	54	44
		215	142	120	154	172
Market		207	138	110	138	164
Market		161	102	69	69	66
Italy		93	63	32	31	30
Outside Italy		68	39	37	38	36
Power generation		46	36	41	69	98
International transport		8	4	10	16	8
		215	142	120	154	172

<sup>(</sup>b) Eni's share of capacity.
(c) Plants managed by Energy Solutions Department.



#### **KEY PERFORMANCE INDICATORS**

		2040	2047	2046	2045	2044
		2018	2017	2016	2015	2014
TRIR (Total Recordable Injury Rate)	(total recordable injuries/worked hours) x 1,000,000	0.56	0.62	0.38	1.07	1.51
of which: employees		0.49	0.56	0.44	0.97	1.60
contractors		0.62	0.69	0.32	1.17	1.40
Net sales from operations <sup>[a]</sup>	(€ million)	25,216	22,107	18,733	22,639	28,994
Operating profit (loss)		(380)	981	723	(1,567)	(2,811)
Adjusted operating profit (loss)		380	991	583	695	(412)
- Refining & Marketing		390	531	278	387	(65)
- Chemicals		(10)	460	305	308	(347)
Adjusted net profit (loss)		238	663	419	512	(319)
- Refining & Marketing		279	355	157	282	(41)
- Chemicals		(41)	308	262	230	(278)
Capital expenditure		877	729	664	628	819
Refinery throughputs on own account in Italy and outside	de Italy (mmtonnes)	23.23	24.02	24.52	26.41	25.03
Conversion index	[%]	54	54	50	49	51
Balanced capacity of refineries	(kbbl/d)	548	548	548	548	617
Average refineries utilization rate	(%)	91	90	90	95	82
Green refinery throughputs	(ktonnes)	253	242	212	204	127
Retail sales of petroleum products in Europe	(mmtonnes)	8.39	8.54	8.59	8.89	9.21
Service stations in Europe at year end	(number)	5,448	5,544	5,622	5,846	6,220
Average throughput per service station in Europe	(kliters)	1,776	1,783	1,742	1,754	1,725
Retail efficiency index	(%)	1.20	1.20	1.10	1.14	1.19
Production of petrochemical products	(ktonnes)	9,483	8,955	8,809	8,670	7,926
Sale of petrochemical products		4,938	4,646	4,745	4,813	4,681
Average plant utilization rate	(%)	76	73	72	73	71
Employees at year end	(number)	11,136	10,916	10,858	10,995	11,884
of which: outside Italy		2,396	2,336	2,281	2,360	2,598
Direct GHG emissions	(mmtonnes CO <sub>2</sub> eq)	8.19	7.82	8.50	8.19	8.45
SO <sub>v</sub> emissions (sulphur oxide)	(ktonnes S0,eq)	4.80	5.18	4.35	6.17	6.84
GHG emissions/refining throughputs <sup>[b]</sup>	(tonnes CO <sub>2</sub> eq/ktonnes)	253	258	278	253	301

<sup>(</sup>a) Before elimination of intragroup sales.

## 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.

<sup>(</sup>b) Relates only to traditional refineries.

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
  - 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.

## 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 CHEMICAL 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**

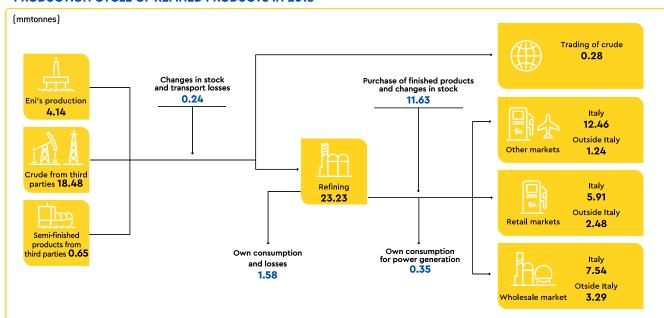
In September 2018, started up a new plant in Ferrara for the production of high value products which will mainly supply the automotive industry. The project, that consolidates the presence of Eni in the territory, will increase overall production capacity, to update elastomer products portfolio and to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

#### **PRODUCTION CYCLE OF REFINED PRODUCTS IN 2018**



## 1. Refining

Eni is active in the refining segment in Italy and Germany. Furthermore, in Italy, Eni has converted the former Venice refinery into green refinery (the first case in the world of transformation in biorefinery) and also started the green reconversion project in the industrial site of Gela.

In 2018, Eni refinery capacity (balanced with conversion capacity)

was approximately 27.4 mmtonnes (equal to 548 kbbl/d), with a conversion index of 54%.

Eni's 100% owned refineries have a balanced capacity of 19.4 mmtonnes (equal to 388 kbbl/d), with a 56% conversion index. In 2018, Eni's refineries throughputs in Italy and outside Italy were 23.23 mmtonnes down by 3.3% or 0.79 mmtonnes from 2017.

#### Refining system in 2018

	Ownership	Balanced refining capacity (Eni's share)	Utilization rate (Eni's share)	Conversion index <sup>(a)</sup>	Fluid catalytic cracking (FCC) <sup>(b)</sup>	Residue conversion <sup>(b)</sup>	Hydrocracking <sup>(b)</sup>	Visbreaking/ Thermal Cracking <sup>(b)</sup>
	(%)	(kbbl/d)	(%)	(%)	(kbbl/d)	(kbbl/d)	(kbbl/d)	(kbbl/d)
Wholly-owned refineries		388	90	56	34	40	71	29
Italy								
Sannazzaro	100	200	93	74	34	14	51	29
Taranto	100	104	73	56		26	20	
Livorno	100	84	100	11				
Partially-owned refineries		160	94	52	143	25	75	27
Italy								
Milazzo	50	100	99	60	45	25	32	
Germany								
Vohburg/Neustadt (Bayernoil)	20	41	77	36	49		43	
Schwedt	8.33	19	100	42	49			27
TOTAL		548	91	54	177	65	146	56

- (a) Conversion index: catalytic cracking equivalent capacity/topping capacity (%wt).
- (b) Conversion unit capacities are 100%

#### Italy

Eni's refining system in Italy is composed by three wholly-owned refineries (Sannazzaro, Livorno and Taranto) and a 50% interest in the Milazzo refinery. Each of Eni's refineries in Italy has operating and strategic features that aim at maximizing the value associated to the asset structure, the geographic location with respect to end markets and the integration with Eni's other activities.

Sannazzaro: refinery has a balanced refining capacity of 200 kbbl/d and a conversion index of 74%. Located in the Po Valley, in the center of the North Italy, Sannazzaro is one of the most efficient refineries in Europe. The high flexibility and conversion capacity of this refinery allows it to process a wide range of feedstock. The main equipments in the refinery are: two primary distillation columns and two associated vacuum units, three desulphurization units, a fluid catalytic cracker (FCC), two hydrocracking unit for the conversion of middle distillates (HDC), two reforming units, a visbreaking thermal conversion unit integrated with a gasification producing a syngas used in a combined cycle power generation, and finally the Eni Slurry Technology (EST) plant, started up in 2013. The EST plant exploits a proprietary technology to convert extra heavy crude residues (vacuum and visbreaking tar) into naphtha and middle distillates (in particular gasoil), with a conversion factor of 95%.

**Taranto:** refinery has a balanced refining capacity of 104 kbbl/d and a conversion index of 56%. Taranto has a strong market position due to the fact that is the only refinery in southern continental Italy, and is upstream integrated with the Val d'Agri fields in Basilicata [Eni 60.77%] through a pipeline. The main equipments are a

topping-vacuum unit, an hydrocracking, a platforming and two desulphurization units.

**Livorno:** refinery, with a balanced refining capacity of 84 kbbl/d and a conversion index of 11%, is dedicated to the production of lubricants and specialties. The refinery is connected by pipeline to a depot in Florence (Calenzano). The refinery has a topping-vacuum unit, a platforming unit, two desulphurization units and a de-aromatization unit (DEA) — for the production of fuels; a propane de-asphalting (PDA), aromatics extraction and de-waxing units, for the production of base oils; a blending and filling plant — for the production of finished lubricants.

**Milazzo:** jointly-owned by Eni and Kuwait Petroleum Italy, the refinery has balanced refining capacity of 100 kbbl/d (net to Eni) and a conversion index of 60%. Located on the Northern coast of Sicily, it is provided with two primary distillation columns and a vacuum unit, two desulphurization units, a fluid catalytic cracker (FCC), one hydrocracking unit for the conversion of middle distillates (HDC), one reforming unit and one unit devoted to the residue treatment process (LC-Finer).

#### **Outside Italy**

In Germany, Eni's share in the Schwedt refinery is 8.33% and 20% in Bayernoil, an integrated industrial hub that includes Vohburg and Neustadt refineries. Eni's refining capacity in Germany is approximately 60 kbbl/d mainly to supply Eni's distribution network in Bayaria and Eastern Germany.

# 2. Green Refining<sup>1</sup>

#### Green refineries

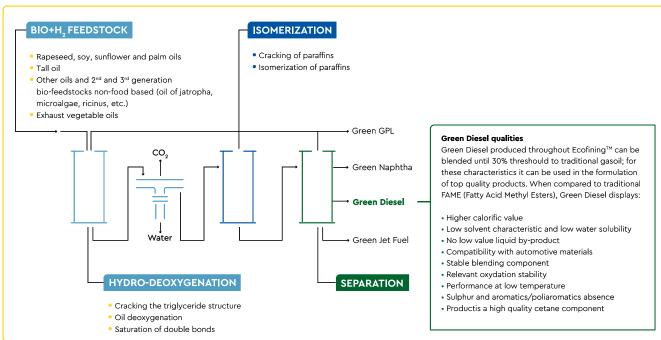
	Ownership share	Capacity (2018)	Capacity (at regime)	Throughput (2018)
Wholly owned	[%]	(ktonnes/y)	(ktonnes/y)	(ktonnes/y)
Venice	100	360	560	253
Gela	100	-	750	-
Total		360	1,310	253

Venice: green refinery entered into production in June 2014, with a production capacity of 360 ktonnes/y. The refinery exploits the proprietary Ecofining™ technology to transform vegetable oil in hydrogenated bio-fuels. A second phase of development is underway. At full capacity, the refinery production will satisfy approximately half of Eni bio-fuels needs required for being compliant with the EU environmental normative aimed at reducing CO₂ emissions.

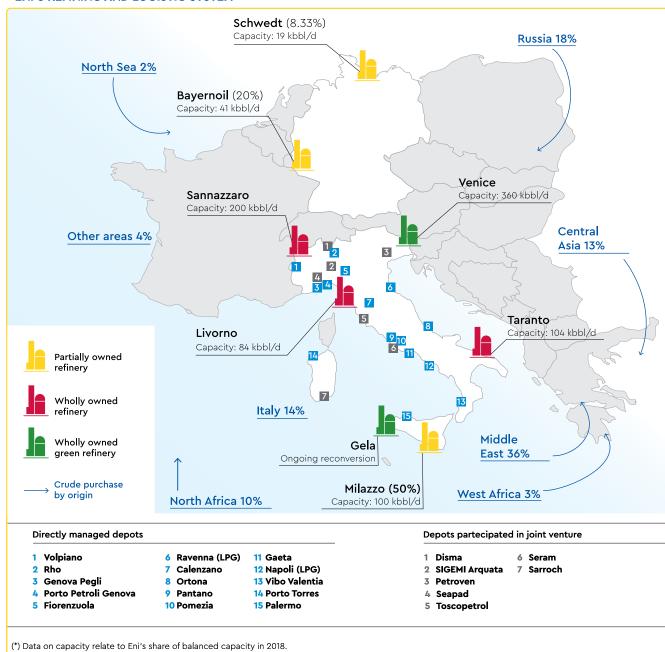
**Gela:** in November 2014, Eni defined with the Ministry for Economic Development, the Region of Sicily and interested stakeholders a plan to reconvert this plant in a biorefinery. In August 2017 the project obtained the environmental impact assessment and

authorization (VIA/AIA) by the Italian Ministry for Environment, Land and Sea Protection and the Ministry of Cultural Heritage. Upgrading works have progressed in 2018. The project is expected to come on stream in 2019. The refinery will have a capacity of 750 ktonnes/y. The conversion will leverage on the application of the Ecofining™ proprietary technology, developed and licensed by Eni, to convert unconventional and second generation raw materials into green diesel, a highly sustainable biofuel. The plant properties will allow the production of green diesel in compliance with the last regulatory constraints in terms of reduction of GHG emissions throughout the whole production chain, deploying the full capacity in process second-generation feedstock.

#### **PRODUCTION CYCLE OF BIO-FUELS**



#### **ENI'S REFINING AND LOGISTIC SYSTEM(\*)**



# 3. Logistics

Eni is a leading operator in the Italian oil and refined products storage and transportation business. It owns an integrated infrastructure consisting of 15 directly managed depots and a network of oil and refined products pipelines. Eni logistic model is organized in three hubs (Southern, Central and Northern Italy). These hubs manage the product flows in order to guarantee high safety and technical standards, as well as cost effectiveness. Eni is also in joint venture with seven Italian operators

(Sigemi, Petroven, Seram, Disma, Seapad, Toscopetrol e Sarroch) to optimize its logistic footprint and increase efficiency. Eni transports oil and refined products: (i) by sea through spot and long-term contracts of tanker ships; and (ii) through a proprietary pipeline network extending approximately 1,149 kilometers in operation. Secondary distribution to retail and wholesale markets is outsourced to independent tanker carriers, selected as market leaders in their own field.

# 4. Oxygenates

Eni, through its subsidiary Ecofuel (Eni's interest 100%), sells 0.9 mmtonnes/y of oxygenates, mainly ethers (approximately 3% of world demand, used as a gasoline octane booster), and methanol (mainly for petrochemical use). About 79% of oxygenates are produced in Eni's plants in Italy (Ravenna), in Saudi Arabia (in joint venture with Sabic) and Venezuela (in joint venture with Pequiven) and the remaining 21% is purchased.

#### **MARKETING**

## 1. Retail sales in Italy

Eni is a leader in the Italian retail market of refined products with a 24% market share, slightly decreased from 2017 (24.3%). In 2018, retail sales in Italy were 5.91 mmtonnes, with a slight decrease compared

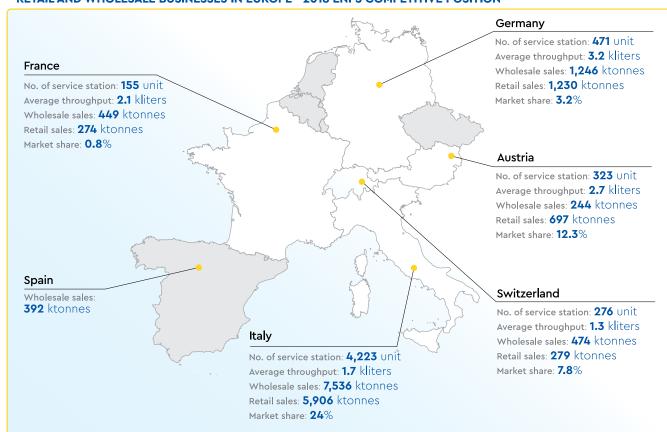
to 2017 (about 100 ktonnes from 2017 or 1.7%). Average gasoline and gasoil throughput (1,589 kliters) was almost unchanged from 2017. As of December 31, 2018, Eni's retail network in Italy consisted of 4,223 service stations, lower by 87 units from December 31, 2017 (4,310 service stations), resulting 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).

# 2. Retail 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, for the event occurred at Bayernoil refinery, and in 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).

#### RETAIL AND WHOLESALE BUSINESSES IN EUROPE - 2018 ENI'S COMPETITIVE POSITION



#### 3. Wholesale business

Eni markets fuels on the wholesale market: LPG, naphtha, gasoline, jet fuel, lubricants, fuel oil and bitumen. Major customers are resellers, manufacturing industries, service companies, public utilities and transporters, as well as final users (transporters, condominiums, farmers, fishers, etc.). Eni provides its customers a wide range of

products covering all market requirements leveraging on its expertise on fuels' manufacturing. Customer care and product distribution are supported by a widespread commercial and logistical organization presence all over Italy and articulated in local marketing offices and a network of agents and dealers.

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.

Supplies of feedstock to the petrochemical industry (0.96 mmtonnes) increased by 11.6%.

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.

Other sales in Italy and outside Italy (12.74 mmtonnes) slightly increased by 0.06 mmtonnes, due to higher volumes sold to oil companies.

The marketing of LPG in Italy is supported by the Eni's refining production logistic network made of five bottling plants, 1 owned storage site and three storage sites located in the coasts Livorno, Naples and Ravenna. LPG is used as heating and automotive fuel. In

2018 Eni share of LPG market in Italy was 17.8%. Outside Italy, the main market of Eni is Ecuador, with a market share of 37.3%.

Eni operates six (owned and co-owned) blending and filling plants, in Italy, Spain, Germany, USA, Africa and in the Far East. With a wide range of products composed of over 650 different blends Eni masters international state of the art know-how for the formulation of products for vehicles (engine oil, special fluids and transmission oils) and industries (lubricants for hydraulic systems, industrial machinery and metal processing). In Italy, Eni is leader in the manufacture and sale of lubricant bases, manufactured at Eni's refinery in Livorno. Eni also owns one facility for the production of additives in Robassomero. In 2018, Eni's share of lubricants market in Italy was 19.06%, in Europe 3% and on a worldwide base 1%. Eni sales its products in more than 80 countries by subsidiaries, licensees and distributors.

#### Supply of oil

(mmtonnes)	2018	2017	2016	2015	2014
Equity crude oil	4.14	3.51	3.43	5.04	5.81
Other crude oil	18.48	20.77	19.92	19.76	17.21
Total crude oil purchases	22.62	24.28	23.35	24.80	23.02
Purchases of intermediate products	0.65	0.96	1.35	1.66	2.02
Purchases of products	11.55	10.92	11.20	10.68	11.07
TOTAL PURCHASES	34.82	36.16	35.90	37.14	36.11
Consumption for power generation	(0.35)	(0.34)	(0.37)	(0.41)	(0.57)
Other changes <sup>[a]</sup>	(1.27)	(1.76)	(1.92)	(1.22)	(0.62)
TOTAL AVAILABILITY	33.20	34.06	33.61	35.51	34.92

<sup>(</sup>a) Include changes in inventories, transport declines, consumption and losses.

#### Availability of refined products

	(mmtonnes)	2018	2017	2016	2015	2014
ITALY						
At wholly-owned refineries		16.78	16.03	17.37	18.37	16.24
Less input on account of third parties		(1.03)	(0.34)	(0.27)	(0.38)	(0.58)
At affiliate refineries		4.93	5.46	4.51	4.73	4.26
Refinery throughputs on own account		20.68	21.15	21.61	22.72	19.92
Consumption and losses		(1.38)	(1.36)	(1.53)	(1.52)	[1.33]
Products available for sale		19.30	19.79	20.08	21.20	18.59
Purchases of refined products and change in inventories		7.50	6.74	6.28	6.22	7.19
Products transferred to operations outside Italy		(0.54)	(0.46)	(0.39)	(0.48)	(0.72)
Consumption for power generation		(0.35)	(0.34)	(0.37)	(0.41)	(0.57)
Sales of products		25.91	25.73	25.60	26.53	24.49
GREEN REFINERY THROUGHPUTS		0.25	0.24	0.21	0.20	0.13
OUTSIDE ITALY						
Refinery throughputs on own account		2.55	2.87	2.91	3.69	5.11
Consumption and losses		(0.20)	(0.22)	(0.22)	(0.23)	(0.21)
Products available for sale		2.35	2.65	2.69	3.46	4.90
Purchases of refined products and change in inventories		4.12	4.36	4.72	4.77	4.48
Products transferred from Italian operations		0.54	0.46	0.40	0.48	0.72
Sales of products		7.01	7.47	7.81	8.71	10.10
REFINERY THROUGHPUTS ON OWN ACCOUNT IN ITALY AND OUTSIDE ITALY		23.23	24.02	24.52	26.41	25.03
of which: refinery throughputs of equity crude on own account		4.14	3.51	3.43	5.04	5.81
TOTAL SALES OF REFINED PRODUCTS IN ITALY AND OUTSIDE ITALY		32.92	33.20	33.41	35.24	34.59
Crude oil sales		0.28	0.86	0.20	0.27	0.33
TOTAL SALES		33.20	34.06	33.61	35.51	34.92

# Production and sales

(mmtonnes)	2018	2017	2016	2015	2014
Products:					
Gasoline	5.97	5.88	6.13	6.36	6.07
Gasoil	8.81	8.99	9.93	10.66	10.31
Jet fuel/kerosene	1.60	1.43	1.49	1.51	1.45
Fuel oil	2.25	2.60	2.43	2.46	2.04
LPG	0.42	0.56	0.39	0.44	0.49
Lubricants	0.59	0.46	0.44	0.54	0.54
Petrochemical feedstock	0.72	0.97	1.46	1.86	1.67
Other	1.28	1.56	0.49	0.84	0.92
Total products	21.64	22.44	22.77	24.67	23.49
Sales:					
Italy	25.91	25.73	25.60	26.53	24.48
Gasoline	1.90	1.95	2.02	1.97	2.00
Gasoil	7.28	7.43	7.69	7.64	7.61
Jet fuel/kerosene	1.98	1.96	1.82	1.60	1.59
Fuel oil	0.07	0.08	0.13	0.12	0.12
LPG	0.58	0.59	0.58	0.58	0.59
Lubricants	0.08	0.08	0.08	0.08	0.09
Petrochemical feedstock	0.96	0.86	1.02	1.17	0.89
Other	13.06	12.78	12.26	13.37	11.59
Rest of Europe	6.56	7.03	7.38	8.29	9.69
Gasoline	1.30	1.21	1.27	1.51	1.80
Gasoil	3.16	3.29	3.44	3.98	4.48
Jet fuel/kerosene	0.33	0.50	0.62	0.65	0.55
Fuel oil	0.13	0.13	0.13	0.17	0.18
LPG	0.07	0.08	0.07	0.10	0.14
Lubricants	0.09	0.09	0.08	0.09	0.09
Other	1.48	1.73	1.77	1.79	2.45
Extra Europe	0.45	0.44	0.43	0.42	0.42
LPG	0.44	0.43	0.42	0.41	0.41
Lubricants	0.01	0.01	0.01	0.01	0.01
Worldwide					
Gasoline	3.20	3.16	3.29	3.48	3.80
Gasoil	10.44	10.72	11.13	11.62	12.09
Jet fuel/kerosene	2.31	2.46	2.44	2.25	2.14
Fuel oil	0.20	0.21	0.26	0.29	0.30
LPG	1.09	1.10	1.07	1.09	1.14
Lubricants	0.18	0.18	0.17	0.18	0.19
Petrochemical feedstock	0.96	0.86	1.02	1.17	0.89
Other	14.54	14.51	14.03	15.16	14.04
TOTAL WORLDWIDE SALES	32.92	33.20	33.41	35.24	34.59

# Sales in Italy and outside Italy by market

	(mmtonnes)	2018	2017	2016	2015	2014
Retail		5.91	6.01	5.93	5.96	6.14
Wholesale		7.54	7.64	8.16	7.84	7.57
		13.45	13.65	14.09	13.80	13.71
Petrochemicals		0.96	0.86	1.02	1.17	0.89
Other markets		11.50	11.22	10.49	11.56	9.89
Sales in Italy		25.91	25.73	25.60	26.53	24.49
Retail rest of Europe		2.48	2.53	2.66	2.93	3.07
Wholesale rest of Europe		2.82	3.03	3.18	3.83	4.60
Wholesale outside Europe		0.47	0.45	0.43	0.43	0.43
Retail and wholesale outside Italy		5.77	6.01	6.27	7.19	8.10
Other markets		1.24	1.46	1.54	1.52	2.00
Sales outside Italy		7.01	7.47	7.81	8.71	10.10
TOTAL SALES		32.92	33.20	33.41	35.24	34.59

# Retail and wholesale sales of refined products

	(mmtonnes)	2018	2017	2016	2015	2014
Italy		13.45	13.65	14.09	13.80	13.71
Retail sales		5.91	6.01	5.93	5.96	6.14
Gasoline		1.46	1.51	1.53	1.60	1.71
Gasoil		4.03	4.08	3.99	3.96	4.07
LPG		0.38	0.38	0.36	0.36	0.32
Other		0.04	0.04	0.04	0.04	0.04
Wholesale sales		7.54	7.64	8.16	7.84	7.57
Gasoil		3.25	3.36	3.70	3.69	3.54
Fuel oil		0.07	0.08	0.14	0.12	0.12
LPG		0.20	0.21	0.22	0.22	0.28
Gasoline		0.44	0.44	0.49	0.38	0.30
Lubricants		0.08	0.08	0.08	0.07	0.09
Bunker		0.80	0.85	1.01	1.07	0.91
Jet fuel		1.98	1.96	1.82	1.60	1.59
Other		0.72	0.66	0.70	0.69	0.74
Outside Italy (retail + wholesale)		5.77	6.01	6.27	7.19	8.10
Gasoline		1.30	1.21	1.27	1.51	1.80
Gasoil		3.16	3.29	3.44	3.98	4.48
Jet fuel		0.33	0.50	0.62	0.65	0.56
Fuel oil		0.14	0.13	0.13	0.17	0.18
Lubricants		0.09	0.10	0.10	0.10	0.10
LPG		0.50	0.51	0.49	0.51	0.55
Other		0.25	0.27	0.22	0.27	0.43
TOTAL RETAIL AND WHOLESALE SALES		19.22	19.66	20.36	20.99	21.81

#### Service stations

		2018	2017	2016	2015	2014
Italy	(units)	4,223	4,310	4,396	4,420	4,592
Ordinary stations		4,108	4,192	4,273	4,297	4,468
Highway stations		115	118	123	123	124
Outside Italy		1,225	1,234	1,226	1,426	1,628
Germany		471	478	472	472	469
France		155	157	156	154	160
Austria/Switzerland		599	599	598	604	591
Eastern Europe					196	408
Service stations selling premium products		4,675	4,488	4,405	4,466	4,949
of which service stations selling Green Diesel		3,537	3,477	3,484		
"Multi-Energy" service stations		4	4	4	6	6
Service stations selling LPG and natural gas		1,043	1,050	1,073	1,176	1,206
Non-oil sales	(€ million)	144	144	146	143	151

# Average throughput

	(kliters/no. of service stations)	2018	2017	2016	2015	2014
Italy		1,589	1,588	1,551	1,569	1,534
Germany		3,247	3,336	3,325	3,351	3,299
France		2,144	2,302	2,360	2,244	2,139
Austria/Switzerland		2,018	2,009	1,939	1,923	1,891
Eastern Europe					1,802	1,979
Average throughput		1,776	1,783	1,742	1,754	1,725

# Market shares in Italy

[%]	2018	2017	2016	2015	2014
Retail	24.0	24.3	24.3	24.5	25.6
Gasoline	20.2	20.6	20.7	21.1	22.3
Gasoil	25.8	26.2	26.4	26.5	27.9
LPG (automotive)	23.6	22.8	21.6	22.2	20.1
Lubricants	45.0	35.0	38.5	24.5	25.1
Wholesale	24.8	25.7	28.4	27.5	26.4
Gasoil	22.3	23.3	27.2	27.1	27.1
Fuel oil	12.7	14.0	21.5	11.1	13.6
Bunker	24.7	27.2	33.8	40.8	39.1
Lubricants	18.8	19.3	20.4	19.4	23.2

# Retail market shares outside Italy

(%)	2018	2017	2016	2015	2014
Central Europe					
Austria	12.3	12.4	12.4	12.6	12.1
Switzerland	7.8	7.8	8.3	8.3	7.3
Germany	3.2	3.3	3.3	3.3	3.2
France	0.8	0.8	0.9	0.8	0.8
Eastern Europe					
Hungary				12.1	11.9
Czech Republic				8.5	8.9
Slovakia				9.1	9.5
Slovenia				2.4	2.4

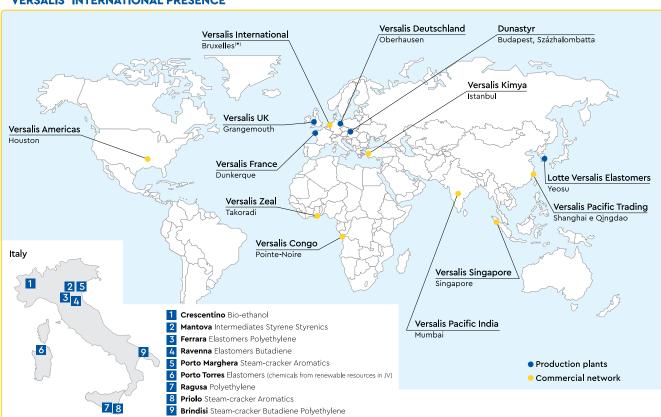
# Capital expenditure

	(€ million)	2018	2017	2016	2015	2014
Italy		661	463	363	349	466
Outside Italy		65	63	58	59	71
		726	526	421	408	537
Refining, supply and logistic		587	395	298	282	362
Italy		578	389	293	274	357
Outside Italy		9	6	5	8	5
Marketing		139	131	123	126	175
Italy		83	74	70	75	109
Outside Italy		56	57	53	51	66
TOTAL		726	526	421	408	537

## **CHEMICALS**

Eni through Versalis engages in the production and marketing of petrochemical products, basic petrochemicals, intermediates, polyethylene, styrenics and elastomers, leveraging on a wide range of patents (310), 14 production sites, 6 research centers (Ferrara, Mantova, Novara, Porto Torres, Ravenna, Rivalta), as well as a large and efficient retail network located in 26 different Countries.

#### **VERSALIS' INTERNATIONAL PRESENCE**



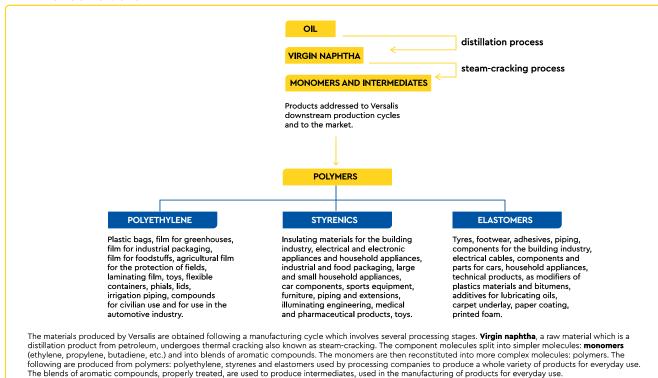
(\*) Versalis International manages the activities of the European commercial branches (France, UK, Germany, Swiss, Austria, Hungary, Romania, Poland, Czech Rep., Slovakia, Russia, Denmark, Sweden, Spain, Greece), coordinates the companies in Turkey and in US, and delivers services to manufacturing companies in France, Germany, Hungary and UK.

The main objective of basic petrochemicals is granting the adequate availability of monomers (ethylene, butadiene and benzene) which represent the feedstock for further production processes: in particular olefins production is strictly linked with the polyethylene and elastomers business, aromatics grant the benzene availability necessary to produce intermediate products used in the production of resins, artificial fibres and polystyrene. In polymers business Versalis is one of the most relevant European producers of elastomers, where it is present in almost all the relevant sectors (in particular, in the

automotive industry), polystyrene and polyethylene, whose most relevant use is in flexible packaging.

Versalis is also committed in the development of chemicals based on use of renewable resources, through an integrated technological platform. In November 2018 was completed the acquisition of bio-activities of the Mossi & Ghisolfi Group. The new assets will allow producing "advanced" bio-ethanol (i.e. obtained by non-food feedstock) and, potentially, other chemical bio-intermediates.

#### THE PRODUCTION CYCLE



Versalis offers a product portfolio oriented to a constantly evolving market, thanks to a global strategy, enhancement of research and licensing, and international development. Versalis boasts industrial expertise and a wide range of proprietary technologies, an extensive

Versalis is engaged in developing a business model in line with the principles of circular economy, strategic drivers applied to processes and products throughout their life cycle. Versalis develops its activities according to three guidelines based on innovation: feedstock diversification, eco-design projects and development of recycling technologies of polymers.

retail network and after-sale support activities.

Among the chemical international development, the Lotte Versalis Elastomers (LVE) joint venture was established with South Korean company Lotte Chemical, starting an industrial plant for the elastomers production to be used in high value applications. Versalis is present in the United States with retail networks, mainly marketing elastomers. In Ghana and Congo, Versalis plays an active role in the Oil & Gas sector with the oilfield chemicals portfolio.

#### Business areas

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%].

#### Intermediates

Basic petrochemicals are one of the pillars of the activities of Versalis, whose products have a range of important industrial uses, such as the production of polyethylene, polypropylene, PVC and polystyrene. They are also used in the production of petrochemical intermediates that converge, in turn, into a range of other productive processes: plastics, rubbers, fibres, solvents and lubricants.

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**

In the polymers business Versalis is active in the production of:

- polyethylene, that represent approximately a 40% of total volume of
  plastic materials produced worldwide; it is a basic plastic material,
  used as a raw material by companies that transform it into a wide
  range of goods, from basic product like film for packaging, phials,
  industrial containers to more sophisticated like automotive tanks,
  solar panels, medical prostheses;
- styrenics that are polymeric materials based on styrenes that
  are used in a very large number of sectors through a range of
  transformation technologies. The most common applications are
  for industrial packaging and in the food industry, small and large
  electrical appliances, building isolation, electrical and electronic
  devices, household appliances, car components and toys;
- elastomers that are polymers characterized by high elasticity
  that allow them to regain their original shape even after having
  been subjected to extensive deformation. Versalis has a leading
  position in this sector and produces a wide range of products for the
  following sectors: tyres, footwear, adhesives, building components,

pipes, electrical cables, car components and sealing, household appliances; they can be used as modifiers for plastics and bitumens, as additives for lubricating oils (solid elastomers); carpet backing, paper coating, moulded foams (synthetic latex). Versalis is one of the world's major producers of elastomers and synthetic latex.

Polymers revenues ( $\[ \le \]$ 2,589 million) decreased by  $\[ \le \]$ 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%).

#### Product availability

Froduct availability	(ktonnes)	2018	2017	2016	2015	2014
Intermediates		7,130	6,595	6,580	6,304	5,615
Polymers		2,353	2,360	2,229	2,366	2,311
Production		9,483	8,955	8,809	8,670	7,926
Consumption and losses		(5,085)	(4,566)	(4,917)	(4,454)	(3,834)
Purchases and change in inventories		540	257	853	597	589
TOTAL AVAILABILITY		4,938	4,646	4,745	4,813	4,681
Intermediates		3,087	2,748	2,956	2,895	2,779
Polymers		1,851	1,898	1,789	1,918	1,902
TOTAL SALES		4,938	4,646	4,745	4,813	4,681

#### Revenues by geographic area

	(€ million)	2018	2017	2016	2015	2014
Italy		2,292	2,201	1,930	2,154	2,565
Rest of Europe		2,183	2,145	2,107	2,326	2,433
Asia		481	352	99	162	157
Americas		109	93	53	61	105
Africa		58	57	7	13	10
Other areas			3			14
		5,123	4,851	4,196	4,716	5,284

Revenues	by prod	uct
----------	---------	-----

(€ million)	2018	2017	2016	2015	2014
Olefins	1,666	1,308	1,087	1,275	1,305
Aromatics	340	328	290	327	610
Derivatives	365	352	311	297	394
Elastomers	665	699	539	543	628
Styrenics	749	723	647	764	745
Polyetilene	1,175	1,308	1,194	1,383	1,428
Other	163	133	128	126	174
	5,123	4,851	4,196	4,716	5,284

expenditure

	(€ million)	2018	2017	2016	2015	2014
		151	203	243	220	282
of which:						
- upkeeping		21	46	34	33	26
- plant upgrades		84	114	162	141	161
- HSE		26	34	37	36	30
- energy recovery		2	2	5	3	28

# **TABLES**

# FINANCIAL DATA

# Profit and loss account

(€ million)	2018	2017	2016	2015	2014
Net sales from operations	75,822	66,919	55,762	72,286	98,218
Other income and revenues	1,116	4,058	931	1,252	1,079
Total revenues	76,938	70,977	56,693	73,538	99,297
Purchases, services and other	(56,037)	(52,461)	[44,124]	(56,848)	(77,404)
Payroll and related costs	(3,093)	(2,951)	(2,994)	(3,119)	(2,929)
Total operating expenses	(59,130)	(55,412)	(47,118)	(59,967)	(80,333)
Other operating income (expense)	129	(32)	16	(485)	145
Depreciation, depletion, amortization	(6,988)	(7,483)	(7,559)	(8,940)	(7,676)
Impairment losses (impairments reversals), net	(866)	225	475	(6,534)	(1,270)
Write-off	(100)	(263)	(350)	(688)	(1,198)
Operating profit (loss)	9,983	8,012	2,157	(3,076)	8,965
Finance (expense) income	(971)	(1,236)	(885)	(1,306)	(1,167)
Net income from investments	1,095	68	(380)	105	476
Profit (loss) before income taxes	10,107	6,844	892	(4,277)	8,274
Income taxes	(5,970)	(3,467)	(1,936)	(3,122)	(6,466)
Tax rate (%)	59.1	50.7			78.1
Net profit (loss) - continuing operations	4,137	3,377	(1,044)	(7,399)	1,808
Attributable to:					
- Eni's shareholders	4,126	3,374	(1,051)	(7,952)	1,720
- Non-controlling interest	11	3	7	553	88
Net profit (loss) - discontinued operations			(413)	(1,974)	(949)
Attributable to:					
- Eni's shareholders			(413)	(826)	(417)
- Non-controlling interest				[1,148]	(532)
Net profit (loss)	4,137	3,377	(1,457)	(9,373)	859
Attributable to:					
- Eni's shareholders	4,126	3,374	[1,464]	(8,778)	1,303
- Non-controlling interest	11	3	7	(595)	[444]
Net profit (loss) attributable to Eni's shareholders - continuing operations	4,126	3,374	(1,051)	(7,952)	1,720
Exclusion of inventory holding (gains) losses	69	(156)	[120]	782	1,008
Exclusion of special items	388	(839)	831	8,487	1,471
Adjusted net profit (loss) attributable to Eni's shareholders - continuing operations	4,583	2,379	(340)	1,317	4,199
Adjusted net profit (loss) attributable to Eni's shareholders - discontinued operations				(642)	(343)
Adjusted net profit (loss) attributable to Eni's shareholders	4,583	2,379	(340)	675	3,856

# Summarized Group Balance Sheet

(€ million)	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014
Fixed assets				'	
Property, plant and equipment	60,302	63,158	70,793	68,005	75,991
Inventories - Compulsory stock	1,217	1,283	1,184	909	1,581
Intangible assets	3,170	2,925	3,269	3,034	4,420
Equity-accounted investments and other investments	7,963	3,730	4,316	3,513	5,187
Receivables and securities held for operating purposes	1,314	1,698	1,932	2,273	1,881
Net payables related to capital expenditure	(2,399)	(1,379)	(1,765)	[1,284]	(1,971)
	71,567	71,415	79,729	76,450	87,089
Net working capital					
Inventories	4,651	4,621	4,637	4,579	7,555
Trade receivables	9,520	10,182	11,186	12,616	19,709
Trade payables	(11,645)	(10,890)	(11,038)	(9,605)	(15,015)
Tax payables and provisions for net deferred tax liabilities	(1,104)	(2,387)	(3,073)	(4,137)	(3,330)
Provisions	(11,886)	(13,447)	(13,896)	(15,375)	(15,882)
Other current assets and liabilities	(860)	287	1,171	1,827	222
	[11,324]	(11,634)	(11,013)	(10,095)	(6,741)
Provisions for employee post-retirement benefits	(1,117)	(1,022)	(868)	(1,123)	(1,313)
Discontinued operations and assets held for sale including related liabilities	236	236	14	9,048	291
CAPITAL EMPLOYED, NET	59,362	58,995	58,927	74,280	79,326
Shareholders' equity					
attributable to: - Eni's shareholders	51,016	48,030	53,037	55,493	63,186
- Non-controlling interest	57	49	49	1,916	2,455
	51,073	48,079	53,086	57,409	65,641
Net borrowings	8,289	10,916	14,776	16,871	13,685
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	59,362	58,995	67,862	74,280	79,326

# Summarized Group Cash Flow Statement

(€ million)	2018	2017	2016	2015	2014
Net profit (loss) - continuing operations	4,137	3,377	(1,044)	(7,399)	1,808
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	17,216	10,898
- net gains on disposal of assets	(474)	(3,446)	(48)	(577)	(224)
- dividends, interest, taxes and other changes	6,168	3,650	2,229	3,215	6,600
Changes in working capital related to operations	1,632	1,440	2,112	4,781	2,199
Dividends received, taxes paid, interest (paid) received during the period	(5,473)	(3,624)	(3,349)	(4,361)	(6,812)
Net cash provided by operating activities - continuing operations	13,647	10,117	7,673	12,875	14,469
Net cash provided by operating activities - discontinued operations				(1,226)	273
Net cash provided by operating activities	13,647	10,117	7,673	11,649	14,742
Capital expenditure - continuing operations	(9,119)	(8,681)	(9,180)	(10,741)	(11,178)
Capital expenditure - discontinued operations				(561)	(694)
Capital expenditure	(9,119)	(8,681)	(9,180)	(11,302)	(11,872)
Investments and purchase of consolidated subsidiaries and businesses	(244)	(510)	[1,164]	(228)	(408)
Disposals	1,242	5,455	1,054	2,258	3,684
Other cash flow related to capital expenditure, investments and disposals	942	(373)	465	(1,351)	435
Free cash flow	6,468	6,008	(1,152)	1,026	6,581
Borrowings (repayment) of debt related to financing activities	(357)	341	5,271	(300)	(414)
Changes in short and long-term financial debt	320	(1,712)	(766)	2,126	(628)
Dividends paid and changes in non-controlling interests and reserves	(2,957)	(2,883)	(2,885)	(3,477)	(4,434)
Effect of changes in consolidation, exchange differences and cash cash eqiuvalent related to discontinued operations	18	(65)	(3)	(780)	78
NET CASH FLOW	3,492	1,689	465	(1,405)	1,183
Net cash provided by operating activities at replacement cost	12,111	8,458	5,386	8,510	12,805

# Changes in net borrowings

	(€ million)	2018	2017	2016	2015	2014
Free cash flow		6,468	6,008	(1,152)	1,026	6,581
Net borrowings of acquired companies		(18)				(19)
Net borrowings of divested companies		(499)	261	5,848	83	
Exchange differences on net borrowings and other changes		(367)	474	284	(818)	(850)
Dividends paid and changes in non-controlling interest and reserves		(2,957)	(2,883)	(2,885)	(3,477)	(4,434)
CHANGE IN NET BORROWINGS		2,627	3,860	2,095	(3,186)	1,278

# Net sales from operations

(€ million)	2018	2017	2016	2015	2014
Exploration & Production	25,744	19,525	16,089	21,436	28,488
Gas & Power	55,690	50,623	40,961	52,096	73,434
Refining & Marketing and Chemicals	25,216	22,107	18,733	22,639	28,994
Corporate and other activities	1,589	1,462	1,343	1,468	1,429
Consolidation adjustment	(32,417)	(26,798)	(21,364)	(25,353)	(34,181)
	75,822	66,919	55,762	72,286	98,218

#### Net sales to customers

(€ million)	2018	2017	2016	2015	2014
Exploration & Production	9,943	7,131	6,378	9,321	11,870
Gas & Power	43,109	39,846	32,063	42,179	59,183
Refining & Marketing and Chemicals	22,594	19,771	17,128	20,632	26,952
Corporate and other activities	176	171	193	154	159
Impact of unrealized intragroup profit elimination					54
	75,822	66,919	55,762	72,286	98,218

# Net sales by geographic area of destination

[€ million]	2018	2017	2016	2015	2014
Italy	25,279	21,925	21,280	24,405	29,234
Other EU Countries	20,408	19,791	15,808	20,730	29,298
Rest of Europe	7,052	5,911	4,804	7,125	11,975
Americas	5,051	5,154	3,212	4,217	5,763
Asia	9,585	7,523	5,619	9,086	12,840
Africa	8,246	6,428	4,865	6,482	8,786
Other areas	201	187	174	241	322
Total outside Italy	50,543	44,994	34,482	47,881	68,984
	75,822	66,919	55,762	72,286	98,218

# Net sales by geographic area of origin

(€ million)	2018	2017	2016	2015	2014
Italy	51,733	45,764	37,515	47,287	66,763
Other EU Countries	8,004	7,772	7,899	9,996	12,470
Rest of Europe	2,496	2,096	1,560	2,561	3,215
Americas	3,627	3,986	2,257	2,893	10,024
Africa	1,165	616	862	1,687	3,528
Asia	8,599	6,504	5,496	7,630	1,912
Other areas	198	181	173	232	306
Total outside Italy	24,089	21,155	18,247	24,999	31,455
	75,822	66,919	55,762	72,286	98,218

# Purchases, services and other

	€ million)	2018	2017	2016	2015	2014
Production costs - raw, ancillary and consumable materials and goods		41,125	35,907	27,783	39,812	60,987
Production costs - services		10,625	12,228	12,727	13,197	12,414
Operating leases and other		1,820	1,684	1,672	2,205	2,655
Net provisions		1,120	886	505	644	340
Gains on price adjustments under overlifting/underlifting			145	240	278	409
Other expenses		1,130	931	666	528	424
less:						
capitalized direct costs associated with self-constructed tangible and intangible assets		(198)	(233)	(315)	(423)	(319)
		55,622	51,548	43,278	56,241	76,910

# Principal accountant fees and services

[€ thousand]	2018	2017	2016	2015	2014
Audit fees	25,349	23,193	21,433	33,752	27,607
Audit-related fees	1,568	1,712	1,874	1,138	1,287
Tax fees				3	11
All other fees		12			
	26,917	24,917	23,307	34,893	28,905

## Payroll and related costs

(€ million)	2018	2017	2016	2015	2014
Wages and salaries	2,409	2,447	2,491	2,648	2,590
Social security contributions	448	441	445	453	445
Cost related to defined benefit plans and defined contribution plans	220	113	81	85	73
Other costs	170	162	202	182	160
less:					
capitalized direct costs associated with self-constructed tangible and intangible assets	(154)	(212)	(225)	(249)	(339)
	3,093	2,951	2,994	3,119	2,929

# $Depreciation, depletion, amortization, impairments \ (impairments\ reversal)\ net\ and\ write-off$

[€ million]	2018	2017	2016	2015	2014
Exploration & Production	6,152	6,747	6,772	8,080	6,916
Gas & Power	408	345	354	363	335
Refining & Marketing and Chemicals	399	360	389	454	381
Corporate and other activities	59	60	72	71	70
Impact of unrealized intragroup profit elimination	(30)	(29)	(28)	(28)	(26)
Total depreciation, depletion and amortization	6,988	7,483	7,559	8,940	7,676
Exploration & Production	726	(158)	(700)	5,212	851
Gas & Power	(71)	(146)	81	152	25
Refining & Marketing and Chemicals	193	54	104	1,150	380
Corporate and other activities	18	25	40	20	14
Impairment losses (impairment reversal), net	866	(225)	(475)	6,534	1,270
Total DD&A and impairment losses (impairment reversal), net	7,854	7,258	7,084	15,474	8,946
Write-off	100	263	350	688	1,198
	7,954	7,521	7,434	16,162	10,144

# Operating profit by segment

(€ million)	2018	2017	2016	2015	2014
Exploration & Production	10,214	7,651	2,567	(959)	10,727
Gas & Power	629	75	(391)	(1,258)	64
Refining & Marketing and Chemicals	(380)	981	723	(1,567)	(2,811)
Corporate and other activities	(691)	(668)	(681)	(497)	(518)
Impact of unrealized intragroup profit elimination	211	(27)	(61)	1,205	1,503
	9,983	8,012	2,157	(3,076)	8,965

## 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 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 reversals), net		726	(71)	193	18		866
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 <sup>[a]</sup>		(366)	(4)	11	(697)		(1,056)
Net income (expense) from investments <sup>[a]</sup>		285	9	(2)	5		297
Income taxes <sup>[a]</sup>		(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 reversals), net		(154)	[146]	54	25		(221)
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 <sup>[a]</sup>		(50)	10	5	(699)		(734)
Net income (expense) from investments $^{[a]}$		408	(9)	19	22		440
Income taxes <sup>(a)</sup>		(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

<sup>(</sup>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 reversals), net		(684)	81	104	40		(459)		(459)
impairment of exploration projects		7					7		7
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 <sup>(a)</sup>		(55)	6	1	(721)		(769)		(769)
Net income (expense) from investments $^{[a]}$		68	(20)	32	(6)		74		74
Income taxes <sup>[a]</sup>	(:	1,999)	74	(197)	188	(19)	(1,953)		(1,953)
Tax rate (%)		79.7		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 shareho	olders						(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 shareho	olders						(340)		(340)

<sup>(</sup>a) Excluding special items.

						ë		Disconti	inued ope	rations		s st	
<b>2015</b> (€ million)	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Engineering & Construction	Impact of unrealized intragroup profit elimination	GROUP	Engineering & Construction	Consolidation adjustments	TOTAL	CONTINUING OPERATIONS	Restatement intercompany transactions vs. discontinued operations	CONTINUING OPERATIONS on a standalone basis
Reported operating profit (loss)	(959)	(1,258)	(1,567)	(497)	(694)	(23)	(4,998)	694	1,228	1,922	(3,076)		(4,304)
Exclusion of inventory holding (gains) losses		132	877			127	1,136				1,136		1,136
Exclusion of special items:													
environmental charges			137	88			225				225		225
impairment losses (impairments reversals), net	5,212	152	1,150	20	590		7,124	(590)		(590)	6,534		6.534
impairment of exploration projects	169						169				169		169
gains on disposal of assets	(403)		(8)	4	1		(406)	(1)		(1)	(407)		(407)
risk provisions		226	(5)	(10)			211				211		211
provision for redundancy incentives	15	6	8	1	12		42	(12)		(12)	30		30
commodity derivatives	12	90	68		(6)		164	6	(6)		164		170
exchange rate differences and derivatives	(59)	(9)	5				(63)				(63)		(63)
other	195	535	30	25			785				785		785
Special items of operating profit (loss)	5,141	1,000	1,385	128	597		8,251	(597)	(6)	(603)	7,648		7,654
Adjusted operating profit (loss)	4,182	(126)	695	(369)	(97)	104	4,389	97	1,222	1,319	5,708	(1,222)	4,486
Net finance (expense) income <sup>[a]</sup>	(272)	11	(2)	(686)	(5)		(954)	5	24	29	(925)	(24)	(949)
Net income (expense) from investments <sup>[a]</sup>	254	(2)	69	285	17		623	(17)		(17)	606		606
Income taxes <sup>[a]</sup>	(3,173)	(51)	(250)	107	(212)	(47)	(3,626)	212	(53)	159	(3,467)	53	(3.414)
Tax rate (%)	76.2		32.8				89.4				64.3		82.4
Adjusted net profit (loss)	991	(168)	512	(663)	(297)	57	432	297	1,193	1,490	1,922	(1,193)	729
of which attributable to:													
- non-controlling interest							(243)			848	605		(74)
- Eni's shareholders							675			642	1,317	(679)	803
Reported net profit (loss) attributable to Eni's shareholders							(8,778)			826	(7,952)	(514)	(7,952)
Exclusion of inventory holding (gains) losses							782				782		782
Exclusion of special items							8,671			(184)	8,487		8,487
Restatement of intercompany transactions vs. discontinued operations													(514)
Adjusted net profit (loss) attributable to Eni's shareholders							675			642	1,317		803

<sup>(</sup>a) Excluding special items.

						tion		Discont	nued ope	rations		ST.	
<b>2014</b> [€ million]	Exploration & Production	Gas & Power	Refining & Marketing and Chemicals	Corporate and other activities	Engineering & Construction	Impact of unrealized intragroup profit elimination	GROUP	Engineering & Construction	Consolidation adjustments	TOTAL	CONTINUING OPERATIONS	Restatement intercompany transactions vs. discontinued operations	CONTINUING OPERATIONS on a standalone basis
Reported operating profit (loss)	10,727	64	(2,811)	(518)	18	398	7,878	(18)	1,105	1,087	8,965		7,860
Exclusion of inventory holding (gains) losses		(119)	1,746			(167)	1,460				1,460		1,460
Exclusion of special items:													
environmental charges			138	41			179				179		179
impairment losses (impairments reversals), net	853	25	380	14	420		1,692	(420)		(420)	1,272		1,272
impairment of exploration projects													
gains on disposal of assets	(70)		43	3	2		(22)	(2)		(2)	(24)		(24)
risk provisions	(5)	(42)		12	25		(10)	(25)		(25)	(35)		(35)
provision for redundancy incentives	24	9	(4)	(25)	5		9	(5)		(5)	4		4
commodity derivatives	(28)	(38)	41		9		(16)	(9)	9		(16)		(25)
exchange rate differences and derivatives	6	205	18				229				229		229
other	172	64	37	30			303				303		303
Special items of operating profit (loss)	952	223	653	75	461		2,364	(461)	9	(452)	1,912		1,903
Adjusted operating profit (loss)	11,679	168	(412)	(443)	479	231	11,702	(479)	1,114	635	12,337	(1,114)	11,223
Net finance (expense) income <sup>(a)</sup>	(273)	7	[12]	(564)	(6)		(848)	6	40	46	(802)	(40)	(842)
Net income (expense) from investments <sup>[a]</sup>	333	49	64	(156)	21		311	(21)		(21)	290		290
Income taxes <sup>[a]</sup>	(7,170)	(138)	41	311	(185)	(79)	(7,220)	185	(51)	134	(7,086)	51	(7,035)
Tax rate (%)	61.1	61.6			37.4		64.7				59.9		65.9
Adjusted net profit (loss)	4,569	86	(319)	(852)	309	152	3,945	(309)	1,103	794	4,739	(1,103)	3,636
of which attributable to:													
- non-controlling interest							89			451	540	(627)	(87)
- Eni's shareholders							3,856			343	4,199	(476)	3,723
Reported net profit (loss) attributable to Eni's shareholders							1,303			417	1,720		1,720
Exclusion of inventory holding (gains) losses							1,008				1,008		1,008
Exclusion of special items							1,545			(74)	1,471		1,471
Restatement of intercompany transactions vs. discontinued operations													(476)
Adjusted net profit (loss) attributable to Eni's shareholders							3,856			343	4,199		3,723

<sup>(</sup>a) Excluding special items.

# Breakdown of special items

(€million)	2018	2017	2016	2015	2014
Special items of operating profit (loss)	1,161	(1,990)	333	8,251	2,364
- environmental charges	325	208	193	225	179
- impairment losses (impairments reversals), net	866	(221)	(459)	7,124	1,692
- impairment of exploration projects			7	169	
- net gains on disposal of assets	(452)	(3,283)	(10)	(406)	(22)
- risk provisions	380	448	151	211	(10)
- provision for redundancy incentives	155	49	47	42	9
- commodity derivatives	(133)	146	(427)	164	(16)
- exchange rate differences and derivatives	107	(248)	(19)	(63)	229
- reinstatement of Eni Norge amortization charges	(375)				
- other	288	911	850	785	303
Net finance (income) expense	(85)	502	166	292	203
of which:					
- exchange rate differences and derivatives reclassified to operating profit (loss)	(107)	248	19	63	(229)
Net income (expense) from investments	(798)	372	817	488	(189)
of which:					
- gains on disposals of assets	(909)	(163)	(57)	(33)	(159)
- impairments/revaluation of equity investments	67	537	896	506	(38)
Income taxes	110	277	(72)	(7)	(300)
of which:					
- net impairment of deferred tax assets of Italian subsidiaries	99		170	880	976
- other net tax refund					(824)
- deferred tax adjustment on PSAs					69
- net impairment of deferred tax assets of upstream business outside Italy			6	860	
- USA tax reform		115			
- taxes on special items of operating profit (outside Italy) and other special items	11	162	(248)	(1,747)	(521)
Total special items of net profit (loss)	388	(839)	1,244	9,024	2,078
attributable to:					
- Non-controlling interest				353	533
- Eni's shareholders	388	(839)	1,244	8,671	1,545

# Adjusted operating profit by segment

	(€ million)	2018	2017	2016	2015	2014
Exploration & Production		10,850	5,173	2,494	4,182	11,679
Gas & Power		543	214	(390)	(126)	168
Refining & Marketing and Chemicals		380	991	583	695	(412)
Corporate and other activities		(606)	(542)	(452)	(369)	(443)
Impact of unrealized intragroup profit elimination		73	(33)	80	1,326	1,345
		11,240	5,803	2,315	5,708	12,337

# Adjusted net profit by segment

[€ million]	2018	2017	2016	2015	2014
Exploration & Production	4,955	2,724	508	991	4,569
Gas & Power	310	52	(330)	(168)	86
Refining & Marketing and Chemicals	238	663	419	512	(319)
Corporate and other activities	(965)	(1,041)	(991)	(663)	(852)
Impact of unrealized intragroup profit elimination	56	(16)	61	1,250	1,255
	4,594	2,382	(333)	1,922	4,739
of which attributable to:					
Non-controlling interest	11	3	7	605	540
Eni's shareholders	4,583	2,379	(340)	1,317	4,199

## Finance income (expense)

(€ million)	2018	2017	2016	2015	2014
Finance income (expense) related to net borrowings	(627)	(834)	(726)	(814)	(802)
- Finance expense from banks on short and long-term debt	(685)	(751)	(757)	(838)	(871)
- Interest from banks	18	12	15	19	19
- Net finance income (expense) from financial assets held for trading	32	[111]	[21]	3	24
- Interest and other income from financial receivables and securities held for non-operating purposes	8	16	37	2	26
Income (expense) from derivative financial instruments	(307)	837	(482)	160	165
- Derivatives on exchange rate	(329)	809	(494)	96	51
- Derivatives on interest rate	22	28	[12]	31	46
- Options			24	33	68
Exchange differences	341	(905)	676	(354)	(415)
Other finance income (expense)	(430)	(407)	(459)	(464)	(278)
- Interest and other income on financing receivables and securities held for operating purposes	132	128	143	120	74
- Finance expense due to the passage of time (accretion discount)	(249)	(264)	(312)	(291)	(293)
- Other finance income (expense)	(313)	(271)	(290)	(293)	(59)
	(1,023)	(1,309)	(991)	(1,472)	(1,330)
Capitalized finance expense	52	73	106	166	163
	(971)	(1,236)	(885)	(1,306)	(1,167)

# Income (expense on) from investments

	(€ million)	2018	2017	2016	2015	2014
Share of profit of equity-accounted investments		409	124	77	150	188
Share of loss of equity-accounted investments		(430)	(353)	(370)	(615)	(77)
Gains on disposals		22	163	[14]	164	160
Dividends		231	205	143	402	385
Decreases (increases) in the provision for losses on investments from equity accounted investments		(47)	(38)	(33)	(6)	(1)
Other income (expense), net		910	(33)	[183]	10	(179)
		1,095	68	(380)	105	476

# Property, plant and equipment by segment

	(€ million)	2018	2017	2016	2015	2014
Property, plant and equipment by segment, gross						
Exploration & Production		151,046	152,608	165,559	154,064	135,385
Gas & Power		5,441	5,333	6,276	6,169	5,985
Refining & Marketing and Chemicals		25,424	24,554	24,119	23,818	23,425
Engineering & Construction						13,657
Corporate and other activities		1,973	1,866	1,886	1,854	2,201
Impact of unrealized intragroup profit elimination		(600)	(584)	(568)	(656)	(572)
		183,284	183,777	197,272	185,249	180,081
Property, plant and equipment by segment, net						
Exploration & Production		53,535	56,833	64,428	61,495	60,683
Gas & Power		1,391	1,379	1,692	1,882	1,985
Refining & Marketing and Chemicals		5,300	4,929	4,642	4,664	5,653
Engineering & Construction						7,616
Corporate and other activities		386	341	368	418	452
Impact of unrealized intragroup profit elimination		(310)	(324)	(337)	(454)	(398)
		60,302	63,158	70,793	68,005	75,991

# Capital expenditure by segment

(€ million)	2018	2017	2016	2015	2014
Exploration & Production	7,901	7,739	8,254	9,980	10,156
Gas & Power	215	142	120	154	172
Refining & Marketing and Chemicals	877	729	664	628	819
Corporate and other activities	143	87	55	64	113
Impact of unrealized intragroup profit elimination	(17)	(16)	87	(85)	(82)
Capital expenditure - continuing operations	9,119	8,681	9,180	10,741	11,178
Capital expenditure - discontinued operations				561	694
Capital expenditure	9,119	8,681	9,180	11,302	11,872
Investments	(244)	(510)	(1,164)	228	408
Capital expenditure and investments	8,875	8,171	8,016	11,530	12,280

# Capital expenditure by geographic area of origin

(€ million)	2018	2017	2016	2015	2014
Italy	1,424	1,090	1,163	1,303	1,730
Other European Union Countries	267	316	331	444	571
Rest of Europe	538	387	460	1,101	1,346
Africa	4,533	5,699	5,004	5,009	4,658
Americas	534	278	233	674	1,039
Asia	1,782	898	1,978	2,186	1,717
Other areas	41	13	11	24	117
Total outside Italy	7,695	7,591	8,017	9,438	9,448
Capital expenditure - continuing operations	9,119	8,681	9,180	10,741	11,178
Italy				17	27
Other European Union Countries				264	256
Rest of Europe				50	32
Africa				11	31
Americas				53	126
Asia				140	187
Other areas				26	35
Total outside Italy				544	667
Capital expenditure - discontinued operations				561	694
Capital expenditure	9,119	8,681	9,180	11,302	11,872

# Net borrowings

			Cash and cash	Securities held for trading and other securities held for non-operating	Financing receivables held for non-operating	
	(€ million)	Debt and bonds	equivalents	purposes	purposes	Total
2018						
Short-term debt		5,783	(10,836)	(6,552)	(188)	(11,793)
Long-term debt		20,082				20,082
		25,865	(10,836)	(6,552)	(188)	8,289
2017						
Short-term debt		4,528	(7,363)	(6,219)	(209)	(9,263)
Long-term debt		20,179				20,179
		24,707	(7,363)	(6,219)	(209)	10,916
2016						
Short-term debt		6,675	(5,674)	(6,404)	(385)	(5,788)
Long-term debt		20,564				20,564
		27,239	(5,674)	(6,404)	(385)	14,776
2015						
Short-term debt		8,396	(5,209)	(5,028)	(685)	(2,526)
Long-term debt		19,397				19,397
		27,793	(5,209)	(5,028)	(685)	16,871
2014						
Short-term debt		6,575	(6,614)	(5,037)	(555)	(5,631)
Long-term debt		19,316				19,316
		25,891	(6,614)	(5,037)	(555)	13,685

# **EMPLOYEES**

# Employees at year end

	(units)	2018	2017	2016	2015	2014
Exploration & Production	Italy	4,531	4,510	4,608	4,572	4,534
	Outside Italy	7,114	7,460	7,886	8,249	8,243
		11,645	11,970	12,494	12,821	12,777
Gas & Power	ltaly	2,089	2,282	2,032	2,023	2,067
	Outside Italy	951	2,031	2,229	2,461	2,494
		3,040	4,313	4,261	4,484	4,561
Refining & Marketing and Chemicals	ltaly	8,740	8,580	8,577	8,635	9,286
	Outside Italy	2,396	2,336	2,281	2,360	2,598
		11,136	10,916	10,858	10,995	11,884
Corporate and other activities	ltaly	5,642	5,501	5,693	5,650	5,320
	Outside Italy	238	234	229	246	304
		5,880	5,735	5,922	5,896	5,624
Total employees at year end	Italy	21,002	20,873	20,910	20,880	21,207
	Outside Italy	10,699	12,061	12,626	13,316	13,639
		31,701	32,934	33,536	34,196	34,846

# Breakdown by position

(units)	2018		2017		201	16	201	L5	2014	
	fully consolidated entities		fully consolidated entities		fully consolidated entities	joint operations	fully consolidated entities	joint operations	fully consolidated entities	joint operations
Senior Managers	1,008	17	990	17	1,000	17	1,036	18	1,052	16
Middle Managers and Senior Staff	9,147	80	9,043	88	9,135	109	9,185	110	8,996	107
White collar workers	15,839	369	16,600	352	16,842	390	17,519	378	17,850	379
Blue collar workers	4,956	285	5,562	282	5,756	287	5,649	301	6,142	304
Total	30,950	751	32,195	739	32,733	803	33,389	807	34,040	806

# **QUARTERLY INFORMATION**

## Main financial data(a)

				2018					2017		
	(€ million)	l quarter	II quarter	III quarter	IV quarter		I quarter	II quarter	III quarter	IV quarter	
Net sales from operations		17,932	18,139	19,695	20,056	75,822	18,047	15,643	15,684	17,545	66,919
Operating profit (loss)		2,399	2,639	3,449	1,496	9,983	2,111	563	998	4,340	8,012
Adjusted operating profit (loss)		2,380	2,564	3,304	2,992	11,240	1,834	1,019	947	2,003	5,803
Exploration & Production		2,085	2,742	3,095	2,928	10,850	1,415	845	1,046	1,867	5,173
Gas & Power		322	108	71	42	543	338	(146)	(193)	215	214
Refining & Marketing and Chemicals		77	67	93	143	380	189	352	337	113	991
Corporate and other activities		(162)	(169)	(102)	(173)	(606)	(115)	(160)	(151)	(116)	(542)
Unrealized profit intragroup elimination and consolidation adjustments		58	(184)	147	52	73	7	128	(92)	(76)	(33)
Net (loss) profit <sup>[b]</sup>		946	1,252	1,529	399	4,126	965	18	344	2,047	3,374
- continuing operations		946	1,252	1,529	399	4,126	965	18	344	2,047	3,374
- discontinued operations											
Capital expenditure		2,541	1,961	1,830	2,787	9,119	2,831	2,092	1,570	2,188	8,681
Investments		37	94	26	87	244	36	14	453	7	510
Net borrowings at period end		11,278	9,897	9,005	8,289	8,289	14,931	15,467	14,965	10,916	10,916

## Key market indicators

		2018					2017					
	l quarter	II quarter	III quarter	IV quarter		l quarter	II quarter	III quarter	IV quarter			
Average price of Brent dated crude oil <sup>(a)</sup>	66.76	74.35	75.27	67.76	71.04	53.78	49.83	52.08	61.39	54.27		
Average EUR/USD exchange rate <sup>[b]</sup>	1.229	1.191	1.163	1.141	1.181	1.065	1.101	1.175	1.177	1.130		
Average price in euro of Brent dated crude oil	54.32	62.40	64.72	59.37	60.15	50.51	45.25	44.34	52.14	48.03		
Standard Eni Refining Margin (SERM) <sup>[c]</sup>	3.0	4.1	4.5	3.4	3.7	4.2	5.3	6.4	4.3	5.0		

<sup>(</sup>a) In USD per barrel. Source: Platt's Oilgram. (b) Source: ECB.

<sup>(</sup>a) Quarterly data are unaudited.
(b) Net profit attributable to Eni's shareholders.

<sup>(</sup>c) In USD per barrel. Source: Eni calculations. It gauges the profitability of Eni's refineries against the typical raw material slate and yields.

				2016			2015					
	(€ million)	l quarter	II quarter	III quarter	IV quarter		I quarter	II quarter	III quarter	IV quarter		
Net sales from operations		13,344	13,416	13,195	15,807	55,762	21,038	20,279	15,903	15,066	72,286	
Operating profit (loss)		105	220	192	1,640	2,157	1,770	1,605	248	(6,699)	(3,076)	
Adjusted operating profit (loss)		583	188	258	1,286	2,315	1,795	1,823	943	1,147	5,708	
Exploration & Production		95	355	644	1,400	2,494	1,080	1,585	919	598	4,182	
Gas & Power		285	(229)	(374)	(72)	(390)	294	31	(469)	18	(126)	
Refining & Marketing and Chemicals		177	156	175	75	583	121	105	335	134	695	
Corporate and other activities		(90)	(126)	(118)	(118)	(452)	(89)	(123)	(56)	(101)	(369)	
Unrealized profit intragroup elimination and consolidation adjustments		116	32	(69)	1	80	389	225	214	498	1,326	
Net (loss) profit <sup>(b)</sup>		(796)	(446)	(562)	340	[1,464]	832	(97)	(790)	(8,723)	(8,778)	
- continuing operations		(383)	(446)	(562)	340	(1,051)	787	498	(783)	(8,454)	(7,952)	
- discontinued operations		(413)				(413)	45	(595)	(7)	(269)	(826)	
Capital expenditure		2,455	2,424	2,051	2,250	9,180	2,684	3,150	2,210	2,697	10,741	
Investments		1,124	28	6	6	1,164	61	47	63	57	228	
Net borrowings at period end		12,222	13,814	16,008	14,776	14,776	15,140	16,477	18,414	16,871	16,871	

			2016			2015					
	l quarter	II quarter	III quarter	IV quarter		l quarter	II quarter	III quarter	IV quarter		
Average price of Brent dated crude oil <sup>(a)</sup>	33.89	45.57	45.85	49.46	43.69	53.97	61.92	50.26	43.69	52.46	
Average EUR/USD exchange rate <sup>[b]</sup>	1.102	1.129	1.116	1.079	1.107	1.126	1.105	1.112	1.095	1.110	
Average price in euro of Brent dated crude oil	30.75	40.36	41.08	45.84	39.47	47.93	56.04	45.20	39.90	47.26	
Standard Eni Refining Margin (SERM) <sup>[c]</sup>	4.2	4.6	3.3	4.7	4.2	7.6	9.1	10.0	6.6	8.3	

# Main operating data

		2018 2017									
		l quarter	ll quarter	III quarter	IV quarter		I quarter	II quarter	III quarter	IV quarter	
Liquids production	(kbbl/d)	885	881	886	897	887	832	827	885	861	852
Natural gas production	(mmcf/d)	5,358	5,359	5,008	5,321	5,261	5,254	5,152	5,012	5,625	5,261
Hydrocarbons production	(kboe/d)	1,867	1,863	1,803	1,872	1,851	1,795	1,771	1,803	1,892	1,816
Italy		144	142	132	134	138	154	100	136	146	134
Rest of Europe		218	186	181	193	194	202	218	174	163	189
North Africa		442	417	368	358	396	483	453	455	542	483
Egypt		259	290	324	327	300	224	226	230	240	230
Sub-Saharan Africa		348	354	346	377	356	302	345	374	365	347
Kazakhstan		139	135	134	162	143	142	136	118	130	132
Rest of Asia		151	176	186	198	178	93	108	137	139	119
America		142	144	109	99	123	172	164	160	144	160
Australia and Oceania		24	19	23	24	23	23	21	19	23	22
Hydrocarbons production sold	(mmboe)	156.9	158.6	152.3	157.2	625.0	151.3	149.7	156.3	165.0	622.3
Sales of natural gas to third parties	(bcm)	19.98	16.03	15.20	16.38	67.59	20.64	16.54	15.16	19.00	71.34
Own consumption of natural gas		1.59	1.34	1.58	1.60	6.11	1.59	1.40	1.55	1.64	6.18
Sales to third parties and own consumption		21.57	17.37	16.78	17.98	73.70	22.23	17.94	16.71	20.64	77.52
Sales of natural gas of Eni's affiliates (net to Eni)		0.87	0.71	0.69	0.74	3.01	1.05	0.69	0.73	0.84	3.31
Total sales and own consumption of natural gas		22.44	18.08	17.47	18.72	76.71	23.28	18.63	17.44	21.48	80.83
Electricity sales	(TWh)	9.22	8.49	9.46	9.90	37.07	9.37	8.39	8.91	8.66	35.33
Sales of refined products	(mmtonnes)	7.87	8.19	8.33	8.53	32.92	7.93	8.25	8.56	8.46	33.19
Retail sales in Italy		1.40	1.48	1.54	1.48	5.90	1.42	1.54	1.56	1.49	6.01
Wholesale sales in Italy		1.68	1.89	1.98	1.99	7.54	1.68	1.98	2.04	1.94	7.64
Retail sales rest of Europe		0.59	0.63	0.66	0.61	2.49	0.58	0.65	0.68	0.62	2.53
Wholesale sales rest of Europe		0.69	0.78	0.74	0.61	2.82	0.68	0.78	0.79	0.77	3.02
Wholesale sales outside Europe		0.11	0.12	0.12	0.12	0.47	0.11	0.11	0.11	0.12	0.45
Other markets		3.40	3.29	3.29	3.72	13.70	3.46	3.19	3.38	3.52	13.54

		2016					2015				
		l quarter	II quarter	III quarter	IV quarter		l quarter	II quarter	III quarter	IV quarter	
Liquids production	(kbbl/d)	890	852	864	906	878	860	903	868	998	908
Natural gas production	(mmcf/d)	4,718	4,709	4,616	5,184	4,807	4,596	4,676	4,582	4,868	4,681
Hydrocarbons production	(kboe/d)	1,754	1,715	1,710	1,856	1,759	1,697	1,754	1,703	1,884	1,760
Italy		154	96	125	159	133	165	173	168	169	169
Rest of Europe		190	188	187	240	201	186	181	182	192	185
North Africa		450	478	453	464	462	459	457	455	524	473
Egypt		166	173	185	216	185	179	224	192	160	189
Sub-Saharan Africa		343	350	330	334	339	342	343	336	343	341
Kazakhstan		118	90	103	133	111	100	98	82	100	95
Rest of Asia		132	141	133	103	127	109	113	117	201	135
America		178	174	171	184	177	128	140	148	170	147
Australia and Oceania		23	25	23	23	24	29	25	23	25	26
Hydrocarbons production sold	(mmboe)	151.5	147.5	148.5	161.1	608.6	144.5	153.6	149.8	166.2	614.1
Sales of natural gas to third parties	(bcm)	21.01	18.51	17.03	20.69	77.24	23.47	20.38	18.30	20.07	82.22
Own consumption of natural gas		1.53	1.31	1.60	1.66	6.10	1.54	1.28	1.51	1.55	5.88
Sales to third parties and own consumption		22.54	19.82	18.63	22.35	83.34	25.01	21.66	19.81	21.62	88.10
Sales of natural gas of Eni's affiliates (net to Eni)		0.75	0.66	0.65	0.91	2.97	0.61	0.73	0.68	0.76	2.78
Total sales and own consumption of natural gas		23.29	20.48	19.28	23.26	86.31	24.84	21.57	19.78	21.53	87.72
Electricity sales	(TWh)	9.45	8.64	9.17	9.79	37.05	8.47	8.35	9.00	9.06	34.88
Sales of refined products	(mmtonnes)	7.69	8.70	8.65	8.37	33.40	8.36	9.43	8.85	8.60	35.24
Retail sales in Italy		1.37	1.50	1.59	1.47	5.93	1.36	1.51	1.58	1.51	5.96
Wholesale sales in Italy		1.84	2.01	2.23	2.08	8.16	1.69	1.99	2.17	1.99	7.84
Retail sales rest of Europe		0.63	0.71	0.72	0.61	2.66	0.69	0.79	0.77	0.68	2.93
Wholesale sales rest of Europe		0.70	0.81	0.83	0.84	3.18	1.08	0.98	0.90	0.87	3.83
Wholesale sales outside Europe		0.10	0.11	0.11	0.11	0.43	0.10	0.11	0.11	0.11	0.43
Other markets		3.05	3.57	3.17	3.26	13.05	3.44	4.05	3.33	3.43	14.25

# **ENERGY CONVERSION TABLE**

					(averag	e reference d	ensity 32.35 f API, re	lative densit	y 0.8636)
1 barrel	(bbl)	158.987	l oil <sup>(a)</sup>	0.159 m³ oil	162.602	m³ gas		5,458	ft³ gas
					5,800,000	btu			
1 barrel/d	(bbl/d)	~50	t/y						
1 cubic meter	$(m^3)$	1,000	l oil	6.47 bbl	1,033	m³ gas		36,481	ft³ gas
1 tonne oil equivalent	(toe)	1,160.49	l oil	7.299 bbl	1.161	m³ oil	1,187 m³ gas	41,911	ft³ gas

## Gas

1 cubic meter	(m³)	0.976	l oil	0.00647 bbl	35,314.67	btu			35,315	ft³ gas
1.000 cubic feet	[ft³]	27.637	l oil	0.1742 bbl	1,000,000	btu	27.317	m³ gas	0.02386	toe
1.000.000 British thermal unit	(btu)	27.4	l oil	0.17 bbl	0.027	m³ oil	28.3	m³ gas	1,000	ft³ gas
1 tonne LNG	(tLNG)	1.2	toe	8.9 bbl	52,000,000	btu			52,000	ft³ gas

# Electricity

1 megawatthour=1.000 kWh	(MWh)	93.532	l oil 0,5883 bbl	0.0955	m³ oil	94.448	m³ gas	3,412.14	ft³ gas
1 terajoule	(UT)	25,981.45	l oil 163,42 bbl	25.9814	m³ oil	26,939.46	m³ gas	947,826.7	ft³ gas
1.000.000 kilocalories	(kcal)	108.8	l oil 00,68 bbl	0.109	m³ oil	112.4	m³ gas	3,968.3	ft³ gas

<sup>(</sup>a) I oil: liters of oil.

# Conversion of mass

	kilogram (kg)	pound (Ib)	metric ton (t)
kg	1	2.2046	0.001
lb	0.4536	1	0.0004536
t	1,000	22,046	1

# Conversion of length

	meter (m)	inch (in)	foot (ft)	yard (yd)
m	1	39.37	3.281	1.093
in	0.0254	1	0.0833	0.0278
ft	0.3048	12	1	0.3333
yd	0.9144	36	3	1

# Conversion of volumes

	cubic feet (ft³)	barrel (bbl)	liter (It)	cubic meter (m³)
ft <sup>3</sup>	1	0	28.32	0.02832
bbl	5.458	1	159	0.158984
1	0.035315	0.0065	1	0.001
$m^3$	35.31485	6.2898	10 <sup>3</sup>	1



#### Eni SpA

#### Headquarters

Piazzale Enrico Mattei, 1 - Rome - Italy Capital Stock as of December 31, 2018:  $\leqslant$  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)

#### Internet home page

www.eni.com

#### Rome office telephone

+39-0659821

#### Toll-free number

800940924

#### e-mail

segreteriasocietaria.azionisti@eni.com

#### Investor Relations

Piazza Ezio Vanoni, 1 - 20097 San Donato Milanese (Milan) Tel. +39-0252051651 - Fax +39-0252031929 e-mail: investor.relations@eni.com

#### Layout and supervision

K-Change - Rome

#### Printing

Varigrafica Alto Lazio - Viterbo - Italy

