versalis

Annual Report 2019

Annual General Meeting of March 30, 2020

Mission

Versalis SpA - a company wholly owned and controlled by Eni SpA and subject to its direction and coordination - is a chemical company operating globally in the basic and intermediate chemical sectors, plastics, rubbers and renewable sources chemistry. It focuses on development of an integrated technological platform in line with its strategy.

Country of activity

The Versalis Group is present with manufacturing plants in Italy (Brindisi, Crescentino, Ferrara, Mantova, Porto Marghera, Porto Torres, Priolo, Ragusa, Ravenna), in France (Dunkerque), in Germany (Oberhausen), in UK (Grangemouth), in Hungary (Szàzhalombatta), in South Korea; with Research Centers and Units in Italy (Brindisi, Ferrara, Mantova, Novara, Ravenna, Rivalta Scrivia); sales networks in Italy, Belgium, China, Czech Republic, Congo, Slovak Republic, Denmark, France, Germany, Ghana, Great Britain, Greece, India, Poland, Slovenia, Romania, Singapore, Spain, , Sweden, Switzerland, Turkey, Hungary, Russia and United States of America.

Boards of Directors and of Statutory Auditors

BOARD OF DIRECTORS((1)

Chairman

Erika Mandraffino

Chief Executive Officer

Daniele Ferrari

Directors

Cristiana Argentino

Rosanna Fusco

Luigi Piro

BOARD OF STATUTORY AUDITORS (1)

Chairman

Giulia De Martino

Statutory auditors

Angelo Cremonese

Alberto Luigi Gusmeroli

Alternate statutory auditor

Roberto Colussi

Livia Anna Schivardi

INDEPENDENT AUDITORS (2)

PwC SpA

(1) Appointed by the Shareholders' Meeting of April 15, 2019 for a three-year period which expires upon the approval of the financial statements for the year 2021.

(2) Appointed by the Shareholders' Meeting of July 11, 2018 for a three-year period which expires upon approval of the financial statements for the year 2021..

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HIGHLIGHTS

Safety

During 2019, the Versalis Group's constant commitment to the safety of people continued, the 2019 accident frequency index decreased compared to the previous year and 17 sites reached the goal of one year without employee accidents.

Versalis Revive® gives new life to recycled plastic

As part of Eni's strategy for energy transition and sustainable development, Versalis has launched a new line of products made of recycled plastic, called Versalis Revive®. The first range of these products, which have been developed at Versalis' research laboratories and are based on different polymers, including polysterene and polyethylene.

"Versalis Revive® EPS" is an expandable polystyrene made of recycled raw materials from separated domestic waste collected in Italy, including polystyrene cups, trays and yogurt pots. The project is being carried out in collaboration with COREPLA "Versalis Revive® PE" includes low and high-density polyethylene-based compounds, containing up to 75% of urban post-consumer plastic, mainly from recycled packaging These products can be used for multiple applications, particularly in the agricultural sector for drip irrigation, and in the packaging sector.

RiVending Project: new life for coffee glasses and pallets

During 2019 Versalis launched the RiVending project, a virtuous cycle of recovery and recycling of plastic glasses and pallets from vending machines, in collaboration with CONFIDA, COREPLA and UNIONPLAST.

RiVending, first in Europe, is an all-Italian initiative, in Versalis it was created to boost the development of the circular economy.

In Mantua, the production of expandable polystyrene, containing up to 20% of recycled material, will take place through a continuous mass polymerization process, with an appropriately modified plant structure in order to allow the insertion of the "second raw material".

Versalis (Eni) to launch a new type of expandable polystyrene (EPS) to prevent plastic leakage

Versalis, has developed and launched an innovative type of expandable polystyrene (EPS), under the trademark Extir® FL 3000. This material offers the industry an opportunity to increase sustainable products in sectors such as food packaging, industrial packaging (for appliances, furniture, and automotive vehicles), containers, protective helmets, and seats.

Biomass power plant restarted at Crescentino

The biomass power plant for renewable electricity generation and part of the water treatment plant with biogas production have already been restarted and activities are ongoing to restart the bioethanol plant within the first half of 2020. The plant uses the PROESA® proprietary technology, one of the most innovative in the biomass chemistry sector.
The layout of the Crescentino plants makes it possible to use a system to completely recycle all water and also makes the site completely energy independent through the use of lignin as feedstock for the power plant.
The Versalis Biotech Research Centers at Rivalta Scrivia (Alessandria) and Novara are currently working on further developments in the production of a complete range of fermentative renewable products such as bio-oils for biorefinery, totally biodegradable polymers (polyhydroxyalkanoates or PHAs), intermediates for biopolymers and biochemicals, all made from second-generation sugars produced with the PROESA® technology. They are also carrying out trials on developing lignin for new market applications.

Versalis to launch Hoop™, chemical recycling towards infinitely recyclable plastic

Versalis in February 2020 signed a joint development agreement with Italian engineering company, Servizi di Ricerche e Sviluppo (S.R.S.), which owns a pyrolysis technology that will be further developed to transform mixed plastic waste, that cannot be mechanically recycled, into raw material to produce new virgin polymers Versalis will leverage its technological and industrial expertise to build a first plant with a capacity of 6,000 tons per year at the Mantova site, with a view to progressively scaling up, starting from its sites in Italy.

Acquisition of 40% in Finproject

In February 2020 Versalis, has acquired 40% of Finproject, the Italian leader in the compounding sector and the production of ultralight products with the aim of creating value by integrating the respective production chains. This strategic operation, the first step in a partnership that may be further developed, will create a new industrial platform that leverages the synergy between the expertise of Versalis, the leading Italian polymer manufacturer, and the technological and creative drive of the Finproject Group. The aim is to jointly develop innovative solutions for major brands in the fashion, design and footwear sectors, as well as for industrial applications such as cables, pipes, renewable energy, construction and automotive sectors, with significant international growth prospects. This acquisition marks Versalis' entry into the high-performance formulated polymer applications sector, extending its positioning towards businesses that are more resilient to the volatility of the chemical scenario.

Company structure updates in the oilfield chemicals and services sector

Versalis Congo Sarlu, established on 16/03/2016 by Versalis International SA to consolidate its presence in the African market, entered the consolidation area of Versalis Group on 01/12/2019 due to exceeding the relevant parameters.
On 29/01/2019, **VPM Oilfield Specialty Chemicals LLC** was established in Abu Dhabi in a joint venture with Mazrui Energy Services LLC. The company, 49% owned by Versalis S.p.A., aims to market chemicals and provide assistance to customers in the Middle Eastern market.
On 01/29/2019 the company **Versalis México S. de R.L.** was established. de C.V. based in Mexico City, 99% owned by Versalis International SA and 1% by Versalis S.p.A. The company has as its object the production and marketing of chemicals on the Central American market.

Technological innovation

In 2019, research and technological innovation activities were aimed, in continuity with previous years, to the improvement of the processes and products of the existing business lines. Research and development activities in the sector of chemistry from renewable sources were also consolidated. The commitment to sustainability and the circular economy has become the core of the new projects. With the restoration and restart of the laboratories and the pilot plant of the Research Center of Rivalta Scrivia, research and development projects have started aimed at improving the proprietary industrial technology ProesaTM of converting biomass into second generation sugars to bioethanol.
As part of international development, support for the JV Lotte Versalis Elastomers continued, leading to the industrialization of new grades of the SSBR family and the development of new EPDM products for the local market; this made it possible to launch new marketing actions in the Asian area, mainly intended for the tire sector, modification of plastic materials and technical articles. The consolidation of medium density LDPE grades for film applications continued. The industrialization of the new range of products from ABS-based "compounds", with high thermal resistance, for the automotive sector, with fire resistance, for electrical / electronic applications, and pharma for the medical sector also continued.
As regards basic chemistry, Versalis' position as top player in the competitive technological field relating to the production processes of cumene from acetone via IPA (isopropyl alcohol) was further consolidated.

Production

Production amounted to 8,068 thousand tons, down 15% compared to 2018, mainly due to the lower production of intermediates and polymers.
The sites that recorded the largest production decreases are Priolo, for an event that occurred at the beginning of the year with a ramp-up between April and July, Porto Marghera and Dunkerque for unscheduled stops.

Performances

In a depressed scenario due to the slowdown in demand from the main sectors using plastic materials, the lower demand for "single-use plastics" and the unavailability of plants in Priolo, the 2019 financial year of the Versalis Group ended with a net loss of 534 million euros (net loss of 460 million euros in 2018), an operating loss of 478 million euros (operating loss of 287 million euros in 2018) and net financial debt of 1,071 million euros (630 million euros as of December 31, 2018). for the performance analysis of the year, is provided under the paragraph "Comment on the economic and financial results of the Versalis Group".
The parent company Versalis SpA presents a net loss of 427 million euros which, against a fully paid-up share capital of 1,365 million euros, reserves of 14 million euros and losses carried forward of 185 million euros, configures the details provided by art. 2446 of the Italian Civil Code.

Strategy

Versalis pursues the following strategic guidelines, consistent with the sustainable development objectives defined by the United Nations Organization:

- **Consolidation and efficiency** to recover resilience to fluctuations in the scenario, through initiatives for the rebalancing of the ethylene-polyethylene chain and the flexibility of raw materials for steam crackers in favor of gaseous fillers;
- **Specialization** of the portfolio towards products with greater added value and extension of the downstream sector to reduce the volatility of margins;
- **Development of chemistry from renewables and the circular economy** with the production of bioethanol from biomass, the enhancement of lignin, the development of the process for microbial oils and PHA, the continuation of the plan for improvement and commercial refocusing of the Joint Venture Matrìca (herbicides, bio-fibers, green fuel), the development of mechanical and molecular recycling.

Key performance indicators

Financial highlights

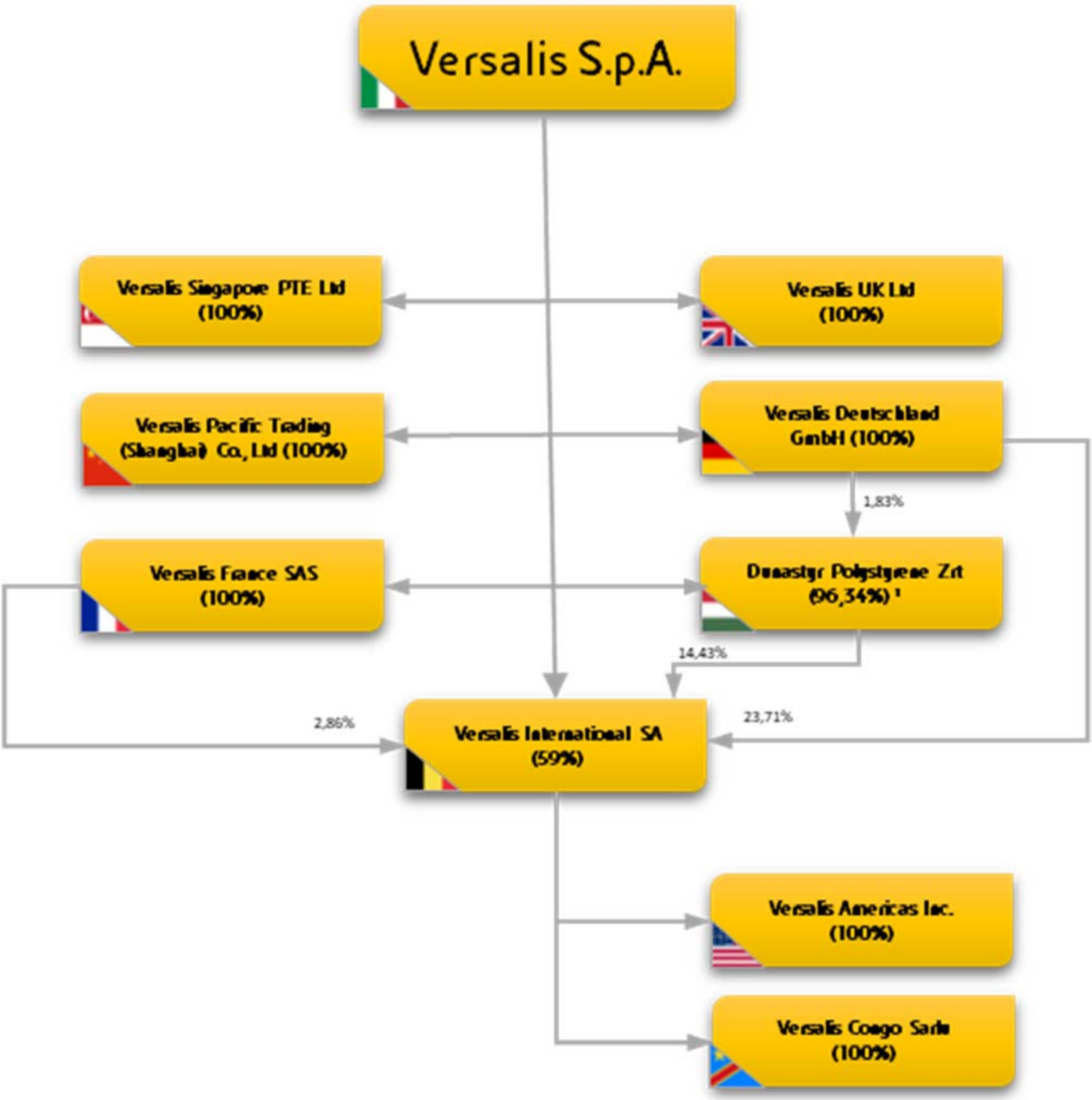
2017	amounts in million euros	2018	2019
4.851	Net sales from operations	5.123	4.123
490	Operating profit (loss)	(287)	(478)
303	Net profit (loss)	(460)	(534)
478	Net cash flow provided by operating activities	(120)	(214)
202	Capital expenditures	150	118
3.060	Total assets	2.762	2.650
1.815	Shareholder's equity	1.044	507
(41)	Net borrowings	630	1.071
1.774	Net capital employed	1.674	1.578

Key operating and sustainability indicator

2017			2018	2019
5.114	Employees	(number)	5.224	5.324
0,15	TRIR (Total Recordable Injury rate)	(total recordable injuries/worked hours) x 1,000,000	0,72	0,26
3,05	Direct emission of greenhouse gases	(mm tonnes CO2 eq)	3,13	2,84
40	Cost of research and development	(amount in € millions)	38	42
8.955	Production	(k tonnes)	9.483	8.068
72,8	Average plant utilization rate	(%)	76,2	66,8
54,27	Average price of Brent Dated FOB	(dollars/barrel)	71,04	64,30
467	Average price of Virgin Naphtha FOB Med	(dollars/tonne)	582	481
1,13	Average EUR/USD exchange rate		1,18	1,12

VERSALIS GROUP STRUCTURE

A chart of the Versalis Group is illustrated here below. The companies are consolidated on a line-by-line basis. The percentage indicated refers to the interest held by the parent company.



[1] Dunastyr Polystyrene Zrt is owned by 1,83% by Versalis International SA.

OPERATING REVIEW

The global economic growth rate slowed down sharply in 2019, from 3.1% in 2018 to 2.4% in 2019. The phenomenon involved all geographic areas without distinction, including the USA (from 2.9% of the 2018 to 2.3% in 2019) and the Far East countries, including China (from 6.6% to 6.2%). At European level (EU 28), the already modest growth recorded in 2018 (around 2.0%) further decreased to 1.3% and the same significant slowdown trend was also recorded for the Middle East (from 1, 6% in 2018 to 0.7% in 2019).

The EU28 area recorded a markedly slower GDP than the global economy, due to the further drop in industrial production and the slowdown in private consumption, especially in the second half of the year. The slowdown in the US economy has manifested itself despite the US government's fiscal policies. The tightening of customs tariffs on imported goods has led to commercial tensions with China and Europe, contributing in turn to the slowdown in domestic consumption, which has remained substantially stable.

In this macroeconomic context, during 2019 the scenario of the Chemical Sector, understood as a business aggregate homogeneous to that in which Versalis operates, was characterized by a significant volatility in the listing of virgin naphtha, the main cost element on which the result of the chemical industry, which negatively affected the margins of the Sector, which is in fact going through a downcycle phase due to the increase in the offer resulting from the progressive development of new ethane cracking plants and to the slowdown in global demand due to: weakness in the automotive sector, the socio-political pressure on the use of single use plastics and the uncertainty arising from the US-China trade tensions on the application of international duties.

While the increase in demand in 2019 led to a 3.6% increase in production compared to the previous year, chemical production in Europe increased by just 0.3%, remaining the area with the lowest production growth rate in the world. The growth rate of production in the Far East went from 4.4% in 2018 to 3.8% in 2019, those in North America from 6.2% to 5.6%.

In 2019, the European "Net Trade" further deteriorated compared to 2018 due to a slightly higher growth in consumption (+ 1.3%) than that of production (0.3%), due to imports from North America and from the Middle East, areas favored by a competitive advantage in terms of raw material costs.

The results of the Versalis Group, in 2019, were heavily affected by the depressed macroeconomic scenario due to the slowdown in demand from the main sectors using plastic materials, in particular the automotive sector, and the lower demand for "single-use plastics". Furthermore, in a shrinking global market, the pressure on margins has been heightened by competitive pressure from manufacturers with more efficient cost structures (for example, US producers using ethane crackers). This led to product spreads compared to the charge on non-profitable values for polyethylene and significant decreases in styrenics and elastomers. Finally, the result was significantly affected by the accident that occurred at the Priolo hub in January 2019, which returned to full operation only at the end of July, and by other unscheduled stops. In this macroeconomic context, the Versalis Group achieved an operating loss of 478 million euros and a net cash flow from negative operating activities of 214 million euros.

Performance of the year

The Versalis Group manufactures and sells petrochemical products (intermediates, polyethylene, styrenes and elastomers); at the end of 2018, the company also established the Biotech Business Unit. In the Intermediates Business Unit, the main objective is to ensure adequate availability of monomers to cover the needs of the downstream businesses. In particular, olefins (ethylene and butadiene) are integrated with the elastomer and polyethylene business, and aromatics are integrated with the phenol/hydrogenated derivatives and styrenes business.

The Versalis Group is among the leading European manufacturers of polystyrene and polyethylene, used mainly for flexible packaging, and is one of the world leaders in elastomers, covering almost all the major sectors (especially the automotive industry).

The 2019 **revenues** from the core business of the Versalis Group amounted to 4,123 million euros, compared to 5,123 million euros in 2018 (-19.5%). This reduction is due to the 9.9% decrease in the average unit sales prices of the Intermediates and Polymers business (-10.8%), as well as the lower availability of products due to accidentality.

Sales of petrochemical products of 4,285 thousand tons decreased compared to 2018 (-653 thousand tons; equal to 13.2%). The most significant decreases were recorded in the family of intermediate products in particular in ethylene (-38.0%), olefins (-21.9%) and derivatives (-13.4%).

Average unit prices in the intermediate business decreased overall by 9.9% compared to 2018, with derivatives and olefins decreasing by 10.6% and 10.2% respectively. In the polymer business, on the other hand, there was a decrease of 10.8% compared to 2018.

The **production** of petrochemical products of 8,068 thousand tons decreased by 1,415 thousand tons (-14.9%) mainly due to the lower production of the intermediates business (-18.4%) in particular in aromatics (-19.6 %) and olefins (-18.9%); polymer production dropped by 4.4%.

The main production decreases were recorded at the Priolo hub (-23.3%) due to the event that occurred at the beginning of the year with a ramp-up between April and July; at the Porto Marghera (-21.9%) and Dunkirk (-17.1%) sites for unscheduled stops.

The nominal production capacity is in line with 2018. The average utilization rate of the plants, calculated on the nominal capacity, was 66.8% lower than in 2018 (76.2%) for the events described above.

2017	**Sales Revenues** (amount in €millions)	**2019**	2018	Var. ass.	Var. %
1.988	Intermediates	1.791	2.401	(610)	(25,4)
2.730	Polymers	2.201	2.589	(388)	(15,0)
133	Other income (a)	131	133	(2)	(1,5)
4.851		**4.123**	**5.123**	**(1.000)**	**(19,5)**

(a) Third Party products sold under agency contracts with foreign trading companies and other service revenues.

2017	**Product availability** (k tonnes)	**2019**	2018	Var. ass.	Var. %
6.595	Intermediates	5.818	7.130	(1.312)	(18,4)
2.360	Polymers	2.250	2.353	(103)	(4,4)
8.955	**Production**	**8.068**	**9.483**	**(1.415)**	**(14,9)**
(4.566)	Consumption & Losses	(4.307)	(5.085)	778	(15,3)
257	Purchases & Stock Variances	524	540	(16)	(3,0)
4.646	**Total availability**	**4.285**	**4.938**	**(653)**	**(13,2)**
2.748	Intermediates	2.519	3.087	(568)	(18,4)
1.898	Polymers	1.766	1.851	(85)	(4,6)
4.646	**Total sales**	**4.285**	**4.938**	**(653)**	**(13,2)**

Business performances

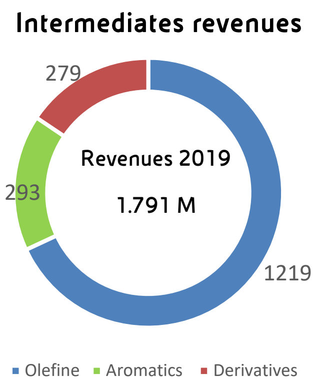
Intermediates

Intermediate revenues (1,791 million euros) decreased by 25.4% (-610 million euros compared to 2018) due to both the decrease in prices and the lower availability of products following the stops that occurred in 2019.

Sales decreased by 18.4%, in particular for ethylene (-38.0%), olefins (-21.9%) and derivatives (-13.4%) due to less product availability.

The average unit selling prices decreased overall by 9.9%, particularly in the olefins (-10.2%), aromatics (-5.4%) and derivatives (-10.6%).

The production of intermediates (5,818 thousand tons) decreased by 18.4% compared to 2018. There have been decreases in aromatics (-19.6%), olefins (-18.9%) and derivatives (-11, 3%).



Polymers

Polymer revenues (2,201 million euros) decreased by 15.0% (-388 million euros compared to 2018) due to the lower sales volumes (-4.6%) as well as the decrease in average unit prices (- 10.8%).

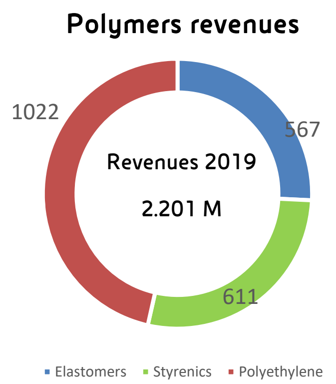
The **styrenics** business suffered a reduction in volumes sold (-4.3%) due to less product availability; sales prices fell (-14.7%).

The decrease in volumes sold of elastomers (-4.9%) is attributable to the negative scenario and impacted on the sales of NBR rubbers (-10.3%) of thermoplastic rubbers (-14.8%) and BR (-3, 7%), on the other hand, the volumes of SBR tires (+ 1.7%) and latexes (+ 1.0%) increased.

The decrease in volumes sold of styrenes (-2.0%) is attributable to the weakness of the market, which led to lower sales of styrene (-13.8%) and compact polystyrene (-5.9%); volumes of ABS / SAN (+ 12.9%) and expandable polystyrene (+ 0.4%) increased instead.

Volumes sold in the polyethylene business fell overall (-5.0%) due to lower market demand, with lower sales of LLDPE (-4.3%) and LDPE (-21.7%), volumes increased EVA (+ 39.9%); there was also a reduction in average sales prices (-7.7%).

Polymer production (2,250 thousand tons) decreased by 4.4% compared to 2018 due to the lower production of elastomers (-7.0%), polyethylene (-3.9%) and styrene (-3.8%).



CAPITAL EXPENDITURE

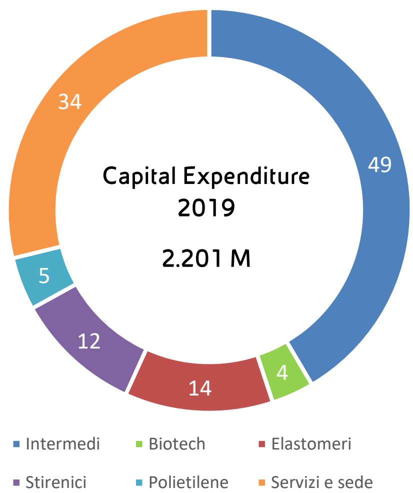
Net Capital expenditures in tangible and intangible fixed assets of the year, equal to 118 million euros, are analyzed by business in the following table and by type in the following chart.

2017	(million euros)	2019	2018	Var. ass.	Var. %
58	Olefins	37	29	8	27,6
17	Aromatics	9	9		
6	Derivatives	2	2		
10	Styrenes	12	4	8	..
36	Elastomers	14	38	(24)	(63,2)
13	Polyethylene	4	16	(12)	(75,0)
2	Green Chemistry				..
42	Industrial services	28	40	(12)	(30,0)
9	Staff and financial expenses	4	7	(3)	(42,9)
193	Investments in property, plants and equipment	110	145	(35)	(24,1)
10	Investments in intangible assets	8	5	3	60,0
203	Total	118	150	(32)	(21,3)

The main technical investments of the year concerned:

- Scheduled maintenance work on the Ferrara, Priolo and Ravenna hubs for a total of 34 million euros;
- Interventions to adapt plants to safety and environmental regulations (27 million euros);
- Interventions to maintain and improve the reliability of the plants on various plants (25 million euros);
- Enhancement works of 13 million euros mainly related to strategic projects launched for the consolidation of the production of products with higher added value in Mantua, for the enhancement of the C9 cutting in Priolo and for the new boilers at the Porto Marghera site;
- Cyclical maintenance interventions mainly for recoil on the furnaces of the ethylene plants of Brindisi, Dunkerque and Porto Marghera (7 million euros);
- Digital transformation interventions of 4 million euros relating to the activities launched on the Brindisi pilot site;
- Decarbonisation works of 2 million euros relating to the Dunkirk Auxiliary boiler on gas only project;
- Energy recovery measures of 1 million euros;
- Research interventions of 1 million euros mainly related to the completion of the new one step plant in Mantua.

Capital expenditure by Business Unit



VERSALIS GROUP FINANCIAL REVIEW

PROFIT AND LOSS ACCOUNT

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
4.851	Net sales from operations	5.123	4.123	(1.000)	(19,5)
152	Other income and revenues	123	115	(8)	(6,5)
(4.515)	Operating expenses	(5.200)	(4.522)	678	(13,0)
2	Other operating (expense) income	(16)	(2)	14	(87,5)
	Depreciation, depletion, amortization and impairments	(317)	(192)	125	(39,4)
490	Operating profit (loss)	(287)	(478)	(191)	66,6
(127)	Net financial income (expense)	7	7		
(61)	Net income (expense) from investments	(70)	(51)	19	(27,1)
302	Profit (Loss) before income taxes	(350)	(522)	(172)	49,1
1	Income taxes	(110)	(12)	98	(89,1)
(0,3)	*Tax Rate (%)*	*(31,4)*	*(2,3)*	*(57,0)*	..
303	Net profit (loss)	(460)	(534)	(74)	16,1

Net Loss

In 2019 the Versalis Group reported a **net loss** of 534 million euros, with a worsening of 74 million euros compared to 2018.

The operating result registered a worsening of 191 million euros mainly due to:

- Lower production of intermediates due to upset and unavailability of the plants (Priolo, Marghera and Dunkerque);
- Reference spread of the Polyethylene business worsening in the second part of the year due to competitive pressure (imports from low cost areas) as well as lower sales due to lower demand;
- Negative scenario for the Elastomer business due to the downcycle in the automotive sector which led to lower sales and production balance;
- Reference spread of the Styrenic business in sharp decline (Single Use Plastic and downcycle regulations in the automotive sector) due to market weakness due to lower sales and balance of production;
- Lower income from the sale of energy efficiency certificates for 40 million euros compared to the previous year.

These negative phenomena were partially absorbed by:

- Lower economic effect deriving from the outcome of the impairment test on fixed assets, which resulted in impairment losses of 103 million euros (reversal of 9 million euros in value of production plants, loss of 98 million euros on intangible assets and loss of 14 million euros on the rights of use of assets) against impairment losses of 203 million euros in the previous year (loss of 187 million euros on production plants and loss of 16 million euros on intangible assets);
- Lower depreciation and amortization of 25 million euros due to the impairment losses of the previous year.

Profit and loss analysis

Net sales from operations

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
1.308	Olefins	1.696	1.219	(477)	(28,1)
328	Aromatics	340	293	(47)	(13,9)
352	Derivatives	365	279	(86)	(23,5)
699	Elastomers	665	567	(98)	(14,8)
723	Styrenes	749	611	(138)	(18,4)
1.308	Polyethylene	1.175	1.022	(153)	(13,0)
133	Corporate and services	133	131	(2)	(1,4)
4.851		**5.123**	**4.123**	**(1.000)**	**(19,5)**

Net sales from operations decreased by one billion euros both as a result of the decrease in the average unit sales prices of Intermediates (-9.9%) and polymers (-10.8%), and the decrease in volumes sold mainly of ethylene, olefins and derivatives.

Other income and revenues

Other income and revenues decreased by 8 million euros compared to 2018, mainly due to lower sales of Energy Efficiency Certificates (40 million euros) and lower revenues from the sale of licenses (5 million euros). These negative effects were partially offset by the increase in income deriving from insurance indemnities (21 million euros) mainly relating to the damage caused by the fire of an oven in the Priolo hub, by the sale of precious metals exceeding the needs relating to the catalysts of the production plants (8 million euros), the greater recovery of costs from third parties (6 million euros) and the sale of emission rights (4 million euros).

Operating expenses

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
2.882	Production costs – raw, ancillary & consumable materials and goods	3.467	2.856	(611)	(17,6)
1.174	Service costs	1.261	1.204	(57)	(4,5)
22	Operating leases and other	27	22	(5)	(18,5)
24	Net provisions for contingencies	37	5	(32)	(86,5)
72	Other expenses	52	57	5	9,6
341	Payroll and related costs	356	378	22	6,2
4.515		**5.200**	**4.522**	**(678)**	**(13,0)**

Operating expenses decreased by 678 million euros, equal to 13%, as illustrated in the previous table.

The 17.6% reduction in costs for the purchase of raw materials, ancillary & consumables materials and goods and changes is mainly due to the decrease in the average unit price in euros of virgin naphtha compared to 2018 and to the decrease in quantities purchased.

Service costs decreased by 4.5% mainly due to the reduction in the prices of utilities (natural gas, electricity and steam) and the reduction in logistics costs. These effects were only partially offset by increases in maintenance costs and ecological treatments.

The decrease of 32 million euros in net provisions for risks and charges is mainly due to lower net provisions for risks and charges for restructuring (14 million euros), the provision for environmental risks and charges (7 million euros), disputes and litigation fund (6 million euros) and the OIL mutual insurance fund (2 million euros).

Labor costs increased by 22 million euros mainly due to the effect of wage dynamics and the increase in staff following the acquisition of the "Bio" business branch from the Mossi & Ghisolfi group, which took effect on 1 November 2018.

Other operating (expense) income

Other operating expenses of 2 million euros (16 million euros in 2018) relate to derivatives to hedge the price risk of virgin naphtha which, although they do not have speculative purposes, cannot be classified as "hedge" for the IFRS principles.

Depreciation, amortization and impairment

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
75	Tangible assets	107	73	(34)	(31,8)
	Right of use		7	7	..
6	Intangible assets	7	9	2	28,6
81	**Depreciation and amortization**	**114**	**89**	**(25)**	**(21,9)**
(81)	**Impairment loss (reversal)**	**203**	**103**	**(100)**	**(49,3)**
		317	**192**	**(125)**	**(39,4)**

Depreciation decreased by 25 million euros compared to last year, mainly due to the devaluation of assets made in 2018.

The impairment test carried out in 2019 resulted in net reversals for a total of 103 million euros (98 million euros of impairment losses on intangible assets, 14 million euros loss on the right to use assets and reversal of 9 million euros on tangible assets).

The **impairment losses and reversals** of tangible assets, the net effect of which is the impairment reversal of 9 million euros, mainly refer to the following CGUs: Intermediates (reversal of 185 million euros), Styrenic (reversal of 24 million euros), effects partially offset by Polyethylene (impairment loss of 192 million euros) and Elastomers (impairment loss of 8 million euros).

Impairment losses and reversals of intangible assets, whose net effect is an impairment loss of 98 million euros, mainly refer to the following CGUs: Biotech (impairment loss of 69 million euros) and Polyethylene (impairment loss of 29 million euros).

The **impairment** loss of right of use (14 million euros) refers to the Biotech CGU in particular to the financial leasing on the Crescentino biomass power plant.

Further detailsare provided in the paragraph "Net reversals (impairment) of tangible and intangible assets and rights of use assets" of the Notes to the consolidated financial statements.

Net financial (expenses) income

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
(4)	Financial income (expense) related to net borrowings	(5)	(6)	(1)	(20,0)
(125)	Income (expense) on loans & securities related to operations	9	11	2	(22,2)
(3)	Financial income (expense) on derivative contracts	(5)	1	6	..
1	Exchange differences	3	1	(2)	66,7
(3)	Other financial income (expense)	(1)	(3)	(2)	..
7	Capitalized financial expense	6	3	(3)	50,0
(127)		**7**	**7**		

Net financial income of 7 million euros is in line with the value of the previous year. Financial income of 11 million euros relates to the loss of the impairment loss of the financial receivable from the jointly controlled company Matrìca due to the collection of the portion of the year.

Derivative instruments lack the formal requirements to be classified as hedging based on IFRS 9 and therefore the relative changes in fair value are recognized in the income statement.

Net income (expense) from investments

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
(23)	Share of profit (loss) of equity-method investments	(43)	(33)	10	23
(38)	Other net income (expense)	(27)	(18)	9	33
(61)		(70)	(51)	19	27

Net expense from investments of 51 million euros mainly relate to the effects of the equity method valuation of investments in the jointly controlled company Lotte Versalis Elastomers (capital loss of 38 million euros) and in the associated company Novamont (capital gain of 4 million euros). euro) as well as the provision made following the assumption by Versalis SpA of the commitment to meet the net financial requirement foreseen for the 2020 financial year of the jointly controlled company Matrìca (18 million euros).

Income taxes

The tax rate analysis is as follows:

2017	(amounts in million euros)	2018	2019	Var. ass.
	Profit before income taxes			
145	Italy	(378)	(428)	(50)
157	Abroad	28	(94)	(122)
302		(350)	(522)	(172)
	Income taxes			
(8)	Italy	102	20	(82)
7	Abroad	8	(8)	(16)
(1)		110	12	(98)
	Tax rate (%)			
(5,5)	Italy	(27,0)	(4,7)	(82)
4,5	Abroad	28,6	8,5	(20)
(0,3)		(31,4)	(2,3)	29,1

The reduction in the tax rate is mainly due to the different effects on the income statement following the determination of the value of prepaid and deferred taxes. For more details on the main changes in the tax rate, see the paragraph "Income taxes" in the notes to the consolidated financial statements.

SUMMARIZED GROUP BALANCE SHEET (*)

(amounts in million euros)	31.12.2018	31.12.2019	Var. ass.
Fixed assets			
Property, plant and equipment	797	831	34
Right of use		17	17
Intangible assets	124	24	(100)
Investments	175	178	3
Investments and securities held for operating activities	2	11	9
Net payables related to capital expenditures	(47)	(32)	15
	1.051	1.029	(22)
Net working capital			
Inventories	807	821	14
Trade receivables	557	449	(108)
Trade payables	(653)	(655)	(2)
Tax receivables (payables) and provisions for deferred tax	88	66	(22)
Provisions for risk and charges	(149)	(129)	20
Other current assets (liabilities)	43	69	26
	693	621	(72)
Provisions for employee benefits	(70)	(72)	(2)
NET CAPITAL EMPLOYED	1.674	1.578	(96)
Shareholders' equity	1.044	507	(537)
Net financial debt (surplus)	630	1.071	441
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	1.674	1.578	(96)

(*) See "Reconciliation of reclassified balance sheet, income statement and cash flow statement with the statutory financial statements"

Fixed Assets

The main changes to the fixed assets items are commented on below.

Property, plant and equipment, amounting to 831 million euros, increased by 34 million euros mainly due to Capital expenditures for the year (110 million euros) and to the outcome of the impairment test which resulted in a reversal of value total net of plants of 9 million euros, effects partially offset by depreciation for the year (73 million euros). It should also be noted that, in application of the new accounting standard IFRS16, the amount of the financial leasing (16 million euros), acquired in 2018 by the Mossi & Ghisolfi group, on the biomass power plant relating to the "Bio" business unit has been reclassified from tangible assets to the item "right to use assets".

The **right to use** assets, established following the application of the new accounting standard IFRS16, of 17 million euros mainly refers to the right to use land (12 million euros), to the right to use motor vehicles (3 million euros) and to the finance lease on the Crescentino biomass power plant (2 million euros, value expressed net of a loss of 14 million euros following the impairment test of the year).

Intangible assets, equal to 24 million euros, decreased by 100 million euros mainly due to the impairment loss of the licenses (43 million euros) and the goodwill (26 million euros) relating to the Biotech CGU and the impairment loss of other assets intangible assets of the Polyethylene CGU (29 million euros) and depreciation for the period (9 million euros). These effects were partially offset by capital expenditures for the period (8 million euros).

Investments, equal to 178 million euros, increased by 3 million euros due to the effect of the transposition of the net result for the year in the context of the valuation according to the equity method of the equity investment held by the associated company Novamont SpA (profit of 4 million euros). This positive effect was offset by the incorporation of the valuation according to the equity method of the equity investment held in the joint venture Lotte Versalis Elastomers Co. Ltd (net loss of 38 million euros and negative exchange differences for currencies other than the currency of account with effect on equity reserve of 2 million euros) partially absorbed by the payment for the share capital increase of the joint venture (39 million euros). For the jointly controlled company Matrìca, the payment to the future share capital increase of the company (37 million euros), was eliminated from the use of the provision for future risks and charges on specifically set up investee companies (37 million euros);

despite the fact that the shareholders' equity of the jointly controlled company Matrìca is equal to 7 million euros, the book value of the investment is completely devalued, given the company's financial plan.

Financial receivables and securities instrumental to operating activities of 11 million euros increase by 9 million euros for the short-term portion of the financial credit granted to the jointly controlled company Matrìca SpA. The non-current portion of the financial credit towards the company joint control Matrìca, amounting to 48 million euros, is fully written down, while the short-term portion is not written down since it was considered that the company is able to repay it thanks to the commitment undertaken by Versalis SpA to meet the financial needs of the next year of Matrìca itself (see section Provisions for risks and charges).

Net working capital

The main changes in the net working capital items are commented on below.

The 14 million euros increase in **inventories** is attributable to an increase in quantities in stock partially offset by a decrease in the weighted average cost of inventories and mainly concerns raw materials, subsidiaries and consumables. These amounts include net provisions to the write down provisions for 18 million euros, for adjustment to the market value of the quantities in stock.

The 108 million euros decrease in **trade receivables** mainly derives from the reduction in turnover.

The decrease in **tax receivables and provision for deferred tax** of 22 million euros is mainly due to the decrease in the net balance of prepaid / deferred taxes.

The 20 million euros decrease in **provisions for risks and charges** is mainly due to the net 10 million euros change in the Matrìca financial support fund and 8 million euros in the disposal and restructuring fund.

The 26 million euros increase in **other current assets** is mainly due to the increase in other current receivables of 29 million euros from Eni Group companies, the 7 million euros increase in advances to suppliers and 5 million euros in other receivables from subsidiaries, a 2 million euros reduction in advances and advances from customers and a 2 million euros reduction in passive derivatives. These effects are partially offset by the reduction of 21 million euros in receivables from the parent company.

Comprehensive income

(amounts in million euros)	2018	2019
PROFIT (LOSS) FOR THE PERIOD	(460)	(534)
Other items of other comprehensive profit (loss)		
Valuation of defined-benefit plans for employees	(3)	(3)
Foreign currency translation differences	(1)	(1)
Tax effect relative to the other components of the comprehensive loss that cannot be reclassified in the profit and loss account	1	1
TOTAL COMPREHENSIVE PROFIT (LOSS) FOR THE YEAR	(463)	(537)

Shareholders' equity

(amounts in million euros)	
Shareholders' equity as at December 31, 2018	1.044
Total comprehensive profit for the year	(537)
Shareholders' equity as at December 31, 2019	507

Shareholders' equity amounted to 507 million euros and decreased by 537 million euros compared to 2018 due to the overall loss for the year.

Net financial debt

(amounts in million euros)	31.12.2018	31.12.2019	Var. ass.
Financial debt - short term	592	1.028	436
Financial debt - medium long term	82	60	(22)
Lease liabilities		25	25
Cash and cash equivalent	(44)	(42)	2
Net financial debt	630	1.071	441

The 441 million euros increase in **net financial debt** is essentially due to the net cash flow from operating activities (negative for 214 million euros) and to the recognition of leasing liabilities following the adoption of the new accounting standard IFRS16, as well as cash requirements for capital expenditures (118 million euros) and financial investments (76 million euros). For further details, see the comment on the reclassified cash flow statement.

Reconciliation of net loss and shareholders' equity of Versalis SpA to consolidated net loss and shareholders' equity

	Net Profit (loss)		Shareholders' equity	
(amounts in million euros)	2018	2019	31.12.2018	31.12.2019
As recorded in the annual Financial Statements of Versalis SpA	**(355)**	**(427)**	**1.196**	**767**
Difference between the equity value of individual accounts of consolidated subsidiaries, with respect to the corresponding carrying amount in the statutory accounts of the parent company	**(62)**	**(45)**	**(170)**	**(210)**
Consolidation adjustments:				
- elimination of tax adjustments and compliance with accounting policies	**(41)**	**(65)**	**(12)**	**(83)**
- deferred taxation	**(2)**	**6**	**30**	**36**
- elimination of intercompany profits		**(3)**		**(3)**
As recorded in the Consolidated Financial Statements	**(460)**	**(534)**	**1.044**	**507**

SUMMARIZED GROUP CASH FLOW STATEMENT (*)

In 2019, the **net cash flow from operating activities** is negative for 214 million euros. Disbursements for capital expenditures (118 million euros) and investments in equity investments (76 million euros) and the change in receivables relating to investment activities (15 million euros), only partially offset by the cash flow from financial investments (9 million euros), generated a negative free cash flow of 414 million euros covered thanks to the financing lines guaranteed by the parent company Eni SpA.

2017	(amounts in million euros)	2018	2019	Var. ass.
303	Net profit (loss) for the period	(460)	(534)	(74)
	Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
197	- depreciation and amortization and other non monetary items	381	231	(150)
	- net gains on disposal of assets	(2)		2
(14)	- dividends, interest, taxes and other charges	104	13	(91)
(19)	Changes in working capital	(141)	68	209
11	Dividends received, taxes (paid) received, interest (paid) received	(2)	8	10
478	Net cash flow provided by operating activities	(120)	(214)	(94)
(202)	Investments in fixed assets	(150)	(118)	32
(63)	Investments and purchase of consolidated subsidiaries and businesses	(103)	(76)	27
	Disposals	4		(4)
(9)	Financial investments	4	9	5
(31)	Other cash flow related to investing activities	14	(15)	(29)
173	Free cash flow	(351)	(414)	(63)
(95)	Change in short-term and long-term debt	499	425	(74)
	Reimbursement of lease liabilities		(14)	(14)
	Cash flow from capital and reserves	(304)		304
78	NET CASH FLOW FOR THE PERIOD	(156)	(3)	153

2017	(amounts in million euros)	2018	2019	Var. ass.
173	Free cash flow	(351)	(414)	(63)
1	Exchange differences on net borrowings and other changes		(4)	(4)
	Reimbursement of lease liabilities		(14)	(14)
	Change in financial debts and credits on company branches	(16)		16
	Cash flow from capital and reserves	(304)		304
174	CHANGE IN NET BORROWINGS ANTE IFRS16	(671)	(432)	239
	First application IFRS 16		(22)	(22)
	Reimbursement of lease liabilities		14	14
	New leasing liabilies and other variation		(1)	(1)
	Variation in lease liabilities		(9)	(9)
174	CHANGE IN NET BORROWINGS POST IFRS16	(671)	(441)	230

Reconciliation of the reclassified consolidated financial statements with the statutory financial statements

Items of the Reclassified Consolidated Balance Sheet (where not expressly indicated,the item derives directly from the consolidated financial statements (statutory format) (amounts in millions of euros)	Ref. to notes to the consolidated financial statements	31.12.2018 Partial amounts from the consolidated financial statements	31.12.2018 Amounts from the reclassified financial statements	31.12.2019 Partial amounts from the consolidated financial statements	31.12.2019 Amounts from the reclassified financial statements
Fixed assets					
Property, plant and equipment			797		831
Right of use					17
Intangible assets			124		24
Equity accounted investments			172		175
Other investments			3		3
Receivables & securities for operating activities, made up of:			2		11
- other non-current financial assets		2		11	
Net payables related to capital expenditures, made up of:			(47)		(32)
- payables related to capital expenditures	(see note 16)	(47)		(32)	
Total fixed assets			1.051		1.029
Net working capital					
Inventories			807		821
Trade receivables			557		449
Trade payables			(653)		(655)
Tax receivables (payables) & provisions for tax, made up of:			88		65
- income tax payables	(see note 17)	(1)		(1)	
- other tax payables	(see note 18)	(12)		(15)	
- deferred tax liabilities	(see note 23)	(2)		(1)	
- payables for tax transparency v/s joint ventures	(see note 16)	(2)		(2)	
- payables for Group VAT		(19)		(18)	
- current tax assets	(see note 4)	15		11	
- other current tax assets	(see note 5)	14		13	
- deferred tax assets	(see note 12)	75		47	
- receivables for tax consolidation		4		15	
- receivables for Group VAT	(see note 2)	16		16	
Provisions for risks and charges			(149)		(129)
Other current assets and liabilities, made up of:			43		69
- other receivables	(see note 2)	129		171	
- other (current) assets	(see note 6)	3		2	
- other receivables and other assets (non current)	(see note 13)			1	
- advances, other payables	(see note 16)	(72)		(76)	
- other (current) liabilities	(see note 19)	(17)		(10)	
- other payables and other liabilities (non current)	(see note 24)			(19)	
Total net working capital			693		620
Provisions for employee benefits			(70)		(72)
NET CAPITAL EMPLOYED			1.674		1.577
Shareholders' equity			1.044		507
Net borrowings					
Total debt, made up of:					
- long-term debt	(see note 20)	66		51	
- current portion of long-term debt	(see note 20)	16		9	
- short-term debt	(see note 14)	592		1.028	
Lease liabilities					25
- Long term lease liabilities				17	
- Short term lease liabilities				8	
Less:					
Cash and cash equivalent	(see note 1)	(44)		(42)	
Total Net finacial debt			630		1.071
NET FINANCIAL DEBT AND SHAREHOLDERS' EQUITY			1.674		1.578

Summarized Group Cash Flow Statement

Items of the Reclassified Cash Flow Statement and confluence/reclassification of items in the statutory format (amounts in millions of euros)	2018		2019	
	Partial amounts from statutory format	Amounts from the reclassified financial statements	Partial amounts from statutory format	Amounts from the reclassified financial statements
Net Profit (Loss)		**(460)**		**(534)**
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:				
Depreciation and amortization and other non-monetary items		381		231
- depreciation and amortization	114		89	
- net impairment of tangible and intangible assets	203		103	
- eliminations			1	
- impairments (w rite-backs) of investments	70		51	
- currency translation differences from alignment	(2)		(4)	
- economic effects on securities and financial receivables	(4)		(9)	
- valuation of equity investments valued at cost				
- net change in provision for employee benefits			0	
Net gains on disposal of assets		(2)		
Dividends, interest, income taxes and other charges		104		13
- dividends				
- interest income	(4)		(3)	
- interest expense	(2)		4	
- income taxes	110		12	
Changes in w orking capital		(141)		68
- inventories	(84)		(12)	
- trade receivables	23		111	
- trade payables	(96)		1	
- provisions for risks and charges	19		(10)	
- other assets and liabilities	(3)		(22)	
Dividends received, taxes paid, interest (paid) received during the period		(2)		8
- dividends received	1		1	
- interest received	4		2	
- interest paid	3		(4)	
- Income taxes received (paid) including tax credits recharged	(10)		9	
Net cash flow provided by operating activities		**(120)**		**(214)**
Capital expenditures		(150)		(118)
- tangible assets	(145)		(110)	
- intangible assets	(5)		(8)	
Investments and purchase of consolidated subsidiaries and businesses		(103)		(76)
- non consolidated investments	(28)			
- investments and purchase of consolidated subsidiaries and businesses	(75)		(76)	
- acquisto di quote di imprese consolidate				
Divestments and partial disposals of consolidated investments		4		0
- tangible assets				
- attività immateriali				
- imprese uscite dall'area di consolidamento e rami d'azienda				
- investments	4			
- cessione di quote di partecipazioni in imprese consolidate				
Other changes related to investment activity		18		(6)
- investimenti finanziari: titoli				
- financial investments: financial receivables	4		9	
- change in payables and receivables related to investments	14		(15)	
Free cash flow		**(351)**		**(414)**
Change in short-term and long-term debt		499		411
- proceeds from long-term finance debt			2	
- payments from long-term finance debt	(5)		(9)	
- payments from lease liabilities			(14)	
- change in short-term finance debt	504		432	
- foreign currency exchange differences	0			
- change in the consolidation of cash & cash equivalents				
Cash flow from equity capital:		**(304)**		**0**
- net capital contribution (repayments) by/to third parties	(304)			
Net cash flow for the period		**(156)**		**(3)**

FINANCIAL REVIEW OF VERSALIS SPA

Profit and Loss Account

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
3.850	Net sales from operations	4.111	3.259	(852)	(20,7)
151	Other income and revenues	119	109	(10)	(8,4)
(3.657)	Operating expenses	(4.251)	(3.665)	586	13,8
2	Other operating (expense) income	(16)	(2)	14	87,5
(13)	Depreciation, amortization and impairment	(274)	(48)	226	82,5
333	**Operating Profit (Loss)**	**(311)**	**(347)**	**(36)**	**(11,6)**
(125)	Net finance income (expense)	7	7		
101	Net income (expense) from investments	51	(67)	(118)	..
309	**Profit (Loss) before income taxes**	**(253)**	**(407)**	**(154)**	**(60,9)**
11	Income taxes	(102)	(20)	82	80,4
320	**Net Profit (Loss)**	**(355)**	**(427)**	**(72)**	**(20,3)**

Net Loss

The financial statements of Versalis SpA closed with a net loss for the year of 427 million euros (loss of 355 million euros in 2018), determined by the operating loss of 347 million euros, net financial income of 7 million euros, due to net charges on equity investments of 67 million euros and income tax charges of 20 million euros.

The operating result registered a worsening of 36 million euros mainly due to:

- Lower production of intermediates due to upset and unavailability of the plants (Priolo and Marghera);
- Reference spread of the Polyethylene business worsening in the second part of the year due to competitive pressure (imports from low cost areas) as well as a decrease in sales due to lower demand;
- Negative scenario for the Elastomer business due to the downcycle in the automotive sector, resulting in lower sales and production balance;
- Reference spread of the Styrenic business in sharp decline (Single Use Plastic and downcycle regulations in the automotive sector) due to market weakness due to lower sales and balance of production;
- Lower income from the sale of energy efficiency certificates of 40 million euros compared to the previous year.

These negative phenomena were partially absorbed by:

- Lower economic effect deriving from the outcome of the impairment test on fixed assets, which led to net reversal of 11 million euros (reversal of 122 million euros on production plants, impairment loss of 97 million euros on intangible assets and impairment loss of 14 million euros on the rights of use of assets) against impairment losses of 202 million euros (impairment loss of 186 million euros on production plants and impairment loss of 16 million euros on intangible assets) in the previous year. This difference is mainly due to the impairment loss already received in previous years (see the comments in the notes to the consolidated financial statements for more details);
- lower depreciation of 13 million euros, due to the impairment loss of the previous year.

Analysis of the profit and loss account items

The reasons for the most significant changes in the Versalis SpA income statement items, unless expressly indicated below, are commented on in the Notes to the financial statements of Versalis SpA.

Net sales from operations

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
950	Olefins	1.266	874	(392)	(31,0)
328	Aromatics	340	293	(47)	(13,9)
351	Derivatives	365	276	(89)	(24,3)
574	Elastomers	528	449	(79)	(15,0)
685	Styrenes	715	587	(128)	(17,9)
834	Polyethylene	743	618	(125)	(16,8)
128	Corporate and services	154	162	8	4,9
3.850		**4.111**	**3.259**	**(852)**	**(20,7)**

Net sales from operations Core business revenues decreased by 852 million euros mainly due to the decrease in average unit sales prices and the decrease in volumes sold.

Other income and revenues fell by 10 million euros compared to 2018, mainly due to the lower sales of Energy Efficiency Certificates (40 million euros) and lower revenues from the sale of licenses (5 million euros). These effects are partially offset by the increase in income deriving from insurance indemnities (21 million euros) mainly relating to the damage caused by the fire of an oven in the Priolo hub, by the sale of precious metals exceeding the needs relating to the catalysts of the production plants. (8 million euros), the greater recovery of costs from third parties (6 million euros) and the sale of emission rights (4 million euros).

Operating expenses

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
2.252	Production costs – raw, ancillary and consumable materials and goods and inventory changes	2.741	2.223	(518)	(18,9)
1.059	Service costs	1.130	1.077	(53)	(4,7)
16	Operating leases and other	21	19	(2)	(9,5)
14	Net provisions for contingencies	37	4	(33)	(89,2)
47	Other expenses	42	44	2	4,8
269	Payroll and related costs	280	298	18	6,4
3.657		**4.251**	**3.665**	**(586)**	**(13,8)**

Operating costs decreased by 586 million euros, equal to 13.8%, as shown in the previous table.

The 18.9% decrease in costs for the purchase of raw materials, subsidiaries, consumables, goods and changes in inventories is mainly due to the reduction in the average unit price of virgin oil in euros compared to 2018 and to the decrease in quantities purchased.

Costs for services fell by 4.7% mainly due to the reduction in the prices of utilities (natural gas, electricity and steam), logistics costs and professional consultancy. These effects were only partially offset by increases in maintenance costs and ecological treatments.

The decrease of 33 million euros in net provisions for risks and charges is mainly due to lower net provisions for risks and charges for restructuring (14 million euros), the provision for environmental risks and charges (9 million euros), disputes and litigation fund (6 million euros) and the OIL mutual insurance fund (2 million euros).

Payroll and related costs increased by 18 million euros mainly due to the increase in staff following the acquisition of the "Bio" business branch of the Mossi & Ghisolfi group which took effect on 1 November 2018.

The **other operating expenses** of 2 million euros (16 million euros in 2018) relate to derivatives to hedge the price risk of virgin naphtha which, although not having speculative purposes, cannot be classified as "hedge" for the IFRS principles.

Depreciation, amortization and impairment

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
41	Tangible asset	67	46	(21)	(31,3)
	Right of use		4	4	..
5	Intangible asset	5	9	4	80,0
46	**Depreciation and amortizations**	**72**	**59**	**(13)**	**(18,1)**
(33)	**Impairment (reversal)**	**202**	**(11)**	**(213)**	**(105,4)**
13		**274**	**48**	**(226)**	**(82,5)**

Depreciation decreased by 13 million euros compared to the previous year, mainly due to the devaluation of assets made in 2018.

The impairment test carried out in 2019 resulted in net reversals for a total of 11 million euros (reversal of 122 million euros on tangible assets, loss of 97 million euros on intangible assets and loss of 14 million euros on use of assets).

The impairment loss and reversal of tangible assets, of which the net effect is a reversal of 122 million euros, mainly refer to the following CGUs: Intermediates (reversal of 185 million euros), Styrenic (reversal of 17 million euros), effects partially offset by Polyethylene (impairment loss of 72 million euros) and Elastomers (impairment loss of 8 million euros). Further details are provided under the paragraph"Net impairment (reversal) of tangible and intangible assets and rights to use assets" of the Notes to the financial statements.

The impairment of intangible assets of 97 million euros mainly refer to the following CGUs: Biotech (impairment loss of 69 million euros) and Polyethylene (impairment loss of 28 million euros).

The impairment of the right of use (loss of 14 million euros) refers to the Biotech CGU in particular to the financial leasing on the Crescentino biomass power plant.

Net financial expenses

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
(1)	Financial income (expense) related to net borrowings	(5)	(6)	(1)	20,00
(125)	Income (expense) on loans and securities related to operations	9	11	2	22,22
(3)	Income (expense) on derivative contracts	(5)	1	6	..
1	Exchange differences	4	1	(3)	(75,00)
(4)	Other financial income (expense)	(2)	(3)	(1)	50,00
7	Financial expenses capitalized	6	3	(3)	(50,00)
(125)		7	7		

Net financial income of 7 million euros is in line with the value of the previous year. Financial income of 11 million euros relates to the loss of the impairment loss of the financial receivable from the jointly controlled company Matrìca for the collection of the share for the year.

Derivative instruments lack the formal requirements to be classified as hedging based on IFRS 9 and therefore the relative changes in fair value are recognized directly in the income statement.

Net income (expense) from investments

2017	(amounts in million euros)	2018	2019	Var. ass.	Var. %
33	Dividends	90	25	(65)	(72,2)
106	(Allocations to) Utilization of provisions for impairment of investments	(9)	(74)	(65)	..
(38)	(Allocations to) Utilization of provisions to cover losses	(30)	(18)	12	(40,0)
101		51	(67)	(118)	..

Net expense from investments of 67 million euros refer to the provision for the impairment loss of the investment in the jointly controlled company Lotte Versalis Elastomers (81 million euros) for adjustment to the value in use and the provision made following the Assumption, by Versalis SpA, of the commitment to meet the net financial requirement, expected for the year 2020, of the jointly controlled company Matrìca (18 million euros). These effects were partially offset by dividends received by the subsidiaries Versalis France (21 million euros) and Versalis International (4 million euros) and by reversal of a prior-year impairment loss in Dunastyr (6 million euros).

Income taxes

2017	(amounts in million euros)	2018	2019	Var. ass.
(16)	IRES	1	(18)	(19)
9	IRAP			
(7)	Current taxes	1	(18)	(19)
15	Deferred taxes	(10)	(20)	(10)
(18)	Prepaid taxes	111	58	(53)
(3)	Net prepaid taxes	101	38	(63)
(10)		102	20	(82)

The reduction in income taxes of 82 million euros compared to 2018 derives from the different effects on the income statement consequent to the determination of the value of prepaid and deferred taxes as well as the increase in income for the national tax consolidation IRES (current and relating to previous years).

SUMMARIZED BALANCE SHEET[1]

(amounts in €millions)	31.12.2018	31.12.2019	Var. ass.
Fixed asset			
Property, plant and equipments	541	702	161
Diritto di utilizzo attività in leasing		3	3
Intangible assets	123	23	(100)
Investments	617	581	(36)
Receivables and securities held for operating activities	2	11	9
Net payables related to capital expenditure	(45)	(30)	15
	1.238	**1.290**	**52**
Net working capital			
Inventories	618	620	2
Trade receivables	470	395	(75)
Trade payables	(561)	(554)	7
Tax receivables (payables) and provisions for deferred tax	47	20	(27)
Provisions for risks and charges	(135)	(114)	21
Other current assets (liabilities)	95	115	20
	534	**482**	**(52)**
Provisions for employee benefits	**(68)**	**(70)**	**(2)**
NET CAPITAL EMPLOYED	**1.704**	**1.702**	**(2)**
Shareholders' equity	**1.196**	**767**	**(429)**
Net borrowings	**508**	**935**	**427**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**1.704**	**1.702**	**(2)**

(*) See "Reconciliation of reclassified balance sheet, income statement and cash flow statement with the statutory financial statements."

The reasons for the most significant changes in the items of the balance sheet of Versalis SpA unless expressly indicated below, are commented on in the Notes to the financial statements of Versalis SpA, to which reference should be made.

Fixed assets

Property, plant and equipment, amounting to 702 million euros, increased by 161 million euros mainly due to capital expenditures for the year (101 million euros) and to the outcome of the impairment test which resulted in a restoration of overall value net of plants of 122 million euros, effects partially offset by depreciation for the year (46 million euros). It should also be noted that, in application of the new accounting standard IFRS16, the amount of the financial leasing (16 million euros), acquired in 2018 by the Mossi & Ghisolfi Group, on the biomass power plant relating to the "Bio" business unit has been reclassified from tangible assets to the right to use assets item.

The **right to use** assets, established following the application of the new accounting standard IFRS16, of 3 million euros mainly refers to the financial lease on the biomass power plant of Crescentino (2 million euros, value net of an impairment loss for 14 million euros) and the right to use the cars granted to employees.

Intangible assets, equal to 23 million euros, decreased by 100 million euros mainly due to the impairment of the licenses (43 million euros) and the goodwill (26 million euros) relating to the Biotech CGU and the Polyethylene CGU (29 million euros) and for the amortization charge for the period (9 million euros). These effects were partially offset by capital expenditures for the period (5 million euros).

[1] Refer to the comment on the consolidated economic and financial results for the methodological illustration of the reclassified schedules.

Investments of 581 million euros decrease by 36 million euros essentially due to the impairment loss of the investment in the joint venture Lotte Versalis Elastomers (81 million euros), of the jointly controlled company Matrìca (impairment loss of 37 million euros) and for the reversal of the equity investment held in Dunastyr (6 million euros), effects partially offset by the capital increase of 39 million euros in the Lotte Versalis Elastomers joint venture and for the payment in future account of the share capital increase of the jointly controlled company Matrìca (37 million euros).

Financial receivables and securities instrumental to operating activities of 11 million euros increase by 9 million euros mainly due to the use of the provision for the write off of financial receivables from the jointly controlled company Matrìca SpA. In fact, in previous years, the loan granted in Matrìca for the financial needs of the Porto Torres "Polo Verde" project, it had been fully written down.

Net working capital

The 2 million euros increase in **inventories** is attributable to an increase in quantities in stock partially offset by a decrease in the unit value of inventories and mainly concerns finished products. These amounts include write down provisions for 18 million euros for adjustment to the market value of the quantities in stock.

The 75 million euros reduction in **trade receivables** mainly derives from the reduction in turnover.

The decrease in **tax receivables and provision for deferred tax** of 27 million euros is mainly due to the decrease in the net balance of prepaid / deferred taxes.

The decrease of 21 million euros in **provisions for risks and charges** is mainly due to the net use of the fund for the financial support of Matrìca SpA (10 million euros) and for the subsidiary Dunastyr (3 million euros) and to the use of 8 million euros in the disposal and restructuring fund.

The 20 million euros increase in **other net current asset** is mainly due to the increase in other current receivables of 29 million euros from Eni Group companies, the 7 million euros increase in advances to suppliers and 5 million euros of other receivables from subsidiaries, the 2 million euros reduction in advances and advances from customers. These effects are partially offset by the 21 million euros reduction in receivables from parent companies and the 3 million euros decrease in other receivables from third parties.

Shareholders' equity

(amounts in million euros)

Shareholders' equity as at December 31, 2018	**1.196**
Net loss	**(427)**
Reserves relating to employee benefits	**(2)**
Shareholders' equity as at December 31, 2019	**767**

Shareholders' equity amounted to 767 million euros and decreased by 429 million euros, mainly due to the effect of the loss for the year of 427 million euros and to the reserve effects relating to employee benefits in application of IAS 19 (2 million euros). The net loss of 427 million euros, against a fully paid-up share capital of 1.365 million euros, reserves of 14 million euros and losses carried forward of 185 million euros, configures the extremes provided for by art. 2446 of the Italian Civil Code.

Net financial debt

(amounts in million euros)	31.12.2018	31.12.2019	Var. ass.
Short term financial debt	463	867	404
Medium long term financial debt	66	60	(6)
Lease liabilities		11	11
Cash and cash equivalent	(21)	(3)	18
Net financial debt	**508**	**935**	**427**

The 427 million euros increase in **net financial debt** is essentially due to the net cash flow from operating activities (negative for 232 million euros) and to the recognition of leasing liabilities following the adoption of the new accounting standard IFRS16 , as well as cash requirements for capital expenditures (106 million euros) and financial investments (79 million euros). For further details, see the comment on the summarized cash flow statement.

SUMMARIZED CASH FLOW STATEMENT (*)

In 2019, the net cash flow from operating activities was negative for 232 million euros. Disbursements for capital expenditures (106 million euros) and investments in equity investments (79 million euros) and the change in receivables relating to investment activities (15 million euros), only partially offset by the cash flow from financial investments (9 million euros), generated a negative free cash flow of 423 million euros, covered thanks to the lines of financing guaranteed by the parent company Eni SpA.

2017	(amounts in million euros)	2018	2019	Var. ass.
320	**Net profit (loss) for the period**	**(355)**	**(427)**	**(72)**
	Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
80	- depreciation, depletion, and amortization and other non monetary ite	306	131	(175)
	- net gains on disposal of assets	(2)		2
(57)	- dividends, interest, taxes and other charges	6	(6)	(12)
19	Changes in w orking capital	(105)	36	141
67	Dividends received, taxes (paid) received, interest (paid) received	98	34	(64)
429	**Net cash flow provided by operating activities**	**(52)**	**(232)**	**(180)**
(184)	Capital expenditures	(126)	(106)	20
(62)	Investments and purchase of consolidated subsidiaries and business	(103)	(79)	24
	Disposals	4		(4)
(8)	Financial investments: financial receivables	4	9	5
(27)	Other changes related to investment activity	16	(15)	(31)
148	**Free cash flow**	**(257)**	**(423)**	**(166)**
(80)	Change in short-term and long-term debt	422	415	(7)
	Change in lease liabilities		(10)	(10)
	Equity cash flow	(304)		304
68	**NET CASH FLOW FOR THE PERIOD**	**(139)**	**(18)**	**121**

Change in Net financial debt

2017	(amounts in million euros)	2018	2019	Var. ass.
148	**Free cash flow**	**(257)**	**(423)**	**(166)**
	Exchange differences on net borrow ings and other changes	(1)		1
	Change in lease liabilities		(10)	(10)
	Change in financial	(16)		16
	Equity cash flow	(304)		304
148	**Change in Net financial debt ante Leasing**	**(578)**	**(433)**	**145**
	IFRS 16 first application		(3)	(3)
	Change in lease liabilities		10	10
	Other changing		(1)	(1)
0	**Change in lease liabilities**	**0**	**6**	**6**
148	**Change in Net financial debt post Leasing**	**(578)**	**(427)**	**151**

* for the reconciliation to the mandatory scheme see the paragraph "Reclassification of the reclassified schedules recorded in the management report to those required".

Reconciliation of the summarized financial statements used in the Directors' Report with the statutory financial statements

Items of the Reclassified Cash Flow Statement and confluence/reclassification of items in the statutory format (amounts in million euros)	2018		2019	
	amounts from statutory format	from the reclassified financial statements	amounts from statutory format	from the reclassified financial statements
Net Profit (Loss)		**(355)**		**(427)**
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:				
Depreciation and amortization and other non-monetary items		306		131
- depreciation and amortization	72		59	
- net impairment of tangible and intangible assets	201		(11)	
- impairments (w rite-backs) of investments	39		93	
- currency translation differences from alignment	(1)			
- economic effects on securities and financial receivables	(4)		(9)	
- net change in provision for employee benefits	(1)		(1)	
Net gains on disposal of assets		(2)		
Dividends, interest, income taxes and other charges		6		(6)
- dividends	(90)		(25)	
- interest income	(4)		(3)	
- interest expense	(2)		2	
- income taxes	102		20	
Changes in w orking capital		(105)		36
- inventories	(50)		(2)	
- trade receivables	24		76	
- trade payables	(104)		(7)	
- provisions for risks and charges	19		(8)	
- other assets and liabilities	6		(23)	
Dividends received, taxes paid, interest (paid) received during the period		98		34
- dividends received	90		25	
- interest received	4		3	
- interest paid	3		(2)	
- Income taxes received (paid) including tax credits recharged	1		8	
Net cash flow provided by operating activities		**(52)**		**(232)**
Capital expenditures		(126)		(106)
- tangible assets	(125)		(101)	
- intangible assets	(1)		(5)	
Investments and purchase of consolidated subsidiaries and businesses		(103)		(79)
- non consolidated investments	(28)		(79)	
- investments and purchase of consolidated subsidiaries and businesses	(75)			
Divestments and partial disposals of consolidated investments		4		0
- tangible assets			0	
- investments	4			
Other changes related to investment activity	0	20	0	(6)
- financial investments: financial receivables	4		9	
- change in payables and receivables related to investments	16		(15)	
Free cash flow		**(257)**		**(423)**
Change in short-term and long-term debt		422		405
- proceeds from long-term finance debt				
- payments from long-term finance debt	(5)		(6)	
- payments from lease liabilities			(10)	
- change in short-term finance debt	427		421	
Cash flow from equity capital:		(304)		0
- net capital contribution (repayments) by/to third parties	(304)			
Net cash flow for the period		**(139)**		**(18)**

Summarized Cash Flow Statement

Items of the Reclassified Balance Sheet (where not expressly indicated,the item derives directly from the financial statements (statutory format) (amounts in million euros)	31.12.2018 Partial amounts from statutory format	31.12.2018 Amounts from the reclassified financial statements	31.12.2019 Partial amounts from statutory format	31.12.2019 Amounts from the reclassified financial statements
Fixed assets				
Property, plant and equipment		541		702
Intangible assets		123		23
Right of use				3
Equity accounted investments and Other investments		617		581
Receivables & securities for operating activities, made up of:		2		11
- other receivables			9	
- other non-current financial assets	2		2	
Net payables related to capital expenditures, made up of:		(45)		(30)
- payables related to capital expenditures	(45)		(30)	
Total fixed assets		1.238		1.290
Net working capital				
Inventories		618		620
Trade receivables		470		395
Trade payables		(561)		(554)
Tax receivables (payables) & provisions for tax, made up of:		47		20
- income tax payables	(2)		(2)	
- other tax payables	(8)		(9)	
- deferred tax liabilities				
- payables for tax transparency v/s joint ventures				
- payables for Group VAT	(19)		(18)	
- current tax assets	4		15	
- other current tax assets	9		9	
- deferred tax assets				
- receivables for tax consolidation	47		9	
- receivables for Group VAT	16		16	
Provisions for risks and charges		(135)		(114)
Other current assets and liabilities, made up of:		95		115
- other receivables	155		173	
- other (current) assets	2		1	
- other receivables and other assets (non current)	1		1	
- advances, other payables	(54)		(53)	
- other (current) liabilities	(9)		(7)	
- other payables and other liabilities (non current)				
Total net working capital		534		482
Provisions for employee benefits		(68)		(70)
NET CAPITAL EMPLOYED		1.704		1.702
Shareholders' equity		1.196		767
Net borrowings				
Total debt, made up of:				
- long-term debt	66		51	
- current portion of long-term debt	16		9	
- short-term debt	447		867	
Lease liabilities				11
- long-term lease liabilities			6	
- short term lease liabilities			5	
less:				
Cash and cash equiivalent	(21)		(3)	
Total net borrowings		508		935
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		1.704		1.702

RISK FACTORS AND UNCERTAINTIES

Introduction

The main business risk, identified and actively managed by the Versalis Group, is the operational risk. This risk, and the methods of managing it, are described here below. For a description of financial risks see the specific section of the notes to the consolidated financial statements.

Operation and related risks relating to HS&E

The activities of the Versalis Group by their nature involve industrial and environmental risks and are subject, in most of the countries in which the Group operates, to laws and regulations for the protection of the environment and industrial safety. For example, in Europe the Versalis Group owns and operates industrial plants that present high accident risks and for which the Group has adopted rules and standards of conduct that meet the criteria of the "Seveso II Directive" of the European Union.

The wide spectrum of activities involves a wide range of operational risks such as explosions, fires, emissions of harmful gases, spills of toxic products, production of non-biodegradable waste.

These events can damage or destroy the plants, damage people or the surrounding environment. In addition, since industrial activities can take place in ecologically sensitive areas, each site requires a specific approach to minimize the impact on the ecosystem concerned, on biodiversity and on human health.

The Versalis Group has adopted the best standards for the assessment and management of industrial and environmental risks, conforming its behavior to industry best practices. Over time, the Versalis Group has obtained the ISO14001 and OHSAS18001 system certifications (see the paragraph "Environmental responsibility"). The business units, in the development and management of their activities, in addition to applying the laws and regulations of the countries in which they operate, assess industrial and environmental risks through specific procedures.

Any environmental emergencies are managed by the business units at the site level, with its own organization that has, for each possible scenario, the response plan with the actions that must be activated to limit the damage, as well as the company positions that must insure them.

Most of the products of the Versalis Group are subject to the REACH regulation that governs the registration and authorization obligations of the products themselves, not only by the company, but also by its suppliers, as a necessary condition for their manufacture and placing on the market.

The Versalis Group complies with this legislation and requires the same requirement from its suppliers already when pre-qualifying for the tenders.

The integrated approach to health, safety and environmental issues is favored by the application, at all levels of Eni's Business Units and Companies, of an HSE Management System which finds its methodological reference in the Eni HSE Management System Model. Based on an annual cycle of planning, implementation, control, review of results and definition of new objectives, it is oriented towards risk prevention, systematic monitoring and control of HSE performance, in a cycle of continuous improvement which also includes the audit of these processes by internal and external personnel.

Environmental regulations

As regards environmental risk, Versalis currently does not believe that there will be particularly significant negative effects on the financial statements in relation to compliance with environmental legislation, also taking into account the interventions already carried out, the insurance policies stipulated and the provisions for risks set aside. However, the risk that Versalis may incur additional costs or responsibilities even of significant proportions cannot be excluded with certainty because, at the current state of knowledge, it is impossible to predict the effects of future developments taking into account, among other things, the following aspects: (i) the possibility of new contaminations emerging; (ii) the results of the ongoing and to be carried out characterizations and the other possible effects deriving from the application of the Decree of the Minister of the Environment no. 152/2006; (iii) the possible effects of new laws and regulations for environmental protection; (iv) the effects of any technological innovations for environmental remediation; (v) the possibility of disputes and the difficulty of determining any consequences, also in relation to the liability of other subjects and possible compensation.

Emission trading

Legislative decree no. 216 of 4 April 2006 transposed the Emission Trading Directive 2003/87 / EC on greenhouse gas emissions and the Directive 2004/101 / EC on the use of carbon credits deriving from projects based on the flexible mechanisms of the Protocol of Kyoto.

The European Emission Trading Scheme (ETS) has been operational since 1 January 2005, in relation to which on November 27, 2008 Resolution 20/2008 was issued by the National Committee for the Management and Implementation of Directive 2003/87 / EC on the assignment to existing plants of emission permits for the five-year period 2008-2012. Note the changes made by the National Committee for the Management and Implementation of Directive 2003/87 / EC, at the request of the European Commission, which have expanded the scope of the Directive with respect to what is in force for the period 2005-2007, extending it to some types of combustion plants including those present in steam cracking plants (see also the paragraph "Commitment to sustainable development" of the management report to the consolidated).

During the year, the Versalis Group purchased 324,310 EUA rights to supplement the securities assigned and cover the estimated year-end issues. The surplus purchased (101,492 EUA, for a value of 2 million euros) was capitalized among intangible assets, as required by the accounting principles.

BUSINESS OUTLOOK

The main medium / long-term strategic development lines of Versalis include:

- specialization in the production of high quality and high performance polymers;
- the development and integration of chemistry from renewable sources and from chemical and mechanical recycling;
- the transformation by pyrolysis process of non-recyclable plastic material for the production of polymers with characteristics identical to those produced with hydrocarbons;
- the establishment of an integrated platform for the exploitation of synergies with refining in the gasification processes for the recovery of all types of plasmix.

In line with medium / long-term guidelines, the 2020-23 Action Plan provides for:

- the increase in the balance of the ethylene-polyethylene chain, integrated with mechanical and chemical recycling and the recovery of cracking efficiency;
- the progressive specialization of the polymer portfolio towards products with greater added value and extension of the downstream chain towards compounding to reduce the volatility of margins;
- the development of renewable chemicals with new processes and products;
- the progressive reduction of greenhouse gas emissions, increasing energy efficiency and flexibility of charges;
- international development in synergy with other Eni businesses.

OTHER INFORMATIONS

Transactions with related parties

The transactions with related parties carried out by Versalis SpA and the companies included in its consolidation area involve mainly the trading of goods, the performance of services, the provision/receipt of funding and the use of financial resources with the parent company Eni SpA and with companies directly or indirectly controlled by the latter, and with its own non-consolidated subsidiaries and associates, and with other State-owned or controlled companies. All of the transactions form part of ordinary operations and took place at arm's length, that is, at conditions that would have been applied by independent parties on the open market. Under the provisions of applicable laws, the company has adopted internal procedures to ensure transparency and the substantial and procedural correctness of the related party transactions, carried out by the company itself or by its subsidiaries.

The amounts of the trade, financial and other transactions carried out with related parties and a description of the type of major transactions, as well as the impacts thereof on the equity, the economic results and the cash flows, are disclosed in the notes to the financial statements (consolidated and statutory).

Treasury shares and shares in parent company

In compliance with the provisions of art. 40, paragraph 2, letter d) of Legislative Decree 127/91, we certify that Versalis SpA and its subsidiaries do not hold or have been authorized by the respective Shareholders' Meetings to purchase shares in Versalis SpA or Eni SpA.

Secondary offices

In compliance with the provisions of art. 2428 of the Italian Civil Code, we certify that Versalis SpA has no secondary offices..

OPERATIONAL EXCELLENCE MODEL

The model for operational excellence is characterized by a constant commitment to minimizing risks and creating opportunities throughout the entire cycle of activities through the enhancement of people, the protection of health and safety, the protection of the environment, the respect for and promotion of human rights and attention to transparency and the fight against corruption.

Personnel

As of December 31, 2019, permanent employees in the companies included in the Group area were 5,351.

2017	employees	2018	2019
4.213	Italy	4.295	**4.360**
959	Abroad	973	**991**
5.172		**5.268**	**5.351**

The increase of 83 people compared to the situation at 31 December 2018 was due to the following causes:

increasing:

- 240 people were hired, of which 49% graduated
- 5 people were transferred from Eni Group companies;

in reduction:

- 136 people terminated their employment for ordinary reasons (retirement, resignation and consensual termination, expiry of fixed-term contracts);
- 9 people have terminated their employment relationship with ordinary mobility procedures pursuant to law no. 223/91;
- 17 people have been transferred to Eni Group companies.

The breakdown by contractual qualification is as follows:

2017	Employees	2018	2019
109	Senior Management	119	**117**
3.183	Middle Management & Staff Employees	3.269	**3.353**
1.880	Workers	1.880	**1.881**
5.172		**5.268**	**5.351**

The distribution of the permanent workforce by age group is as follows:

Age group	Total	%
< 30	462	8,6
30-39	1.076	20,1
40-49	1.670	31,2
50-59	1.829	34,2
> 60	314	5,9
	5.351	100,0

At December 31, 2019, there were 5,324 employees working in the companies included in the Group area.

Employees	2018	2019
Senior Management	113	114
Middle Management & Staff Employees	3.240	3.337
Workers	1.871	1.873
	5.224	5.324

The number of employees in service is obtained by subtracting the employees posted to other companies from the permanent employees and adding those posted by other companies.

There are 74 employees in Versalis SpA and its subsidiaries seconded to other Eni Group companies, other entities, or on leave, while 47 seconded to Versalis SpA and its subsidiaries from other Eni Group companies.

Training

The training program in Italy and in foreign affiliates has committed over 256,000 man-hours in 2019. This activity was guaranteed both with the support of Eni Corporate University SpA and with internal resources. During 2019, the commitment, as teachers, of Versalis employees belonging to the "Eni faculty" was significant, both in training initiatives managed by Eni Corporate University and in internal teaching activities.

To be highlighted during the year:
- the constant commitment to the institutional training of new hires, carried out both at the workplace and by making use of the offer from Eni Corporate University SpA;
- the continuation of interventions aimed at strengthening language skills, to support both managerial and operational resources in professional situations on an international level;
- the considerable training and information commitment on environmental, health, safety and quality issues, for a total of over 101,000 hours, both in the classroom and in "on the job" training, with particular reference to compulsory HSE training in Italy and abroad;
- training initiatives (carried out both in e-learning mode and through classroom workshops) aimed at extending compliance knowledge to staff, with the aim of making the guidelines, regulations and internal procedures known and operational aim at compliance with the laws in conducting the Versalis business;
- participation in updating and in-depth seminars at Eni Corporate University SpA or other qualified external bodies, for the development and consolidation of transversal skills and specialist know-how of the resources operating in the various corporate areas.

Incentive and remuneration systems

Versalis SpA, together with the merit policy linked to roles and responsibilities, has consolidated a variable incentive system for executives and middle managers linked to performance assessments through the attribution of individual objectives consistent with the general objectives of the company. In 2019, the performance assessment involved almost all managers and middle managers, identified on the basis of the assigned operational and managerial responsibilities. The incentive policy is linked to the achievement of results and the level of contribution provided. In addition, the incentive system for the sales force operating in Europe was confirmed in 2019. There is also a long-term incentive system for managers with high responsibilities and impact on results, in line with Eni Group's practice and policies.

Environmental responsibility

The final figures, significant for Versalis' commitment to economic resources, in protecting the health of workers and the environment, as well as in prevention activities in order to guarantee safety in the workplace and safeguard against industrial risks in the communities territorial areas in which the company operates are as follows:

- 194 million euros for charges for the period (198 million euros in 2018);
- 28 million euros for capitalization investments (34 million euros in 2018).

Total HSE expenditure in 2019 was 222 million euros (232 million euros in 2018).
Environmental activities totaled 115 million euros (118 million euros in 2018), including soil and groundwater management activities.

Safety activities amounted to 78 million euros (87 million euros in 2018), industrial hygiene, product safety and health activities totaled 7 million euros (6 million euros in 2018) and the integrated HSE it is equal to 22 million euros (21 million euros in 2018).

With regard to the control of greenhouse gas emissions, the year 2019 ended with a provisional balance of CO2 emissions, subject to Emission Trading, equal to 2.84 million euros tons of CO2, down by about 8 % compared to the final balance of 2018.
The 2019 results can be summarized as follows:

- quotas assigned 2019: 2.62 million euros tons of CO2;
- final emissions 2019: 2.84 million euros tons of CO2;
- deficit: 0.22 million euros tons of CO2.

As regards the release, free of charge, of the 2020 quotas, the following is expected:

- Ferrara: an increase in allowances allocated free of charge for the start-up in 2018 of the new GP27 plant;
- Porto Torres: a reduction in the allowances assigned free of charge, in 2020, against the halt of the CTE and the start-up of the new boiler in 2019. The change will be subject to evaluation by the MATT as a modification for energy efficiency and therefore without consequences on the reduction of the quotas assigned.

Among the characterizing events, from the emission point of view, 2019 should be noted:

- Priolo: stop, due to an accidental event, of the steam cracking plant in the period January-March for 66 days; as a consequence, the aromatic plant was stopped for 39 days;
- Marghera: stop due to an accidental event of the steam cracking plant and the aromatic plant in the period April-May for 42 days;
- Dunkirk: shutdown due to an accidental event of the steam cracking plant in September for 32 days;
- Brindisi: stop of the 12-day steam cracking plant due to lack of steam due to the EniPower central stop.

As regards the energy saving projects, scheduled to be completed by 2019, the following projects were completed during the year:

- Torres Reorganization of CTE and utilities: boiler and torch
- Mantova ST40 Implementation of APC advanced controls
- Brindisi Optimization of the K-7001 fuel gas compressor control system

The intervention called "Rationalization of QW circuit" in Brindisi, which involves maximizing the quench water on three exchangers, was completed as planned in 2019 on two of the three exchangers. For the third exchanger, due to a contingent criticality on the quench water circuit, it will only be possible to build it in stops (April 2021). As a result of the saving envisaged by the project (9,426 MWh / a), the portion relating to the part realized (6,284 MWh / a) is calculated while the remaining part (3142 MWh / a) slips to 2021.
The reduction of direct / indirect CO2 emissions when fully operational, linked to the entry into operation in 2019 of the aforementioned projects, is equal to approximately 49.4 kt / year of direct emissions and 7.3 Kt / year of indirect emissions (equal a saving of 11,740 toe / y of fuels, 17,823 Mwh / y of electricity and 4,122 MWht / y of steam).
For all aspects of security, support activities for Italian and foreign sites continued with great commitment. The application of the "Security Pact" continues, a real contract signed between Eni's companies and third-party companies in the area, and which provides for concrete, measurable and constantly monitored improvement actions. In particular, the following results have been obtained in the accident prevention, social personnel and contractors:

	2018	2019
N ° Invalidating Accidents	8	4
Frequency Index	0,53	0,26
Severity Index	0,050	0,025

Four accidents occurred in 2019, 2 of which were employees and 2 contractors, related to episodes mainly attributable to uncoordinated movements, carelessness, failure to comply with procedures, failure to use correct personal protective equipment, defective equipment, failure to comply with the provisions set out in the risk assessment documents and authorization documents for carrying out the works.
17 sites received the "one year without employee accidents" safety award and are respectively: Versalis International SA (sixth consecutive year), Green chemistry research center in Novara (sixth consecutive year), Porto Marghera (sixth consecutive year), Grangemouth (sixth consecutive year), Oberhausen (sixth consecutive year), Sarroch (sixth consecutive year), Priolo (eleventh consecutive year), Ragusa (twelfth consecutive year), Brindisi (tenth consecutive year), Ferrara (first consecutive year), Porto Torres (second consecutive year), San Donato Milanese (twelfth consecutive year), Szàzhalombatta, (ninth consecutive year), Versalis Pacific trading (sixth consecutive year), Ravenna (third consecutive year), Dunkeruqe (first year) and Oilfield Chemicals (first year).
Reporting activities for accident-accident events also continued.

In 2019, in accordance with the provisions of the HSE 2019-2022 Four-Year Plan, the activities (renewal / maintenance) connected with the certifications referring to the SA 8000, ISO 14001, OHSAS 18001 / ISO 45001 and EMAS standard were successfully performed. In particular, in 2019:
• Oilfield has obtained the first certification of the HSE management system to ISO 14001 and ISO 45001 standards;
• Versalis has renewed and certified the compliance of its HSE management system with the principles and requirements of the FederChimica Responsible Care Program
Prevention, safeguarding and health promotion measures for workers and communities residing near industrial sites are recognized as primary needs in Versalis' policies and contribute significantly to achieving high sustainability performance.
Health protection activities are organized and structured in an "integrated management system" strongly oriented towards prevention, in which health checks are combined with the periodic measurement of risk factors, carried out during environmental investigation campaigns. In particular, in the face of risks from exposure to chemical, carcinogenic and mutagenic agents, environmental measurements and exposure determinations through personal samplers are integrated with the monitoring of specific biological exposure indicators in order to verify the dose actually absorbed by the worker through all routes of exposure.

Health promotion programs also continued in 2019, such as influenza vaccination and cardiovascular prevention campaigns, determination of PSA and antibodies against tetanus, awareness campaigns on smoking risk and the adoption of correct lifestyles.
Versalis' internationalization process, aimed at operating in foreign markets, has triggered new projects for the management of medical emergencies and health care, not only nationally but also internationally, developing specific health protocols that consider the "country" risk associated with the travel, the climate, any infectious diseases, and related vaccinations, defining specific information and training programs, and guaranteeing ordinary and emergency medical assistance, including any medical repatriation.
The continuous evolution of health regulations, both nationally and internationally, and their integration with environmental and safety issues, entail the need for continuous monitoring, active participation in trade associations and / or bodies scientific reference and continuous professional updating to facilitate the actions related to adjustments.
In the spirit of continuous improvement of management tools for the prevention and protection of health in the workplace and for the communities, the development of the integrated HSE culture continued with the implementation of training initiatives aimed at all employees who, at various titles cover roles and responsibilities on health protection activities.

With regard to the remediation of soils and groundwater, both the characterization activities provided for in the submitted and approved plans and the subsequent supplementary activities were completed.
At the sites of Brindisi, Ferrara, Mantua, Porto Marghera, Priolo, Ravenna, Sarroch, groundwater drainage systems are active as prevention and / or remediation measures. The layout of the milking plants, assessed at the end of 2019, allows to estimate a total quantity of water discharged equal to approximately 6.4 million euros cubic meters per year, in line with forecasts.
As regards the remediation, the authorization process provided for by the legislation is completed at the sites of: Brindisi, groundwater and soils, Gela, groundwater and soils, Porto Marghera, groundwater and soils, Priolo, groundwater and soils (limited to the soils of the areas south of the Vallone della Neve and the saturated soils of the D2 and D3 "internal" areas), Ferrara, groundwater and surface matrices (soils and impregnation waters), Ravenna, groundwater and soils, Sarroch, groundwater and soils, Ragusa, reclamation at excerpt from the ex topping area. For the Mantua site, the land and groundwater remediation project was approved, limited to certain specific areas and the supernatant removal phase.
Authorized interventions are underway on all sites.
As regards the Porto Torres plant, the soil and groundwater situation is monitored and managed by Eni Rewind as Versalis, on the site, operates in surface rights.
In 2019, the soil remediation project at the Gela site, the MISP project at the 2A landfill in Sarroch and the remediation project for saturated soils in D2 and D3 "internal" areas of Priolo were approved by MATTM.
The authorization procedure for the areas of the Mantua site that are not subject to approved projects remains to be concluded. For these areas, a new project will be produced and sent in 2020 in light of the opinions received from MATTM at the end of 2019.
The project for the operational safety of unsaturated soils at the Priolo hub is under investigation at the MATTM. The risk analysis for the Versalis areas of the Ragusa site is also awaiting local investigation. At the end of the aforementioned investigations, the authorization framework regarding Versalis on a national scale will be complete.

Versalis has entrusted Eni Rewind, the competence center for remediation activities within Eni, to remediation activities in the factories of: Brindisi, Ferrara, Mantua, Porto Marghera, Priolo, Ravenna, Sarroch, for agreements between the parties.

TECHNOLOGICAL INNOVATION

In 2019, research and technological innovation activities were aimed, in continuity with previous years, to improve the processes and products of the existing business lines. Research and development activities in the sector of chemistry from renewable sources were also consolidated. The commitment to sustainability and the circular economy has become the core of the new projects.

In particular, among the most interesting results, the following are highlighted:

Chemistry from renewable sources

During 2019, with the acquisition of the Bio branch of the Mossi & Ghisolfi group, Versalis expanded its development lines in the field of chemistry from renewable sources. With the restoration and restart of the laboratories and the pilot plant of the Research Center of Rivalta Scrivia, research and development projects have started aimed at improving the proprietary industrial technology ProesaTM of converting biomass (not in competition with the food chain) into sugars of second generation bioethanol, in particular as regards the evaluation of new biomass.

During 2019, a specific project was launched relating to the enhancement of lignin, a co-product of bioethanol, in various areas of application, in particular resins, paints and bituminous materials.

As part of the agreement with Bridgestone, the set-up and monitoring of the fields in Basilicata and Sicily continued to increase the agronomic productivity of guayule and to engineer the changes to be made to Bridgestone's pilot extraction technology at the Phoenix plant (USA).

Elastomers

As part of international development, support for the Lotte Versalis Elastomers Joint Venture continued, leading to the industrialization of new grades of the SSBR family and the development of new EPDM products for the local market; this allowed to launch new marketing actions in the Asian area, mainly intended for the tire sector, modification of plastic materials and technical articles.

The consolidation of all these products will allow Versalis to maintain its leadership position in the tire sector, aiming to satisfy the challenging market demands in terms of performance, sustainability and safety.

In the automotive products sector, new EPDM grades with improved structure have been industrialized on the new GP27 plant in Ferrara to widen the market segment to sectors previously inaccessible such as that of semi-expanded gaskets. This is in fact the development of a new technological platform which allows to strengthen Versalis' competitive positioning in this sector.

With a view to environmental sustainability and circular economy, the study continued during the year aimed at the production of new materials obtained partially or totally from end-of-life products (such as end-of-life tires). This will allow in the coming years to expand the portfolio of elastomer products with grades of high sustainability content.

Polyethylene

The consolidation of medium density LDPE grades for film applications continued; introduced to the market for a few years, these products have shown a significant improvement in the mechanical and optical properties, which are fundamental in the food and industrial packaging sector.

The rotomolding application sector has benefited from the entry on the market of new grades with high UV resistance properties, resistance to chemical agents and improved mechanical properties.

The formulation on bubble film and hexene products for food packaging has also been optimized, with a reduction in additives with specific migration limits.

As part of the activities related to the circular economy, a co-development agreement was finalized with Montello for the production of polyethylene compounds containing up to 75% of post-consumer recycled urban raw material to be used for the production of extruded packaging and products for which sustainability is a primary value. Two product lines have been developed, marketed under the Versalis Revive® PE brand. A line of products is LL / LDPE based and is used in formulation for the production of shrink film for mineral waters and industrial packaging, mulch film and white and black caps and for the production of tubes and various profiles. The other product line, based on HDPE, is used in formulation for the production of packaging films and for the production of bottles.

Styrenics

The research activities related to the new ONE-STEP pilot plant have focused on the ABS range. After the successful launch of the pilot plant in October 2017, the technological product development activity is completely in line with what is expected.

2 new GPPS grades have been industrialized, a new HIPS grade.

The industrialization of the new range of products from ABS-based compounds with high thermal resistance for the automotive sector, with fire resistance, for electrical / electronic applications, and pharma for the medical sector continued.

Also in the styrenic area new circular products have been developed and industrialized and currently already marketed in the Versalis Revive® EPS range.

Basic chemistry

The position of Versalis as a top player in the competitive technological field relating to the production processes of cumene from acetone via IPA (isopropyl alcohol) was further consolidated. In detail, proprietary technology and catalyst for the dehydration of IPA with propylene have been developed for use in the subsequent production of cumene by alkylation with benzene. This new technology allows to implement the recycling of acetone to cumene in the revamping of existing production plants with a reduced investment.

Heterogeneous proprietary catalysts are being developed aimed at improving the production performances of the hydrogenation processes present in the production cycle of phenols and derivatives. The improvement of production performances has as objectives both the increase of the yield to the target product and the increase of the production cycle time.

Specialty Oilfield Chemicals

The development of products for EOR applications that will allow us to expand and differentiate the current Versalis portfolio relating to Specialty Oilfield Chemicals has been particularly satisfying.

versalis

Consolidated Financial Statements

2019

CONSOLIDATED BALANCE SHEET

(million euros)	Note	December 31, 2018 Total amount	December 31, 2018 *of which with related parties*	December 31, 2019 Total amount	December 31, 2019 *of which with related parties*
Assets					
Current assets					
Cash and cash equivalents	(1)	44	*33*	42	*26*
Other current financial assets	(2)			9	*9*
Trade and other receivables	(3)	706	*200*	652	*234*
Inventories	(4)	807		821	
Income tax receivables	(5)	15		11	
Other current assets	(6)	17	*1*	15	*1*
		1.589		**1.550**	
Non-current assets					
Property, plant and equipment	(7)	797		831	
Right of use asset	(8)			17	
Intangible assets	(9)	124		24	
Equity-accounted investments	(11)	172		175	
Other investments	(12)	3		3	
Other non-current financial assets	(13)	2	*2*	2	*2*
Deferred tax assets	(14)	75		47	
Other non-current assets	(15)			1	
		1.173		**1.100**	
TOTAL ASSETS		**2.762**		**2.650**	
LIABILITIES AND SHAREHOLDERS' EQUITY					
Current liabilities					
Short-term debt	(16)	592	*587*	1.028	*1.021*
Current portion of long-term debt	(17)	16		9	
Short-term lease liabilities	(8)			8	
Trade and other payables	(18)	793	*377*	782	*384*
Income tax payables	(19)	1		1	
Other current liabilities	(20)	29	*5*	25	*4*
		1.431		**1.853**	
Non-current liabilities					
Long-term debt	(21)	66	*57*	51	*57*
Long-term lease liabilities	(8)			17	
Provisions for contingencies	(22)	149		129	
Provisions for employee benefits	(23)	70		72	
Deferred tax liabilities	(24)	2		1	
Other non-current liabilities	(25)			20	
		287		**290**	
TOTAL LIABILITIES		**1.718**		**2.143**	
SHAREHOLDERS' EQUITY	(26)				
Share capital		1.365		1.365	
Other reserves		45		10	
Retained earnings (losses)		94		(334)	
Net profit (loss)		(460)		(534)	
TOTAL SHAREHOLDERS' EQUITY		**1.044**		**507**	
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**2.762**		**2.650**	

CONSOLIDATED INCOME STATEMENT

		December 31, 2018		December 31, 2019	
(million euros)	Note	Total amount	of which with related parties	Total amount	*of which with related parties*
REVENUES	(28)				
Net sales from operations		5.123	*324*	4.123	*332*
Other income and revenues		123	*97*	115	*81*
Total revenues		**5.246**		**4.238**	
OPERATING EXPENSES	(29)				
Purchases, services and other		(4.841)	*(2.531)*	(4.140)	*(2.009)*
Net (impairment losses) reversals of trade and other receivables		(3)		(5)	
Payroll and related costs		(356)		(378)	
OTHER OPERATING (EXPENSE) INCOME	(30)	**(16)**	***(16)***	**(2)**	*(2)*
DEPRECIATION, AMORTIZATION AND IMPAIRMENT	(31)	**(317)**		**(192)**	
DISPOSAL OF ASSETS				**(1)**	
OPERATING INCOME (LOSS)		**(287)**		**(478)**	
FINANCIAL INCOME (EXPENSE)	(32)				
Financial income		48	*10*	23	*2*
Financial expense		(36)	*(4)*	(17)	*(3)*
Derivatives		(5)	*(5)*	1	*1*
		7		7	
INCOME (EXPENSE) FROM INVESTMENTS	(33)				
Share of profit (loss) from equity-accounted investments		(43)		(33)	
Other gain (loss) from investments		(27)		(18)	
		(70)		(51)	
PROFIT (LOSS) BEFORE INCOME TAXES		**(350)**		**(523)**	
Income taxes	(34)	(110)		12	
NET PROFIT (LOSS) FOR THE YEAR		**(460)**		**(534)**	

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)

(million euros)	2018	2019
NET PROFIT (LOSS) FOR THE YEAR	(460)	(534)
Other items of comprehensive profit (loss)		
Items that are not reclassified to profit or loss in later periods		
Remeasurements of defined benefit plans	(3)	(3)
Tax effect related to other comprehensive income not to be reclassified to profit or loss in subsequent periods	(1)	1
Items that may be reclassified to profit or loss in later periods		
Foreign currency translation differences		(1)
TOTAL COMPREHENSIVE INCOME (LOSS) FOR THE YEAR	(463)	(537)

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(million euros)	Share capital	Legal reserve	Cumulative currency translation difference	Reserve for coverage of losses	Reserve for employee defined-benefit plans	Riserve for business combination under common control	Retained earnings (losses)	Dividends	Profit (Loss) for the year	Total
Balances at December 31, 2017 (a)	1.365	8	(4)	32	(6)	2	115		303	1.815
Profit for the year 2018									*(460)*	(460)
Other items of comprehensive income (loss)										0
Remeasurements of defined benefit plans net of tax effect					*(2)*					(2)
Foreign currency translation differences			*(1)*							(1)
Total comprehensive profit for the year 2018 (b)			(1)		(2)				(460)	(463)
Transactions with shareholders:										
Allocation of 2017 net income		16					*(17)*	*304*	*(303)*	
Dividend distribution								*(304)*		(304)
Total transactions with shareholders (c)	0	16	0	0	0	0	(17)	0	(303)	(304)
Changes in accounting principles (IFRS 9)							(4)			(4)
Total other changes (d)							(4)			(4)
Balance at December 31, 2018 (e=a+b+c+d)	1.365	24	(5)	32	(8)	2	94	0	(460)	1.044
Profit (loss) for the year 2019									(534)	(534)
Other items of comprehensive profit (loss)										
Revaluation of defined-benefit plans for employees net of tax effect					(2)					(2)
Foreign currency translation differences			(1)							(1)
Total comprehensive loss for the year 2018 (f)			(1)		(2)				(534)	(537)
Transactions with shareholders:										
Profit (loss) allocation for the year 2018				(32)		(105)	(323)		460	
Reduction in shareholders' capital and loss coverage										
Total transactions with shareholders (g)				(32)		(105)	(323)		460	
Other changes:										
Other changes										
Total other changes (h)										
Balance at December 31, 2019 (i=e+f+g+h)	1.365	24	(6)		(10)	(103)	(229)		(534)	507

CONSOLIDATED STATEMENT OF CASH FLOWS

(million euros)	Note	2018	2019
Profit (loss) for the year		(460)	(534)
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
Depreciation and amortization	(31)	114	89
Net Impairments (reversals) of tangible, intangible assets and right of use	(31)	203	103
Net gain on disposal of assets			1
Share of profit (loss) of equity-method investments		70	51
Currency translation differences from alignment	(32)	(2)	(4)
Gains/Losses on securities &Financial receivables, investment, disinvestment		(4)	(9)
Net gains on disposal of equity investments		(2)	
Interest income	(32)	(4)	(3)
Interest expense	(32)	(2)	4
Current, deferred and advance income taxes for the period	(34)	110	12
Changes in working capital:			
- inventories	(4)	(84)	(12)
- trade receivables	(3)	23	112
- trade payables	(18)	(96)	1
- provisions for contingencies	(22)	19	(10)
- other assets and liabilities		(3)	(22)
Cash flow from changes in working capital		(118)	*(221)*
Change in the provisions for employee benefits	(23)		
Dividends received		1	1
Interest received		4	2
Interest paid		3	(4)
Income taxes paid, net of tax receivables received		(10)	8
Net cash provided by operating activities		(120)	**(214)**
of which with related parties	*(35)*	(2.214)	*(1.556)*
Investing activities:			
- tangible assets	(7) e (8)	(145)	(110)
- intangible assets	(9)	(5)	(8)
- investments	(11) e (12)	(103)	(76)
- changes in payables relating to investing activities	(18)	14	(15)
- financial receivables instrumental to the operating activity - investment		4	9
Cash flow from investing aactivities		(235)	**(200)**
Disposals:			
- non-consolidated investments		3	
Cash flow from disposals		3	
Net cash flow from investing activities		(232)	**(200)**
of which with related parties	*(35)*	(78)	(82)
Increase (decrease) in short-term debt	(16)	499	426
Repayments of lease liability			(14)
Dividends paid to shareholder		(304)	
Net cash flow from financing activities		195	**412**
of which with related parties	*(35)*	508	434
Net cash flow for the year		(157)	**(2)**
Cash and cash equivalents - beginning of the year	(1)	201	**44**
Cash and cash equivalents - end of the year	(1)	44	**42**

NOTES ON CONSOLIDATED FINANCIAL STATEMENTS

Significant accounting policies, estimates and judgements

Basis of preparation

The Consolidated Financial Statements of the Eni Group have been prepared in accordance with International Financial Reporting Standards (IFRS)[1] as issued by the International Accounting Standards Board (IASB) and adopted by the European Union (EU) pursuant to article 6 of the EC Regulation No. 1606/2002 of the European Parliament and of the Council of July 19, 2002, and in accordance with article 9 of the Italian Legislative Decree No. 38/052[2]. Oil and natural gas exploration and production activity is accounted for in accordance with internationally accepted accounting standards taking into account the applicable IFRS requirements.

For the parent company Versalis SpA, the net loss for the year, equal to 409 million euros, falls under the art. 2446 of the Italian Civil Code. These financial statements have been prepared on the assumption of business continuity as Versalis SpA is a company wholly owned by Eni SpA, to which management and coordination is subject and also has the right to access, without contractually defined credit limits, the financial resources granted by Eni SpA, based on existing agreements with the latter. At the date of approval of these financial statements, the directors of Versalis SpA asked the parent company Eni SpA to intervene with a capital payment aimed at exiting the situation envisaged by art. 2446 of the Italian Civil code.

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

The 2019 Consolidated Financial Statements, approved by Versalis' Board of Directors on February 26, 2020, were audited by the external auditor PwC SpA. PwC SpA, as the main external auditor, is wholly in charge of the auditing activities of the Consolidated Financial Statements; when there are other external auditors, it takes the responsibility of their work.

The values of the balance sheet items and the relative explanatory notes, taking into account their relevance, are expressed in million euross of euros, except where indicated differently.

Significant accounting estimates and judgements

The application of generally accepted accounting principles for the preparation of the financial statements and interim reports requires the Company Management to make accounting estimates based on complex and/or subjective judgments, based on past experience of other assumptions deemed reasonable in consideration of the information available at the time. The use of these accounting estimates affects the book value of assets and liabilities and the information on potential assets and liabilities as at the date of the financial statements, as well as the revenues and costs in the reference period. Actual results may differ from those estimated due to the uncertainty that characterizes the assumptions and conditions on which the estimates are based. The accounting estimates of critical importance for the process of drawing up the financial statements, which involve a high recourse to subjective judgments, assumptions and estimates relating to matters which by their nature are uncertain, are illustrated in the description of the related accounting policy reported below. Changes in the conditions underlying the judgments, assumptions and estimates adopted may have a significant impact on subsequent results.

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1 The IFRS also include the International Accounting Standards (IAS), still in force, as well as the interpretative documents prepared by the IFRS Interpretations Committee, previously called the International Financial Reporting Interpretations Committee (IFRIC) and even before the Standing Interpretations Committee (SIC).

2 The international accounting standards used for the preparation of the consolidated financial statements coincide with those issued by the IASB in force for the 2019 financial year.

Principles of consolidation

Subsidiaries

The consolidated financial statements include the financial statements of Versalis SpA and the Italian and foreign subsidiaries controlled by Versalis S.p.A. (hereinafter referred to as the "Group").

An investor controls a subsidiary company when it is exposed to, or has the right to participate in, the variability of the company's economic returns and is able to influence these returns through the exercise of its decision-making power over it. The decision-making power exists in the presence of rights that confer to the parent company the effective capacity to direct the relevant activities of the subsidiary, that is the activities most capable of affecting the economic returns of the subsidiary itself.

The subsidiary's accounting balances are included in the Consolidated Financial Statements from the acquisition date until the date when the parent company ceases to control the subsidiary. All the assets, liabilities, income and expenses of consolidated subsidiaries are consolidated on a line-by-line basis in the Consolidated Financial Statements; the book value of these subsidiaries is offset against the corresponding share of the shareholders' equity. Equity and net profit attributable to non-controlling interests are included in specific line items of equity and income statement.

When shareholdings are acquired after control was obtained (acquisition of minority interests), any difference between the purchase cost and the proportionate share of shareholders' equity is stated in the Group's equity; in the same way, effects deriving from disposals of equity interests that do not result in a loss of control are recorded in equity. Conversely, the sale of equity interests with loss of control determines the recognition in the income statement of: (i) any gain/loss calculated as the difference between the consideration received and the corresponding transferred portion of equity; (ii) the effect of the alignment to the relative fair value of any residual interest held; and (iii) any amount related to the former subsidiary previously recognized in other comprehensive income which can be reclassified subsequently to the income statement[3]. The value of any equity investment, aligned to the relative fair value at the date of loss of control, represents the new book value of the investment and therefore the reference value for the subsequent valuation of the investment according to the applicable valuation criteria.

Interests in joint arrangements

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

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

Investments in associates

An associated is an entity over which Versalis has significant influence, that is the power to participate in the financial and operating policy decisions of the subsidiary but without having control or joint control.

Investments in associated companies are accounted for using the equity method as described in the accounting policy for "The equity method of accounting".

Consolidated companies, non-consolidated subsidiaries, joint ventures and associated companies, are included in the paragraph "Companies and equity investments of Versalis SpA as at December 31st, 2019", which is part of the notes. The same paragraph also reports the change in the consolidation area that occurred during the year.

[3] Conversely, any amount related to the former subsidiary previously recognized in other comprehensive income, which subsequently cannot be reclassified to the income statement, are reclassified in equity.

The financial statements of the consolidated companies are audited by external auditors who also examine and certify the information required for the preparation of the consolidated financial statements.

The equity method of accounting

Investments in joint ventures, associated companies and non-significant unconsolidated subsidiaries, are accounted for using the equity method.[4] [5]

Under the equity method, equity investments are initially recorded at purchase cost, allocating, similarly to the provisions for business combinations, the cost incurred on the assets/liabilities of the investee; the allocation, made provisionally on the date of initial recognition, can be retroactively adjusted within 12 months to reflect new information obtained about facts and circumstances that existed at the date of recognition. Subsequently, the carrying amount is adjusted to reflect: (i) the investor's share of the post-acquisition profit or loss of the investee; and (ii) the investor's share of the investee's other comprehensive income. Changes in the net assets of an equity-accounted investee, not arising from the investee's profit or loss or other comprehensive income, are recorded in the investor's income statement, when they represent a gain or loss from a disposal of an interest in the investee's equity. Dividends received from an investee are recorded as a reduction of the carrying amount of the equity investment. In applying the equity method, any consolidation adjustments are taken into consideration (see also the paragraph "Subsidiaries"). When there is objective evidence of impairment (i.e. relevant breaches of contracts, significant financial difficulties, counterparty insolvency risk, etc.), the recoverability is tested by comparing the carrying amount and the related recoverable amount determined by adopting the criteria indicated in the accounting policy for "Tangible assets". When an impairment loss no longer exists, a value reinstatement is recorded, (without exceeding the previously recorded impairment losses), in the income statement in the item "Other income (expense) from investments".

Losses arising from the application of the equity method in excess of the carrying amount of the equity investment, recognized in the income statement item "Income (expenses) from equity investments", are allocated to any financial receivables granted to the investee whose repayment is not planned or it is not probable in the foreseeable future (so-called long-term interest) and which essentially represent a further investment in the investee company.

The sale of equity interests, with the resulting loss of either the joint control or of the significant influence over the investee, determines the recording in the income statement of: (i) any gain/loss calculated as the difference between the amount received and the corresponding book value portion sold; (ii) the changes due to the alignment to the related fair value of the residual interest maintained[6]; (iii) any amount related to the former subsidiary previously recorded in other comprehensive income which can be transferred to the income statement.[7] Any investment retained in the former joint venture/associated company is recorded at its fair value at the date when joint control or significant influence is lost and shall be accounted for in accordance with the applicable evaluation criteria.

The parent company's share of any of the subsidiary's losses, exceeding the value of the investment, is recorded in a specific reserve only to the extent that the company is required to fulfill legal or implied obligations of the subsidiary, or in any case, to cover its losses.

Business combinations

Business combinations are accounted for by applying the acquisition method. The consideration transferred in a business combination is the sum of the acquisition-date fair value of the assets transferred, the liabilities incurred

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[4] In case of acquisition of control (joint control) at different stages, the investment is recorded for the amount equivalent to that resulting from the application of the equity method, as if the same had been applied from the outset; the effect of the book value "revaluation" of the interests held prior to the acquisition of control (joint control) are recorded in equity.

[5] When no significant effects are produced on the balance sheet or financial position, joint ventures, associated companies and non-significant subsidiaries excluded from the consolidation area are valued at cost adjusted for impairment losses.

[6] If the remaining investment continues to be accounted for using the equity method, the retained portion is not adjusted to its fair value.

[7] Conversely, any values recorded in other components of comprehensive income, related to the former joint venture or associated company for which the reversal to the income statement is not foreseen, are charged to retained earnings.

and the equity interests issued by the acquirer. Acquisition-related costs are accounted for as expenses when incurred.

The acquirer shall measure the identifiable assets acquired and liabilities assumed at their acquisition-date fair values[8], unless another measurement basis is required by IFRSs. The excess of the consideration transferred over the Group's share of the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed is recognized, in the balance sheet, as goodwill; conversely, a gain on a bargain purchase is recognized in the income statement.

Any non-controlling interests are measured as the proportionate share in the recognized amounts of the acquiree's identifiable net assets at the acquisition date excluding, hence, the portion of goodwill attributable to them (partial goodwill method); as an alternative, non-controlling interests may be measured at fair value, which means that goodwill includes the portion attributable to them (full goodwill method)[9]. The choice of measurement basis for goodwill (partial goodwill method vs. full goodwill method) is made on a transaction-by-transaction basis.

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

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

Intragroup transactions

Profits arising from transactions between consolidated companies and not yet realized with third parties are offset, as are the receivables, payables, income and expenses, guarantees, commitments and risks between consolidated companies. Unrealized profits from transactions between the Group and its equity-accounted entities are offset to the extent of the Group's interest in the equity accounted entity. In both cases, unrealized losses are not offset since they are evidence of an impairment loss of the asset transferred.

Foreign currencies translation

Financial statements of foreign subsidiaries having a functional currency other than the euro, (i.e. the Group's functional currency), are translated into euro using the spot exchange rates prevailing as at the balance sheet date for assets and liabilities, historical exchange rates for equity and average exchange rates for the income statement and the statement of cash flows (source: Reuters - WMR).

Exchange differences from the translation of the subsidiaries financial statements denominated in foreign currency, deriving from the application of different exchange rates for assets and liabilities, for net equity and the income statement, are recorded in equity under "Reserve for exchange differences" for the portion attributable to the Group[10]. The reserve for exchange rate translation differences is recorded in the income statement upon full divestment, (i.e. the date of the loss of control or loss of joint control or loss of significant influence over the subsidiary). At the time of the partial sale, without loss of control, the share of foreign exchange differences relating to the percentage of the investment sold is posted to the equity of minority interests. In the event of a partial sale, with no loss of joint control or significant influence, the share of foreign exchange differences, relating to the percentage of divested participation, is recorded in the income statement. The repayment of share capital made by

8 The criteria for the determination of the fair value are illustrated in the section "Valuation at fair value".

9 The adoption of the partial or full goodwill method also applies in the case of business combinations that entail the recognition, in the income statement, of "negative goodwill" (so-called gain on bargain purchase).

10 The share attributable to minority interests of the exchange differences from the translation of financial statements of subsidiaries operating in foreign currency is accounted for in the equity item "Minority interests".

a subsidiary having a functional currency other than the euro, without a change in the ownership interest, implies that the proportionate share of the cumulative amount of exchange differences relating to the subsidiary is reclassified to the income statement.

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

The main exchange rates utilized to translate the financial statements, in currencies other than the euro, are listed here below:

(currency amount for 1 euro)	Annual average exchange rate 2018	Exchage rate at December, 31 2018	Annual average exchange rate 2019	Exchage rate at December, 31 2019
US Dollar	1,15	1,14	1,12	1,12
Pound Sterling	0,89	0,9	0,88	0,85
Hungarian Forint	321,11	322,76	325,29	330,6
Chinese Renmimbi	7,87	7,84	7,73	7,82
Korean Republic Won	1.278,20	1.277,40	1.305,23	1.298,75

Significant accounting policies

The most significant accounting policies adopted in the preparation of the Consolidated Financial Statements are described below.

Property, plant and equipment

Property, plant and equipment, including investment properties, are recorded according to the cost method, and stated at purchase price or production cost, inclusive of directly attributable costs required to make the assets ready for use.

In case of a present obligation for dismantling and removal of assets and restoration of sites, the initial carrying amount includes the estimated (discounted) costs to be borne when the removal event occurs and a corresponding amount is recorded as part of a specific provision. Changes resulting from revisions to the timing or the amount of the original estimate of the provision are accounted for as described in the accounting policy for "Provisions, contingent liabilities and contingent assets"[11].

Property, plant and equipment are not re-valued for financial reporting purposes, not even in application of specific laws.

Expenditures on upgrading, revamping and reconversion are recognized as items of property, plant and equipment when it is probable that they will increase the expected future economic benefits of the asset. Assets acquired for safety or environmental reasons, although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, qualify for recognition as assets when they are necessary for running the business.

Depreciation of tangible assets begins when they are available for use, i.e. when they are in the location and condition necessary for it to be capable of operating as planned. Property, plant and equipment are depreciated on a systematic basis, using a straight-line method over their useful life. The useful life is the period over which an

[11] The costs of dismantling and restoring sites relating to tangible assets, taking into account the uncertainty of the time of abandonment of the assets, which prevents the estimate of the related discounted abandonment costs, are recognized when the date on which the charge is actually incurred can be determined. and the amount of the obligation can be reliably estimated. In this regard, Versalis periodically evaluates the conditions for carrying out the activity in order to verify the occurrence of changes, circumstances or events that may lead to the need to record dismantling and site restoration costs related to tangible assets.

asset is expected to be available for use by the Company. When tangible assets are composed of more than one significant part with different useful lives, each part is depreciated separately. The depreciable amount is the asset's carrying amount less its residual value at the end of its useful life, if it is significant and can be reasonably determined. Land is not depreciated, even when purchased with a building, as well as tangible assets held for sale (see the accounting policy for "Assets held for sale and discontinued operations"). Changes in the depreciation method, deriving from changes in the asset's useful life, in its residual value or in the pattern of consumption of the future economic benefits embodied in the asset, shall be recognized prospectively. Assets that can be utilized free of charge by third parties are depreciated over the shorter term of the duration of the concession or the asset's useful life. Replacement costs of identifiable parts in complex assets are capitalized and depreciated over their useful life; the residual carrying amount of the part that has been substituted is charged to the income statement. Leasehold improvement costs are depreciated over the useful life of the improvements or, if lower, over the residual length of the lease, considering any renewal period if renewal depends entirely on the lessee and is virtually certain. Ordinary maintenance and repair costs, other than replacement of identifiable components, which reintegrate but do not improve the performance of the assets, are reported in the income statement when incurred.

The carrying amount of tangible assets is reviewed for impairment whenever there is any indication that the carrying amounts of those assets may not be recoverable. The recoverability of an asset is assessed by comparing its carrying amount with the recoverable amount, which is the higher of the asset's fair value less costs of disposal and its value in use. Value in use is the present value of the future cash flows expected to be derived from continuing use of the asset and, if significant and reliably measurable, the cash flows expected to be obtained from its disposal at the end of its useful life, after deducting the costs of disposal. Expected cash flows are determined on the basis of reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset, giving greater weight to external evidence.

With reference to commodity prices, management assumes the price scenario adopted for economic and financial projections and for whole life appraisal for capital expenditures. In particular, for the cash flows associated to oil, natural gas and petroleum products prices (and prices derived from them), the price scenario is approved by the Board of Directors and is based on the development of economic fundamentals and, in the short and medium term, takes into account the projections of market analysts and, if there is a sufficient liquidity and reliability level, on the forward prices prevailing in the marketplace.

Discounting is carried out at a rate that reflects a current market assessment of the time value of money and of the risks specific to the asset that are not reflected in the expected future cash flows. In particular, the discount rate used is the Weighted Average Cost of Capital (WACC) adjusted for the specific country risk of the asset. These adjustments are measured considering information from external parties. WACC differs considering the risk associated with each operating segments where the asset operates. In particular, for the assets belonging to the Chemical business, taking into account the different risks encountered in this sector/business, specific WACC rates have been defined on the basis of a sample of companies operating in the same segment/business, adjusted to take into consideration the risk premium of the specific country of the activity. Value in use is calculated net of the tax effect as this method results in values similar to those resulting from discounting pre-tax cash flows at a pre-tax discount rate deriving, through an iteration process, from a post-tax valuation. Valuation is carried out for each single asset or, if the recoverable amount of a single asset cannot be determined, for the smallest identifiable group of assets that generates independent cash inflows from their continuous use, the so-called "cash-generating unit". When an impairment loss no longer exists or has decreased, a reversal of the impairment loss is recorded in the income statement. The impairment reversal shall not exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. The carrying amount of tangible assets is derecognized on disposal or when no future economic benefits are expected from its use or disposal; the arising gain or loss is recognized in the income statement.

Leasing as a lessee[12] [13]

On the inception date of a contract the company checks whether it contains or represents a lease, that is, whether it confers the right to control the use of an identified asset for a set period of time in exchange for a fee. The right of use exists if the right to obtain substantially all the economic benefits deriving from the use of the asset, as well as the right to direct its use, is held during the period of use.

On the commencement date of the leasing contract (i.e. on the date on which the asset is made available for use), the lessee recognizes, in the balance sheet, an activity representative of the right to use the asset (hereinafter also "assets by right of use "or" right-of-use asset "), and a liability representative of the obligation to make the payments envisaged by the contract (hereinafter also "liability for leasing" or "lease liability").

In particular, the lease liability is initially recognized at an amount equal to the present value of the following payments due for the leasing, not yet made on the commencement date: (i) fixed (or substantially fixed) payments, net of any incentives to be received ; (ii) variable payments that depend on indexes or rates; (iii) estimate of the payment that the lessee will have to make as a guarantee of the residual value of the asset; (iv) payment of the exercise price of the purchase option, if the lessee is reasonably certain to exercise it; and (v) payment of contractual penalties for termination of the lease, if the lessee is reasonably certain that it's exercising this option. The present value of the aforementioned payments is calculated by adopting a discount rate equal to the implicit interest rate of the leasing or, if this cannot be easily determined, by using the lessee's incremental financing rate. The latter is defined taking into account the duration of the leasing contracts, the periodicity of the payments provided for contractually, the currency in which they are denominated and the characteristics of the economic environment of the lessee (summarized by the country risk premium attributed to the individual countries in which Versalis operates).

After the initial recognition, the lease liability is valued at amortized cost and it's re-calculated, generally as a contra-entry to the carrying amount of the related right-of-use asset, in the presence of a change in the payments due for the leasing, essentially following: (i) contractual renegotiations that do not represent a separate lease; (ii) changes in indexes or rates (to which variable payments are related); or (iii) changes in the assessment of contractually provided options (call options for the asset, options for extending or terminating the contract).

The right of use of a asset is initially recognized at cost, determined as the sum of the following components: (i) the initial amount of the lease liability; (ii) the initial direct costs incurred by the lessee; (iii) any payments made on or before the commencement date, net of any incentives received by the lessor; and (iv) the estimate of the costs that the lessee expects to incur for the dismantling, removal of the underlying asset and site remediation or to bring the asset back to the conditions established by the contract. After initial recognition, the right-of-use asset is adjusted to take into account the accumulated amortization portions, any accumulated impairment losses and the effects associated with any recalculation of the lease liability.

Intangible assets

Intangible assets are identifiable non-monetary assets without physical substance, controlled by the Company and able to produce future economic benefits, and goodwill acquired in business combinations. An asset is classified as intangible when management is able to distinguish it clearly from goodwill. This condition is normally met when: (i) the intangible asset arises from contractual or other legal rights or (ii) the asset is separable, i.e. can be sold, transferred, licensed, rented or exchanged, either individually or together with other assets. An entity controls an intangible asset if it has the power to obtain the future economic benefits flowing from the underlying asset and to restrict the access of others to those benefits.

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12 The leasing accounting policies have been defined on the basis of the provisions of IFRS 16 "Leasing" in force since 1 January 2019. As allowed by the accounting principle, the new provisions have been applied without carrying out the restatement of previous financial years. comparison. The previous accounting policies regarding leasing, described in the Annual Financial Report of the previous year, to which reference is made, essentially provided for: (i) that the assets taken on under finance leases, or relating to agreements which, although not taking the explicit form of a financial lease, provided for the substantial transfer of the risks and rewards of ownership, were recorded at the effective date of the contract, at the fair value of the asset, net of the contributions due by the lessee or, if lower, at the present value of the minimum payments due for leasing, among tangible assets against to, for a corresponding amount, the financial debt to the lessor; and (ii) with reference to operating leases, the allocation to the income statement of the related fees over the duration of the contract.

13 The criteria indicated in the following paragraph are not applied to leases involving intangible assets.

Intangible assets are initially recognized at cost as determined by the criteria used for tangible assets whilst those purchased through business combination transactions are recorded at fair value on the acquisition date. Revaluations are not permitted, even in application of specific laws.

Intangible assets with finite useful lives are amortized on a systematic basis over their useful life; the amount to be amortized and the recoverability of the carrying amount are determined in accordance with the criteria described in the accounting policy for "Tangible assets".

Goodwill and intangible assets with indefinite useful lives are not amortized. Their carrying amounts are tested for impairment at least annually and whenever there is any indication of impairment. Goodwill is tested for impairment at the lowest level within the entity at which it is monitored for internal management purposes. When the carrying amount of the cash-generating unit, including goodwill allocated thereto, calculated considering any impairment loss of the non-current assets belonging to the cash-generating unit, exceeds its recoverable amount[14], the excess is recognized as an impairment loss. The impairment loss is allocated primarily to the carrying amount of goodwill; any remaining excess is allocated to the other assets of the cash generating unit pro-rata on the basis of the carrying amount of each asset in the unit, up to the recoverable amount of assets with finite useful lives. An impairment loss recognized for goodwill cannot be reversed in a subsequent period[15].

Costs of obtaining a contract with a customer are recorded in the balance sheet if the Company expects to recover them. The intangible asset arising from those costs is amortized on a systematic basis, that is consistent with the transfer to the customer of the goods or services to which the asset relates, and is tested for impairment.

Costs of technological development activities are capitalized when: (i) the cost attributable to the development activity can be measured reliably; (ii) there is the intention and the availability of financial and technical resources to make the asset available for use or sale; and (iii) it can be demonstrated that the asset is able to generate probable future economic benefits.

The carrying amount of intangible assets is reversed at the moment of disposal or when no future economic benefits are expected from its use or disposal; any arising gain or loss is recorded in the income statement.

[14] For the definition of recoverable amount, see the paragraph "Tangible assets"

[15] The impairment loss recorded in an interim period is not subject to reversal even if, based on the conditions existing in a subsequent interim period, the impairment loss would have been less, or not recognized at all.

Grants related to assets

Grants related to assets are recognized when there is reasonable certainty that the conditions envisaged by the granting government bodies will be met for their achievement and are recognized as a reduction in the purchase price or the production cost of the assets to which they refer.

Inventories

Inventories, including compulsory stock, are measured at the lower of purchase or production cost and net realizable value. Net realizable value is the amount expected to be realized from the sale of inventories in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale, or, with reference to inventories of crude oil and petroleum products already included in binding sale contracts, the contractual selling price. Inventories which are principally acquired with the purpose of selling in the near future and generating a profit from fluctuations in price are measured at fair value less costs to sell. Materials and other supplies held for use in production are not written-down if the finished products in which they will be incorporated are expected to be sold at a price that allows the recovery of the cost incurred.

The cost of inventories is determined by applying the weighted average cost method over the year.

Significant accounting estimates and judgements: impairment of non-financial assets

Non-financial assets are impaired whenever events or changes in circumstances indicate that carrying amounts of the assets are not recoverable.

The events that can cause an impairment of non-financial assets are changes in the business plans, changes in market prices that can determine lower operating performance, reduced use of the plants. The decision whether or not to proceed with an impairment and the quantification thereof depends on the Company Management's assessments of complex and highly uncertain factors, including the future trend of commodity prices, the impact of inflation and technological improvements on costs production, production profiles and demand and supply conditions on a global or regional scale.

Similar remarks are valid for assessing the recoverability of deferred tax assets (see also the accounting policy for "Income taxes"), which requires complex processes for evaluating the existence of adequate future taxable profit.

The expected cash flows used to determine the recoverable amount are quantified on the basis of the information available at the time of the estimate and of subjective judgments on the trend of future variables - such as prices, costs, demand growth rates, the production profiles - and are discounted using a rate that takes into account the risk inherent in the business concerned.

Financial instruments

Financial assets

Financial assets are classified, on the basis of both the financial instrument and the entity's business model for managing them, in the following categories: (i) financial assets measured at amortized cost; (ii) financial assets measured at fair value through other comprehensive income (hereinafter also OCI); (iii) financial assets measured at fair value through profit or loss.

At initial recognition, a financial asset is measured at its fair value; at initial recognition, trade receivables that do not have a significant financing component are measured at their transaction price.

After initial recognition, financial assets whose contractual terms give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding are measured at amortized cost if they are held within a business model whose objective is to hold financial assets in order to collect contractual cash flows (the so called hold-to-collect business model). For financial assets measured at amortized cost, interest income determined using the effective interest rate, foreign exchange differences and any impairment losses[16] (see the accounting policy for "Impairment of financial assets") are recognized in the income statement.

Conversely, financial assets that are debt instruments are measured at fair value through OCI (hereinafter also FVTOCI) if they are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets (the so called hold to collect and sell business model). In these cases: (i) interest income determined using the effective interest rate, foreign exchange differences and any impairment losses (see the accounting policy for "Impairment of financial assets") are recognized in the income statement; (ii) changes in fair value of the instruments are recognized in equity, within other comprehensive income. The accumulated changes in fair value, recognized in the equity reserve related to other comprehensive income, is reclassified to the income statement when the financial asset is derecognized.

A financial asset represented by a debt instrument that is neither measured at amortized cost, nor at FVTOCI, is measured at fair value through profit or loss (hereinafter FVTPL); financial assets held for trading fall into this category. Interest income on assets held for trading contributes to the fair value measurement of the instrument and is recognized in "Financial income (expense)", within "Net financial income (expense) from financial assets held for trading".

When the purchase or sale of a financial asset is under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned, the transaction is accounted for on the settlement date.

Impairment of financial assets

The expected credit loss model is adopted for the impairment of financial assets that are debt instruments, but are not measured at fair value through profit or loss. In particular, the expected credit losses are generally measured by multiplying: (i) the exposure to the counterparty's credit risk net of any collateral held and other credit enhancements (Exposure At Default, EAD); (ii) the probability that the default of the counterparty occurs (Probability of Default, PD); and (iii) the percentage estimate of the exposure that will not be recovered in case of default (Loss Given Default, LGD), considering the past experiences and the range of recovery tools that can be activated (e.g. extrajudicial and/or legal proceedings, etc.). With reference to trade and other receivables, Probabilities of Default of counterparties are determined by adopting the internal credit ratings already used for credit worthiness and are periodically reviewed using, inter alia, back-testing analyses.

For customers without internal credit ratings, the expected credit losses are measured by using a provision matrix, defined by grouping, where appropriate, receivables into adequate clusters to which apply expected loss rates defined on the basis of their historical credit loss experiences, adjusted, where appropriate, to take into account forward-looking information on credit risk of the counterparty or clusters of counterparties[17].

Considering the characteristics of the reference markets, financial assets with more than 180 days past due or, in any case, with counterparties undergoing litigation, restructuring or renegotiation, are considered to be in default. Counterparties are considered undergoing litigation when judicial/legal proceedings aimed to recover a receivable have been activated or are going to be activated. Impairment losses of trade and other receivables are recognized in the profit and loss account, net of any impairment reversal, within the line item of the profit and loss account "Net (impairment losses) reversals of trade and other receivables".

The recoverability of financial receivables related to operating activities, granted to associates and joint ventures, which in substance forms part of the entity's net investment in these investees, is evaluated considering also the underlying industrial operations and the macroeconomic scenarios of the countries where the investees operate.

Significant accounting estimates and judgements: impairment of financial assets

Measuring impairment losses of financial assets requires management evaluation of complex and highly uncertain elements such as, for example, Probabilities of Default (PD) of counterparties, the existence of any exposure

16 Receivables and other financial assets valued at amortized cost are shown net of the related provision for impairment losses.

17 For credit exposures arising from intragroup transactions, the recovery rate is normally assumed equal to 100% taking into account, inter alia, the Group central treasury function which supports both financial and capital needs of subsidiaries.

mitigators, as well as the forecast credit exposure that will not be recovered in case of default (Loss Given Default o LGD).

Financial liabilities

At initial recognition, financial liabilities, other than derivative financial instruments, are measured at their fair value, minus transaction costs that are directly attributable, and are subsequently measured at amortized cost.

Derivative financial instruments and hedge accounting

Derivative financial instruments, including embedded derivatives (see below) that are separated from the host contract, are assets and liabilities measured at their fair value.

With reference to the defined risk management objectives and strategy, the qualifying criteria for hedge accounting requires: (i) the existence of an economic relationship between the hedged item and the hedging instrument in order to offset the related value changes and the effects of counterparty credit risk do not dominate the economic relationship between the hedged item and the hedging instrument; and (ii) the definition of the relationship between the quantity of the hedged item and the quantity of the hedging instrument (the so-called hedge ratio) consistent with the entity's risk management objectives, under a defined risk management strategy; the hedge ratio is adjusted, where appropriate, after taking into account any adequate rebalancing. A hedging relationship is discontinued prospectively, in its entirety or a part of it, when it no longer meets the risk management objectives on the basis of which it qualified for hedge accounting, it ceases to meet the other qualifying criteria or after rebalancing it.

When derivatives hedge the risk of changes in the fair value of the hedged items (fair value hedge, e.g. hedging of the variability in the fair value of fixed interest rate assets/liabilities), the derivatives are measured at fair value through profit and loss account. Consistently, the carrying amount of the hedged item is adjusted to reflect, in the profit and loss account, the changes in fair value of the hedged item attributable to the hedged risk; this applies even if the hedged item should be otherwise measured.

When derivatives hedge the exposure to variability in cash flows of the hedged items (cash flow hedge, e.g. hedging the variability in the cash flows of assets/liabilities as a result of the fluctuations of exchange rate), the effective changes in the fair value of the derivatives are initially recognized in the equity reserve related to other comprehensive income and then reclassified to the profit and loss account in the same period during which the hedged transaction affects the profit and loss account.

If a hedged forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, the accumulated changes in fair value of hedging derivatives recognized in equity, are included directly in the carrying amount of the hedged non-financial asset/liability (commonly referred to as a "basis adjustment").

The changes in the fair value of derivatives that are not designated as hedging instruments, including any ineffective portion of changes in fair value of hedging derivatives, are recognized in the profit and loss account. In particular, the changes in the fair value of non-hedging derivatives on interest rates and exchange rates are recognized in the profit and loss account line item "Finance income (expense)"; conversely, the changes in the fair value of non-hedging derivatives on commodities are recognized in the profit and loss account line item "Other operating (expense) income".

The economic effects of transactions relating to the purchase or sale of commodities stipulated for the company's requirements in the normal course of business, and for which settlement is envisaged through the physical delivery of the assets, are posted on an accrual basis (so called normal sale and normal purchase exemption or own use exemption).

Offsetting of financial assets and liabilities

Financial assets and liabilities are set off in the balance sheet if the Group currently has a legally enforceable right to set off and intends to settle on a net basis (or to realize the asset and settle the liability simultaneously).

Derecognition of financial assets and liabilities

Transferred financial assets are derecognized when the contractual rights to receive the cash flows from the financial assets expire or are transferred to another party. Financial liabilities are derecognized when they are extinguished, or when the obligation specified in the contract is discharged, cancelled or expired.

Cash and cash equivalents

Cash and cash equivalents include cash on hand and demand deposits.

Provisions, contingent liabilities and contingent assets

A provision is a liability of uncertain timing or amount on the balance sheet date. Provisions are recognized when: (i) there is a present obligation, legal or constructive, as a result of a past event; (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and (iii) the amount of the obligation can be reliably estimated. The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation or to transfer it to third parties at the balance sheet date. The amount recognized for onerous contracts is the lower of the cost necessary to fulfill the obligations, net of expected economic benefits deriving from the contracts, and any compensation or penalties arising from failure to fulfill these obligations. Where the effect of the time value is material, and the payment date of the obligations can be reasonably estimated, provisions to be accrued are the present value of the expenditures expected to be required to settle the obligation at a discount rate that reflects the Company's average borrowing rate taking into account the risks associated with the obligation. The increase in the provision due to the passage of time is recognized as "Financial income (expense)".

When the liability regards property, plant and equipment (e.g. dismantling and site restoration), the provision is recorded with a corresponding counter-entry, that is the asset to which it refers; the effects of the provision on the income statement are accounted for through the amortization process.

A provision for restructuring costs is recognized only when the Company has a detailed formal plan for the restructuring and has raised a valid expectation in the affected parties that it will carry out the restructuring.

Provisions are periodically reviewed and adjusted to reflect changes in the estimates of costs, timing and discount rates. Changes in provisions are recognized in the same profit and loss account line item where the original provision was charged. Contingent liabilities are: (i) possible obligations arising from past events, whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company; or (ii) present obligations arising from past events, whose amount cannot be reliably measured or whose settlement will probably not result in an outflow of resources embodying economic benefits.

Contingent assets, that are possible assets arising from past events and whose existence will be confirmed only by the occurrence or nonoccurrence of one or more uncertain future events not wholly within the control of the Company, are not recognized unless the realization of economic benefits is virtually certain. Contingent assets are disclosed when an inflow of economic benefits is probable. Contingent assets are assessed periodically to ensure that developments are appropriately reflected in the financial statements; if it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognized in the financial statements of the period in which the change occurs.

Employee benefits

Employee benefits are considerations given by the Group in exchange for service rendered by employees or for the termination of employment.

Post-employment benefit plans, including informal arrangements, are classified as either defined contribution plans or defined benefit plans depending on the economic substance of the plan as derived from its principal terms and conditions. Under defined contribution plans, the Company's obligation, which consists in making payments to the State or to a trust or a fund, is determined on the basis of contributions due.

The liabilities related to defined benefit plans, net of any plan assets, are determined on the basis of actuarial assumptions and charged on an accrual basis during the employment period required to obtain the benefits. Net interest includes the return on plan assets and the interest cost to be recognized in the profit and loss account. Net interest is measured by applying to the liability, net of any plan assets, the discount rate used to calculate the present value of the liability; net interest of defined benefit plans is recognized in "Finance income (expense)".

Remeasurements of the net defined benefit liability, comprising actuarial gains and losses, resulting from changes in the actuarial assumptions used or from changes arising from experience adjustments, and the return on plan assets excluding amounts included in net interest, are recognized within the statement of comprehensive income. Remeasurements of the net defined benefit liability, recognized within other comprehensive income, are not reclassified subsequently to the profit and loss account. Obligations for long-term benefits are determined by adopting actuarial assumptions. The effects of remeasurements are taken to profit and loss account in their entirety.

Revenue from contracts with customers

Revenue from contracts with customers is recognized on the basis of the following five steps: (i) identifying the contract with the customer; (ii) identifying the performance obligations, that are promises in a contract to transfer goods and/or services to a customer; (iii) determining the transaction price; (iv) allocating the transaction price to each performance obligation on the basis of the relative stand-alone selling prices of each good or service; and (v) recognizing revenue when (or as) a performance obligation is satisfied, that is when a promised good or service is transferred to a customer. With reference to the products most relevant to Versalis, the moment of recognition of the revenues generally coincides with the shipment.

Revenue is measured at the fair value of the consideration to which the Company expects to be entitled in exchange for transferring promised goods and/or services to a customer, excluding amounts collected on behalf of third parties. In determining the transaction price, the promised amount of consideration is adjusted for the effects of the time value of money if the timing of payments agreed to by the parties to the contract provides the customer or the entity with a significant benefit of financing the transfer of goods or services to the customer. The promised amount of consideration is not adjusted for the effect of the significant financing component if, at contract inception, it is expected that the period between the transfer of a promised good or service to a customer and when the customer pays for that good or service will be one year or less. If the consideration promised in a contract includes a variable amount, the Company estimates the amount of consideration to which it will be entitled in exchange for transferring the promised goods and/or services to a customer; in particular, the amount of consideration can vary because of discounts, refunds, incentives, price concessions, performance bonuses, penalties or if the price is contingent on the occurrence or non-occurrence of future events. If, in a contract, the Company grants a customer the option to acquire additional goods or services for free or at a discount (e.g. sales incentives, customer award points, etc.), this option gives rise to a separate performance obligation in the contract only if the option provides a material right to the customer that it would not receive without entering into that contract. When goods or services are exchanged for goods or services which are of a similar nature and value, the exchange is not regarded as a transaction which generates revenue.

Costs

Costs are recognized when the related goods and services are sold or consumed during the year, when they are allocated on a systematic basis or when their future economic benefits cannot be identified.

Costs associated with emission quotas, determined on the basis of the market prices, are recognized in relation to the amounts of the carbon dioxide emissions that exceed free allowances. Costs related to the purchase of the emission rights that exceed the amount necessary to meet regulatory obligations, are recognized as intangible assets. Revenues related to emission quotas are recognized when they are sold and, if applicable, purchased emission rights are considered the first to be sold. Monetary receivables granted to replace the free award emission rights are recognized as a contra to the line item "Other income and revenue".

The costs for the acquisition of new knowledge or discoveries, the study of products or alternative processes, new techniques or models, the planning and construction of prototypes or, in any case, costs incurred for other scientific research activities or technological development, which cannot be capitalized (see also the accounting policy for "Intangible assets"), are included in the income statement when they are incurred.

Exchange rate differences

Revenues and costs associated with transactions in foreign currencies are translated into the functional currency by applying the exchange rate at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the spot exchange rate on the balance sheet date and any resulting exchange differences are included in the profit and loss account within "Finance income (expense)" or, if designated as hedging instruments for the foreign currency risk, in the same line item in which the economic effects of the hedged item are recognized. Non-monetary assets and liabilities denominated in foreign currencies, measured at cost, are not retranslated subsequent to initial recognition. Non-monetary items measured at fair value, recoverable amount or net realisable value are retranslated using the exchange rate at the date when the value is determined.

Dividends

Dividends are recognized on the date of the resolution by the shareholders' meeting.

Income taxes

Current income taxes are determined on the basis of estimated taxable income; the estimated liability is posted in the item "Current income tax payables". Current tax assets and liabilities are accounted for basing on the amount expected to be paid to/recovered from the tax authorities, utilizing the tax rates and tax laws enacted, or substantively enacted, as at the balance sheet date.

Deferred tax assets and liabilities are calculated on the temporary differences arising between the book value of the assets and liabilities and the corresponding amounts recorded for fiscal purposes on the basis of the tax rates and laws enacted, or substantively enacted, for future years. Deferred tax assets are recognized when their recoverability is considered probable, i.e. when it is probable that sufficient taxable profit will be available in the same year as the reversal of the deductible temporary difference. Similarly, deferred tax assets for the carry-forward of unused tax credits and unused tax losses are recognized to the extent that their recoverability is probable. The carrying amount of the deferred tax assets is reviewed, at least, on an annual basis.

Relating to the taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint arrangements, the related deferred tax liabilities are not recognized if the investor is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are presented within non-current assets and liabilities and are offset at a single entity level if related to off-settable taxes. The balance of the offset, if positive, is recognized in the line item "Deferred tax assets" and, if negative, in the line item "Deferred tax liabilities". When the results of transactions are recognized directly in shareholders' equity, the related current and deferred taxes are also charged to the shareholders' equity.

Fair value measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants (not in a forced liquidation or a distress sale) at the measurement date (exit price). Fair value measurement is based on the market conditions existing at the measurement date and on the assumptions of market participants (market-based measurement). A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market to which the entity has access, independently from the entity's intention to sell the asset or transfer the liability to be measured.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use. Highest and best use is determined from the perspective of market participants, even if the entity intends a different use; an entity's current use of a non-financial asset is presumed to be its highest and best use, unless market or other factors suggest that a different use by market participants would maximize the value of the asset. The fair value of a liability, both financial and non-financial, or of the

Company's own equity instrument, in the absence of a quoted price, is measured from the perspective of a market participant that holds the identical item as an asset at the measurement date. The fair value of financial instruments takes into account the counterparty's credit risk for a financial asset (Credit Valuation Adjustment, CVA) and the Company's own credit risk for a financial liability (Debit Valuation Adjustment, DVA). In the absence of available market quotation, fair value is measured by using valuation techniques that are appropriate in the circumstances, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

Significant accounting estimates and judgements: fair value

Fair value measurement, although based on the best available information and on the use of appropriate valuation techniques, is inherently uncertain, requires the use of professional judgement and could result in expected values other than the actual ones.

Primary financial statements

Assets and liabilities on the balance sheet are classified as current and non-current. Items in the profit and loss account are presented by nature33. Assets and liabilities are classified as current when: (i) they are expected to be realized/settled in the entity's normal operating cycle or within twelve months after the balance sheet date; (ii) they are cash or cash equivalents unless they are restricted from being exchanged or used to settle a liability for at least twelve months after the balance sheet date; or (iii) they are held primarily for the purpose of trading. Derivative financial instruments held for trading are classified as current, apart from their maturity date. Non hedging derivative financial instruments, which are entered into to manage risk exposures but do not satisfy the formal requirements to be considered as hedging, and hedging derivative financial instruments are classified as current when they are expected to be realized/settled within twelve months after the balance sheet date; on the contrary they are classified as non-current.

The statement of comprehensive income shows the net profit for the period together with income and expenses that are posted directly in equity in accordance with the IFRS.

The Statement of Changes in Shareholders' Equity includes the comprehensive income (expense) for the year, transactions with shareholders and other changes in shareholders' equity.

The Cash Flow Statement is presented using the indirect method, whereby net profit/(loss) is adjusted for the effects of non-monetary transactions[18].

Changes in accounting policies

IFRS 16 "Leasing" (hereinafter IFRS 16), approved with Regulation no. 2017/1986 issued by the European Commission on October 31, 2017, was applied starting from January 1, 2019, making use of the possibility, allowed by the transitional provisions of the accounting standard, to detect the effect connected to the retroactive restatement of the values in equity at January 1, 2019, without performing the restatement of previous years (in application of the so-called modified retrospective approach).

The adoption of IFRS 16 led to the recognition of a lease liability of 35 million euros and a right-of use of assets for 39 million euros.

Upon initial application, Versalis Group made use of the following practical expedients and/or options provided by the accounting standard:

- possibility of not reviewing any contract that already existed on January 1, 2019, applying IFRS 16 to contracts previously identified as leasing (pursuant to IAS 17 and IFRIC 4) and not applying IFRS 16 to contracts that were not classified as leasing;
- possibility, with reference to contracts previously classified as operating leases, to recognize the asset as right of use at an amount corresponding to the lease liability, adjusted, where necessary, to take into account any prepaid amounts already recognized in the balance sheet;
- possibility of ascertaining the recoverability of the right-of-use assets on January 1, 2019 with regard to the possible existence, as at December 31, 2018, of provisions for onerous contracts;
- possibility of not considering the initial direct costs in determining the book value of the right-of-use assets on January 1, 2019.

Moreover, on transition, Versalis Group has elected to not consider leases for which the lease term ends within 12 months of January 1, 2019 as short-term leases.

Furthermore, starting from January 1, 2019, the following IFRSs are effective:

- the amendments to IAS 28 "Long-term Interests in Associates and Joint Ventures", adopted by the Commission Regulation No. 2019/237 issued by the European Commission on February 8, 2019, which clarify that entities account for any financing receivables towards an associate or joint venture, for which

[18] In the cash flow statement, in the net cash flow from investment activities section, the tax disbursement, specifically identifiable and referring to a disposal operation, is presented separately.

settlement is neither planned nor likely to occur in the foreseeable future (the so-called long-term interests), that, in substance, form part of the entity's net investment in the investee, using the requirements of IFRS 9, including those related to impairment. These amendments did not have a significant impact on the Consolidated Financial Statements;

- IFRIC 23 "Uncertainty over Income Tax Treatments", adopted by the Commission Regulation No. 2018/1595 issued by the European Commission on October 23, 2018, which clarified the accounting for (current and/or deferred) tax assets and liabilities when there is uncertainty over income tax treatments. In particular, if there is uncertainty over income tax treatments, if the Company concludes it is probable that the taxation authority will accept an uncertain tax treatment, it determines the (current and/or deferred) income taxes to be recognized in the financial statements consistent with the tax treatment used or planned to be used in its income tax filings. Conversely, if the Company concludes it is not probable that the taxation authority will accept an uncertain tax treatment, the company reflects the effect of uncertainty in determining the (current and/or deferred) income taxes to be recognized in the financial statements. IFRIC 23 did not have a significant impact on the measurement of income taxes.

Finally, with reference to primary financial statements, starting from 2019, the items "Assets for other current taxes" and "Liabilities for other current taxes" have been eliminated from the balance sheet and the related balances have been reclassified within the residual items "Other assets" and "Other liabilities" of the current section. This new articulation was carried out in order to simplify the balance sheet layout, making it easier to identify the quantities relevant for understanding the company's balance sheet.

IFRSs not yet effective

Accounting standards and interpretations issued by IASB and adopted by the European Commission

By the Commission Regulation No. 2019/2075 issued by the European Commission on November 29, 2019, the document "Amendments to References to the Conceptual Framework in IFRS Standards" was adopted. The document includes, basically, technical and editorial changes to existing IFRS standards in order to update references in those standards to previous versions of the IFRS Framework with the new Conceptual Framework for Financial Reporting, issued by the IASB on the same date. These amendments shall be applied for annual reporting periods beginning on or after January 1, 2020. By the Commission Regulation No. 2019/2104 issued by the European Commission on November 29, 2019, amendments to IAS 1 and IAS 8 "Definition of Material" (hereinafter the amendments to IAS 1 and IAS 8) were adopted. The amendments to IAS 1 and IAS 8 clarify, and align across all IFRS standards and other publications, the definition of material to help companies make better materiality judgements. In particular, information is material if omitting, misstating or obscuring it could be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments to IAS 1 and IAS 8 shall be applied for annual reporting periods beginning on or after January 1, 2020.

By the Commission Regulation No. 2020/34 issued by the European Commission on January 15, 2020, amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform" (hereinafter amendments to IFRS 9, IAS 39 and IFRS 7) were adopted. The amendments to IFRS 9, IAS 39 and IFRS 7 provide temporary exceptions from applying specific hedge accounting requirements to all hedging relationships directly affected by the interest rate benchmark reform. The amendments to IFRS 9, IAS 39 and IFRS 7 shall be applied for annual reporting periods beginning on or after January 1, 2020.

IFRSs issued by the IASB and not yet adopted by the European Commission

On May 18, 2017, the IASB issued IFRS 17 "Insurance Contracts" (hereinafter IFRS 17), which sets out the accounting for the insurance contracts issued and the reinsurance contracts held. IFRS 17, which replaces IFRS 4 "Insurance Contracts", shall be applied for annual reporting periods beginning on or after January 1, 2021.

On October 22, 2018, the IASB issued amendments to IFRS 3 "Business Combinations" (hereinafter the amendments to IFRS 3), which clarify the definition of a business. The amendments to IFRS 3 shall be applied for annual reporting periods beginning on or after January 1, 2020.

On January 23, 2020, the IASB issued amendments to IAS 1 "Presentation of Financial Statements: Classification of Liabilities as Current or Non-current" (hereinafter amendments to IAS 1), which clarify how to classify debt and other liabilities as current or non-current. The amendments to IAS 1 shall be applied for annual reporting periods beginning on or after January 1, 2022.

Current assets

1. Cash and cash equivalents

Cash and cash equivalents amount to 42 million euros (44 million euros as at December 31, 2018) and are mainly deposited in non-interest bearing current accounts (c/o Eni Group financial companies).

2. Other current financial assets

Other current financial assets of 9 million euros refer to the financial credit granted to the joint venture Matrìca SpA. The non-current portion of the financial receivable from the jointly controlled company Matrìca, amounting to 48 million euros, is fully written-off, while the short-term portion is not, since the company is considered able to repay it thanks to the commitment undertaken by Versalis SpA to meet the financial requirements of the next financial year of Matrìca itself (see the section Provisions for risks and charges).

3. Trade and other receivables

Trade receivables and other credit are detailed in the table below:

(million euros)	December 31, 2018	December 31, 2019
Trade receivables	557	449
Other receivables	149	203
	706	652

Generally, trade receivables don't bear any interest and provide payment terms within 150 days.

As at December 31, 2019, Versalis sold without recourse trade receivables due within 2020 for 132 million euros (142 million euros as at December 31, 2018, due within 2019).

The company distinguishes credit exposures deriving from trade relationships and other relationships, according to a specific risk assessment of the counterparty. In particular, the probability of default is assessed on the basis of a defined internal rating, which considers the following: (i) specialist analysis of balance sheet, of current and prospective financial situation of clients; (ii) previous trade and administrative relationships (regularity of payments, presence of elements that mitigate the risk, etc.); (iii) any further qualitative information collected by the sales functions of each business unit and by specialized info-providers; (iv) any specific contractual clauses for credit protection; (v) performance of the reference sector; (vi) country risk that considers the probability of occurrence of events related to the debtor's operating context, over a medium-tem time period, which may compromise the ability to fulfill the obligation towards Versalis.
The internal rating and the corresponding probability of default are updated through back-testing analysis and risk assessments of the current and forward-looking portfolio. If the rating of a counterparty cannot be defined, the expected loss is determined, for homogeneous clusters, on the basis of a generic model that summarizes in a single parameter (the so-called *expected loss ratio*) the probability of default and of the recovery capacity (*loss given default*).

The following table shows the information about the gross exposure to credit risk and on the allowance for doubtful accounts, for which an analytical assessment and/or an assessment based on the generic model has been carried out, elaborated on the basis of internal ratings:

(million euros)	Performing loans	Non-performing loans	Totale
Business customers	374	179	553
Other counterparties	249		249
Gross amount as at December 31, 2019	**623**	**179**	**802**
Allowance for doubtful accounts	1	149	150
Net amount as at December 31, 2019	**622**	**30**	**652**

Trade and other receivables are stated net of the allowance for doubtful accounts of 150 million euros (158 million euros as at December 31, 2018). Changes in the allowance for doubtful accounts occurred in 2019 are disclosed as follows:

(million euros)	Trade and other receivables
Carrying amount at December 31, 2017 (ex IAS 39)	**171**
Changes in accounting principles (IFRS 9)	6
Carrying amount at January 1, 2018 (ex IFRS 9)	**177**
- additions	1
- deductions	(20)
Carrying amount at December 31, 2018	**158**

(million euros)	Trade and other receivables
Carrying amount at December 31, 2018	**158**
- additions	5
- deductions	(13)
Carrying amount at December 31, 2019	**150**

See paragraph "Credit risk" for further details on company's exposure to contingent losses deriving from counterparties' failure to fulfill their obligations.
Deductions of the allowance for doubtful accounts for the current year refer to credit losses.

Other receivables are disclosed as follows:

(€ million)	December 31, 2018	December 31, 2019
Receivables due from Eni Group companies	94	124
Receivables due from parent company	44	36
Advances for services and guarantee deposits	5	12
Receivables due from personnel	2	2
Receivables for licences	1	1
Other receivables	3	28
	149	**203**

Receivables due form Eni Group companies mainly relate to Eni Rewind SpA for environmental remediation (100 million euros) and to Eni Insurance (21 million euros), mainly related to the reimbursement of damages resulting from the accident at the Priolo hub.

Receivables due from parent company Eni SpA mainly relate to receivables from participation to group VAT regime (16 million euros) and to tax receivables on IRES relating to Consolidato Fiscale Nazionale tax scheme (16 million euros).

Fair value assessment of trade and other receivables has no material impact, given their short-term nature (i.e. the time between their occurrence and the due date).

Receivables due from related parties are disclosed in Note 35.

4. Inventories

Inventories are detailed in the table below:

(million euros)	December 31, 2018				December 31, 2019			
	Oil derivatives	Chemicals	Other	Total	Oil derivatives	Chemicals	Other	Total
Raw and auxiliary materials and consumables	47	122	64	233	44	132	71	247
Work in progress and semi-finished products	1	8		9	1	7		8
Finished products and goods	29	533	3	565	28	538		566
	77	663	67	807	71	677	71	821

Changes in inventories and in write down provisions are disclosed as follows:

December 31, 2018							
Gross inventories	747	101			(1)	4	851
write down provisions	(28)		(19)	3			(44)
Net inventories	719	101	(19)	3	(1)	4	807
December 31, 2019							
Gross inventories	851	32			1		884
write down provisions	(44)		(22)	4	(1)		(63)
Net inventories	**807**	**32**	**(22)**	**4**			**821**

There is no collateral on inventories. Additions to the write off provisions mainly relate to adjustments made on the book values of finished products, in order to align them to the expected sale price at the end of the period.

5. Current income tax assets

Current income tax assets of 11 million euros (15 million euros as at December 31, 2018) mainly relate to receivables due from tax authorities. Further details about income taxes are provided in note 34.

6. Other assets

Other assets are disclosed as follows:

(€ million)	December 31, 2018	December 31, 2019
Other current tax assets	14	13
Fair value of non-hedging derivatives	1	1
Other assets	2	1
	17	15

Other assets of 15 million euros (17 million euros as at December 31, 2018) mainly include VAT receivables (10 million euros), prepaid expenses and fair value of derivative financial instruments (not classified as "hedging", but without speculative purposes), whose book values were determined by the parent company Eni SpA. These instruments, whilst not classifiable as speculative, don't meet the criteria established by IAS/IFRS principles in order to be considered as "hedging derivatives".

The nominal values of derivative contracts do not represent the amounts exchanged between the parties and therefore do not constitute a measure of the credit risk exposure for the company which is limited to the negative market value (fair value) of the contracts at the end of the year, reduced due to the effects of any general netting agreements.

Non-current assets

7. Property, plant and equipment

Property, plant and equipment are detailed as follows:

(million euros)	Opening net balance	Additions	Depreciation & amortization	Write-downs and reversal of impairment losses	Disposals	Currency translation differences	Transactions on campoany branches	Other changes	Ending net balance	Ending gross balance	Provision for impairment of assets
December 31, 2018											
Assets not intended for disposal									0		0
Land	32			(11)					**21**	112	**92**
Buildings	35		(6)	2				2	**33**	350	**317**
Plant and machinery	667	22	(100)	(160)			16	46	**489**	5.322	**4.818**
Industrial and commercial equipment	2		(1)					1	**2**	112	**109**
Other assets	2	2	(1)					5	**8**	43	**36**
Assets under construction and advances	189	121		(18)				(48)	**244**	490	**246**
	927	**145**	**(108)**	**(187)**	**-**	**-**	**16**	**6**	**797**	**6.428**	**5.618**
December 31, 2019											
Land	21			32					**53**	112	60
Buildings	33		(5)					2	**30**	352	322
Plant and machinery	489	51	(67)	(149)	(1)	1		(31)	**293**	5.342	5.049
Industrial and commercial equipment	2	1	(1)					1	**3**	114	110
Other assets	8								**8**	43	35
Assets under construction and advances	244	58		126		1		15	**444**	552	108
	797	**110**	**(73)**	**9**	**(1)**	**2**		**(13)**	**832**	**6.515**	**5.684**

Additions of 110 million euros (145 million euros as at December 31, 2018) are disclosed in the Management Report section of financial statements.

Financial expenses capitalized in the year of 3 million euros (6 million euros as at December 31, 2018) were determined by applying an interest rate of 2,81% (2,42% as at December 31, 2018). Increase on internal work capitalized in the period of 9 million euros (16 million euros as at December 31, 2018) refers to services provided by internal staff.

The main amortization rates used were substantially unchanged from the previous year and ranged as follows:

(annual %)	2018	2019
Buildings	4-16	4-16
Plant and machinery	4-25	4-25
Industrial and commercial equipment	10-30	10-30
Other assets	12-20	12-20

There are neither mortgages, nor special rights on property, plant and equipment.

Reductions in property, plant and equipment of 10 million euros (18 million euros as at December 31, 2018) refer to net government grants and reimbursement from third parties. Government grants are received upon certain constraints on assets they relate to. The above-mentioned constraints mainly consist of the obligation not to divert those assets from their original use for at least five years as of entry into operation. Not complying with these constraints may result in the withdrawal of the grant, to return plus interest.

Further details on the criteria used to determine impairment loss and impairment reversals are disclosed in Note 10.

8. Right-of-use assets and lease liabilities

Right of use and Lease liability are disclosed as follows:

(milion euros)

	Land and buildings	Plant and machinery	Other assets	Total
Opening balance as at January 1, 2019	17	16	5	38
Amortizations	(3)	(2)	(2)	(7)
Impairment loss		(14)		(14)
Ending balance as at December 31, 2019	**14**		**3**	**17**

(€ million)

	Lease liability		
	Short-term	Long-term	Total
Opening balance as at January 1, 2019	14	24	38
Increase			
Decrease	(14)		(14)
Exchange differences			
Other changes	8	(7)	1
Ending balance as at December 31, 2019	**8**	**17**	**25**

In the first year of adoption of IFRS 16 (i.e. 2019), the company applied the "modified retrospective approach". Therefore, data referring to the previous period are not restated and the related disclosure is the same issued in the 2018 consolidated financial statement.

The right of use of plant and machinery refers to the biomass power plant located in Crescentino, whose lease expires in the second half of 2021; the asset has been completely impaired during the year.

Other lease assets consist of the vehicle fleet conceded to employees. The item "land and buildings" mainly refers to the lease of land.

The total amount of cash flow from lease liabilities of 14 million euros mainly refers to repayment of principal (12 million euros); related interest expenses amount to about 2 million euros in 2019.

Lease items recorded in the consolidated income statement are disclosed as follows:

(million euros)

	2018	2019
Purchases, services and other costs:		
- leases of modest value		(1)
Depreciation		
- depreciation of right of use assets		(7)
Write-downs of right of use of assets		(14)
Financial income (expense)		
- interest expense on lease liabilities		(2)

9. Intangible assets

Intangible assets are detailed as follows:

(million euros)	Net opening balance	Additions	Acquisition of business branch	Amortization	Impairment loss	Other changes	Net ending balance	Gross ending balance	Allowance for impairment
December 31, 2018									
Intangible assets with defined useful life									
- R&D costs	5			(1)	(4)			22	22
- Industrial patents and intellectual property rights								54	54
- Grants, licences, trademarks and similar rights	14	1	47	(1)		3	64	151	87
- Assets under construction and advances	14	1			(12)	(3)		16	16
- Other intangible assets	37	2		(4)			35	138	104
Intangible assets with undefined useful life									
- Goodwill			26				26	26	
	70	4	73	(6)	(16)		124	406	282
December 31, 2019									
Intangible assets with defined useful life									
- R&D costs								22	22
- Industrial patents and intellectual property rights								54	54
- Grants, licences, trademarks and similar rights	64			(5)	(43)		16	151	135
- Assets under construction and advances		5					5	21	16
- Other intangible assets	34	3		(3)	(29)	(2)	3	138	136
Intangible assets with undefined useful life									
- Goodwill	26				(26)				
	123	8		(8)	(98)	(2)	24	386	362

Grants, licenses and trademarks mainly relate to industrial licenses. The decrease is due to the impairment loss of 43 million euros.

Goodwill of 26 million euros recorded in the financial statement after the acquisition of the Biotech business from Mossi&Ghisolfi Group was completely impaired during the year.

Other changes mainly concern reclassifications from assets under construction to completed assets and the reclassification from plants and machinery to rights of use of assets of the biomass power plant located in Crescentino.

Further information on the criteria used to determine net impairment reversals (impairment loss) and the related analysis are disclosed in note 10.

The main amortization rates used were substantially unchanged from the previous year and ranged as follows:

(annual %)	2018	2019
Intangible assets with defined useful life		
- R&D costs	4 - 20	4 - 20
- Industrial patents and intellectual property rights		2 - 5
- Grants, licences, trademarks and similar rights	4 - 33	4 - 33
- Other intangible assets	4 - 15	4 - 15

There are no contributions that decrease the book value of intangible assets.

10. Net impairment reversals (impairment losses) of tangible and intangible assets and right of use assets

In assessing whether impairment is required, the carrying amounts of the assets are compared with their recoverable amounts. The recoverable amount is the higher between an asset's fair value less costs to sell and its value-in-use. In the event of an asset's impairment being reversed, the reversal may not raise the carrying amount above the value it would have stood at taking into account depreciation, if no impairment had originally been recognized.

Given the nature of Versalis Group core activities, information on the fair value of the assets is difficult to establish, except for the case a trading activity is in progress with a potential buyer. Therefore, management is in charge of estimating the value in use.

Starting from this year, the structure of the cash generating units based on the impairment assessments has been changed. Until the preparation of the financial statements as at December 31, 2018, the CGUs were substantially identified with the production plants. During the year, management proceeded with a redefinition of the CGUs, specifically grouping the assets (production plants) referring to the individual BUs in which the company operates and therefore acts as CGU, the Intermediate, Polyethylene, Styrene, Elastomer and Biotech business lines. This decision was taken considering the process of change, already started in previous years, of the planning, implementation and control methods which led to a completely integrated management at BU level of the activities carried out in the various sites consolidated. By taking this decision, it was taken account of the superimposition of the productions made in the individual plants and of the existence of a high correlation and interdependence between the revenues generated by the same; the implementation of the Biotech BU was considered as the final element of the process.

Net impairment loss of 103 million euros on tangible, intangible and right of use assets are the result of the impairment test and mostly refer to the following Cash Generating Units (CGUs):

- Intermediate: impairment reversal of 147 million euros;
- Polyethylene: impairment loss of 221 million euros;
- Styrene: impairment reversal of 47 million euros;
- Elastomers: impairment reversal of 7 million euros;
- Biotech: impairment loss of 83 million euros.

Impairment loss of 103 million euros is coherent with the amount that would have resulted from the previous CGU structure (i.e. as at December 31, 2018), even with a different distribution of the effects between the individual assets, in particular regarding assets attributable to the Intermediate BU and Polyethylene.

With reference to the Biotech Business Unit, the overall impairment loss of assets (tangible and intangible assets) is determined by the current future business forecasts. Specific actions and investments have already been supported during the year, with the aim of optimizing the PROESA technology, and its consequent enhancement through the sale of user licenses connected to it.

The impairment losses (impairment reversals) were calculated by comparing the book value of each CGU with its value in use, which was determined with the DCF model. The time horizon is 20 years (adapted to the useful life of the plants, which in any case is more than 20 years, as stated by independent appraisals).

With reference to the Eni 2020-2023 and long-term scenario, the decline for chemical commodities in the four-year period worsened compared to the previous plan. The Chemical sector is in fact affected by a prolonged downcycle phase, due to the progressive development of new ethane cracking plants, the US-China commercial tensions, the global slowdown in automotive demand and the pressure on single use plastics. Lower margins than the previous plan are expected in particular for polyethylene and elastomers, with a gradual recovery trend in the second half, towards mid-cycle conditions.

The value in use of the CGUs is estimated by discounting the expected cash flows of the four-year Plan, excluding the flows of research investments and development/enhancement ones. For the years following the Plan horizon, the normalized material balance is valued; fixed costs are subject to an increase rate equal to scenario inflation; up to the end of the economic-technical life, the stay in business investments are constant (real term) and equal to the average of the investments envisaged in the Plan.

For the purposes of discounting the flows determined in the manner and according to the aforementioned criteria, the management has adopted a weighted-average cost of capital (WACC) of 7.9%.

In consideration of the volatility of the scenario, management has tested the reasonableness of its assumptions and the outcome of the impairment test through sensitivity analysis, in particular on the WACC and on the expected cash flows. Taking into account the significant impairmen loss made in previous years and the sensitivity of the main assumptions related to issues of an uncertain nature, used for the purposes of the impairment test, a change in expected cash flows or in the WACC would result in a significant change in the recoverable value.

11. Equity-accounted investments

Equity-accounted investments are disclosed as follows:

(million euros)	Net opening balance	Additions	Share of profit (loss) on equity-accounted investments	Other changes	Net ending balance
December 31, 2018					
Investments in:					
- subsidiaries	8			(4)	4
- associated companies	97		(4)		93
- joint ventures	114	28	(67)		75
	219	28	(71)	(4)	172
December 31, 2019					
Investments in:					
- subsidiaries	4		1		5
- associated companies	93		4		97
- joint ventures	75	76	(76)	(2)	73
	172	76	(71)	(2)	175

Additions and subscriptions of 76 million euros relate to the capital increase of Lotte Versalis Elastomers (39 million euros) and to the payments for future capital increases in Matrìca (37 million euros).

Value adjustments of 71 million euros mainly refer to the assessment of equity-accounted investments at equity method, which resulted in capital losses of 39 million euros for Lotte Versalis Elastomers and of 37 million euros for Matrìca, and in a capital gain of 4 million euros for Novamont and of 1 million euros for Versalis Kymia.

Other changes of -2 million euros refer to exchange differences deriving from valuation at equity method of the investment in Lotte Versalis Elastomers.

Equity-accounted investments are held in the following companies:

(million euros)	December 31, 2018	December 31, 2019
Lotte Versalis Elastomers Co Ltd	74	74
Novamont SpA	68	71
Priolo Servizi Industriali Scarl	18	18
Versalis Kimya Ticaret Ltd.	4	4
Servizi Porto Marghera Scarl	3	3
Ravenna Servizi Industriali ScpA	2	2
IFM Ferrara Scarl	1	1
Versalis Zeal Ltd	1	1
Brindisi Servizi Generali Scarl	1	1
	172	175

Ownership percentages are shown in note 41.

12. Other investments

Other investments are held in the following companies:

(million euros)	December 31, 2018	December 31, 2019
Consorzio Exeltium SAS	2	2
IFM Ferrara ScpA	1	1
BKV Beteiligungs-und Kunststoffverw. mbH	...	...
Genomatica Inc	...	...
IAS Industria Acqua Siracusana	...	...
Consorzio Crea Assemini	...	...
Sociedad Española de Materiales Plasticos SA	...	...
	3	3

... Amounts of less than 0.5 million euros

Ownership percentages are shown in note 41.

13. Other non-current financial assets

Other financial assets of 2 million euros (unchanged compared to the previous year) essentially refer to the financing with Serfactoring (Eni Group).

14. Deferred tax assets

Deferred tax assets of 47 million euros (75 million euros as at December 31, 2018) are net of countervailable deferred tax liabilities of 57 million euros (78 million euros as at December 31, 2018) and of impairment loss of 771 million euros (of which, 328 million euros related to tax losses).

(million euros)	December 31, 2018	December 31, 2019
Deferred tax assets	153	104
Countervailable deferred tax liabilities	(78)	(57)
	75	47

Income taxes are disclosed in note 34.

The nature of temporary tax differences that gave rise to deferred tax assets is disclosed in the following table:

(million euros)	Amount as at Decemebr 31, 2018	Incrrease	Deductions	Other changes	Amount as at Decemebr 31, 2018
Prepaid taxes:					
- non-deductible write-downs	161	57	(81)		137
- tax losses	303	89	(1)	21	412
- expenses with deferred deductibility	(4)				(4)
- provisions for risk and charges	12	3	(6)		9
- other	348	14	(7)	(15)	340
	820	**163**	**(95)**	**6**	**894**
(Write-down)/write-backs on deferred tax assets	(667)	(132)	9		(790)
	153	**31**	**-86**	**6**	**104**
Deferred taxes:					
- excess amortisation/depreciation	55		(27)		28
- other	23	1	(1)	6	29
	78	**1**	**(28)**	**6**	**57**
Net deferred tax assets	**75**	**30**	**(58)**		**47**

Impairment loss of 132 million euros and impairment reversals of 9 million euros mainly refer to the results of the test for recoverability of the prepaid taxes of Versalis SpA (impairment loss of 103 million euros and impairment reversals of 4 million euros) and of Versalis France (impairment loss of 26 million euros).

15. Other non-current assets

Other assets of 1 million euros (unchanged from the previous period) mostly relate to receivables due from personnel.

Current liabilities

16. Short-term debt

Short-term debt of 1,028 million euros (592 million euros as at December 31, 2018) mainly refer to financing granted by the parent company Eni SpA and by other subsidiaries of Eni Group; even if formally short-term, these loans are renewed at maturity for amounts that take into account the expected financial needs.

The average annual interest rate was 2,81% (2,66% as at December 31, 2018).

17. Current portion of long-term debt

For details on the current portion of long-term debt of 9 million euros (16 million euros as at December 31, 2018), refer to note 21 - "Long-term lease liabilities and current portion of long-term debt"

18. Trade and other payables

Trade and other payables are disclosed in the following table:

(million euros)	December 31, 2018	December 31, 2019
Trade payables	653	655
Other payables		
- related to investment activities	47	32
- other	93	95
	793	782

Trade payables of 655 million euros refer to payables due to third-party suppliers (305 million euros), payables due to associated companies, joint ventures and other Eni Group subsidiaries (209 million euros) and payables to the parent company Eni SpA (141 million euros).

Payables from investment activities amount to 32 million euros.

Other payables of 95 million euros are mainly due to personnel (45 million euros), to the parent company Eni SpA for participation to Group VAT regime (18 million euros), to social security institutions (15 million euros), to factors (5 million euros) and to consultants and professionals (2 million euros).

Fair value measurement of trade and other payables does not have a significant impact, given the short period of time between the occurrence of the debt and its maturity.

Payables to related parties are disclosed in note 35.

19. Income tax payables

Income tax payables of 1 million euros (unchanged from the previous period) relate to the income taxes of foreign consolidated companies.

20. Other current liabilities

Other current liabilities are disclosed as follows:

(million euros)	December 31, 2018	December 31, 2019
Other current tax liabilities	12	15
Deferrals on advanced income	8	8
Advances and prepayments	6	1
Fair value of non-hedging derivatives	3	1
	29	25

Fair value of derivatives (not classifiable as "hedging", but devoid of speculative purposes) is recorded on the basis of amounts that are determined and communicated by the parent company Eni SpA. Versalis holds derivative instruments that, despite not having speculative purposes, do not meet all the requirements of the IAS/IFRS principles to be considered as hedging derivatives.

The nominal values of derivatives don't depict the amounts actually exchanged between parties and therefore they don't represent a measure of the credit risk exposure of the company, which is limited to the negative market value (fair value) of the contracts at the year end, less the effects of any general offset arrangement.

Non-current liabilities

21. Long-term debt and current portion of long-term debt

Long-term debt, comprehensive of current portion of long-term debt, of 60 million euros (82 million euros as at December 31, 2018) are detailed as follows:

	December 31, 2018			December 31, 2019		
(million euros)	Long-term portion	Short-term portion	Total	Long-term portion	Short-term portion	Total
Due to shareholders for financing	57	9	66	48	9	57
Due to other lenders	9	7	16	3		3
	66	16	82	51	9	60

The average effective interest rate for the year was 1,84% (2,36% in 2018). For further details, refer to paragraph "Net financial debt and *Leverage*" of the Management Report.

The table below shows the maturity of long-term debt, inclusive of the current portion of long-term debt:

(million euros)	Values as at December 31		Long-term maturity						
	2018	2019	2020	2021	2022	2023	2024	Beyond	Total
Due to shareholders for financing	66	57	9	9	9	9	9	12	57
Due to other lenders	16	3		1	1	1			3
	82	60	9	10	10	10	9	12	60

Financial liabilities are neither guaranteed by mortgages, nor privileges on tangible assets.

The breakdown of net borrowings displayed in the "Comments on the economic and financial results" in the "Management Report" is disclosed in the following table:

	December 31, 2018			December 31, 2019		
(million euros)	Current	Non-current	Total	Current	Non-current	Total
A. Cash and cash equivalents	44		44	42		42
B. Available-for-sale financial assets						
C. Liquidity (A+B)	**44**		**44**	**42**		**42**
D. Financial receivables						
E. Short-term debt towards banks						
F. Long-term debt towards banks						
G. Bonds						
H. Short-term debt towards related parties	587		587	1.021		1.021
I. Passività finanziarie a lungo termine verso entità correlate	9	57	66	9	48	57
L. Other short-term liabilities	5		5	7		7
M. Other long-term liabilities	7	9	16		3	3
N. Total gross borrowings (E+F+G+H+I+L+M)	**608**	**66**	**674**	**1.037**	**51**	**1.088**
O. Net financial debt less lease liabilities (N-C-D)	**564**	**66**	**630**	**995**	**51**	**1.045**
P. Short-term lease liabilities				8		8
Q. Long-term lease liabilities					17	17
R. Lease liabilities (P+Q)				**8**	**17**	**25**
S. Gross financial debt plus lease liabilities (N+R)				**1.045**	**68**	**1.113**
T. Net financial debt plus lease liabilities (S-C-D)				**1.003**	**68**	**1.071**

22. Provisions

(million euros)	December 31, 2018	December 31, 2019
Provision for environmental risks	41	43
Provision for disposal and restructuring	43	35
Provision for associated companies risks	37	27
Provision for redundancy incentives	9	7
Provision for litigations	5	4
Provision for OIL insurance cover	3	3
Provision for green certificates	1	
Other provisions	10	10
	149	**129**

Provisions for risks and charges are detailed as follows:

(million euros)	Opening balance	Increase	Utilization for charges	Surplus utilization	Currency translation differences and other changes	Ending balance
December 31, 2018						
Provision for disposal and restructuring	38	16	(11)			43
Provision for environmental risks	28	14	(1)			41
Provision for associated companies risks	38	27			(28)	37
Other provisions	10	1	(1)	(1)		9
Provision for redundancy incentives	5	6	(6)			5
Provision for legal and other proceedings	1	2				3
Provision for tax litigation	1					1
Provision for OIL insurance cover	1		(1)			
Provision for green certificates	10	1	(1)			10
	132	67	(21)	(1)	(28)	149
December 31, 2019						
Provision for environmental risks	41	5	(2)	(1)		43
Provision for disposal and restructuring	43	2	(10)			35
Provision for associated companies risks	37		(37)		27	27
Provision for redundancy incentives	9	2	(2)	(2)		7
Provision for legal and other proceedings	5	2		(3)		4
Provision for OIL insurance cover	3					3
Provision for green certificates	1			(1)		
Provision for tax litigation						
Other provisions	10	2	(2)			10
	149	13	(53)	(7)	27	129

Provisions for disposal and restructuring of 43 million euros relate to environmental charges on various company sites for the portion which is not under the guarantee issued by Eni Rewind SpA, upon the transfer of the "Strategic Chemical Activity" business.
Provisions for disposal and restructuring of 35 million euros mainly refer to the disposal of the Sarroch site following the sale of the "Aromatici" business branch in 2014 for 28 million euros, to the restructuring of the Porto Marghera site for 7 million euros and to the restructuring of the Priolo hub for 4 million euros.
Provisions for associated companies risk refer to the commitment to meet future financial needs of the joint venture Matrìca for the year 2020.
Provisions for redundancy incentives of 7 million euros refer to expenses for ordinary mobility of personnel.
Provisions for legal proceedings of 4 million euros concerns disputes for revocatory actions.
Provisions for OIL insurance cover of 3 million euros relate to the expenses related to the surcharge on insurance premiums to be paid in the next five financial years to "Mutua Assicurazione Oil Insurance Ltd" in which the Eni Group, along with other oil companies, has an interest.
Other provisions of 10 million euros mainly include mobility grants of 5 million euros, social security contributions and severance indemnities related to the deferred monetary incentives for managers of 3 million euros.

23. Provisions for employee benefits

Provisions for employee benefits of 72 million euros are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Severance indemnity	44	44
Supplementary healthcare provision for Eni managers and other foreign medical plans	10	13
Foreign retirement plans	1	1
Other employee benefit plans	15	14
	70	72

Employee severance indemnities ("TFR") are regulated by Art. 2120 of the Italian Civil Code and represent the obligation, calculated on the basis of actuarial techniques, due to employees of Italian companies at the moment of termination of their employment. The indemnity, to be paid in capital lump sum, is calculated on the basis of the salary paid and revalued annually up until termination of employment. Following the legislative changes introduced with effect from January 1, 2007, the amount of severance indemnity accruing after that date is placed into pension funds, or into the treasury fund held by the Italian Pension Agency (INPS) or, in the case of companies with fewer than 50 employees, it can be placed with the employer. This means that a significant portion of this accruing amount will be classified as a defined contribution plan, because the entity's obligation corresponds exclusively to the payment of contributions to pension fund or to the INPS. The liability for termination indemnities set aside prior to January 1, 2007 continues to be a defined-benefit plan and must be assessed based on actuarial assumptions.

The liabilities related to the supplementary healthcare fund for Eni Group managers ("FISDE") and other foreign healthcare plans are determined on the basis of the contribution paid by the company for retired managers.

Other provisions for long-term employees benefit plans mainly relate to deferred monetary incentives, LTI plan and seniority rewards. Deferred monetary incentive plans are based on the estimate of variable remuneration, related to business performances, to be corresponded to managers who meet predetermined individual targets. Long-term incentive plan (LTI) provides, after three years from the assignment, a variable monetary benefit linked to a performance indicator compared to a benchmark group of oil companies. Seniority rewards are paid upon reaching a minimum period of work in the company and, in Italy, they're paid in kind.

Provisions for employee benefits, measured with actuarial methods, are detailed as follows:

(million euros)	December 31, 2018				
	TFR	Foreign defined benefit plans	FISDE and foreign healthcare plans	Other provisions for long-term employee benefits	Total
Present value of obligations at the beginning of the year	45	38	9	14	106
Current cost				3	3
Interest expense	1	1			2
Remeasurements:		(1)	1	2	2
- Actuarial gains and losses from changes in financial assumptions		(1)		2	1
- from past experience			1		1
Benefits paid	(2)	(2)		(4)	(8)
Currency exchange differences and other changes		(1)			(1)
Present value of obligations at the end of the year (a)	44	35	10	15	104
Plan assets at the beginning of the year		39			39
Interest income		1			1
Return on plan assets		(2)			(2)
Benefits paid		(2)			(2)
Currency exchange differences and other changes		(2)			(2)
Plan assets at the beginning of the end of the year (b)		34			34
Redemption rights at the beginning of the year					-
Redemption rights at the end of the year (c)					
Assets/liabilities ceiling incurred at the end of the year (d)					
Net liability recognized in the financial statements (a-b±d)	44	1	10	15	70

(million euros)	December 31, 2019				
	TFR	Foreign defined benefit plans	FISDE and foreign healthcare plans	Other provisions for long-term employee benefits	Total
Present value of obligations at the beginning of the year	44	35	10	15	104
Current cost		1		3	4
Interest expense	1				1
Costs for past services			1		1
Remeasurements:	1	3	2		6
- Actuarial gains and losses from changes in demographic assumptions					
- Actuarial gains and losses from changes in financial assumptions	1	3			4
- from past experience			2		2
Benefits paid	(2)	(2)		(4)	(8)
Currency exchange differences and other changes		2			2
Present value of obligations at the end of the year (a)	44	39	13	14	110
Plan assets at the beginning of the year		35	(1)		34
Interest income		1			1
Return on plan assets		3			3
Benefits paid		(2)			(2)
Currency exchange differences and other changes		2			2
Plan assets at the beginning of the end of the year (b)		39	(1)		38
Redemption rights at the beginning of the year					
Redemption rights at the end of the year (c)		39	(1)		38
Assets/liabilities ceiling incurred at the end of the year (d)					
Net liability recognized in the financial statements (a-b±d)	44		14	14	72

Other provisions for long-term employee benefits of 14 million euros (15 million euros as at December 31, 2018) primarily concern deferred monetary incentives for 9 million euros (same amount as at December 31, 2018) and seniority rewards for 4 million euros (same amount as at December 31, 2018).

Costs related to liabilities for employee benefits, determined using actuarial techniques, and recorded in the income statement are detailed as follows:

(million euros)	TFR	Foreign defined benefit plans	FISDE and foreign healthcare plans	Other provisions for long-term employee	Total
December 31, 2018					
Current cost				3	3
Costs for past services and gains/losses for extinction					
Net interest expense (income):					
- Interest expense on the obligation	*1*	*1*			*2*
- Interest income on plan assets		*(1)*			*(1)*
Total net interest expense (income)	1				1
Remeasurement of long-term plans				2	2
Total	**1**			**5**	**6**
- of which included in payroll costs				*5*	*5*
- of which included in financial gains (losses)	*1*				*1*
December 31, 2019					
Current cost				3	3
Costs for past services and gains/losses for extinction					
Net interest expense (income):					
- Interest expense on the obligation	1				1
- Interest income on plan assets					
Total net interest expense (income)	1				1
Remeasurement of long-term plans					
Total	1			3	4
- of which included in payroll costs				3	3
- of which included in financial gains (losses)	1				1

Costs of defined-benefit plans included in the other comprehensive income/loss section are detailed as follows:

	December 31, 2018					December 31, 2019				
(million euros)	TFR	Foreign defined benefit plans	FISDE and foreign healthcare plans	Other provisions for long-term employee benefits	Total	TFR	Foreign defined benefit plans	FISDE and foreign healthcare plans	Other provisions for long-term employee benefits	Total
Remeasurements:										
- Actuarial gains and losses from changes in demographic assumptions										
- Actuarial gains and losses from changes in financial assumptions		(1)			(1)	(1)	3	(2)		
- From past experience			2		2					
- Return on plan assets		2			2		(3)			(3)
		1		2	3	(1)		(2)		(3)

The main actuarial assumptions used to assess the liability at the end of the year and to determine the cost for the following period are disclosed as follows:

(%)	TFR	Foreign defined benefit plans	FISDE and foreign healthcare plans	Other provisions for long-term employee benefits
2018				
Discount rate	1,5	1,5-2,70	1,5	0,2-1,5
Salary growth-trend rate	2,5	1.5-3,25		
Inflation rate	1,5	1,5-3,75	1,5	1,5
2019				
Discount rate	1,5	1,5-2,70	1,5	0,0-1,5
Salary growth-trend rate	2,5	1.5-3,25		
Inflation rate	1,5	1,5-3,75	1,5	0,0-1,5

The discount rate was determined on the basis of AA-rated corporate bond yields, for countries where the corresponding market is significant enough, otherwise on the basis of government bonds. Reference demographic charts are the ones used in each country to determine benefits for employees according to IAS 19. Inflation rate was determined on the basis of long-term forecasts issued by national and international financial institutions.

The effects deriving from a reasonably possible modification of the main actuarial assumptions at the end of the year are shown below:

(million euros)	Discount rate		Inflation rate		Cost of living trend	
	Increase of 0,5%	Decrease of 0,5%	Increase of 0,5%	Decrease of 0,5%	Increase of 0,5%	Decrease of 0,5%
TFR	(3)	3	2			
Foreign defined benefit plans						
FISDE and other healthcare plans	(1)	1			1	
Other provisions		2	1			

The total contributions expected to be paid into defined-benefit plans in the next year amount to 7 million euros.

24. Deferred tax liabilities

Deferred tax liabilities are disclosed as follows:

(million euros)	Balance as at December 31, 2018	Provisions	Utilizations	Other changes	Balance as at Decmber 31, 2019
Deferred taxes:					
- other	2		(27)	26	1
	2		**(27)**	**26**	**1**

25. Other non-current liabilities

Other non-current liabilities of 20 million euros refer to deferred income on multi-annual revenues.

26. Shareholders' equity

Shareholders' equity of 507 million euros (1,044 million euros as at December 31, 2018) is disclosed as follows:

(million euros)	December 31, 2018	December 31, 2019
Share capital	1.365	1.365
Legal reserves	24	24
Other reserves	21	(14)
Gains (losses) from previous years	94	(334)
Gains (losses) of the year	(460)	(534)
	1.044	507

Net equity decreases by 537 million euros compared to previous year and amounts to 507 million euros as at December 31, 2019. The variation was due to the following factors:

- Loss of the year of 534 million euros
- Change in defined-benefit plans for employees, net of fiscal effect, of 2 million euros
- Change in the reserve for foreign currency translation of 1 million euros

For further information on capital management, see the paragraph "Financial Risk Management - Capital Management".

Share capital

Share capital consists of 1,364,790,000 ordinary shares, without par value and exclusively owned by Eni SpA.

Legal reserve

Legal reserve of 24 million euros is the same as at December 31, 2018.

Other reserves

Other reserves, negative for 14 million euros, refer to the part of provisions for employee benefits suspended at equity. For further details, see the disclosure note on provisions for employees benefits.

27. Guarantees, commitments and risks

Guarantees

Guarantees are detailed as follows:

	December 31, 2018			December 31, 2019		
(million euros)	Sureties	Other personal guarantees	Total	Sureties	Other personal guarantees	Total
Consolidated subsidiaries		120	120		1	1
Others	1		1	1	150	151
	1	120	121	1	151	152

Sureties provided on behalf of others relate to guarantees of 1 million euros issued in favour of Serfactoring SpA, on behalf of Versalis employees that received financing by Serfactoring SpA.

Other personal guarantees of 151 million euros are primarily related to indemnities granted to Eni SpA and Eni Rewind SpA, which in turn granted guarantees in favour of third parties on behalf of the Versalis Group companies.

Effective commitment as at December 31, 2019, amounts to 128 million euros.

Commitments and risks

Commitments and risks are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Commitments		
Operating leases	2	
	2	
Risks		
Other risks	40	39
	40	39
	42	39

Other risks mainly refer to costs related to the divestment of the Aromatici business of Sarroch in 2014.

Financial risk management

Introduction

The following main financial risks are identified, monitored and, as regards those specified below, actively managed by Versalis Group: (i) market risk deriving from exposure to fluctuations in interest rates and exchange rates between the Euro and other currencies with which Versalis operates, and to the volatility of commodity prices; (ii) credit risk deriving from the possibility of default of a counterparty; (iii) liquidity risk deriving from the lack of financial resources to cover short-term commitments.

Financial risk management is based on guidelines issued centrally by the parent company Eni SpA with the aim of harmonizing and coordinating Eni's policies on financial risks.

The paragraphs below provide a description of the main financial risks, the methods adopted for the management thereof, as well as details of the exposure to market risks (the indication of the exposure to market risks is based on a sensitivity analysis19 or through an indication of the Value at Risk results).

Market risk

Market risk is the possibility that changes in foreign currency exchange rates, interest rates or commodity prices will adversely affect the value of the assets, liabilities or expected future cash flows. Market risk management is regulated by the "Guidelines" approved by the company's Board of Directors and by internal procedures, which make reference to a centralized financial asset management model, based on distinct Operational Finance structures (Eni Corporate Finance, Eni Finance International, Eni Finance USA and Banque Eni, this last within the limits set by banking legislation on "Concentration Risk") which ensure coverage of the requirements and absorption of financial surpluses of the Italian and foreign Versalis Group companies. In addition, the management of trading in derivatives on commodities is entrusted to Eni Trading & Shipping SpA and Eni SpA.

In particular, Eni SpA manages all the Versalis Group's transactions in foreign currency and in derivatives, together with the trading of emission certificates. Price risk of the commodities is managed by Versalis single business units; Eni Trading & Shipping and Eni SpA ensure trading of commodities derivatives.

Versalis Group uses derivative financial instruments and derivatives on commodities in order to minimize exposure to market risks related to changes in exchange rates and interest rates and to manage exposure to commodity price fluctuations. Versalis Group does not enter into derivative transactions for speculative purposes.

Versalis has defined specific guidelines on how to carry out its financial activity, which quantify the maximum exchange and interest rate risk that can be assumed and define the characteristics of suitable counterparties.

With regard to commodity risk, Versalis has set maximum limits on price risk deriving from commercial activities. In this field, the Commodity Risk Committee is in charge of guidance.

Exchange rate risk

Exchange rate risk derives from operations in foreign currencies (in particular, in US dollars) and has impact: on operating results, due to the different materiality of costs and revenues in foreign currencies at the moment when price conditions are determined (economic risk) and to translation of trade receivables/payables denominated in foreign currencies (transaction risk); on consolidated financial statements (net result and net equity), as a result of the translation into euros of assets and liabilities of companies whose financial statements are presented in foreign functional currency.

In general, a US dollar gaining strength against the euro has a positive effect on the operating profit of Versalis Group and vice versa. The objective of Versalis management is to minimize the risk of exchange rate risk and to optimize the economic risk related to commodity prices; the risk that a significant part of revenues is in a foreign currency or the risk deriving from currency translation of assets and liabilities of Group companies whose financial statements are presented in a foreign functional currency are usually not covered. Exchange-rate derivatives are measured at fair value on the systematic basis of market prices provided by leading info-providers. The value at risk technique (VaR) deriving from exchange rate risk positions is calculated daily, by the centralized Eni Finance structure, using the parametric approach (variance/covariance), adopting a 99% confidence level and a 20-day holding period.

Commodity risk

Versalis Group's results are affected by changes in prices of the products sold. A decrease in the prices of plastics and chemical intermediates generally has a negative impact on the company's operating profit and vice versa. Conversely, an increase in the costs of petroleum feedstock leads to a reduction in operating profit and vice versa.

For example, it can be estimated that an increase of US $10 per ton of petroleum feedstock would lead to a reduction in the annual operating profit of around 40 million euros.

Credit risk

Credit risk is the potential exposure of the Group to losses in the event that counterparties fail to fulfil their obligations. Versalis approaches the risks relating to counterparties for commercial transactions with different policies, with respect to those relating to counterparties for financial transactions, in accordance, as far as the latter are concerned, with the centralized finance model adopted.

With regard to the financial counterparty risk in commercial contracts, credit management is entrusted to the responsibility of the business units and dedicated corporate specialist functions, on the basis of formalized evaluation and assignment procedures of the commercial partners, including debt collection and possible litigation management. At Corporate level, the guidelines and methods for the quantification and control of customer risk are defined.

In 2019, the dynamics of trade receivables from third parties showed a downward trend compared to the previous year, with a substantially stable exposure during the course of the year. The average exposure in 2019 is lower than in 2018, just as the average turnover in 2019 is lower than in the previous year.

The amount of sales to factors was lower than in the previous year, but still allowed the reduction of the accounting exposure in correspondence with the quarterly closings.

Litigations are increasing, but for an overall amount which is in line with 2018. The average intra-group exposure showed moderately higher values, compared to a slight increase in the average turnover compared to the previous year.

Liquidity risk

Liquidity risk represents the risk that, due to the inability to find new funds (funding liquidity risk) or to liquidate assets on the market (asset liquidity risk), the company is unable to meet its payment commitments, determining an impact on the economic result in the event that the company is forced to bear additional costs to meet its commitments or, as an extreme consequence, an insolvency situation that puts going concern at risk.

The risk management objective of Versalis SpA is to set up, within the "Financial Plan", a financial structure which, consistent with the business objectives and with the limits defined by the Board of Directors (in terms of maximum percentage level of leverage and minimum percentage levels of the ratio between medium/long-term debt on total debt and that between fixed rate debt on total medium/long-term debt), guarantees an adequate level of liquidity for the whole Group, minimizing the relative opportunity cost and maintaining a balance in terms of duration and composition of the debt.

These financial statements have been prepared on the assumption of business continuity as Versalis SpA is a company wholly owned by Eni SpA, to whose management and coordination it is subject and has the right to access, without contractually defined credit limits, the financial resources granted by Eni SpA, based on existing agreements with the latter.

The following tables show the amounts of payments contractually due relating to financial debts, including interest payments as well as the time horizon of disbursements for commercial and other debts.

Future payments against debt

(million euros)	2020	2021	2022	2023	2024	Beyond	Total
Short-term debt	1.028						1.028
Long-term debt including current portion	9	10	10	10	9	12	60
Interest expense on financial debt							

Interest on financial liabilities are less than 1 million euros for all the years shown in the above table.

Expected payments for trade and other payables

	Year of maturity						
(million euros)	2020	2021	2022	2023	2024	Beyond	Total
Commercial debt	655						655
Advances and other payables	127						127
	782						782

Expected payments under contractual obligations

In addition to financial and trade payables shown in the Balance Sheet, Versalis Group has a set of contractual obligations, which entail making payments in future years. The table below shows the non-discounted payments owed by Versalis Group in future years against the main existing contractual obligations.

	Year of maturity						
(million euros)	2020	2021	2022	2023	2024	Beyond	Total
Costs (charges) relating to environmental provisions	8	4	3	3	2	23	43
Other commitments	798	194	77	12	10	1	1.092
	806	198	80	15	12	24	1.135

Other commitments of 798 million euros essentially include undertakings to purchase supplies of petrochemical products to be utilized in the production process.

Capital expenditure commitments

Over the next few years, Versalis Group plans to carry through a programme of capital expenditure of 81 million euros. The table below shows the time schedule for the capital expenditures relating to the most significant committed projects. A project is considered to be committed when it has obtained the necessary approval from management and when the related purchase contracts have been awarded or are being finalized.

	Year of maturity						
(million euros)	2020	2021	2022	2023	2024	Oltre	Total
Other commitments	81						81
	81						81

Capital management

Versalis management uses leverage ratios to assess the degree of solidity and efficiency of the asset structure in terms of relative proportion of sources of financing between own and third-party assets, as well as to carry out benchmark analysis with the industry standards. Leverage measures the degree of company indebtedness and is calculated as the ratio between net borrowings and shareholders' equity. Management's aim in the medium term is to maintain a solid financial structure summarized by a leverage value not exceeding 1.

Fair value of financial instruments

In carrying out its business, Versalis Group uses different kinds of financial instruments. The market value of the company's financial instruments is substantially in line with their carrying amount, for the following reasons:

- Receivables included in current assets: the market value of trade, financial and other receivables falling due within one year are estimated to be practically equivalent to the respective carrying amount because of the short interval between the origin of the receivable and its due date.
- Financial payables included in non-current liabilities: the market value of financial payables falling due after one year, including the short-term portion, is estimated to be substantially equal to the book value, because they were entered into at fixed market rates.
- Trade, financial and other payables included in current liabilities: the market value of trade, financial and other payables falling due within one year is estimated to be practically equivalent to the book value because of the short interval between the origin of the payable and its due date.
- Other non-current financial assets and liabilities: they refer to receivables from the Matrìca joint venture and were evaluated taking into account the repayment capacity in line with the risk involved; other non-current financial liabilities are of immaterial amount.

The classification of financial assets and liabilities is indicated below; these are measured at fair value in the Balance Sheet according to the fair value hierarchy defined on the basis of the significance of the inputs used in the measurement process. In particular, on the basis of the features of the inputs used in making the measurements, the fair value hierarchy has the following levels:

- Level 1: prices quoted (and unadjusted) in active markets for identical financial assets or liabilities;
- Level 2: measurements carried out on the basis of inputs, other than the quoted prices as above, which, for the assets and liabilities to be measured, can be observed directly (e.g. prices) or indirectly (e.g. deriving from prices);
- Level 3: inputs not based on observable market data.

In relation to the above, Versalis Group's financial instruments carried at fair value as at December 31, 2019 regard "level 2" derivative contracts. During the year, there were no transfers between the different fair value hierarchy levels.

Environmental regulations

Environmental, health and safety risks related to Versalis operating activities are disclosed in the paragraph "Risk and uncertainty factors - operating and associated risks in terms of HS&E" in the Management Report. With regard to environmental risks, at present Versalis currently does not foresee any particularly significant negative effects on the financial statements arising from compliance with environmental legislation, taking into account the steps already taken, the insurance policies signed and the provisions for risks set aside. However, we cannot exclude the risk that Versalis may incur further costs or liabilities in the future, as it is currently impossible to foresee the effects of future developments considering the following: (i) the possibility of as yet unknown contamination; (ii) the results of the ongoing surveys and the other possible effects of statements required by Italian Decree No. 471/1999 of the Ministry of Environment; (iii) new developments in environmental regulation; (iv) the effect of possible technological changes relating to future remediation; and (v) the possibility of litigation and the difficulty of determining the eventual consequences, also considering the responsibility of other parties and eventual insurance indemnity. As explained in greater detail in the section "Accounting policies - grants", the environmental costs of actions to be taken at the manufacturing facilities acquired by Versalis Group through the business conferral by Eni Rewind SpA are covered by a specific warranty issued by the latter.

Emission trading

Italian Legislative Decree no. 216 of April 4, 2006 implemented both the Emission Trading Directive 2003/87/EC relative to greenhouse gas emissions and Directive 2004/101/EC related to the use of carbon credits deriving from projects for the reduction of emissions based on the Kyoto Protocol.

The European Emission Trading Scheme (ETS) has been operational since 1 January 2005, in relation to which on November 27, 2008 Resolution 20/2008 was issued by the National Committee for the Management and Implementation of Directive 2003/87 / EC on the assignment to existing plants of emission permits for the five-year period 2008-2012. Note the changes made by the National Committee for the Management and Implementation of Directive 2003/87 / EC, at the request of the European Commission, which have expanded the scope of the Directive with respect to what is in force for the period 2005-2007, extending it to some types of combustion plants including those present in steam cracking plants (see also the paragraph "Commitment to sustainable development" of the Management Report).

Versalis Group, as at 31 December 2019, based on the estimates of the emissions made and the purchases for the year, has an overall position of excess emission rights (the so-called "long position"); management, therefore, in compliance with the accounting criteria adopted, will proceed to the recognition of the related income at the time of the subsequent realization of the excess rights through their sale.

Legal Proceedings Versalis is involved in civil and administrative proceedings and legal actions, related to the normal course of business. Based on the information currently available, Versalis believes that these proceedings and actions will not have material adverse effects on its financial statements. A summary of the most significant proceedings is shown below. Unless otherwise specified, provisions for risks have not been made, because it is believed that an unfavorable outcome of the proceedings is unlikely.

Porto Torres dock. In 2012, the Court of Sassari, at the request of the Prosecutor, ordered the conduct of an evidentiary accident relating to the operation of the hydraulic barrier of the Porto Torres site (managed by Eni Rewind SpA) and its ability to prevent the dispersion of contamination, present within the site, in the stretch of sea in front of the plant. The managing directors of Eni Rewind SpA and Versalis SpA were investigated, as well as some other managers of the two companies, for whom the Prosecutor had requested the indictment. The Court authorized the summons of the civil responsibles Eni Rewind SpA and Versalis SpA. The civil parties have requested the settlement of the environmental damage: the Ministry and the Sardinia Region for over 1.5 billion, while the other civil parties have recovered to the judge's equitable assessment. In July 2016, the Court acquitted the suspects Eni Rewind SpA and Versalis SpA for the crime of environmental disaster and disfigurement of natural beauty (Gulf of Asinara), sentencing 3 Eni Rewind SpA executives to one year and a suspended sentence for the crime of environmental disaster limited to the period August 2010/January 2011. The defense has appealed. The appeal proceeding is ongoing.

Preventive seizure at the Priolo Gargallo hub.

In February 2019 the Court of Syracuse, at the request of the Public Prosecutor, in the context of an investigation concerning the offenses involving the hazardous throw of things and environmental pollution, by the former plant manager, of Versalis pursuant to Legislative Decree 231/01 and the other industries of the Industrial Pole, relating to the emissions produced by the industrial complex of Priolo Gargallo, ordered the preventive seizure, allowing the faculty of use of the Versalis plants which, on the basis of the technical findings formulated by the appointed Technical Consultants by the Prosecutor's Office, have conveyed and diffused emission points that do not comply with the Best Available Techniques (BAT). The provision in question contains some passages relating to the relationship between the BAT and the Integrated Environmental Authorizations (AIA) issued which, according to the technical assessments of the public prosecutor's consultants, would not be legitimate as they are inconsistent with regulatory requirements. Versalis SpA has already been carrying out the plant improvements requested by the Public Prosecutor and his consultants for a few years and for this reason the measure in question was challenged before the Court of Review which on March 26, 2019 ordered the release from seizure of the plants with the cancellation of the decree.

Environmental crime investigation. The Prosecutor of the Republic of Mantua is proceeding against Eni Group companies for environmental crimes related to the SIN of Mantua; the state of the proceedings is of preliminary investigations: 1) 778/2018 R.G.N.R. From the notice of extension of the terms of the investigations, it appears that the Prosecutor of Mantua proceeds for the crime of failure to clean up in relation to the SIN of Mantua both with reference to the case envisaged by the Consolidated Environmental Text and for the more serious hypothesis envisaged by the penal code "all'attualità". Versalis and Edison are investigated pursuant to Legislative Decree 231/01. Three Versalis executives are also investigated. 2) Criminal proceedings no. 780/2018 R.G.N.R. From the notice of extension of the terms of the investigations, it appears that the Mantua Prosecutor is investigating three Versalis executives as well as the company itself pursuant to Legislative Decree 231/01. The investigations would concern offenses of environmental pollution and failure to clean up at the SIN of Mantua, which are constantly contested. 3) Procedure under penalty of n. 956/2018 R.G.N.R. From the request for extension of the preliminary investigations, it appears that the Mantua Prosecutor's Office is carrying out investigations regarding environmental crimes at the SIN of Mantua. Employees and former employees of Eni Rewind SpA and Versalis SpA and Edison SpA are involved. Eni Rewind SpA, Versalis SpA and Edison SpA are also registered in the register of legal entities under investigation.

Bay of Augusta. With the 2005 Service Conferences, the Ministry of the Environment prescribed that companies belonging to the petrochemical complex of Priolo, including Eni Rewind SpA, Polimeri Europa SpA (now Versalis SpA) and Eni (R&M), to carry out safety measures emergency with removal of the sediments of the Augusta harbor against the pollution found there, in particular due to the high concentration of mercury, generally attributed to the industrial activities carried out in the petrochemical area. The aforementioned companies challenged the Ministry's documents for various reasons, objecting in particular to the methods by which the rehabilitation interventions were designed and the characteristics of the Bay acquired. This resulted in various administrative proceedings brought together at the TAR which, in October 2012, accepted the appeals lodged by the companies present on the site, in relation to the removal of sediment from the Bay and the realization of the physical barrier. In September 2017, the Ministry notified all coinsed companies of a formal notice and formal notice to start the Bay environmental remediation and restoration within 90 days. The deed, which the coinsediate companies challenged in December 2017, constitutes a formal notice for the purpose of environmental damage. The Administrative Justice Council (GIC) for the Sicilian Region has ruled on the appeals pending against several sentences of the TAR and in essence confirmed the cancellation of all the administrative provisions subject to the dispute. The prescriptive framework for companies therefore becomes clear and definitive with this ruling. The cancellation of the provisions has, inter alia, retroactive effect at the time of their adoption and therefore allows to exclude the risk of contesting any breaches. In June 2019, a permanent technical table was set up at the Ministry of the Environment for the reclamation of the Augusta roadstead after which the related report was made public. The report refers to the warning of 2017, confirms the thesis of the Bodies on the liability of the companies settled for the contamination of the Bay and states a failure to comply with the same warning by the companies that would also have been communicated to the Public Prosecutor for the consequent actions. In agreement with all the business lines concerned and in coordination with the other companies present, an appeal is underway for this report and further parallel internal technical insights for defensive purposes will be executed. Also following the outcome of a meeting with the Minister at the site, Eni Rewind made itself available, with the Ministry of the Environment, to start a discussion table with the involvement of all the interested parties and aimed at identifying any appropriate measures on the new environmental data acquired by CNR/ISPRA during 2019.

Municipality of Melilli. In May 2014, Eni Rewind SpA and Versalis were served with a writ of summons by the Municipality of Melilli for alleged environmental damage related, according to it, to the management and illegal disposal of waste and illegal landfill. In particular, the act frames the responsibility of Eni Rewind SpA and Versalis SpA in their role as waste producer and client as, in the context of the criminal proceedings that arose in the years 2001/2003 around the so-called "Red Sea" case, the origin of hazardous waste (in particular waste with high concentrations of mercury and abandoned railway sleepers) would have been ascertained from the industrial hubs of Priolo and Gela. This waste would have been illegally disposed of at an unauthorized landfill owned by a third party (about 2 km from the town of Melilli). The claim amounts to 500 million euros, jointly and severally requested by the two Group companies and the landfill operator. With a sentence published in June 2017, the Judge accepted all the defensive claims of Eni Rewind SpA and Versalis SpA considering the requests of the Municipality inadmissible due to a lack of active legitimation and in any case unfounded or unproven. In April 2018 the appeal proposed by the Municipality was rejected. An appeal is pending before the Court of Cassation for revocation.

Tax proceedings

On February 17, 2011 the Siracusa Tax Office served a demand for payment of registry tax of 731 thousand relating to the sale of shares in the consortium Priolo Servizi; together with other companies in the consortium, the company appealed to the Tax Commission and has not set accrued any provisions, having reasonable confidence in a positive outcome for the dispute. The CTUs appointed by the judge deposited their report; the Provincial Tax Commission of Syracuse with sentence no. 1302/2018 ordered the acceptance of appeals and the annulment of the contested deeds; the National Tax Authority (Agenzia delle Entrate) has filed an appeal and the company has filed the counterclaims. In 2019, the tax paid pending judgment was reimbursed.

The Milan Tax Office served a demand for payment of higher registry, mortgage and cadastral tax of approximately 1 million euros relating to the sale of the TAF business unit in Brindisi to Eni Rewind SpA. The company, in conjunction with the jointly responsible Eni Rewind, having failed to settle the dispute using the proposed tax settlement procedure, intends to appeal; the estimated cost is approximately 537 thousand. The Milan Provincial Tax Commission with ruling no. 2530/8/16 filed on 16/03/2016 dismissed the application of the company, who promptly filed an appeal and request for suspension of enforceability of the judgment. The Regional Tax Commission of Milan, by order, n. 1677/2016 dated 14/12/2016, has granted the suspension of the payment of taxes on a provisional basis (equal to two-thirds of the ascertained sums) behind issuance of a specific guaranty. The hearing was held on 25 October 2017.With sentence n. 4806/2018 filed on 08/11/2018 the Lombardy CTR rejected the appeal confirming the first instance sentence.

Following the notification of a settlement notice for the collection of taxes, penalties and interest, and considering the willingness of the companies to avail themselves of the definition of pending tax disputes with the payment of the only taxes due without penalties and interest provided for by art. 6 of Decree 119/2018, in agreement with the National Tax Authority (Agenzia delle Entrate), the residual taxes due for 337 thousand were paid and a request for suspension of the payment of penalties and interest was submitted pending the publication of the implementing decrees provided for in the aforementioned Decree 119/2018.

On October 15, 2014 the Milan Finance Police started an inspection on Versalis SpA (formerly Polimeri Europa SpA) for the tax years 2010 to October 15, 2014 relating to transactions with foreign subsidiaries/associated companies, and to personnel (for the year 2014 until October 15, 2014) also with regard to employment and social security, in accordance with, among others, Law No. 689 dated 24/11/1981.

The Finance Police tax inspection started on 13 July 2016, regarding IRES, IRAP and VAT, for the years 2011 to 2014, was completed, for the year 2011, with the dispute report dated 27/09/2016, with IRES and IRAP findings regarding non-deductible costs incurred in respect of resident suppliers in low-tax countries, for 21 million euros, and IRAP only findings, for discounts given to customers amounting to 1.5 million euros, and for VAT for sales to EU customers with an irregular VAT number in the amount of 126 thousand. Following the clarifications provided to the Regional Tax Authority, the following notifications were issued:

- Notice of Assessment n. TMB0C3R01034/2016 for IRAP amounting to 2.3 million euros (of which 197 thousand for non-deductible costs incurred towards suppliers resident in low-tax countries and 1.5 million euros for discounts given to customers) with total expenses of 195 thousand (of which IRAP 94 thousand, 85 thousand fines and interest 15 thousand).
- Notice of Assessment n. TMB0E3R01016/2016 for IRES amounting to 197 thousand for non-deductible costs incurred towards suppliers resident in countries with privileged taxation with total charges of 111 thousand (of which IRES 54 thousand, sanctions 49 thousand and interest for 8 thousand).

The company acquiesced to the above assessments by paying the amounts due and making use of the reduction, i.e. a third of the sanctions due. The Finance Police tax audits ended for the years 2012, 2013 and 2014 with the dispute report issued on March 29, 2017 with findings for IRAP tax purposes for discounts to customers amounting to about 1.7 million euros, and with the dispute report issued on May 29, 2017 with findings for IRES and IRAP tax purposes for non-deductible costs incurred towards suppliers who reside in countries with preferential taxation for 36 million euros and 2 million euros respectively and for VAT purposes for sales to EU customers with irregular VAT numbers for 8 thousand.

Following clarifications provided by the company, the Regional Tax Office has completed the control of the year 2012 by notifying:

- Notice of Assessment n. TMB0C3S01036 for IRAP purposes with a reduction in the value of production (negative) of 1 million euros. A fine of 250 was imposed, paid on time by the company, i.e. making use of the one-third sanction reduction.
- Notice of Assessment n. TMB0E3S01016 for IRES purposes totaling 493 thousand (instead of the 36 million euros recognized in the dispute report) for non-deductible costs incurred with suppliers resident in countries with privileged taxation with a total cost of 279 thousand (of which IRES 136 thousand, fines of 122 thousand and interest of 21 thousand). The parent company Eni SpA has presented an application for a reduction of the consolidated tax losses from the higher taxable amount deriving from the assessment. The National Tax Authority, with Communication Prot. N. 2018/59528, has canceled the taxes, penalties and interest.

The Regional Tax Office the audit of 2013 and 2014 by notifying:

- Notice of Assessment n. TMB065U00466 for VAT purposes for 2013 for 14 thousand for VAT, penalties of 16 thousand and for 2 thousand of interest. The company proceeded with the payment, availing itself of the reduction of the fine to a third.
- Notice of Assessment n. TMB0C5S00336 for IRAP purposes for the year 2013 with a reduction of the production value (negative) of 1.6 million euros. The sanction of 250 was imposed which the company paid within the terms of the reduction to a third.
- Notice of Assessment n. TMB0E5S00331 for IRES purposes for 2013 for a total of 240 thousand for non-deductible costs incurred with suppliers who reside in countries with preferential taxation with IRES of 66 thousand, fines for 59 thousand and interest for 9 thousand. The parent company Eni S.p.A. has filed for a reduction in the consolidated tax losses from the greater taxable amount deriving from the assessment. The Revenue Agency with Communication Prot. N. 2018/162650 canceled the taxes, penalties and interest.
- Notice of Assessment n. TMB0C5U00481 for IRAP purposes for 2014 with reduction of the production value (negative) of 1.4 million euros. The sanction of 250 was imposed, which the company paid within the terms of the reduction to a third.
- Notice of Assessment n. TMB0E5U00477 for IRES purposes for 2014 for a total of 729 thousand for non-deductible costs incurred with suppliers who reside in countries with preferential taxation with IRES of 200 thousand, penalties 198 thousand and interest for 22 thousand. The parent company Eni S.p.A has filed for a reduction in the consolidated tax losses from the greater taxable income deriving from the assessment by the National Tax Authority (Agenzia delle Entrate) with Communication Prot. N. 2018/162862 canceled the taxes, penalties and interest.

Income statement

28. Revenues

The main items that compose the income statement are detailed below. Most significant changes in revenues are disclosed in the "Comments on financial results" of the Management Report.

Net sales from operations

Net sales from operations are detailed in the table below:

(million euros)	December 31, 2018	December 31, 2019
Sales of petrochemical products	4.977	3.985
Other services	145	136
Sales of other products	1	2
	5.123	4.123

The breakdown of net sales among business lines is shown in the section "Comments to financial results" of the Management Report.

The geographical breakdown of net sales from operations is the following:

(million euros)	December 31, 2018	December 31, 2019
Italy	2.292	1.985
Rest of Europe	2.183	1.758
Asia	480	226
Americas	109	94
Africa	58	52
Other areas	1	8
	5.123	4.123

Other income and revenues

Other income and revenues are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Recovery of other costs and expenses	32	36
Insurance compensations	5	23
Income from sale of Energy Efficiency Certificates	56	16
Income from emission rights	7	11
Sale of precious metal	-	8
Licence rights and royalties	12	7
Income from investment properties	4	3
Contractual penalties	1	3
Other	6	8
	123	115

The recovery of other costs and expenses refers to the chargeback of operating expenses to Eni Rewind SpA in virtue of the guarantees issued at the time of conferral in 2002 of the "Strategic Chemical Activities" business unit (17 million euros, for further details see the paragraph "Accounting policies - Grants") and to the chargeback of sundry costs and expenses to other companies working at the Group's production sites (19 million euros).

29. Operating expenses

The most significant items that compose operating expenses are detailed as follows:

Purchases, services and other costs

Purchases, services and other costs are disclosed in the table below:

(million euros)	December 31, 2018	December 31, 2019
Production costs - raw, ancillary and consumable materials and goods	3.566	2.878
Service costs	1.261	1.214
Other expenses	48	56
Net provisions for risks and charges	37	(8)
Leasing and rental charges	27	22
Changes in inventories	(101)	(25)
Impairment of receivables	2	5
Increase (decrease) in fixed assets for internal works	1	(3)
	4.841	4.139

Costs for raw materials, ancillary materials, consumables and goods amounting to 2,878 million euros mainly refer to the purchase of Virgin Nafta and other raw materials used in the production cycle.

Service costs of 1,214 million euros mainly refer to costs for utilities (506 million euros), logistics and transport (213 million euros), maintenance (178 million euros), ICT, supplying and administrative centralized services (71 million euros), industrial services (18 million euros) and R&D costs (14 million euros).

Other expenses of 56 million euros mainly include indirect taxes.

Information on provisions for risks and charges is provided in Note 22.

Leasing and rental charges of 22 million euros mainly include expenses for concessions and licenses (9 million euros), rentals (6 million euros) and leases of land and buildings (3 million euros).

Information on changes in inventories is provided in Note 4.

Information on impairment of receivables is provided in Note 3.

Non-capitalisable research and development costs amount to 42 million euros (38 million euros in 2018).

Payroll and related costs

Payroll and related costs are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Payroll	268	283
Social security contributions	76	81
Costs related to defined benefit plans and defined contribution plans	6	5
Other costs	17	18
	367	387
Less:		
Increase in fixed assets for internal work	(11)	(9)
	356	378

Expenses for defined-contribution and defined-benefit plans are analyzed in Note 23.

Compensations for persons responsible for the planning, direction and control functions of the company, including executive and non-executive directors, managers and senior managers with strategic responsibilities (so-called key management personnel) in office as at December 31, 2019 amount to 6 million euros and are disclosed as follows:

(million euros)	December 31, 2018	December 31, 2019
Payroll	4	4
Costs related to employees benefits	2	2
	6	6

The average number of employees, splitted up by category, is the following:

	December 31, 2018	December 31, 2019
Senior management	104	114
Middle management and staff	3.167	3.289
Workers	1.837	1.872
	5.108	5.274

The average number of employees is calculated as the arithmetic mean of the number of employees at the beginning and at the end of the year. The average number of senior managers includes managers employed and operating in foreign countries, whose organizational role is equivalent to the Italian "senior manager" grade.

30. Other operating income (expenses)

Other operating income (expenses) are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Income from commodity derivatives		2
Expenses from commodity derivatives	(16)	(4)
	(16)	(2)

Other operating expenses of 2 million euros (16 million euros in 2018) relate to the recording in the income statement of net expenses incurred on commodity derivatives that do not fulfil the formal requisites necessary to be classified as "hedges" in accordance with IFRS 9.

31. Depreciation, amortization and impairment

Depreciation, amortization and impairment include the following:

(million euros)	December 31, 2018	December 31, 2019
Depreciation and amortization:		
- Property, plant and equipment	108	74
- Intangible assets	6	8
- Lease assets		7
	114	89
Impairment losses (reversal):		
- Property, plant and equipment	187	(9)
- Intangible assets	16	98
- Lease assets		14
	203	103
	317	192

Information on restatements of tangible, intangible and right of use assets is disclosed in Note 8.
Depreciation ratios of tangible assets are shown in Note 7, while ratios of intangible assets are shown in Note 9.

32. Financial income (expenses)

Financial income (expenses) is detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Financial income	48	23
Financial expenses	(36)	(17)
Derivatives	(5)	1
	7	7

The net amount of financial income (expenses) is analyzed below:

(million euros)	December 31, 2018	December 31, 2019
Financial income (expenses) on net financial debt		
- Interest and other expenses towards banks and other lenc	(5)	(6)
Positive (negative) exchange rate differences		
- Positive exchange rate differences	43	21
- Negative exchange rate differences	(39)	(20)
Derivatives	(5)	1
Other financial income and expenses		
- Capitalized financial expenses	6	3
- Interest and other income on financial receivables and securities related to operations	4	11
- Other financial income (expenses)	3	(3)
	7	7

Net income (expenses) on derivatives relate to derivative contracts that do not meet the formal conditions to be classified as "hedges" as specified by IFRS 9 and, therefore, the related fair value changes are stated in the income statement. Net income on derivative instruments of 1 million euros refers to contracts on currencies.

Income (expenses) on derivative contracts is determined as a result, essentially, of the recording in the income statement of the effects of measurement at fair value of those derivative contracts that cannot be considered for hedging according to the IFRSs, because they relate to the net exposure to exchange rate and interest-rate risks and, therefore, are not related to specific commercial or financial transactions. The same lack of formal requirements for being considered derivative hedging contracts entails the recording of the net payable exchange differences, given that the effects of the adjustment of assets and liabilities in foreign currencies to the year-end exchange rate are not offset in the accounts by the change in fair value of the derivative contracts.

Interest and other charges on financial receivables and securities used in operating activities of 11 million euros consist of the utilization of the provision for impairment of financial instruments related to operations (9 million euros) and of interests on the financial credit granted to Matrìca (2 million euros).

33. Income (expenses) from investments

Income (expenses) from investments are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Effects from measurement at equity method	(43)	(33)
Other net income (expenses)	(27)	(18)
	(70)	(51)

Effects from measurement at equity method are analyzed in Note 11.

Other net expenses of 18 million euros relate to the commitment to meet financial needs of the Joint Venture Matrìca SpA.

34. Income taxes

Income taxes are detailed as follows:

(million euros)	December 31, 2018	December 31, 2019
Current taxes:		
- italian companies	1	(18)
- foreign companies	4	2
	5	(16)
Net deferred (prepaid) taxes:		
- italian companies	101	38
- foreign companies	4	(10)
	105	28
Total income taxes	110	12

Net deferred tax assets are disclosed in Notes 14 and 24.

The difference between the theoretical tax rate and the effective rate for the last two periods is detailed as follows:

(%)	2018	2019
Theoretical tax rate	**20,8**	**27,0**
Items increasing (decreasing) compared to theoretical tax rate:		
- (impairments) restatements of prepaid taxes	(50,7)	(18,2)
- income (expenses) from investments	3,1	(5,9)
- permanent tax differences	(0,3)	(2,8)
- different tax burden on foreign companies	(3,8)	(2,6)
- benefits from the application of tax relief rules		0,4
- previous years taxes	(1,6)	0,6
- other changes	1,1	(0,9)
Total changes	**(52,2)**	**(29,4)**
Effective tax rate	**(31,4)**	**(2,4)**

An analysis of the temporary differences between statutory and fiscal values is provided in Note 14.

35. Transactions with related parties

Transactions with related parties carried out by Versalis SpA mainly regard the trading of goods, the provision of services, the provision/receipt of funding and the use of financial resources with the parent company Eni SpA and with companies directly or indirectly controlled by the latter, as well as with its own non-consolidated subsidiaries and associated companies, and with other companies owned or controlled by the Italian State. All of the transactions are part of core operations and take place at arm's length, that is, at conditions that would have been applied by independent parties on the open market, and are carried out in the best interest of the Versalis Group.

The main transactions were carried out with the following companies:

a) Eni SpA: purchase of petroleum feedstock and virgin naphtha for crackers plants; purchase of natural gas; sale of basic chemicals and transactions of an administrative and financial nature, procurement and information technology services, legal services, research services and services for personnel, treasury services and administrative activities;
b) Ecofuel SpA (controlled by Eni SpA): sale of olefin cycle products, transactions deriving from rental of the "MTBE/ETB and BTH" business unit in Ravenna;
c) Eni Finance International SA (controlled by Eni International Holding BV): financial transactions;
d) Eni Insurance DAC (controlled by Eni SpA): insurance cover for risk;
e) EniPower SpA (controlled by Eni SpA), EniPower Mantova SpA and Società EniPower Ferrara Srl (both controlled by EniPower SpA): purchase of electricity and steam; provision of auxiliary and general services;
f) EniServizi SpA (controlled by Eni SpA): provision of general services;
g) Eni Rewind SpA (controlled by Eni SpA): marketing of products, purchase and sale of products and exchange of services and utilities;
h) Eni Petroleum Co Inc (controlled by Eni SpA): marketing of products;
i) Eni Trading & Shipping SpA (controlled by Eni SpA): transport by sea, purchase and sale of raw materials of basic chemical products, as well as derivative contracts on commodities
j) Matrìca SpA (joint venture): financing of assets held for operating activities, industrial services;
k) Raffineria di Gela SpA (controlled by Eni SpA): transactions deriving from rental of the "Polyethylene" business unit in Gela;
l) Saipem SpA: provision f goods and services related to the construction and refurbishment of plants;
m) Priolo Servizi Scarl (associated company of Versalis SpA): supply of general and auxiliary services at sites where Versalis SpA is also present;
n) Ravenna Servizi Industriali ScpA (associated company of Versalis SpA): supply of general and auxiliary services at sites where Versalis SpA is also present;
o) Servizi Porto Marghera Scarl (associated company of Versalis SpA): supply of general and auxiliary services at sites where Versalis SpA is also present;
p) Gruppo Ferrovie dello Stato: rail transport.

Trade and other transactions with the parent company, consolidated subsidiaries, unconsolidated subsidiaries, associated companies and jointly controlled companies and with other companies owned or controlled by Eni SpA or by the State are detailed as follows:

(million euros)

	December 31, 2019				2019					
					Expenses			Revenues		
Company name	Trade receivables and other assets	Trade payables and other liabilities	Derivatives recorded among assets	Derivatives recorded among liabilities	Goods	Services	Other operating expenses	Goods	Services	Other
Associated companies										
Brindisi Servizi Generali Scarl	1					6				
Priolo Servizi Scarl		1				18				
Ravenna Servizi Industriali ScpA	5	2				10		1		1
Servizi Porto Marghera Scarl	1	3				24		1		1
Subtotal	**7**	**6**				**58**		**2**		**2**
Joint ventures										
Matrìca SpA	5	2							5	
LOTTE Versalis Elastomers Co Ltd	4									
Subtotal	**9**	**2**							**5**	
Parent company										
Eni SpA	49	163	1	2	301	442	(2)	15	82	23
Subtotal	**49**	**163**	**1**	**2**	**301**	**442**	**(2)**	**15**	**82**	**23**
Eni Group companies										
Banque Eni SA										
Ecofuel SpA	11	7			29			83	9	1
Eni Congo SA	1							6		
Eni Corporate University SpA		1				3				
Eni finance international SA										
Eni Finance USA Inc										
Eni Gas e Luce SpA	1									1
Eni Insurance DAC	21					9				23
Eni Lubricants Trading Shanghai Co Ltd										1
Eni Mediterranea Idrocarburi SpA	1							1	1	
Eni Mexico S. de RL de CV	1								1	
Eni Petroleum Co Inc	7	1				1		17		
EniPower SpA	5					2			8	1
Societa' EniPower Ferrara Srl						1				
EniPower Mantova SpA	1								4	
EniProgetti SpA		3				4				
EniServizi SpA		2			2	6				
Eni Trading and Shipping SpA	14	110			991	102		93		11
Ing. Luigi Conti Vecchi SpA		1			7				1	
Raffineria di Gela SpA		1				(1)				
Serfactoring SpA		6								
Eni Rewind SpA	105	77			1	44			3	18
Subtotal	**168**	**209**			**1.030**	**171**		**200**	**27**	**56**
State-owned or State-controlled companies										
Gruppo Ferrovie dello Stato		2				6				
Gruppo Terna	1								1	
Saipem SpA		2			1					
Subtotal	**1**	**4**			**1**	**6**			**1**	
Total	**234**	**384**	**1**	**2**	**1.332**	**677**	**(2)**	**217**	**115**	**81**

Financial transactions with the parent company, consolidated subsidiaries, non-consolidated subsidiaries, associated companies and jointly controlled companies and with other companies owned or controlled by Eni SpA or by the State include the following:

(million euros)	December 31, 2019		2019		
Company name	Receivables	Payables	Expenses	Revenues	Derivatives
Parent company					
Eni SpA	12	919	5		1
Eni Group companies					
Banque Eni SA	3				
Serfactoring SpA	2				
Eni finance international SA (ex ECC)	10	155	1		
Eni Finance USA Inc		4			
Joint ventures					
Matrica SpA	9		(9)	2	
Total	**37**	**1.078**	**(3)**	**2**	**1**

Impact of transactions and balances with related parties on the Group's balance sheet, income statement and cash flow statement.

The impact on the Group's balance sheet, income statement and cash flow statement of transactions or balances with related parties is disclosed in the table below:

(million euros)	December 31, 2018			December 31, 2019		
	Total	Related parties	%	Total	Related parties	%
Cash and cash equivalents	44	33	75	42	26	61
Trade and other receivables	706	200	28	652	234	36
Other current assets	3	1	37	2	1	63
Other financial assets	2	2	100	11	11	99
Other non-current assets	1			1		
Short-term financial liabilities	592	587	99	1.028	1.021	99
Trade and other payables	793	377	48	782	384	49
Other current liabilities	16	3	19	10	4	35
Long-term financial liabilities (including short-term portion)	66	57	86	60	57	95

The impact of transactions with related parties on the income statement is shown in the table below:

(million euros)	December 31, 2018			December 31, 2019		
	Total	Related parties	%	Total	Related parties	%
Revenues from operating activities	5.123	324	6	4.123	332	8
Other income	123	97	79	115	81	70
Purchases, services and other costs	(4.841)	(2.531)	52	4.140	(2.009)	49
Payroll and related costs	(356)			378		
Other operating income and expenses	(16)	(16)	100	(2)	(2)	100
Financial income	47	10	21	23	2	11
Financial expenses	(36)	(4)	12	17	(3)	17
Gains/losses on derivatives	(5)	(5)	100	1	1	100

The main cash flows with related parties are disclosed in the following table:

(million euros)	2018	2019
Revenues and other income	421	412
Expenses and other costs	(2.547)	(2.010)
Changes in trade and other receivables and in other assets	(48)	34
Changes in trade and other payables and in other liabilities	(39)	7
Dividends, interest and taxes	(2)	(1)
Net cash flow provided by operating activities	**(2.214)**	**(1.558)**
- investments and securities	(99)	(76)
- financial receivables	5	9
- changes in payables and receivables related to investment activities	16	(15)
Cash flow from investments	(78)	(82)
Net cash flow from investment activities	**(78)**	**(82)**
- Changes in financial debt	508	434
- Capital injection		
Net cash flow from financing activities	**508**	**434**
Total cash flow to related parties	**(1.784)**	**(1.206)**

The impact of cash flows with related parties is shown in the summary table below:

(million euros)	2018			2019		
	Total	Related parties	%	Total	Related parties	%
Net cash flow from operating activities	(121)	(2.214)	n.d.	(214)	(1.558)	727
Net cash flow from investment activities	(230)	(78)	34	(200)	(82)	41
Net cash flow from financing activities	195	508	260	412	434	105

36. Public assistance - Statement ex art. 1, paragraphs 125-129, Italian Law no. 124/2017

The information on the disbursements received from Italian public bodies and entities are indicated below. The company has not granted disbursements to companies, individuals and public and private entities, falling within the scope of application of the Italian law No. 124/2017.

In particular, the following do not fall within the scope of the aforementioned legislation: (i) the forms of incentives/subsidies received in application of a general aid scheme for all those entitled; (ii) fees relating to works/services, including sponsorships; (iii) reimbursements and allowances paid to subjects engaged in training and orientation internships; (iv) contributions received for continuing education from inter-professional funds set up in the legal form of association; (v) membership fees for joining category and regional associations as well as in favor of foundations, or equivalent organizations, functional to the activities connected with the core business; (vi) (where applicable to the company) the costs incurred for social projects connected with the investment activities carried out. Disbursements are identified on a cash basis.

The information presented below includes disbursements of an amount greater than 10 thousand made by the same provider in 2018, also through a plurality of deeds. Pursuant to the provisions of art. 3-quater of Legislative

Decree 135/2018, converted with amendments by Law 11 February 2019, n. 12, disbursements received are provided in the National State Aid Register pursuant to article 52 of the Law of 24 December 2012, no. 234.

For disbursements received, in addition to what is indicated in the National State Aid Register referred to in Article 52 of the Law of 24 December 2012, no. 234, note the following additional cases:

Public funds received:

Provider	Amount of economic benefit received ()	Description
Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR)	1.157.397,22	Non-refundable contribution in relation to the ALBE project (CTN01_00063_46446)

37. Significant non-recurring events and operations

In 2019 there were no significant non-recurring events and operations.

38. Positions or transactions deriving from atypical and/or unusual operations

During the year, there were no positions or transactions deriving from atypical and/or unusual operations.

39. Assets held for sale and disposals

As at December 31, 2019, there were no assets held for sale and disposals.

40. Main events subsequent to December 31, 2019

There were no events that could have significant effects on the company's financial statements subsequent to December 31, 2019.

However, it should be noted that, at the date of preparation of the financial statements, the instability factor recently manifested relating to the health emergency due to the spread of Coronavirus which, in the first weeks of 2020, initially impacted the People's Republic of China and subsequently other countries, should not be underestimated. This factor was considered as an event that does not entail adjustments to financial statement balances since, although the virus occurred in China around the balance sheet date, it is just from the end of January, 2020 that the World Health Organization has declared the Coronavirus epidemic an international public health emergency, after the spread of the virus has increased in the last few weeks, with outbreaks in Italy and in an increasing number of EU and world countries.

Taking into account the elements of absolute uncertainty regarding the effects of the spread of the epidemic and the consequent maneuvers that have been put in place by Governments to combat it, it is not possible to exclude significant impacts on the international and Italian economy, which could be reflected on the results of 2020 which the company believes to be manageable given the ongoing financial and equity support of the shareholder Eni SpA.

In addition, in the first days of March, the different positions of the main oil-producing countries regarding the opportunity for further production cuts in addition to those in force expiring on March 31, led to the collapse of the Brent price which lost about 50% of the value compared to the prices at the beginning of 2020. The company has started, jointly with Eni, the scenario review and assessment of management actions to mitigate their impact. The Company has adopted initiatives to safeguard the health of its people and actions aimed at maintaining operational activity.

The impact on the recoverability of fixed assets values, not estimable as of today, because of the scenario volatility and because of the unpredictable evolution of the market, will be reflected in 2020 results.

41. List of investments

Versalis SpA investments as at December 31, 2019

In accordance with articles 38 and 39 of Legislative Decree 127/1991, by art. 126 of Consob resolution no. 11971 of 14 May 1999 and subsequent amendments and by Consob communication no. DEM / 6064293 of July 28, 2006, the lists of controlled and associated companies of Versalis SpA as of December 31, 2019, as well as the significant investments, are disclosed below.

The companies are divided between residents in Italy and abroad, and in alphabetical order. For each company the following details are disclosed: name, registered office, share capital or the consortium fund, shareholders and the respective percentages of ownership; for consolidated companies, the consolidated percentage pertaining to Versalis SpA is indicated; for non-consolidated companies in which consolidated companies own stakes, the valuation criterion is shown (equity or cost).

CONSOLIDATING COMPANY

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
Versalis SpA	San Donato Milanese (MI)	EUR	1.364.790.000	Eni SpA	100,00	100,00	L.b.L.

(*) L.b.L.. = line by line consolidation, N.E. = net equity method, Co. = measurement at cost

CHANGES IN THE CONSOLIDATION AREA

During the year, Versalis Congo Sarlu entered the consolidation area, after overcoming the parameters of relevance.

SUBSIDIARIES

Abroad

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
Dunastyr Polystyrene Zrt	Budapest (Hungary)	HUF	8.092.160.000	Versalis SpA	96,34	100.00	L.b.L
				Versalis International	1.83		
				Versalis Deutschland GmbH	1.83		
Versalis Americas Inc	Dover, Delaware (USA)	USD	100.000	Versalis International SA	100.00	100.00	L.b.L
Versalis Congo Sarlu	Pointe-Noire (Congo)	XAF	1.000.000	Versalis International SA	100.00	100.00	L.b.L
Versalis Deutschland GmbH	Eschborn (Germany)	EUR	100.000	Versalis SpA	100.00	100.00	L.b.L
Versalis France SAS	Mardyck (France)	EUR	126.115.583	Versalis SpA	100.00	100.00	L.b.L
Versalis International SA	Bruxelles (Belgium)	EUR	15.449.174	Versalis SpA	59.00	100.00	L.b.L
				Versalis Deutschland GmbH	23.71		
				Dunastyr Polystyrene Zrt	14.43		
				Versalis France SAS	2.86		
Versalis Kimya Ticaret Limited Sirketi	Istanbul (Turkey)	TRY	20.000	Versalis International SA	100.00	100.00	N.E.
Versalis México S. de R.L. de CV.	Mexico City (Mexico)	MXN	1.000	Versalis International SA	99.00	99.00	N.E.
				Versalis SpA	01.00		
Versalis Pacific (India) Private Limited	Mumbai (India)	INR	238.700	Versalis Pacific Trading	99.99	99.99	N.E..
				Terzi	0.01		
Versalis Pacific Trading (Shanghai) Co Ltd	Shanghai (China)	CNY	1.000.000	Versalis SpA	100.00	100.00	L.b.L.
Versalis Singapore Pte. Ltd.	Singapore (Singapore)	SGD	80.000	Versalis Spa	100,00	100.00	N.E.
Versalis UK Ltd	Lyndhurst (Great Britain)	GBP	4.004.042	Versalis SpA	100.00	100.00	L.b.L.

(*) L.b.L.. = line by line consolidation, N.E. = net equity method, Co. = measurement at cost

ASSOCIATED COMPANIES

In Italy

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
Brindisi Servizi Generali Scarl	Brindisi (BR)	EUR	1.549.060	Versalis SpA	49,00	49,00	N.E.
				Eni Rewind SpA	20,20		
				EniPower SpA	8,90		
				Third parties	21,90		
Novamont SpA	Novara (NO)	EUR	13.333.500	Versalis SpA	25,00	25,00	N.E.
				Third parties	75,00		
Priolo Servizi ScpA	Melilli (SR)	EUR	28.100.000	Versalis SpA	33,11	33,16	N.E.
				Eni Rewind SpA	4,61		
				Third parties	62,28		
Ravenna Servizi Industriali ScpA	Ravenna (RA)	EUR	5.597.400	Versalis SpA	42,13	42,13	N.E.
				EniPower SpA	30,37		
				Ecofuel SpA	1,85		
				Third parties	25,65		
Servizi Porto Marghera Scarl	Venezia, P.to Marghera (VE)	EUR	8.695.718	Versalis SpA	48,44	48,44	N.E.
				Eni Rewind SpA	38,39		
				Third parties	13,17		

Abroad

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
LVE China Co. Ltd.	Shanghai (China)	USD	250.000	Lotte Versalis Elastomers Co.Ltd	100,00	100,00	N.E.

(*) L.b.L.. = line by line consolidation, N.E. = net equity method, Co. = measurement at cost

JOINT VENTURES

In Italy

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
Matrìca SpA	Porto Torres (SS)	EUR	37.500.000	Versalis SpA	50,00	50,00	N.E.
				Third parties	50,00		

Abroad

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
Lotte Versalis Elastomers Co Ltd	Yeosu (Jeollanam)	KRW	401.800.000.00	Versalis SpA	50,00	50,00	N.E.
	(South Korea)			Third parties	50,00		
Versalis Zeal Ltd	Takoradi (Ghana)	GHS	5.650.000	Versalis International SA	80,00	80,00	N.E.
				Third parties	20,00		
VPM Oilfield Specialty Chemicals LLC	Abu Dhabi (United Arab Emirates)	AED	1.000.000	Versalis SpA	49,00	49,00	N.E.
				Third parties	51,00		

(*) L.b.L.. = line by line consolidation, N.E. = net equity method, Co. = measurement at cost

OTHER COMPANIES

In Italy

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
IFM Ferrara ScpA	Ferrara (FE)	EUR	5.270.466	Versalis SpA	19,74	19,74	Co
				Eni Rewind SpA	11,58		
				S.E.F. Srl	10,70		
				Third parties	57,98		
Consorzio Crea Assemini	Cagliari (CA)	EUR	70.000	Versalis SpA	7,14	7,14	Co
				Third parties	92,86		
IAS Industria Acqua Siracusana SpA	Siracusa (SR)	EUR	102.000	Versalis SpA	1,00	1,00	Co
				Third parties	99,00		

Abroad

Name	Registered office	Currency	Share capital	Shareholders	% of ownership	% of consolidated shares pertaining to Versalis Group	Consolidation method or measurement criterion (*)
Sociedad Espanola de Materiales Plasticos SA	Madrid (Spain)	EUR	61.002	Versalis International SA	7,88	7,88	Co
				Third parties	92,12		
BKV Beteiligungs-und Kunststoffverwert-ungsgesellschaft mbH	Frankfurt am Main (Germany)	EUR	14.147.400	Versalis GmbH	1,19	1,19	Co
				Third parties	98,81		
EXELTIUM 2 SAS	Paris (France)	EUR	9.473	Versalis France SAS	1,88	1,88	Co
				Third parties	98,12		
EXELTIUM SAS	Paris (France)	EUR	174.420.200	Versalis France SAS	1,66	1,66	Co
				Third parties	98,34		
Genomatica Inc	San Diego (USA)	USD	31.308.448	Versalis SpA	0,04	0,04	Co
				Third parties	99,96		

(*) L.b.L.. = line by line consolidation, N.E. = net equity method, Co. = measurement at cost

Report of Independent Auditors

pwc

Independent auditor's report

in accordance with article 14 of Legislative Decree No.39 of 27 January 2010

To the sole shareholder of Versalis SpA

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of the Versalis Group (the Group), which comprise the balance sheet as of 31 December 2019, the income statement, statement of comprehensive income (loss), statement of changes in shareholders' equity, statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as of 31 December 2019, and of the result of its operations and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of this report. We are independent of Versalis SpA (the Company) pursuant to the regulations and standards on ethics and independence applicable to audits of financial statements under Italian law. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other matters

The consolidated financial statements of the Versalis Group for the year ended 31 December 2018 were audited by other independent auditors that, on 29 March 2019, expressed an unqualified opinion on these financial statements.

PricewaterhouseCoopers SpA

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Responsibilities of the Directors and the Board of Statutory Auditors for the Consolidated Financial Statements

The directors are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and, in the terms prescribed by law, for such internal control as they determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

The directors are responsible for assessing the Group's ability to continue as a going concern and, in preparing the consolidated financial statements, for the appropriate application of the going concern basis of accounting, and for disclosing matters related to going concern. In preparing the consolidated financial statements, the directors use the going concern basis of accounting unless they either intend to liquidate Versalis SpA or to cease operations, or have no realistic alternative but to do so.

The board of statutory auditors is responsible for overseeing, in the terms prescribed by law, the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

As part of our audit conducted in accordance with International Standards on Auditing (ISA Italia), we exercised professional judgement and maintained professional scepticism throughout the audit. Furthermore:

- We identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error; we designed and performed audit procedures responsive to those risks; we obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- We obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- We evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors;
- We concluded on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report.

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However, future events or conditions may cause the Group to cease to continue as a going concern;

- We evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- We obtained sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion on the consolidated financial statements.

We communicated with those charged with governance, identified at an appropriate level as required by ISA Italia regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identified during our audit.

Report on Compliance with other Laws and Regulations

Opinion in accordance with Article 14, paragraph 2, letter e), of Legislative Decree No.39/10

The directors of Versalis SpA are responsible for preparing a report on operations of the Versalis Group as of 31 December 2019, including its consistency with the relevant consolidated financial statements and its compliance with the law.

We have performed the procedures required under auditing standard (SA Italia) No. 720B in order to express an opinion on the consistency of the report on operations with the consolidated financial statements of the Versalis Group as of 31 December 2019 and on its compliance with the law, as well as to issue a statement on material misstatements, if any.

In our opinion, the report on operations is consistent with the consolidated financial statements of the Versalis Group as of 31 December 2019 and is prepared in compliance with the law.

With reference to the statement referred to in article 14, paragraph 2, letter e), of Legislative Decree No. 39/10, issued on the basis of our knowledge and understanding of the Company and its environment obtained in the course of the audit, we have nothing to report.

Milan, 27 March 2020

PricewaterhouseCoopers SpA

Signed by

Andrea Crespi
(Partner)

This report has been translated into English from the Italian original solely for the convenience of international readers. We have not examined the translation of the financial statements referred to in this report.