9) TRADE RECEIVABLES AND OTHER CURRENT AND NON-CURRENT RECEIVABLES

Trade receivables and other current receivables equal to 1,347 million euro (1,658 million euro as at 31 December 2017) and *other non-current receivables* equal to 1 million euro (373 million euro as at 31 December 2017) break down as follows:

		31.12.2017				
(€ million)	Current	Non- current	Total	Current	Non- current	Total
Trade receivables	1,274		1,274	1,247		1,247
Financial receivables	350	373	723	10	1	11
- Short term	350		350			
- Long term		373	373	10	1	11
Receivables from investment/divestment activities	12		12	9		9
Other receivables	22		22	81		81
	1,658	373	2,031	1,347	1	1,348

Trade receivables of 1,247 million euro (1,274 million euro as at 31 December 2017) mainly refer to the natural gas transmission (1,018 million euro) and storage (145 million euro) segments.

Trade receivables relating to the storage segment (145 million euro) include the effects of the addition of revenue connected to the allocation of natural gas storage capacity by auction (25 million euro) and include coverage of the expenses relative to the natural gas transport service (7 million euro)⁸.

Receivables are reported net of the provision for impairment losses (137 million euro; 140 million euro as at 31 December 2017). This provision essentially relates to impairment losses recorded in previous years on receivables from the balancing service pursuant to resolution 608/2015/R/gas through which the Authority provided for partial payment to the balancing supervisor (Snam Rete Gas) of uncollected receivables for the period from 1 December 2011 to 23 October 2012⁹ (€126 million, including the relative interest).

⁸ These revenues refer to the application of Resolution 350/2018/R/gas "Provisions on settlement relating to storage services for the 2018-2019 thermal year", published on 22 June 2018, whereby the Authority envisaged, in continuity with the 2017-2018 thermal year, provisions for the issue of sterilising, in terms of revenue flows, the impact of transferring storage capacity at fees below the regulated tariff, to guarantee the storage companies have a revenue flow that is substantially equivalent to that obtained by applying, to the capacity allocated through auction, of the corresponding tariffs.

⁹ For more information, please see Note no. 25 "Guarantees, commitments and risks – Disputes - Recovering receivables from certain users of the transportation and balancing system.

Changes in the provision for impairment losses on receivables during the year are shown below:

(€ million)	Provision for impairment losses at 31.12.2017	Provisions	Uses for surplus	change in scope of consoli- dation	impairment
Trade receivables	140	3	(8)	2	137
	140	3	(8)	2	137

Financial receivables (11 million euro; 723 million euro as at 31 December 2017) relate to the residual portion of the Shareholders' Loan granted to the associate Trans Adriatic Pipeline AG (TAP). As compared with 31 December 2017, receivables are down 712 million euro. The reduction is mainly due to: (i) the reimbursement¹⁰, by TAP by means of a true-up mechanism, of 519 million euro, against 373 million euro in relation to receivables in place as at 31 December 2017 and 156 million euro relative to receivables accrued in 2018. The reimbursement follows on from the finalisation, by TAP, in December, of a project financing agreement¹¹; (ii) the closure, due to natural expiry, of the use of short-term liquid funds with a primary bank (350 million euro).

Receivables from investment/divestment activities (9 million euro; 12 million euro as at 31 December 2017) include receivables from private contributions recorded for investment activities involving the transportation segment (reclamation works for third parties).

Other receivables of 81 million euro (22 million euro as at 31 December 2017) comprise:

(€ million) 31.12.2017	31.12.2018
IRES receivables for the national tax consolidation scheme 9	9
Other receivables: 13	72
- Energy and Environmental Services Fund (CSEA) 5	63
- Advances to suppliers 4	4
- Other 4	5
22	81

IRES receivables for the national tax consolidation scheme (9 million euro; same as at 31 December 2017) related mainly to receivables from the former parent company, Eni, relating to the IRES refund request resulting from the partial IRAP deduction relating to tax years 2007 to 2011 (pursuant to Decree-Law 201/2011). The receivables to the Electricity Equalisation Fund (CSEA) (63 million euro) principally refer to the transport business segment and related mainly to gas settlement, which was introduced by Authority with Resolution 670/2017/R/gas and 782/2017/R/gas, and to the incentives granted to the Balancing Manager. All receivables are in Euros. The fair value measurement of trade and other receivables has no material impact considering the short period of time from when the receivable arises and its due date and the contractual terms and conditions.

¹⁰ Including interest accrued.

¹¹ For more information, including on the guarantees given by shareholders, see Note no. 25 "Guarantees, commitments and risks".

The aging of trade and other receivables is shown below:

		31.12.2017			31.12.2018	
(€ million)	Trade receivables	Other receivables (*)	Total	Trade Other receivables (*)		Total
Non-overdue and non-impaired receivables	1,173	745	1,918	1,134	97	1,231
Overdue and non-impaired receivables:	101	12	113	113	4	117
- 0-3 months overdue	5	7	12	15		15
- 3-6 months overdue			0	3		3
- 6-12 months overdue		1	1	1		1
- more than 12 months overdue	96	4	100	94	4	98
	1,274	757	2,031	1,247	101	1,348

^(*) Including financial receivables, receivables from investment/divestment activities and other receivables.

Overdue and non-impaired receivables (117 million euro; 113 million euro as at 31 December 2017) essentially refer to the storage segment (89 million euro), principally comprising VAT¹² billed to users in previous years for the use of strategic gas which was withdrawn but not replenished by them pursuant to the provisions established in the Storage Code.

Receivables from related parties are described in Note 34, "Related-party transactions".

Specific information on credit risk can be found in Note no. 25 "Guarantees, commitments and risks – Financial risk management – Credit risk".

10) INVENTORIES

Inventories, which amount to 472 million euro (449 million euro as at 31 December 2017) are analysed in the table below:

		31.12.2017			31.12.2018	
(€ million)	Gross amount	Impairment losses	Net value	Gross Impairment amount losses		Net value
Inventories (current assets)	129	(43)	86	155	(46)	109
- Raw materials, consumables and supplies	79	(11)	68	103	(14)	89
- Finished products and merchandise	50	(32)	18	52	(32)	20
Compulsory inventories (non-current assets)	363		363	363		363
	492	(43)	449	518	(46)	472

¹² As provided for under the applicable legislation, notices of VAT changes may be issued at the end of bankruptcy proceedings or unsuccessful enforcement proceedings.

Inventories (current assets)

Inventories of raw materials, consumables and supplies (89 million euro; 68 million euro as at 31 December 2017) primarily include stock materials relating to the pipeline network (39 million euro) and to storage plants (9 million euro), and natural gas used for transportation activities (23 million euro).

Inventories of finished products and merchandise (20 million euro; 18 million euro as at 31 December 2017) refer to the natural gas present in the storage system (619 million standard cubic metres, unchanged from 31 December 2017) and do not include compulsory inventories, recognised under "Non-current assets" in the balance sheet.

Inventories are reported net of the provision for impairment losses of 46 million euro (43 million euro as at 31 December 2017). The provision essentially involves the impairment loss (30 million euro) recorded in 2014 for 0.4 billion cubic metres of natural gas used under the scope of storage activities of strategic gas unduly withdrawn by some service users in 2010 and 2011¹³.

Changes in the provision for impairment losses during the year are shown below:

(million €)	Provision for impairment losses at 31.12.2017		Provision for impairment losses at 31.12.2018
Raw materials, consumables and supplies	11	3	14
Finished products and merchandise	32		32
	43	3	46

The other changes (3 million euro) refer to the purchase of the Cubogas business unit.

Inventories are not collateralised. Inventories do not secure liabilities, nor are they recognised at net realisation value.

Compulsory inventories (non-current assets)

Compulsory inventories (363 million euro, unchanged from 31 December 2017) comprise minimum quantities of natural gas that the storage companies are obliged to hold pursuant to Presidential Decree no. 22 of 31 January 2001. The quantities of natural gas in stock, equal to around 4.5 billion standard cubic metres, are determined annually by the Ministry of Economic Development¹⁴.

¹³ For more information regarding the progress of the lawsuits underway, see Note no. 25 "Guarantees, commitments and risks - Disputes and other measures - Recovering receivables from users of the

¹⁴ On 06 February 2018, the Ministry confirmed the total volume of strategic storage for the contractual year 2018-2019 (01 April 2018-31 March 2019) at 4.62 billion cubic metres, equal to approximately 48,846 Giga Watthour - GWh, unchanged on thermal year 2017-2018 (01 April 2017-31 March 2018). The Stogit share was unchanged at 4.5 billion cubic metres.

11) CURRENT INCOME TAX ASSETS/LIABILITIES AND OTHER CURRENT TAX ASSETS/LIABILITIES

Current income tax assets/liabilities and other current tax assets/liabilities break down as follows:

(million €)	31.12.2017	31.12.2018
Current income tax assets	16	10
- IRES	13	9
- IRAP	2	1
- Other assets	1	
Other current tax assets	21	7
- VAT	18	4
- Other taxes	3	3
	37	17
Current income tax liabilities		(14)
- IRES		(13)
- IRAP		(1)
Other current tax liabilities	(11)	(9)
- IRPEF withholdings for employees	(7)	(7)
- IVA		(1)
- Other taxes	(4)	(1)
	(11)	(23)

Current income tax assets of 10 million euro (16 million euro as at 31 December 2017) mainly involve IRES receivables (9 million euro) following the excess amount paid for additional IRES (8 million euro).

Other current tax assets of 7 million euro (21 million euro as at 31 December 2017) mainly refer to VAT receivables (4 million euro).

Current income tax liabilities of 14 million euro mainly refer to IRES payables for the national tax consolidation (13 million euro).

Other current tax liabilities of 9 million euro (11 million euro as at 31 December 2017) mainly relate to IRPEF (personal income tax) withholdings for employees (7 million euro).

Taxes pertaining to the year under review are shown in Note 31 - "Income taxes".

12) OTHER CURRENT AND NON-CURRENT ASSETS

Other current assets, which amount to 27 million euro (56 million euro as at 31 December 2017) and other non-current assets of 36 million euro (50 million euro as at 31 December 2017) break down as follows:

	3	31.12.2017		:	31.12.2018			
(€ million)	Current	Non- current	Total	Total Current		Total		
Regulated activities	46	22	68	16	10	26		
Market value of derivative financial instruments		1	1	4		4		
Other assets:	10	27	37	7	26	33		
- Prepayments	7	15	22	6	13	19		
- Security deposits		12	12		13	13		
- Other	3		3	1		1		
	56	50	106	27	36	63		

Regulated assets (26 million euro; 68 million euro as at 31 December 2017) relate to the natural gas transmission service and regard the lesser amounts billed that will be recovered through tariff adjustments in future years¹⁵ (of which 16 million euro for the current share and 10 million euro for the non-current share).

The market value of derivatives at 31 December 2018 is as follows:

	3	31.12.2017		:	31.12.2018	
(€ million)	Current	Non- current Total		Current	Non- current	Total
Other assets		1	1	4		4
Cash flow hedging derivatives:						
- Fair value exchange rate hedging derivatives				4		4
- Fair value interest rate hedging derivatives		1	1			
Other liabilities	(2)	(11)	(13)	(7)	(26)	(33)
Cash flow hedging derivatives:						
- Fair value interest rate hedging derivatives		(9)	(9)	(6)	(26)	(32)
- Fair value exchange rate hedging derivatives	(1)	(2)	(3)			
- Accrued expenses on derivatives	(1)		(1)	(1)		(1)

Assets deriving from the market valuation of financial cash flow hedges (4 million euro) refer to a cross currency swap (CCS) stipulated in FY 2013. The CCS is used to hedge against fluctuations in the exchange rate of 10 billion (JPY) long-term bond issue. The six-year bond has a maturity of 25 October 2019 and a half-yearly coupon with an annual fixed rate of 1.115%. The CCS has converted the fixed-rate, foreign-currency liability into an equivalent liability in Euro with a fixed annual rate of 2.717%.

In relation to this contract, Snam agrees with its counterparties on the exchange of two capital flows (at the time of entering into the contract and upon the maturity of the underlying financial instrument) and periodic interest flows (on the same dates stipulated for the hedged item) denominated in different currencies at a predetermined exchange rate.

The main characteristics of the derivative in question are summarised in the table below:

Cross-currency swap

(€ million)									
Type of derivative	Contract start date	Maturity date	Residual term (years)	JPY/EUR exchange rate Paid	JPY/EUR exchange rate Received	Nominal value (*) 31.12.2017	Nominal value (*) 31.12.2018	Market value 31.12.2017	Market value 31.12.2018
Cross-currency swap	25.10.2013	25.10.2019	0.8	133.98	Spot	75	75	(3)	4

^(*) Equal to a value of 10 billion Yen at an exchange rate of 133.98 Yen/€.

The liabilities arising from measurement at market value of the derivative financial instruments used as cash flow hedges (33 million euro) refer to:

- three derivative Interest Rate Swap "Forward Start" contracts with Mandatory Early Termination, stipulated in July 2017 and August 2018 to cover the risk of interest rate fluctuations of long-term bond issues scheduled for 2019, 2020 and 2021, of nominal total value of 750 million euro and a total market value of 22 million euro;
- an Interest Rate Swap derivative, stipulated in August 2017, with a market value of 5 million euro. The IRS is used to hedge against the fluctuation risk of the fair value of a fixed rate liability resulting from a long-term bond issue of €350 million. The 7year bond has a maturity of 2 August 2024 and variable rate linked to 3 month Euribor + 40 bps. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 0.436%;
- an Interest Rate Swap derivative, stipulated in August 2017, with a market value of 2 million euro. The IRS is used to hedge against the fluctuation risk of the fair value of a fixed rate liability resulting from a long-term bond issue of 300 million euro. The loan, which has a duration of five years and matures on 21 February 2022, pays a variable interest rate linked to 3 month Euribor + 60 bps. The IRS has converted the floating-rate liability into an equivalent fixed-rate liability with reference rate of 0.0408%;

- an Interest Rate Swap derivative, stipulated in July 2018, with a market value of 2 million euro. The IRS is used to hedge against the fluctuation risk of the fair value of a fixed rate liability resulting from a 50% portion of the long-term variable-rate loan of 500 million euro. The 3 year term loan has a maturity of 31 October 2021 and variable rate linked to 3 month Euribor + 45 bps. Through the derivative contract, the variable rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 0.0570%;
- an Interest Rate Swap derivative, stipulated in July 2018, with a market value of one million euro. The IRS is used to hedge against the fluctuation risk of the interest rate on a variable rate term loan of 150 million euro. The 5 year term loan has a maturity of 31 July 2022 and variable rate linked to 3 month Euribor + 58 bps. Through the derivative contract, for four years, the variable rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 0.1250%;
- an Interest Rate Swap derivative, stipulated in December 2018, with a market value of one million euro. The IRS is used to hedge against the fluctuation risk of the fair value of a fixed rate liability resulting from the remaining 50% portion of the long-term variable-rate loan of 500 million euro. The 3 year term loan has a maturity of 31 October 2021 and variable rate linked to 3 month Euribor + 45 bps. Through the derivative contract, the variable rate liability is converted into an equivalent fixed rate liability with a benchmark rate of -0.0440%.

The main characteristics of the derivatives in question are summarised in the tables below:

Interest Rate Swap - Forward Start

(€ million)										
Type of derivative	Contract start date	Maturity date	Early extingui- shment date	Residual term (years)	Snam pays	Snam receives	Nominal value 31.12.2017	Nominal value 31.12.2018	Market value 31.12.2017	Market value 31.12.2018
IRS - Forward start	30.10.2019	30.10.2026	30.01.2020	7.8	1.1805%	Euribor 6 m	250	250	(3)	(9)
IRS - Forward start	29.10.2020	29.10.2027	29.01.2021	8.8	1.4225%	Euribor 6 m	250	250	(3)	(8)
IRS - Forward start	15.04.2021	15.04.2028	15.07.2021	9.3	1.3130%	Euribor 6 m		250		(5)

Interest Rate Swap

(€ million)									
Type of derivative	Contract start date	Maturity date	Residual term (years)	Snam pays	Snam receives	Nominal value 31.12.2017	Nominal value 31.12.2018	Market value 31.12.2017	Market value 31.12.2018
Interest rate swap	02.08.2017	02.08.2024	5.6	0.4360%	Euribor 3 m	350	350	(1)	(5)
Interest rate swap	21.02.2017	21.02.2022	3.1	0.0408%	Euribor 3 m	300	300	1	(2)
Interest rate swap	30.07.2018	31.10.2021	2.8	0.0570%	Euribor 3 m		250		(2)
Interest rate swap	31.07.2018	31.07.2022	3.6	0.1250%	Euribor 3 m		150		(1)
Interest rate swap	31.10.2018	31.10.2021	2.8	-0.0440%	Euribor 3 m		250		(1)
Interest rate swap	29.01.2018	29.01.2020	1.1	-0.1878%	Euribor 3 m		350		

The fair value of hedging derivatives and their classification as a current or non-current asset/liability have been determined using generally accepted financial measurement models and market parameters at the end of the year. Information on the risks being hedged by the derivatives and on policies adopted by the Company to hedge against these risks is provided in Note no. 25 - "Guarantees, commitments and risks - Management of financial risks".

The item "Other assets" (33 million euro; 37 million euro as at 31 December 2017) essentially comprises:

- prepayments (19 million euro), relating mainly to upfront fees and the substitute tax on revolving credit lines (16 million euro) and to insurance premiums (2 million euro). The current and non-current portions amount to 6 and 13 million euro respectively (7 and 15 million euro as at 31 December 2017);
- security deposits of 13 million euro (12 million euro as at 31 December 2017) granted to support operating activities relating mainly to the transport of natural gas.

13) PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment, which amounts to 16,153 million euro (16,033 million euro as at 31 December 2017) breaks down as follows:

				31.12.2017			
(€ million)	Land	Buildings	Plant and equipment	Industrial and commercial equipment	Other assets	Non-current assets under construction and payments on account	Total
Cost at 31.12.2016	163	427	21,275	90	195	1,061	23,211
Investments	1		8	5		954	968
Disposals		(4)	(29)	(7)	(7)	(7)	(54)
Change in scope of consolidation			182		1		183
Other changes	3	20	769	20	21	(870)	(37)
Cost at 31.12.2017	167	443	22,205	108	210	1,138	24,271
Provisions for amortisation and depreciation at 31.12.2016		(98)	(7,302)	(48)	(140)		(7,588)
Total amortisation and depreciation		(10)	(552)	(10)	(20)		(592)
Disposals		1	23	6	7		37
Change in scope of consolidation			(31)		(1)		(32)
Other changes				(1)	1		
Provisions for amortisation and depreciation at 31.12.2017		(107)	(7,862)	(53)	(153)		(8,175)
Provision for impairment losses at 31.12.2016	(1)	(6)	(23)			(30)	(60)
(Impairment losses)/reversals			(3)			(10)	(13)
Disposals		2	1			7	10
Provision for impairment losses at 31.12.2017	(1)	(4)	(25)			(33)	(63)
Net balance at 31.12.2016	162	323	13,950	42	55	1,031	15,563
Net balance at 31.12.2017	166	332	14,318	55	57	1,105	16,033

				31.12.2018			
(€ million)	Land	Buildings	Plant and equipment	Industrial and commercial equipment	Other assets	Non-current assets under construction and payments on account	Total
Cost at 31.12.2017	167	443	22,205	108	210	1,138	24,271
Investments	2		3	7		793	805
Disposals	(1)	(4)	(17)	(3)	(2)	(4)	(31)
Change in scope of consolidation			1		1		2
Other changes	3	33	1,003	5	26	(1,111)	(41)
Cost at 31.12.2018	171	472	23,195	117	235	816	25,006
Provisions for amortisation and depreciation at 31.12.2017		(107)	(7,862)	(53)	(153)		(8,175)
Total amortisation and depreciation		(11)	(578)	(12)	(21)		(622)
Disposals		2	10	3	1		16
Other changes			(1)				(1)
Change in scope of consolidation			(1)				(1)
Provisions for amortisation and depreciation at 31.12.2018		(116)	(8,432)	(62)	(173)		(8,783)
Provision for impairment losses at 31.12.2017	(1)	(4)	(25)			(33)	(63)
(Impairment losses)/reversals			(2)			(6)	(8)
Disposals			1				1
Provision for impairment losses at 31.12.2018	(1)	(4)	(26)			(39)	(70)
Net balance at 31.12.2017	166	332	14,318	55	57	1,105	16,033
Net balance at 31.12.2018	170	352	14,737	55	62	777	16,153

Property, plant and equipment (16,153 million euro; 16,033 million euro as at 31 December 2017) relates mainly to transmission (13,244 million euro), storage (2,811 million euro) and regasification (87 million euro) infrastructure. Investments¹⁶ (805 million euro) refer mainly to the transmission (702 million euro) and storage (90 million euro) segments.

During the year, Snam capitalised 12 million euro of financial expenses (13 million euro in 2017).

Depreciation (622 million euro) refers to economic and technical depreciation determined on the basis of the useful life of the assets or their remaining possible use by the Company.

Capital contributions entered as a reduction of the net value of property, plant and equipment come to 385 million euro (372 million euro as at 31 December 2017).

Disposals (14 million euro, net of the related provisions for depreciation, amortisation and impairment losses) mainly relate to transmission segment assets.

Impairment losses and reversals (8 million euro) refer essentially to the write-down of assets not yet ready for use in the transmission segment.

The value of plant and equipment includes site dismantling and restoration costs (237 million euro), relating mainly to the natural gas storage (147 million euro) and transmission (90 million euro) segments.

¹⁶ Investments by business segment are shown in the "Business segment operating performance" section of the Directors' Report.

Other changes (42 million euro) related essentially to: (i) the revision in decrease of estimated costs for site restoration and dismantling refer essentially to the storage segment, which are partially offset by the decrease in the expected discount rates (8 million euro); (ii) the change in stocks of pipes and related accessory materials used in the production of plants in the natural gas transmission segment (11 million euro); and (iii) grants for the period refer to reclamation works for third parties (22 million euro).

Contractual commitments to purchase property, plant and equipment, and to provide services related to the construction thereof, are reported in Note no. 25 "Guarantees, commitments and risks".

Property, plant and equipment by business segment

Property, plant and equipment by operating segment break down as follows:

(€ million)	31.12.2017	31.12.2018
Historical cost	24,271	25,006
	•	•
Transportation	20,290	20,934
Storage	3,818	3,893
Regasification	150	158
Corporate and other activities	13	21
Provision for amortisation, depreciation and impairment losses	(8,238)	(8,853)
Transportation	(7,176)	(7,690)
Storage	(990)	(1,080)
Regasification	(66)	(72)
Corporate and other activities	(6)	(11)
Net balance	16,033	16,153
Transportation	13,114	13,244
Storage	2,828	2,813
Regasification	84	86
Corporate and other activities	7	10

14) INTANGIBLE ASSETS

Intangible assets, which amount to 907 million euro (850 million euro as at 31 December 2017) break down as follows:

			31.12	.2017		
		Finite use	-	Indefinite useful life		
(€ million)	Industrial patent rights and intellectual property rights	Concessions, licences, trademarks and similar rights	Other intangible assets	Non-current assets under construction and payments on account	Goodwill	Total
Cost at 31.12.2016	647	755	42	20		1,464
Investments				66		66
Other changes	2				27	29
Change in scope of consolidation	52	8		(59)		1
Cost at 31.12.2017	701	763	42	27	27	1,560
Provisions for amortisation and depreciation at 31.12.2016	(519)	(93)	(42)			(654)
Total amortisation and depreciation	(50)	(4)				(54)
Other changes	(1)					(1)
Change in scope of consolidation	(1)					(1)
Provisions for amortisation and depreciation at 31.12.2017	(571)	(97)	(42)			(710)
Provision for impairment losses at 31.12.2016						
Provision for impairment losses at 31.12.2017						
Net balance at 31.12.2016	128	662		20		810
Net balance at 31.12.2017	130	666		27	27	850

	31.12.2018					
		Finite useful life				
(€ million)	Industrial patent rights and intellectual property rights	Concessions, licences, trademarks and similar rights	Other intangible assets	Non-current assets under construction and payments on account	Goodwill	Total
Cost at 31.12.2017	701	763	42	27	27	1,560
Investments				77		77
Disposals	(1)					(1)
Change in scope of consolidation		2	19		9	30
Other changes	63	4	3	(66)	6	10
Cost at 31.12.2018	763	769	64	38	42	1,676
Provisions for amortisation and depreciation at 31.12.2017	(571)	(97)	(42)			(710)
Total amortisation and depreciation	(54)	(4)	(2)			(60)
Disposals	1					1
Provisions for amortisation and depreciation at 31.12.2018	(624)	(101)	(44)	-		(769)
Provision for impairment losses at 31.12.2017						
Provision for impairment losses at 31.12.2018						
Net balance at 31.12.2017	130	666		27	27	850
Net balance at 31.12.2018	139	668	20	38	42	907

Industrial patent rights and intellectual property rights of 139 million euro (130 million euro as at 31 December 2017) mainly concern information systems and applications in support of operating activities.

Concessions, licences, trademarks and similar rights (668 million euro; 666 million euro as at 31 December 2017) refer essentially to concessions for natural gas storage activities (656 million euro) and, specifically to the concessions of Settala (226 million euro), Sergnano (126 million euro), Fiume Treste (91 million euro) and Brugherio (56 million euro). The value of the storage concessions is represented by the reserves of natural gas in the fields ("cushion gas"¹⁷).

Changes in the consolidation area (30 million euro) refer to the intangible assets noted after the acquisition of the companies operating in the energy efficiency, CNG and biomethane businesses. The assets mainly refer to the measurement of backlogs on contracts in place with customers and goodwill noted during the allocation of the company acquisition prices¹⁸.

The increase in intangible assets with an indefinite useful life (15 million euro) mainly refers to goodwill noted following the July 2018 acquisitions of the Cubogas business unit (7 million euro), 70% of the share capital of IES Biogas (4 million euro) and 82% of the share capital of TEP (3 million euro). This goodwill was allocated to the CGU represented by the company Snam 4 Mobility, the Group company involved in activities connected with sustainable mobility, in particular the activities connected with the Compressed Natural Gas (CNG) business (refuelling stations, hereinafter "stations", and compressors) and in biomethane.

Investments (77 million euro) refer mainly to the transportation segment (62 million euro) ¹⁹.

Amortisation (60 million euro) refers to economic and

Amortisation (60 million euro) refers to economic and technical amortisation determined on the basis of the finite useful life of the intangible assets or their remaining possible use by the Company.

Contractual commitments to purchase intangible assets, and to provide services related to the development thereof, are reported in Note no. 25 - "Guarantees, commitments and risks".

As envisaged by the reference accounting standard (IAS 36), the assets and goodwill have been impairment tested. The impairment test has been carried out for all GCUs, regardless of the presence of impairment indicator or goodwill allocated to the CGUs, regardless of the presence of impairment indicators or goodwill allocated to the CGUs. In particular, the CGUs are represented:

- for the regulated business of transportation, regasification and storage of natural gas, respectively by the companies Snam Rete Gas and ITG, GNL Italia and Stogit;
- for the CNG business, consisting of the following stations and compressors, by Snam 4 Mobility and Cubogas;
- for the biomethane business, by the companies IES Biogas and Enersi;
- for the energy efficiency business, by the company TEPEnergy Solutions.

The impairment with reference to the CNG business represented by the stations, the recoverable value of the CGU Snam 4 Mobility has been determined on the basis of the Discounted Cash Flow (DCF) method. In consideration of the start-up phase of the business, the cash flow was determined considering a broader time frame than the forecast data of the 2019-2022 Plan approved by the Board, so as to consider all the effects that may significantly impact cash flow. To discount cash flow, the weighted average cost of capital (WACC) was used.

As regards the other businesses of CNG (compressors) and biomethane, headed respectively by the companies Cubogas and IES biogas, the recoverable value allocated to the CGU Snam 4 Mobility was assumed to be equal to the purchase price of the companies, also considering the timing of the acquisition.

As regards the goodwill already entered as at 31 December 2017 (27 million euro) and allocated to the CGU represented by the company ITG, this has been impairment tested. The recoverable value of the CGU ITG has been determined according to the DCF Method, considering a 2019-2022 Plan time frame. To discount cash flow, the weighted average cost of capital (WACC) was used in reference to the regulated business of natural gas transmission. The terminal value was determined according to the equity value/RAB and equity value/EBITDA multiples of the same business segment. As regards the CGU of Transportation, Regasification and Storage, the recoverable value was defined in keeping with the estimated value of net invested capital recognised for such assets for tariff purposes (Regulatory Asset Base, or RAB) by ARERA, net of flat-fee components²⁰, the provision for employee severance pay (TFR) and grants received. For all CGUs, the recoverable value, as shown above, exceeds the net book value of the CGU, including goodwill recorded at the time of acquisition.

As regards the CGU of Transportation, Regasification and Storage, the recoverable value of property, plant and equipment, including compulsory inventories, and intangible assets is around 20.5 billion euro²¹ and exceeds the corresponding book values of the net invested capital. For CGU Snam 4 Mobility, the recoverable value is around 34 million euro.

20 The RAB is used to determine the service tariffs and, therefore, the cash

flows generated by the assets. The RAB value is defined using the revalued historical cost method with regard to fixed capital and on a flat-rate basis with regard to working capital, employee severance pay (TFR) and, in relation to the storage sector, the provision for site dismantling and vestments by business segment are shown in the "Business segment" restoration.

²¹ Estimated value as at 31 December 2018.

¹⁹ Investments by business segment are shown in the "Business segment operating performance" section of the Directors Report.

Intangible assets by business segment

Intangible assets by business segment break down as follows:

(€ million)	31.12.2017	31.12.2018
Historical cost	1,560	1,676
Transportation	659	721
Storage	826	835
Regasification	4	6
Corporate and other activities	71	114
Provision for amortisation, depreciation and impairment losses	(710)	(769)
Transportation	(502)	(544)
Storage	(152)	(159)
Regasification	(3)	(4)
Corporate and other activities	(53)	(62)
Net balance	850	907
Transportation	157	177
Storage	674	676
Regasification	1	2
Corporate and other activities	18	52

15) INVESTMENTS VALUED USING THE EQUITY METHOD

Investments valued using the equity method, amounting to 1,710 million euro (1,547 million euro as at 31 December 2017) break down as follows:

	Equi	ty investments i	n
(€ million)	Joint ventures	Associates	Total
Initial value at 01.01.2017	1,195	304	1,499
Acquisitions and subscriptions		66	66
Capital gains from measurement using the equity method	136	39	175
(Capital losses) from measurement using the equity method	(10)	(4)	(14)
Exchange rate conversion differences	(3)		(3)
Sales and repayments	(35)		(35)
Decrease owing to dividends	(127)	(22)	(149)
Other changes	8		8
Final value at 31.12.2017	1,164	383	1,547
Initial value at 01.01.2018	1,164	383	1,547
Acquisitions and subscriptions	5	160	165
Capital gains from measurement using the equity method	117	48	165
(Capital losses) from measurement using the equity method		(8)	(8)
Exchange rate conversion differences		(1)	(1)
Sales and repayments	(16)		(16)
Decrease owing to dividends	(114)	(35)	(149)
Other changes	(57)	64	7
Final value at 31.12.2018	1,099	611	1,710

Acquisitions and subscriptions (165 million euro) relate to: (i) the subscription of the share capital increase of Senfluga (121 million euro) in view of the acquisition of Desfa; (ii) the share capital increase of TAP (39 million euro) in view of the requests for shareholders' loans received during the year; (iii) the share capital increase of the companies GasBridge 1 B.V. and GasBridge 2 B.V (5 million euro cumulatively) in view of the acquisition, by the same companies, by virtue of their respective shares held, of the incremental investment share of 7.93% held by Caisse de dépôt et placement du Québec (CDPQ) in Interconnector UK.

Capital gains arising from valuation using the equity method (165 million euro) refer to the pertinent share of the results of jointly controlled companies TAG (74 million euro), Terēga (28 million euro) and AS Gasinfrastruktur Beteiligung GmbH (11 million euro) and the associated company Italgas (43 million euro) and Interconnector (UK) (9 million euro).

Capital losses arising from valuation using the equity method (8 million euro) refer to the share of the results of the related companies TAP (4 million euro) and Senfluga (4 million euro).

Sales and reimbursements (16 million euro) refer to the reduction in the cost of recording the equity investments AS Gasinfrastruktur Beteiligung GmbH for the distribution of part of the share premium reserve.

The decrease owing to dividends (149 million euro) refers to the jointly controlled companies TAG (73 million euro), Terēga (41 million euro) and the associated companies Italgas (23 million euro) and Interconnector (UK) (12 million euro). The other changes (7 million euro) mainly refer to the jointly controlled company Terēga.

No collateral is established on the equity investments, except for that indicated in reference to the equity investment in TAP²².

As at 31 December 2018 the Group carried out the impairment test for each investments in associates and joint ventures. Test did not reveal any loss in value.

Consolidated companies, joint ventures, associates and other significant equity investments are indicated separately in the Annex "Significant shareholdings, associates and equity investments of Snam S.p.A. as at 31 December 2018", which is an integral part of these Notes.

Other information on equity investments

In accordance with the provisions of IFRS 12 - "Disclosure of interests in other entities", the economic and financial data for joint ventures and associates as at 31 December 2017 and 31 December 2018 are provided below.

²² For more information, refer to Note no. 25 "Guarantees, commitments and risks - Commitments, guarantees and pledges - TAP".

Investments in joint ventures

The IFRS-compliant economic and financial data for each significant joint venture²³ are reported below:

	31.12.2017						
(€ million)	Terēga Holding S.A.S. (formerly TIGF Holding SAS.)	Trans Austria Gasleitung GmbH	AS Gasinfrastruktur Beteiligung GmbH	GasBridge 1 B.V. and 2 B.V.			
Current assets	103	53	7	31			
- of which cash and cash equivalents	33	9	7				
Non-current assets	2,852	1,048	596	81			
Total assets	2,955	1,101	603	112			
Current liabilities	(64)	(127)	(3)				
of which current financial liabilities		(60)					
Non-current liabilities	(1,728)	(405)	(283)				
of which non-current financial liabilities	(1,462)	(261)					
Total liabilities	(1,792)	(532)	(286)				
Shareholders' equity	1,163	569	317	112			
Equity interest held by the Group % (*)	40.50%	89.22%	40.00%	50%			
Share attributable to the Group	471	508	127	56			
Book value of the equity investment	471	508	129	56			
Revenue	454	320					
Operating costs	(148)	(136)	(1)				
Amortisation, depreciation and impairment	(132)	(56)					
EBIT	174	128	(1)				
Financial income		2	1				
Financial expenses	(37)	(3)	(6)				
Income (expense) from equity investments			24	(20)			
Income tax paid	(36)	(32)					
Net profit	101	95	18	(20)			
Other components of comprehensive income	1		1	(6)			
Total comprehensive income	102	95	19	(26)			

 $^{(*) \} The investment in Trans \ Austria \ Gasleitung \ GmbH \ is \ measured \ on \ the \ basis \ of \ the \ percentage \ of \ economic \ rights \ held.$

²³ Unless otherwise indicated, the financial statement figures for joint ventures, reported in full, have been updated to include adjustments made by the Parent Company pursuant to the equity-accounting method. The aforementioned amounts refer to the preliminary and/or approved reporting packages.

	31.12.2018			
(€ million)	Terēga Holding S.A.S.	Trans Austria Gasleitung GmbH	AS Gasinfrastruktur Beteiligung GmbH	
Current assets	128	57	2	
- of which cash and cash equivalents	34	20	2	
Non-current assets	2,891	1,116	582	
Total assets	3,019	1,173	584	
Current liabilities	(84)	(105)	(3)	
- of which current financial liabilities	(18)	(35)	(3)	
Non-current liabilities	(1,785)	(497)	(283)	
- of which non-current financial liabilities	(1,487)	(353)	(283)	
Total liabilities	(1,869)	(602)	(286)	
Shareholders' equity	1,150	571	298	
Equity interest held by the Group % (*)	40.50%	89.22%	40.00%	
Share attributable to the Group	466	509	119	
Book value of the equity investment	466	509	124	
Revenue	438	308		
Operating costs	(158)	(124)		
Amortisation, depreciation and impairment	(130)	(56)		
EBIT	150	128		
Financial income			2	
Financial expenses	(36)	(14)	(7)	
Income (expense) from equity investments			28	
Income tax paid	(46)	(32)		
Net profit	68	82	23	
Other components of comprehensive income				
Total comprehensive income	68	82	23	

^(*) The investment in Trans Austria Gasleitung GmbH is measured on the basis of the percentage of economic rights held.

Information on Investments in joint ventures

Terēga Holding S.A.S.

Terēga Holding S.A.S. is a company operating under French law, which, through Terēga S.A.S. (a wholly owned subsidiary of Terēga Holding S.A.S.), controls 100% of Terēga S.A.

Terēga S.A. (Transport et Infrastructures Gaz France) operates in the transportation and storage of natural gas in south-west France. Natural gas transmission and storage in France is a regulated activity.

As at 31 December 2018, Terēga Holding S.A.S. is an investee of Snam S.p.A. (40.5%), Singapore sovereign wealth fund GIC (31.5%), EDF (18%, through a fund dedicated to liabilities arising from the disposal of nuclear assets) and Crédit Agricole Assurances (10%, through Prévoyance Dialogue du Crédit Agricole). Terēga Holding S.A.S.'s consolidated financial statements include Terēga Holding S.A.S., Terēga S.A.S and Terēga S.A.

The corporate governance rules stipulate that decisions on significant activities must be taken with the unanimous consent of shareholders Snam and GIC.

Trans Austria Gasleitung GmbH (TAG)

Trans Austria Gasleitung GmbH (TAG) is a company operating under Austrian law that is active in the natural gas transportation segment. It owns the gas pipeline that links the Slovakian-Austrian border to the Tarvisio entry point.

Natural gas transportation in Austria is a regulated activity.

As at 31 December 2018, Snam S.p.A. holds 84.47% of the share capital, entitling it to 89.22% of the economic rights. The remainder of the share capital is held by Gas Connect Austria GmbH (GCA).

The contractual agreements drawn up between Snam, TAG and GCA also stipulate that if TAG is not capable of self-financing, the other companies must finance it according to the equity investment held by each shareholder.

The corporate governance rules stipulate that decisions on significant activities must be taken with the unanimous consent of shareholders Snam and GCA.

AS Gasinfrastruktur Beteiligung GmbH

AS Gasinfrastruktur Beteiligung GmbH is an Austrian company jointly controlled by Snam S.p.A. and the Allianz group, with holdings of 40% and 60% respectively. The company holds 100% of the Austrian company AS Gasinfrastruktur GmbH, which in turn holds 49% of the share capital of Gas Connect Austria GmbH, which is controlled by OMV AG.

The corporate governance rules of AS Gasinfrastruktur Beteiligung GmbH stipulate that decisions on significant activities must be taken with the unanimous consent of shareholders Snam and Allianz.

Significant restrictions

Pursuant to the provisions of IFRS 12, the major significant restrictions on investee companies' ability to transfer funds to Snam in the form of dividends, loan repayments or advances appear below.

Terēga S.A.S.

The payment to the associate of interest on the residual nominal amount of the 670 million euro convertible bond (of which Snam has subscribed 272 million euro) may be deferred at the discretion of the issuer Terēga S.A.S.

Investments in associates

The IFRS-compliant economic and financial data for all investments in associates²⁴ deemed to be significant are reported below:

	31.12.20	17
(€ million)	Trans Adriatic Pipeline (TAP)	Italgas S.p.A.
Current assets	106	684
Non-current assets	3,213	5,164
Total assets	3,320	5,848
Current liabilities	(280)	(624)
Non-current liabilities	(1,925)	(4,038)
Total liabilities	(2,205)	(4,662)
Shareholders' equity	1,115	1,186
Equity interest held by the Group (%)	20%	13.5%
Share attributable to the Group	223	160
Book value of the equity investment	223	160
Revenue		1,621
EBIT	(27)	418
Net profit	(22)	293
Other components of comprehensive income	3	(1)
Total comprehensive income	(19)	292

²⁴ The financial statement figures for associates, reported in full, have been updated to include adjustments made by the Parent Company pursuant to the equity-accounting method. The aforementioned amounts refer to the preliminary and/or approved reporting packages.

		31.12.2018				
(€ million)	Trans Adriatic Pipeline (TAP)	Italgas S.p.A.	Senfluga Energy Infrastructure Holding S.A. (*)	Interconnector UK Ltd		
Current assets	108	748	347	37		
Non-current assets	4,050	6,011	815	668		
Total assets	4,158	6,759	1,162	705		
Current liabilities	(257)	(899)	(176)	(108)		
Non-current liabilities	(2,619)	(4,531)	(519)	(117)		
Total liabilities	(2,876)	(5,430)	(695)	(225)		
Shareholders' equity	1,282	1,329	467	480		
Equity interest held by the Group (%)	20%	13,50%	60%	23,68%		
Share attributable to the Group	256	179	117	114		
Book value of the equity investment	258	180	117	55		
Revenue		1,641		168		
EBIT	(29)	453	(6)	47		
Net profit	(18)	314	(6)	37		
Other components of comprehensive income		(3)				
Total comprehensive income	(18)	311	(6)	37		

^(*) The values reflect the recognition, as provisional accounting, of the assets and liabilities assumed by Senfluga when it acquired the controlling interest in DESFA at its fair value. Shareholders' equity includes amounts pertaining to minorities of 272 million euro.

Information on investments in associates

Trans Adriatic Pipeline A.G. (TAP)

Trans Adriatic Pipeline A.G. (TAP) is a Swiss company formed to design, develop and build a new gas pipeline, currently under construction, which will extend from the Greek-Turkish border to Italy (at the new entry point in San Foca-Melendugno), crossing Greece and Albania.

As at 31 December 2018, TAP A.G. was an investee of Snam S.p.A. (20%), Socar (20% through AzTAP GmbH), BP (20% through BP Gas Marketing Ltd), Fluxys (19% through Fluxys Europe B.V.), Enagas (16% through Enagás Internacional S.L.U.) and Axpo (5% through Axpo Trading AG). In December 2018, TAP finalised a project financing agreement in connection with the project loan for the development of the gas pipeline²⁵.

Under current corporate governance rules, none of TAP's shareholders is able to exercise control over the company, including in a joint capacity.

Italgas S.p.A.

Italgas S.p.A. is an Italian company that controls 100% of Italgas Reti S.p.A., Seaside S.r.l. and Italgas Acqua, companies operating in the distribution of natural gas throughout national territory, in energy efficiency and the management of the water service in five municipalities of Campania. As at 31 December 2018, following the spin-off of the natural gas distribution business from Snam S.p.A. which took place in 2016, Italgas S.p.A., was a investee of Snam (13.5%), C.D.P. Reti S.r.l. (26.05%), while the remainder is owned by third party shareholders.

On 7 November 2016, the effective date of aforementioned separation, which covered all the shares each company held in Italgas S.p.A., the shareholder agreement signed by Snam S.p.A., CDP Reti S.p.A. and CDP Gas S.r.l., on 20 October 2016 entered into effect. The shareholder agreement establishes a block voting shareholder's agreement, with Snam having the right of early withdrawal if, in the event of Snam opposing the vote of the syndicated shares on

²⁵ For additional information regarding the commitments undertaken by the shareholders with regard to TAP see Note no. 25 "Guarantees, commitments and risks".

reserved subjects of an extraordinary nature, Snam does not sell its equity investment in Italgas within the next 12 months (accelerated exit). Transfers of Snam's equity investment in Italgas S.p.A. (including in the event of an Accelerated Exit) are subject not only to advance approval by CDP Reti, but also to the subrogation of a third party. In addition, Snam may not increase its equity investment. The agreement has a three-year term that is renewable barring notice of termination; in the event that Snam does not renew, CDP Reti shall have an option to purchase at fair market value Snam's equity investment in Italgas.

Senfluga Energy Infrastructure Holding

Senfluga Energy Infrastructure Holding is a newly-established company through which the European consortium made up of Snam (60%), Enagás (20%) and Fluxys (20%) completed, on 20 December 2018, the acquisition by the Greek privatisation company HRADF and Hellenic Petroleum of a 66% stake in DESFA, the national operator in the natural gas infrastructure sector.

DESFA has and manages, in a regulated system, a high pressure transmission network of approximately 1,500 km, as well as a regasification terminal in Revithoussa. Greece, an important crossway for the diversification of procurement and the opening of new natural gas routes in Europe, has further potential development as a hub for south-east Europe.

Under current corporate governance rules, none of Senfluga's shareholders is able to exercise control over the company, including in a joint capacity.

Interconnector UK Ltd

Interconnector UK Ltd is an English company that owns the two-way gas pipeline that joins the United Kingdom with Belgium and the rest of Europe.

As at 31 December 2018, the company Interconnector UK Ltd is an investee of Snam International B.V. (23.68%) and Fluxys through the companies: Gasbridge 1 B.V. (23.68%), Fluxys Interconnector Ltd (15.04%) and Fluxys UK Ltd (37.59%). The company directly holds 48% of the Dutch company Interconnector Zeebrugge Terminal S.C./C.V. Scrl and 1% indirectly through Interconnector Leasing company Ltd

16) OTHER INVESTMENTS

Other investments (40 million euro) regard only the minority share of 7.3% held by Snam S.p.A. in the capital of Terminale GNL Adriatico S.r.l. (Adriatic LNG), as follows:

(€ million)	
Value at 31.12.2017	44
Income from valuation at FVTOCI	1
Sales and repayments	(5)
Value at 31.12.2018	40

The gain from measurement at Fair Value Through Other Comprehensive Income (FVTOCI) of 1 million euro refers to the change in fair value of the equity investment as at 31 December 2018.

17) SHORT-TERM FINANCIAL LIABILITIES, LONG-TERM FINANCIAL LIABILITIES AND SHORT-TERM PORTIONS OF LONG-TERM FINANCIAL LIABILITIES

Short-term financial liabilities, amounting to 1,976 million euro (1,373 million euro as at 31 December 2017), and long-term financial liabilities, including the short-term portion of long-term liabilities, totalling 11,444 million euro (11,246 million euro as at 31 December 2017), break down as follows:

31.12.2017						31.12.2018				
	Short- term financial liabilities	Long-term financial liabilities					Long-term financial liabilities			
(€ million)		Short- term portion	Long- term portion maturing within 5 years	Long- term portion maturing in more than 5 years	Total long- term portion	Short- term financial liabilities	Short- term portion	Long- term portion maturing within 5 years	Long- term portion maturing in more than 5 years	Total long- term portion
Bonds		1,042	3,621	4,009	7,630		913	4,408	3,125	7,533
Bank loans	1,358	27	1,366	1,180	2,546	1,751	744	1,175	1,079	2,254
Euro Commercial Paper - ECP						225				
Other lenders	15	1								
	1,373	1,070	4,987	5,189	10,176	1,976	1,657	5,583	4,204	9,787

Short-term financial liabilities

Short-term financial liabilities of 1,976 million euro (1,373 million euro as at 31 December 2017) relate to the use of uncommitted variable rate bank credit facilities (1,751 million euro) and the issue of unsecured short-term securities - Euro Commercial Papers - issued on the money market and placed with institutional investors (225 million euro). The performance with respect to 31 December 2017 of 603 million euro is mainly due to the greater net use of credit facilities (393 million euro) and the issue of the Euro Commercial Papers. There are no short-term financial liabilities denominated in currencies other than the euro.

The weighted average interest rate on short-term financial liabilities was almost nil (same as for 2017).

The market value of short-term financial liabilities is the same as their book value.