2018 Sustainability Report

The energy of change. The company amidst climate challenges and sustainable finance





#### **Snam Company Profile**

Snam is Europe's leading gas utility. Founded in 1941 as "Società Nazionale Metanodotti", it has been building and managing sustainable and technologically advanced infrastructure guaranteeing energy security for over 75 years. Snam operates in Italy and, through subsidiaries, in Albania (AGSCo), Austria (TAG and GCA), France (Teréga), Greece (DESFA) and the United Kingdom (Interconnector UK). It is one of the main shareholders of TAP (Trans Adriatic Pipeline) and is the company most involved in projects for the creation of the Energy Union.

First in Europe by transport network size (about 32,600 km in Italy, more than 41,000 with international subsidiaries) and natural gas storage capacity (16.9 billion cubic meters in Italy, more than 20 billion with international subsidiaries), Snam manages the first liquefied natural gas (LNG) plant built in Italy and is a shareholder of Adriatic LNG, the country's main terminal and one of the most strategic in the Mediterranean, and - via DESFA - the Greek terminal in Revithoussa, with a total pro rata regasification capacity of around 6 billion cubic metres per year.

Snam's business model is based on sustainable growth, transparency, nurturing talent, and development of local areas by constantly listening to and exchanging dialogues with local communities, also thanks to the social initiatives of the Snam Foundation. Through the "Snamtec" project, launched under the scope of the 2018-2022 business plan, Snam has given a great boost to investments for energy transition, focused on technology initiatives, innovation and R&D supporting large national and international networks and green economy businesses, like sustainable mobility, renewable gas, hydrogen and energy efficiency.

#### www.snam.it

### Sustainability Report 2018

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### Letter to stakeholders



**Marco Alverà** Chief Executive Officer

#### Dear Stakeholders,

We ended 2018 looking firmly towards the future: €850 million will be invested over the period from now until 2022 in Snamtec, Tomorrow's Energy Company. The project was launched last autumn to position Snam as a leader of the low carbon energy transition, with demonstrated technological expertise and strong relationships with local communities. In this vein, we cemented the central role that our infrastructure and use of renewable natural gas will play in guaranteeing an efficient and effective decarbonisation process.

2018 saw an increasingly strong focus on the issue of climate change and its consequences, both by the public and international institutions and companies. With this in mind, we approved our new strategic plan, announced last November, which sets out a roadmap that will allow Snam to continue to grow and create value for shareholders, contributing to the reduction in greenhouses gases, improvement in air quality and cutting energy costs.

We strive to promote the development of biomethane and other forms of renewable gas, which are key to the decarbonisation process. To this end, we have launched a series of acquisitions and strategic partnerships, acquiring IES Biogas – the leading biogas and biomethane construction company in Italy - and Enersi Sicilia, a company which develops facilities for producing biomethane from urban solid waste in Sicily.

Promoting the use of natural gas for sustainable mobility is also deeply important to us. We therefore acquired M.T.M's business unit dedicated to technological solutions for natural gas refuelling stations, a Westport Fuel Systems group company, through the subsidiary Cubogas. We also have a memorandum of understanding with Eni for the construction of twenty new CNG transport refuelling stations and with API Group for around two hundred new natural gas and biomethane refuelling plants. Furthermore, we have focused on energy efficiency, acquiring TEP Energy Solution, one of the main Italian ESCOs.

Our commitment to the fight against climate change has also been demonstrated through increasingly transparent reporting. In September 2018, Snam signed up to the "Task Force on Climate Related Financial Disclosure - TCFD", a further commitment to communicating effectively on these issues.

Sustainable finance is another area that we are monitoring closely. It is not a coincidence that the first part of this document is dedicated to guidelines on this subject. To align our financing strategy with sustainability goals and expand our investor base, we have converted €3.2 billion in lines of credit into a sustainable loan: this became the third largest sustainable loan taken out in the world, as well as the first by a gas utility. In addition to that, we published the Climate Action Bond Framework, which allows for the issuing of bonds aimed at funding sustainable investments. We are the first gas infrastructure utility to approach the sustainable bond market.

We have continued to promote social responsibility and local communities, installing low gas emission turbines, implementing environmental conservation and monitoring activities and launching programmes to reduce natural gas emissions. In 2018, we reduced these emissions by 7.9% compared with 2016 levels and we set a new target to reduce them by 25% in 2025. We launched the "Snam4Safety" project to reinforce the culture of safety for employees and contractors. Accidents fell in total from 11 in 2017 to 7 in 2018 (-36%); so you can see things are going in the right direction. Our employees are at the centre of the company's strategy. We have offered them stable and constant work with qualified and specialised activities. 93% of them are on a permanent employment contract.

To meet future challenges, we have continued to invest in training, with over 100 thousand hours involving 93% of company employees. In order to promote a healthy work/life balance, we renewed the Smart Working project and launched the Welfare Award, which allows for the Participation Award to be converted into welfare credits for employees and their family members.

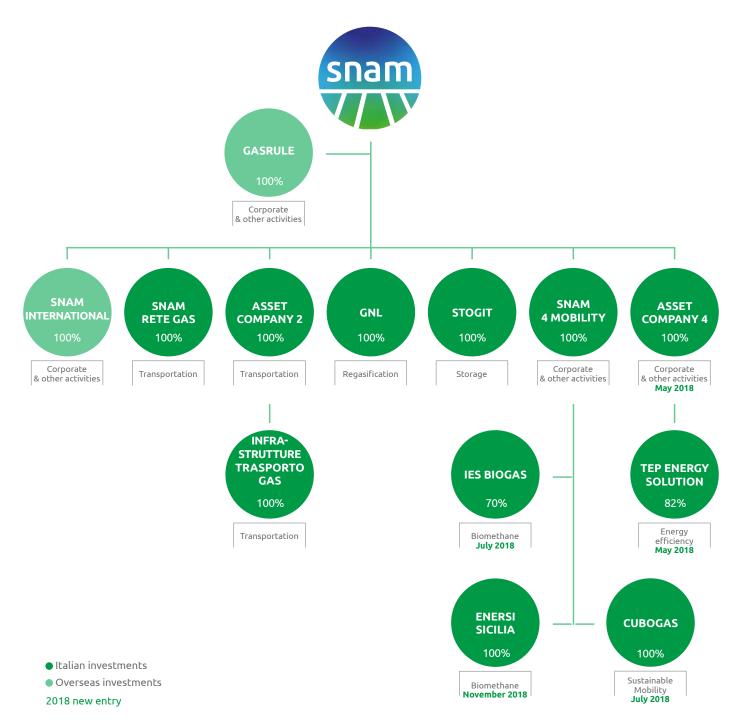
The Snam Foundation entered its second year, increasingly becoming a connection point between Snam and the social sector, promoting partnerships and sharing the company's design expertise. In line with our goal to promote economic and social development, the Company published a social supply chain policy through which it is committed to transparency and supporting social businesses in its supply chain, promoting opportunities for collaboration through networks and consortia.

To further cement our sustainable development model, we have renewed our commitment to the Global Compact principles and the SDGs defined by the UN. Our ESG performance ESG has resulted in the Company's inclusion in some of the most prestigious sustainability indices like the Dow Jones Sustainability World Index, for the tenth consecutive year, and the FTSE4Good.

We are very proud of our achievements in the year that has just ended and we are even more confident in what Snam will achieve in coming years, with the hope that the new initiatives we have launched in 2018 will drive our country forward and contribute to solving the challenges for global energy that lie ahead.

# Snam's profile

Snam is the European leader in the construction and integrated management of natural gas infrastructure. On a European level, Snam is one of the main operators in terms of invested capital for regulatory purposes and operates in major markets through agreements with major players in the industry and direct equity holdings in companies. Snam, with liquefied natural gas transportation, dispatching, storage and regasification activities, provides the market with a safe energy source at fair prices, playing a fundamental role in the Country's energy system.



#### Scope of consolidation

#### THE NEW CORPORATE STRUCTURE

The main changes in the structure of the Snam Group at 31 December 2018 compared with 31 December 2017 involved the entry into the scope of consolidation of the following companies: (i) Snam International B.V. (Gasbridge 2 B.V. until 31 July 2018); (ii) Asset Company 4 S.r.l, a newly established company wholly-owned by Snam S.p.A. ; (iii) Tep Energy Solution S.r.l., owned by Asset Company 4 S.r.l. through the acquisition of 82% of the share capital of the company from 30 May 2018; (iv) IES Biogas through the acquisition of 70% of the share capital of the company from 5 July 2018; (v) Cubogas S.r.l., a newly established company following the acquisition on 25 July 2018; (vi) Enersi Sicilia S.r.l., (FORSU) through the acquisition of 100% of the share capital of the company from 29 November 2018.

#### SNAM'S PRESENCE IN THE NATIONAL AND INTERNATIONAL GAS INFRASTRUCTURE SYSTEM

Snam's international growth aims to consolidate the European infrastructure system facilitating the alignment between the consumer and producer interests, promoting a greater liquidity in the South-European gas market also through the development of new routes, and preserving the connection between the United Kingdom and continental Europe.

On 20 December 2018, the European consortium composed of Snam (60%), Enagás (20%) and Fluxys (20%) concluded the purchase, through the newly established Senfluga Energy Infrastructure Holding, of a 66% stake in DESFA, the greek national operator in the sector of natural gas infrastructure. Greece, an important crossroads for the diversification of procurement and the opening of new natural gas routes in Europe, has further development potential as a south-east European hub. The consortium, in addition to promoting innovation in the natural gas sector in Greece, will also encourage the introduction of renewable gases like biomethane to create a sustainable energy solution and actively contribute to the reduction of greenhouses gases and pollutant emissions in the country.

#### THE NATIONAL INFRASTRUCTURE

Snam is the leading Italian natural gas transportation and dispatching operator, and owns almost all of the transportation infrastructure in Italy, with 32,625 km of high- and medium-pressure gas pipelines (approximately 93% of the entire transportation system).



#### SNAM'S PRESENCE IN THE NATIONAL AND INTERNATIONAL INFRASTRUCTURE SYSTEM



LIBYA



#### **4 TAP (20%)**

Assets under development: final section of the South gas Corridor from Azerbaijan to Europe.

878 km long (773 km on-shore and 105 km off-shore) through Greece, Albania, Adriatic sea and Italy.

Initial capacity of 10 bn m³/ year, which can be increased to 20 bn m³/ year.

Expected to come into service in 2020



# GCA (49% via AS Gasinfrastructure) 554 km of transportation network 315 km of distribution network 5 compression stations (totalling 145 MW)

#### CDESFA

2018 **(5 DESFA (66%** via Senfluga)

> 1,450 km of transportation network: - 2 entry point (Bulgaria and Turkey)

- 1 exit point (Bulgaria)
- 1 LNG terminal (5 bn m³/year)
- 1 compression station

#### **INFRASTRUCTURE IN ITALY**

#### **NATURAL GAS TRANSPORTATION**

	ENTRY POINT REVERSE FLOW	8
M	COMPRESSION STATION	13
~	PIPELINES UNDER OPERATIONS	
	NATURAL GAS STORAGE	9

#### LNG REGASIFICATION

REGASIFICATION PLANT

1

#### **INVESTMENTS OVERSEAS**

- INTERNATIONAL PIPELINES
- COMPRESSION STATION
- **STORAGE FIELDS**
- REGASIFICATION PLANT

TANAP

AZERBAIJAN —

IRAN

RUSSIA

CYPRUS

ISRAEL

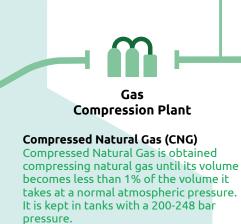
EGYPT

#### A WORLD RUNNING ON GAS AND THE ROLE OF SNAM



#### Natural Gas

Natural gas is produced from the anaerobic decomposition of organic material. In nature it is found in fossil state on its own or together with oil and other hydrocarbons. The main component of natural gas is methane (CH4). During combustion, most of the methane gas is converted into steam and carbon dioxide (CO2).



LNG liquefaction plant

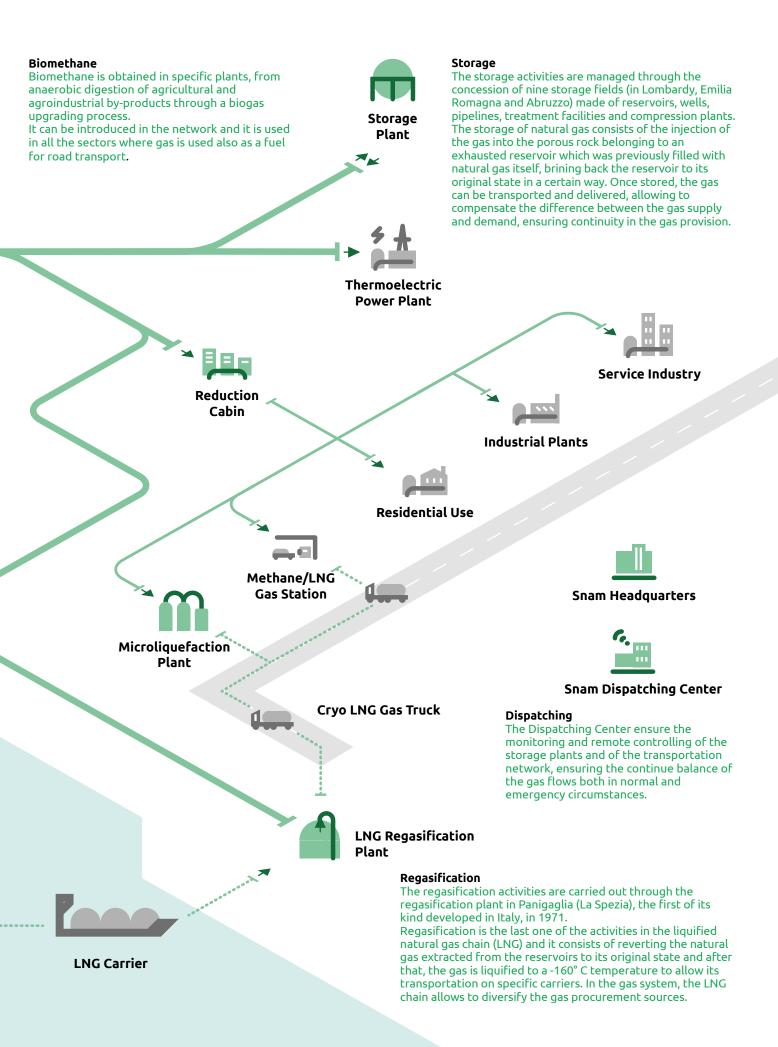
**Gas Compression Plant** 

#### Transportation

Natural gas is taken over at the delivery points, located on the importation lines (Russia, Northern Europe and Northern Africa), at the regassification plants and at the production and storage centers located in Italy. Gas is therefore transported and delivered at the redelivery points connected to the distribution networks and to the main industrial and power generators plants.

Snam Activities

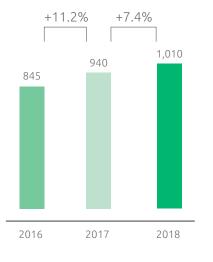
Other Activities



#### **Business activities**

Operational Data		2016	2017	2018	Var. %
Pipelines network	km	32,508	32,584	32,625	0.1
of which national pipelines network	km	9,590	9,704	9,697	(0.1)
of which regional pipelines network	km	22,918	22,880	22,928	0.2
Natural gas injected in the network	Bn m <sup>3</sup>	70.64	74.59	72.82	(2.4)
of which imported	Bn m <sup>3</sup>	65.07	69.35	67.70	(2.4)
of which national production	Bn m <sup>3</sup>	5.57	5.24	5.12	(2.3)
Power installed in the compression stations	(MW)	922	902	961	4.2
Gas moved in the storage reservoirs	Bn m <sup>3</sup>	20.00	19.92	21.07	5.8
of which inputted in the reservoirs	Bn m <sup>3</sup>	9.96	9.80	10.64	8.6
of which delivered from the resevoirs	Bn m <sup>3</sup>	10.04	10.12	10.43	3.1
Total storage capacity	Bn m <sup>3</sup>	16.5	16.7	16.9	0.9
of which available	Bn m <sup>3</sup>	12.0	12.2	12.5	1.2
of which strategic	Bn m <sup>3</sup>	4.5	4.5	4.5	
Regasified Gas	Bn m <sup>3</sup>	0.21	0.63	0.91	44.4
Number of unloaded LNG carriers	NO.	5	15	21	40
Maximum daily regasification capacity	m <sup>3</sup>	17,500	17,500	17,500	
Employees in service at year end	NO.	2,883	2,919	3,016	3.3
of which Transportation	no.	1,726	1,972	1,915	(2.9)
of which Storage	no.	301	60	59	(1.7)
of which Regasification	no.	71	63	64	1.6
of which Corporate and other activities	NO.	785	824	978	18.7
	Pipelines network         of which national pipelines network         of which regional pipelines network         Natural gas injected in the network         of which imported         of which national production         Power installed in the compression stations         Gas moved in the storage reservoirs         of which inputted in the reservoirs         of which delivered from the reservoirs         of which available         of which strategic         Regasified Gas         Number of unloaded LNG carriers         Maximum daily regasification capacity         eff which Transportation         of which Storage         of which Regasification	Pipelines network       km         of which national pipelines network       km         of which regional pipelines network       km         Natural gas injected in the network       Bn m³         of which imported       Bn m³         of which national production       Bn m³         Power installed in the compression stations       (MW)         Gas moved in the storage reservoirs       Bn m³         of which delivered from the reservoirs       Bn m³         of which delivered from the reservoirs       Bn m³         of which available       Bn m³         of which strategic       Bn m³         Regasified Gas       Bn m³         Number of unloaded LNG carriers       no.         of which Transportation       no.         of which Storage       no.         of which Storage       no.	Pipelines networkkm32,508of which national pipelines networkkm9,590of which regional pipelines networkkm22,918Natural gas injected in the networkBn m³70.64of which importedBn m³65.07of which national productionBn m³5.57Power installed in the compression stations(MW)922Gas moved in the storage reservoirsBn m³20.00of which inputted in the reservoirsBn m³9.96of which delivered from the reservoirsBn m³10.04Total storage capacityBn m³12.0of which availableBn m³12.0of which strategicBn m³0.21Number of unloaded LNG carriersno.5Maximum daily regasification capacitym³17,500Employees in service at year endno.2,883of which Storageno.301of which Regasificationno.71	Pipelines networkkm32,50832,584of which national pipelines networkkm9,5909,704of which regional pipelines networkkm22,91822,880Natural gas injected in the networkBn m³70.6474.59of which importedBn m³65.0769.35of which ational productionBn m³5.575.24Power installed in the compression stations(MW)922902Gas moved in the storage reservoirsBn m³20.0019.92of which inputted in the reservoirsBn m³10.0410.12Total storage capacityBn m³16.516.7of which strategicBn m³0.210.63Number of unloaded LNG carriersno.515Maximum daily regasification capacitym³17,50017,500Employees in service at year endno.2,8832,919of which Storageno.30160of which Regasificationno.7163	Pipelines networkkm32,50832,58432,625of which national pipelines networkkm9,5909,7049,697of which regional pipelines networkkm22,91822,88022,928Natural gas injected in the networkBn m³70,6474,5972,82of which importedBn m³65,0769,3567,700of which national productionBn m³5,575,245,12Power installed in the compression stations(MW)922902961Gas moved in the storage reservoirsBn m³20,0019,9221,07of which inputted in the reservoirsBn m³20,0019,9221,07of which availableBn m³10,0410,1210,43Total storage capacityBn m³10,0410,1210,43of which availableBn m³12,012,212,5of which strategicBn m³0,210,630,91Number of unloaded LNC carriersno.51521Maximum daily regasification capacitym³17,50017,50017,500of which Storageno.3,0160593,016of which Regasificationno.1,7261,9721,915of which Storageno.3,016059of which Regasificationno.7,716364

#### Adjusted EBIT (€ Mn)



#### KEY INCOME STATEMENT FIGURES<sup>1</sup>

Due to the soundness of operational management and rigorous financial discipline, Snam achieved very positive results in 2018. Adjusted EBIT amounted to  $\leq 1,405$ million, up  $\leq 42$  million (3.1%) compared with the 2017 value. The greater revenues (+ $\leq 87$  million, +3.6%) were mainly due to the gas transportation activities.

Adjusted net profit reached  $\leq$ 1,010 million, up  $\leq$ 70 million (+7.4%) compared with the 2017 adjusted net profit. In addition to the greater EBIT (+ $\leq$ 42 million, +3.1%), the increase was due to the lower net financial expenditures (+ $\leq$ 32 million, equal to the 14.1%), thanks to the reduction in the average costs of borrowing, also due to the benefits from the optimisation actions implemented in 2016 and, namely, the liability management operations and the greater net income from equity investments (+ $\leq$ 9 million, +6.0%). These were partly offset by lower income taxes (- $\leq$ 13 million; 3.8%), mainly due to the reduction in the pre-tax profit.

Net financial debt was €11,548 million as at 31 December 2018, compared with €11,550 million as at 31 December 2017.

#### Added value produced and distributed

The Company produces wealth contributing to the economic growth of the society and the environment in which it operates, and it measures this wealth in terms of added value produced and distributed to its key stakeholders.

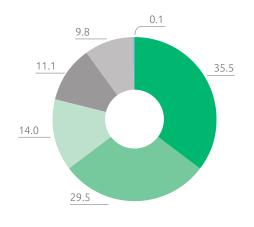
In 2018, the gross global added value produced by Snam was €2,532 million: an increase of €85 million or 3.5% compared with 2017 (€2,447 million).

(€ million)	2016	2017	2018
Added value produced (A)	2,518	2,447	2,532
Added value distributed (B)	1,913	1,621	1,634
Employees	260	249	280
Local communities: donations and sponsorships, statutory environmental compensation	3	5	3
Lenders (Bondholders and Banks)	610	292	249
Shareholders	718	732	746
Government	323	343	356
Direct taxes	308	329	341
Indirect taxes	15	14	15
Added value retained by the Company (A) - (B)	605	826	898

#### The Added Value

Snam calculates the added value according to the standard prepared by the Gruppo di Studio per il Bilancio Sociale (GBS) and to the GRI Standards.

#### Distribution of added value (%)



- Snam Group
- Shareholders
- Public Administration
- Employees
- Lenders
- Local Communities

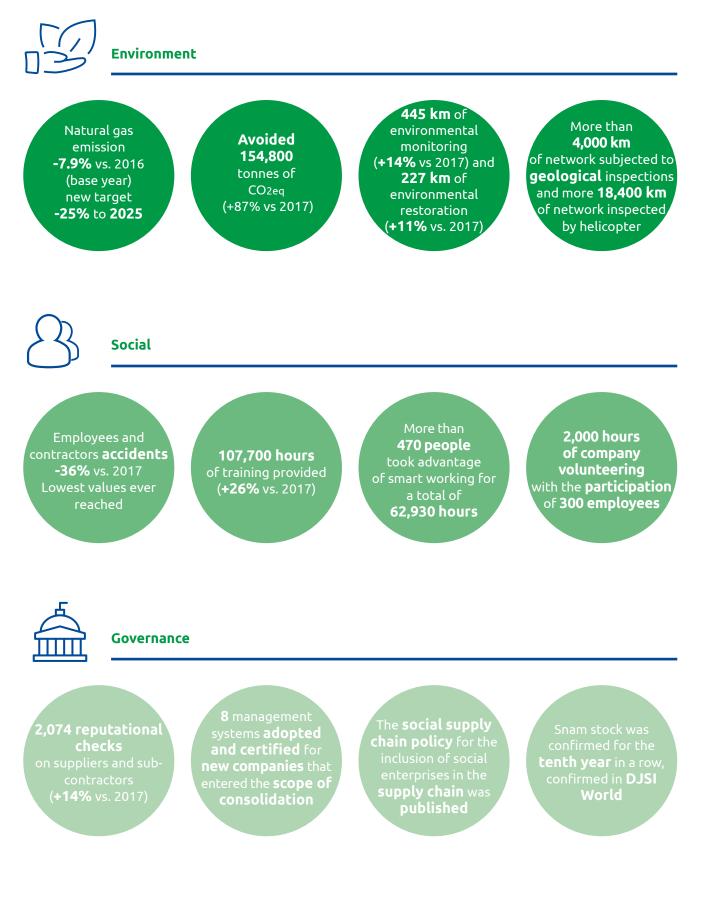
Referring to the main stakeholders, the Added Value was distributed as follows:

- Employees 11.1% (+0.9 percentage points compared to 2017) as direct compensation consisting of wages, salaries and severance pay and indirect compensation consisting of social security contributions and staff-related service costs (canteen services, reimbursement of travel expenses);
- Government 14.0% (percentage stable compared to 2017) through the payment of direct and indirect taxes;
- Shareholders 29.5% (-0.4 percentage points compared to 2017) through distributed dividends. With a rising unit dividend (+5% compared to 2017) confirming Snam's commitment to guaranteeing an attractive and sustainable remuneration for shareholders, there was a reduction in the number of outstanding shares following the buyback of shares under the scope of the share buyback programme.
- Lenders 9.8% (-2.1 percentage points compared to 2017). Reduction in response to the benefits arising from optimising activities implemented during 2016 and 2017, in particular the liability management operations, in spite of the increased average debt in the period.

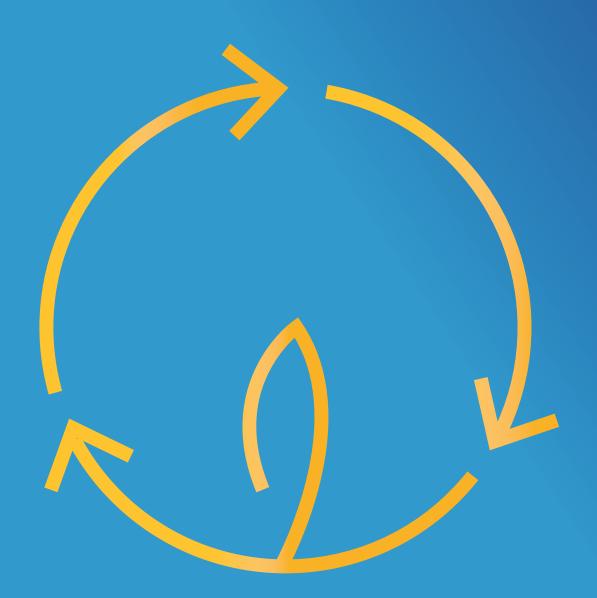
A total of 35.5% of the gross global added value produced by Snam was reinvested within the Group (up compared with 2017: +1.7 percentage points), of which around 77% was intended for the amortisation and depreciation of the infrastructure used in the production process (80% in 2017).

Lastly, approximately €3 million was designated for local communities (0.1% of the generated value) through donations, sponsorship initiatives and environmental compensation pursuant to the law.

## ESG Highlights



# Climate change: scenarios and challenges





#### The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body that evaluates climate change and its impacts. Composed of **195 member states**, the IPCC was established in 1988 by the United Nations Environment Programme (UNEP) and by the World Meteorological Organization (WMO) with the aim of providing political decision-makers with regular and stringent scientific evaluations for developing climate policies and instruments to support international negotiations on climate change

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) published the "Special Report on the impacts of Global Warming of 1.5°C". The report comes under the scope of the more wide-ranging actions under the Paris Agreement to keep the average rise in global temperature well below 2°C in relation to pre-industrial levels and to try and limit the increase to 1.5°C, given that this would significantly reduce the risks and impacts of climate change.

According to the Special Report, human activity has already caused global warming of around 1°C compared with the pre-industrial period, with visible effects such as the intensification of heat waves and extreme meteorological events, a rise in sea levels and coral reef decline, a fall in biodiversity, the thinning of arctic sea ice and continental glaciers, a fall in crop yields.

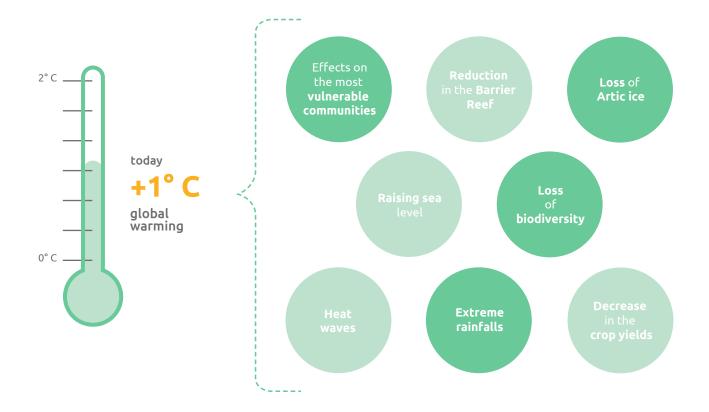
With current production rates, greenhouse gas emissions will cause a temperature rise of +1.5°C by 2040, exceeding +2°C in subsequent years with catastrophic effects for our planet.

Keeping global warming below 2°C, with the ambitious and challenging goal of keeping it to 1.5°C, will be decisive because it will make it possible to reduce the complex impacts on ecosystems, health and well-being.

It is therefore vital to reduce the global CO<sub>2</sub> emissions produced by the human activity: a goal that can only be achieved through forward-looking actions in all areas of society and in all sectors of the economy and industry facilitating a journey towards decarbonisation, a journey which should be guided by rapid interventions and solutions which have immediate, if not definitive, impacts, taking into consideration that a tonne of CO<sub>2</sub> eliminated now is equivalent to at least 30 times the amount less in 2050.

The scientific community has identified several priority areas involving energy production and consumption. For example, one of the mainstays of the strategy outlined is to increase the quantity of electricity produced from renewable sources: it is estimated that in 2050 between 63% and 81% of electricity should be produced from renewable sources, replacing coal and oil. Other energy sources, such as natural gas, nuclear power plants and biomass will be fundamental in providing for global energy demand, guaranteeing that consumer demand is met and covered in full. Specifically, gas, a flexible and programmable energy source, can be used in multiple innovative applications or to replace fossil fuels with greater emissions. In particular, the use of natural gas in cities offers decisive advantages in terms of fighting air pollution, producing zero particulate gas emissions and virtually zero emissions of sulphur dioxide and nitrogen oxide. Natural gas produces 40% less climate changing emissions compared with coal and 20% less than oil. A tangible example is the city of Beijing, as reported in the Global Gas Report published by Snam in 2018 where, in 2017, thanks to a reduction in the use of coal in the residential and industrial sector and subsequent implementation of the use of natural gas instead, there was a significant improvement in air quality with a 54% reduction in the particulate emissions.

#### What's already changed with 1°C rise



### Keeping global warming at 1.5°C rather than 2°C can make a lot of difference.



Fewer risks related to extreme temperatures and heat waves

Reduction in the global rise in the sea level by 10 cm less, which will limit the exposure of around 10 million people to the risks associated with flooding and damage caused to coastal infrastructure



Less health risks, especially related to heat waves, concentration of ozone and transmission of diseases such as malaria and dengue fever



Less loss of biodiversity, ecosystems, number of extinct species (50% for plants and invertebrates and 66% for insects)



In many areas of the planet, less heavy rain and risks of flooding and/or low rainfall and drought



Reduction in the increase in the temperature of the ocean and related risks of acidification and fall in oxygen levels, which would limit the irreversible loss of marine life, with consequences for fish and aquaculture



Lower levels of poverty and risks to more vulnerable populations, especially for indigenous populations and communities that depend on agriculture and fishing for their subsistence



Less risk of food security, linked to the reduction in crop yields (corn, rice and wheat) and sustainability of livestock



#### New solutions for fossil fuels and renewable energy

First of all, it will be necessary to reduce the amount of energy produced using fossil fuels and to direct investments and research efforts towards greater production from renewable energy sources.



### Energy efficiency and reducing consumption

The commitment of governments and society to the reduction of demand for energy, the more efficient use of energy and the reduction of waste will also be vital, with significant investments directed at the overhaul and replacement of energy transportation infrastructures that are already obsolete.



### Carbon capture and storage

In order to reduce greenhouse gas emissions, the excess CO<sub>2</sub> in the atmosphere will also have to be removed. It will actually be very difficult to achieve and maintain zero emissions by 2050 without the CO<sub>2</sub> capture and storage technology. The guidelines provided by the international scientific community coincide with the direction taken by the European Union and the Italian government, which have made a commitment to limiting global warming. In 2017 the Italian government published the National Energy Strategy (SEN): the ten-year plan for anticipating and managing the energy system change.

The 2017 SEN outlines the actions which have to be achieved by 2030, through a route that is also consistent with the long-term scenario of 2050 established by the European Road Map, which includes the reduction of emissions by at least 80% compared to 1990. In order to achieve these objectives, the interventions involve various strategic areas such as energy efficiency, renewable energy, sustainable mobility, the circular economy, carbon capture and storage, the improvement of infrastructure and interconnections. With the publication in December 2018 of the "Clean Energy for All Europeans" package, the European Commission updated the new climate targets, identifying the main target as achieving the rate of at least 32% of energy to be produced from renewable sources by 2030.

The objective of the strategy adopted by the Ministry of Economic Development and by the Ministry for the Environment, Land and Sea is to make the national energy system more:

- Competitive, continuing to reduce the gap between Italian and European energy prices;
- Sustainable, working to achieve the decarbonisation targets defined at European level and aligned to the goals set by COP21;
- Safe, continuing to improve supply security and the flexibility of the energy infrastructure and strengthening the national energy independence.

Tra gli obiettivi individuati nella SEN, attenzione specifica è rivolta al settore del gas naturale, per il quale sarà necessario stanziare nuovi investimenti per garantire flessibilità, adeguatezza e resilienza delle reti, maggiore integrazione con le infrastrutture europee, diversificazione delle fonti e delle rotte di approvvigionamento e gestione più efficiente dei flussi e dei picchi di domanda.

The objectives identified in the SEN include specific attention aimed at the natural gas sector for which new investments must be allocated to ensure the flexibility, adequacy and resilience of networks, greater integration with European infrastructures, diversification of sources and procurement routes and a more efficient management of flows and peak demand.

In the same way, the national energy and climate plan (PNEC), in the process of gaining approval (an EU instrument prepared by the individual member states), intends to implement strategies for a profound decarbonisation of the energy system and promote the circular economy, energy efficiency and the rational and fair use of domestic resources.

The challenge set by climate change does not respect national borders, but requires ambitious solutions coordinated at an international level, and cannot be separated from support from the private sector, cities and local communities. This awareness has also influenced the financial world which questioned the need to develop financial instruments which accompany and incentivise the adoption of sustainable practices.

## Sustainable finance as a tool for change

The change needed to limit global warming and, more generally, to guarantee sustainable development, entails the careful definition of projects, ideas and goals, not always easy to achieve and which have time constraints, but more especially economic ones. The UNCTAD (United Nations Conference on Trade and Development) estimated that achieving the SDGs (Sustainable Development Goals), the cornerstone objectives of the European Union in terms of sustainable development, would be possible through global investments in the period 2015-2030 of between USD 5 and 7 thousand billion. In the energy field alone, to achieve its objectives in terms of energy efficiency and investment in renewable resources, the European Union would need a sum equal to €180 billion per year, which would rise to €270 billion if the targets relating to transport, water and the waste sector are also taken into account. It is obvious how these figures could only be achieved through collaboration between private and public entities, creating synergies between sustainability and the financial sector and investments.

Climate change is perceived by investors as a systemic risk for the global economy which could threaten the capacity of the financial system to achieve results in the long-term.

According to the London School of Economics guidance "Climate Change and the Just transition. A Guide for Investor Action", the way in which society manages the transition towards a more resilient and low carbon emission economy will have important impacts on their licence to operate; the management of the social dimension will become increasing more important and material in achieving value targets. By incorporating a social dimension in their evaluations, investors manage to interpret the transition in relation to the prospect of traditional investments better. The successful outcome of this transition depends on an economy which functions well and which produces a social impact with the contribution of investors as well. The UNPRI (United Nations Principles for Responsible Investments) actually states that "a sustainable and economically efficient global financial system is necessary for the creation of value in the long-term".

#### The just transition and the Sustainable Development Goals

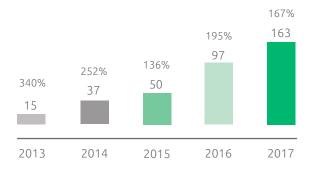


Source: Adapted from Robins N, Brunsting V and Wood D (2018) 'Climate change and the just transition: guide for investor action.' London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science. Available at:http://www.lse.ac.uk/GranthamInstitute/ publication/climate-change-and-the-just-transition-a-guide-for-investor-action/ There are several instruments like the SDGs which support investments in the transition towards a more resilient and low carbon emission economy.

Also according to the guide issued by the London Stock Exchange "Revealing the full picture", the 17 SDGs provide an internationally recognised framework for drafting and prioritising the initiatives and investments in corporate business plans. The SDGs are consistent with the majority of the ESG reporting frameworks and measure progress in relation to the sustainable development global goals making sustainable investments comparable on a global scale.

Sustainable finance (or green finance) attempts to respond to these expectations, proposing a new way of financing, where the objective is to create value in the long-term, directing capital towards types of activity which can generate economic returns and benefits for society and the environment. As defined by the European Commission, sustainable finance is based on two fundamental principles: the first is aimed at improving the contribution of finance to sustainable growth and the mitigation of climate change; the second strives to strengthen financial stability incorporating environmental, social and governance considerations (ESG) in investment decisions.

Taking the European situation into consideration, in March 2018 the High-Level Expert Group on Sustainable Finance (HLEG), a group of experts set up in December 2016 by the European Commission with the task of drawing up guidelines for the development of sustainable finance in Europe, published an Action Plan on sustainable finance.



Source: World investment report 2018. Percentage growth year on year of green bonds and value in billions of dollars. 2013-2017 The document identifies ten actions aimed at directing capital flows towards sustainable investments, promoting the transparency of economic-financial activities and the better management of financial risks coming from climate change, the consumption of resources, environmental damage and social inequality.

In addition to this, EUROSIF (the European Forum for Sustainable and Responsible Investment) defined the different strategies of socially responsible investment, like choosing to invest in companies which demonstrate a better performance in ESG terms or the desire to invest in specific sectors (thematic investing) such as health and renewable energy, excluding those deemed unethical or not very ethical, such as the tobacco or arms industries. The EUROSIF report on responsible investment notes growing European interest in these new types of investing strategies, stressing how in the period 2015-2017 growth in responsible investment stood at 25%. In Italy also, there has been greater interest in sustainable investment with thematic investing between 2015 and 2017 rising from €2 to €53 billion, while as far as investments in companies performing well in ESG terms, the number increased from  $\leq 4$  to  $\leq 58$  billion .<sup>2</sup>

The support of banks and the bond market is important to ensure that companies can have access to sustainable finance instruments. Banks can act as consultants for companies and institutions that intend to issue sustainable bonds and can provide loans at preferential rates upon to certain ESG criteria. Insurance firms can also play a key role in supporting businesses in the management of non-financial risk by applying variable rates in relation to their ESG performance.



Source: The relation between ESG rating and market performance: cumulative return in percentage terms of the Stoxx Europe 600 index shares according to ESG rating 2012-2017

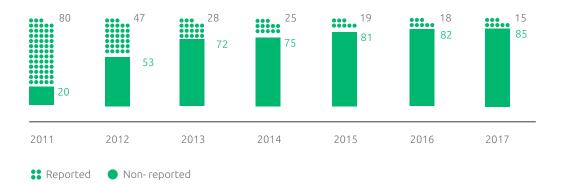
2 http://www.eurosif.org/wp-content/uploads/2018/11/European-SRI-2018-Study.pdf

The most widely available sustainable finance instruments on the market are green bonds and social bonds, bonds issued to fund environmental and social projects, respectively. The availability of these new types of bonds has grown rapidly in recent years. In spite of green bonds only representing 0.2% of the entire bond market, their value and number increased exponentially, reaching around USD 163 billion in 2017. Another widely available financial instrument is represented by sustainable loans, loans aimed at promoting environmental sustainability within companies, at the same time guaranteeing an economic advantage.

The study "Relation between ESG rating and market performance", promoted by the Milan Polytechnic University, highlights how securities of companies with a high ESG performance have a better return than those with a lower performance. Equity securities deemed more "sustainable" have increased in the period 2012-2017, by 86% compared with 70.9% for securities defined as "less sustainable".

Evidently institutional investors and the financial sector have been demonstrating ever increasing interest in the sustainable performance of companies. In years to come businesses which do not manage environmental, social and governance aspects correctly could be partly excluded from investor's portfolio choices. As a result, developing structures and strategies capable of recognising, quantifying and managing these types of risks will be necessary for safeguarding the interests of companies in the financial market and beyond.

Alongside the correct management of these aspects there must be effective disclosure: the reporting of information relating to sustainability is strategic in the dialogue with investors and financial institutions. A 2017 study of the Governance and Accountability Institute into Standard & Poor 500 companies showed that accounting on ESG aspects increased considerably over the last 6 years, going from 20% to 85%.



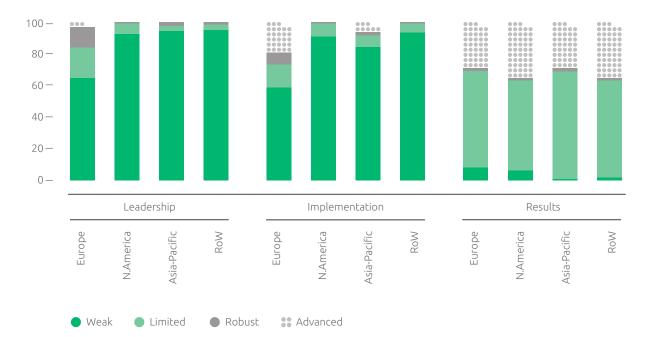
#### Growth of ESG Reporting by S&P 500 Companies (%)

Source: Governance and accountability Institute, Inc, 2017. Percentage growth of S&P index companies which report on ESG issues. 2011-2017

Equity securities more "sustainable" have increased by

### 15%

compared with other securities, in the period 2012-2017 In this regard, the Financial Stability Board set up the Task Force on Climate Related Financial Disclosure (TCFD) in 2015 to develop the guidelines for clear and comparable reporting of corporate information in relation to financial risks and opportunities related to climate change. The final recommendations, published in 2017, were designed to include the risk of climate change in business decisions and to facilitate the allocation of capital to smooth the transition to a low carbon emission economy.



Source: Climate Change and the Just transition. A Guide for Investor Action, London School of Economics, Grantham Research Institute on Climate Change and the Environment, 2018

In 2018, the World Economic Forum (WEF), included a principle relating to reporting and disclosure among the 8 principles for climate governance. This principle refers to the responsibility of the Board to ensure that the strategic information and material risks and opportunities related to climate change are disclosed transparently and consistently to all company stakeholders in particular towards investors and, where required, to the regulatory authorities as well.

Disclosure by companies can therefore help investors understand better how to invest responsibly and "strategically". The fundamental element in this understanding is a correct evaluation of any exposure of portfolio assets to environmental and social risks. Vigeo Eiris, a European social and environmental ratings agency, developed a database of 365 companies throughout the world which generate over 20% of profits from activities associated with fossil fuels, classifying them on the basis of their ESG criteria, to support investors in their portfolio decisions. The results show how European countries have demonstrated that they perform better from an ESG perspective.

### Snam's central role: Tomorrow's Energy Company

In this context of change and innovation, at the end of November 2018 Snam launched the new Business Plan for 2019-2022 which follows a path that will enable the Company to rise to the challenges associated with climate change and contribute to the reduction in emissions, minimising the increase in global temperature and keeping down the cost of energy for end users. Through the adoption of the new Business Plan, and consistent with the previous one, Snam aims to act as a point of reference for the Italian and European journey towards decarbonisation. Natural gas and biomethane can be used to satisfy peak energy demand, compensating and supporting the production of energy from renewable sources. Specifically, Snam intends also to investigate the potential of hydrogen as a solution for energy storage and to promote a more efficient use of intermittent renewable energy.

Its activities place Snam in a key position to lead the country in the renewal of the energy sector. For this reason, in its Business Plan, Snam follows a route developed over various fronts, from energy efficiency to sustainable mobility, from the development of biomethane to the development of innovative technologies, all sustained and driven by challenging targets. In September 2018 in Linz, together with other European energy sector companies, Snam signed a commitment to support the use of hydrogen and its potential as a sustainable technology for decarbonisation and long-term energy security in the European Union.

In addition, in its Business Plan, Snam decided to also integrate ESG criteria (Environment, Society, Governance) identifying specific targets dedicated to the environment, governance, protection of individuals and dialogue with local communities.



#### **Emissions reduction and efficiency:**

cogeneration plants, new generation heaters, electric compressors, DLE turbines, energy efficiency on real estate **Reduction of CH4 emissions:** 

launched leak detection and repair campaign, technology update, in line gas recompression, ecc.

#### Energy transition:

Snam4Mobility, Biomethane and CNG, SSLNG.

CH4 emission targets:

-15% by 2022 -25% by 2025



#### Snam4Safety:

a new safety model to improve the employees and contractors' safety Snam Institute: 100,000 hours of training Performance management: extended to 100% of employees Smart working: open to 500 employees Snam Foundation: corporate volunteering week, 300 employees involved

Governance

#### Business integrity and anti-corruption:

One of 4 companies worldwide part of the Global Forum of Transparency International More than 2,000 ethic and integrity pacts and repetitional checks on suppliers in 2018 **Effective 6 integrated governance:** 

ESG factors fully integrated in our governance; BoD oversight climate risks and opportunities Independence: 56% of BoD independent. All BoD committees chaired by Independent Directors Diversity: 44% of the Board is made up by women From rules to purpose: from 650 procedures to 90 rules. 4 shared values for business conduct As far as environmental protection is concerned, under the scope of the investments announced in the Business Plan, there are also new objectives for the reduction of methane emissions, ongoing efforts to reduce emissions and the maximisation of energy efficiency and the development of new businesses, such as biomethane, CNG and SSLNG. Specifically, reviewing the objective of the previous plan to reduce natural gas emissions by 10% by 2021 compared with 2016 levels, Snam set a new target in its Business Plan to reduce methane emissions, forecasting to reduce them by 25% by 2025 (with an interim target of -15% by 2022). Detailed information on Snam's environmental commitment is given in the Environment chapter.

To uphold the importance that the Company gives to the environmental sustainability, in 2018 Snam also subscribed to the Guiding Principles "Reducing methane emissions across the natural gas value chain", through which Snam commits itself to reduce methane emissions from the construction and management of natural gas infrastructure and to encourage its suppliers to do the same. As far as the social dimension is concerned - and as detailed in the Social chapter – Snam's special emphasis is on safeguarding its employees and suppliers, also through specific development programmes such as "Snam4Safety", for the promotion and dissemination of the culture of workplace health and safety. As further confirmation of the Company's commitment to the ongoing professional development of its people, the Snam Institute provides yearly around 100,000 hours of training to company employees. Attention to the social dimension is also demonstrated by the activities of the Snam Foundation, established in 2017, with the goal of making the Company's skills and know-how available to contribute to the innovation, progress and growth of the country.

The ESG values are also included in Snam's corporate governance; it is the only Italian company and one of four in the world to have signed a global partnership with Transparency International in the fight against corruption. The Governance chapter describes the Snam's commitment to transparency and business ethics.

#### New targets for reducing methane emissions: the guiding principles subscribed by Snam

In June 2018 Snam ratified the Guiding Principles developed in 2017 by the most important environmental protection and oil&gas industry players: the Environmental Defense Fund, the International Energy Agency (IEA), the International Gas Union, the Oil & Gas Climate Initiative Climate Investments, the Rocky Mountain Institute, the Sustainable Gas Institute, the Energy and Resources Institute and the United Nations Environment Programme (UNEP). The initiative is part of undertakings promoted by the global energy industry to ensure that **natural gas plays an** important role in satisfying future global energy demand and in fighting climate change, one of the greatest challenges of the 21st century. The guiding principles on the issue of reducing methane emissions were ratified, not only by Snam, but also by other important players in the oil&gas market such as BP, Chevron, Eni, Equinor, ExxonMobil, Gazprom, Qatar Petroleum, Repsol, Shell, Total, Wintershall and Woodside.

By signing this agreement, **Snam has made a commitment** to reduce methane emissions and to steer all companies and organisations in its value chain in the same direction  – from producers to end users - promoting the adoption of increasingly accurate emission measurement technologies and increasing transparency and support in formalising adequate policies and regulations on the subject.

The Guiding Principles outline a series of necessary actions:

- The definition of strategies for the reduction of methane emissions and ongoing support for the development of innovative technologies that allow them to be contained.
- The promotion of partnerships and collaborations with customers and suppliers with the shared goal of reducing methane emissions along the entire natural gas value chain.
- The improvement of the accuracy of the technologies for monitoring emissions.
- The promotion of adequate regulatory policies and instruments, which encourage improvements in performance and support the development of clean, sustainable technologies.
- Transparent communication of information relating to natural gas emissions, the promotion of the adoption of standardised calculation methods which allow the comparability of the data provided.

The route towards the future energy company, which uses and incorporates innovation, sustainability and development, is outlined within the scope of the TEC project – Tomorrow's Energy Company, launched by Snam during the presentation of the 2019-2022 Business Plan. The aim of this project is to accelerate the innovative capacity of Snam and its assets to take advantage of all the opportunities offered by the development of the energy system. There are four main areas of intervention in which €850 million will be invested: greater operational efficiency (e.g. the smart gas project for the maintenance of the gas network and transportation, the use of drones for monitoring assets), the reduction of methane emissions (e.g. the campaign for detecting and eliminating leaks), new businesses (e.g. biomethane, sustainable mobility, impacts on the natural gas network of the energy mix composed of hydrogen and methane, the possibility of integrating power-to-gas technologies for the production of hydrogen from renewable sources), innovation and development of core competencies.

Not only a technological revolution, with the aim of aligning its financial strategy as closely as possible to those of the medium-/long-term ESG goals and diversifying its investor base, Snam chose to use sustainable financial instruments which will allow it to fund projects, through specific "sustainable" instruments, in the area of environmental sustainability and the development of technological infrastructure, actively contributing to the fight against climate change.

To diversify and expand its business, integrating new technologies related to decarbonisation and demonstrating its desire to minimise the impact of its activities, in 2018 Snam pursued an acquisition plan to support the development of biomethane, energy efficiency and new solutions for sustainable mobility.

As far as the sector for the production and distribution of biomethane is concerned, in 2018 Snam gained control of IES Biogas and Enersi Sicilia through its subsidiary Snam4Mobility. IES Biogas, founded in 2008 in Pordenone, is one of the main Italian companies in the design, construction and management of biogas and biomethane production plants with a portfolio of 200 plants throughout Italy and abroad. The inclusion of IES Biogas will enable Snam to expand its expertise in the construction of biomethane plants and integration in the transport sector. The acquisition of Enersi Sicilia – a company authorised to build a facility for the production of biomethane from the organic fraction of municipal solid waste (FORSU) in the province of Caltanissetta – will enable Snam to create its first biomethane plant, which will handle 36,000 tonnes of urban waste per year, providing neighbouring municipalities with a renewable solution for the problem of waste disposal. The plant will be created leveraging the managerial skills and know-how of IES Biogas, which will monitor its development and construction.

Through the newly established company Cubogas, wholly-owned by Snam4Mobility, Snam concluded the acquisition of the business unit of M.T.M., part of the Canadian Westport Fuel Systems Inc. Group, dedicated to the business of natural gas compressors for sustainable mobility. The company is one of the main international operators for the design, development and production of technological solutions for methane gas refuelling stations.

Still in 2018, TEP Energy Solutions also became part of the Snam Group. TEP is one of the biggest Italian ESCos (Energy Service Company) and, with more than 200 national and international customers, it operates in the field of the energy efficiency, with the main goal of guaranteeing its customers a decrease in consumption and expenses related to the energy use.

Beyond national borders, during the year Snam concluded new agreements and understandings, ratified with the aim of evaluating possible collaboration and partnerships with companies operating in international energy markets and outside Europe. A Memorandum of Understanding was signed at the Italian Embassy in Beijing, with State Grid International Development (SGID), controlled by the State Grid Corporation of China, the largest energy utility in the world. The agreement involves the joint target of evaluating possible opportunities of collaboration in China and to reduce CO<sub>2</sub> emissions at an international level, specifically in relation to the use of new technologies, research and development into renewable gas and sustainable mobility. Future collaborations include the construction of biogas and biomethane plants for the production of electricity in rural areas of China, where Snam will contribute by making its know-how available. Possible partnerships in another two countries in which SGID operates will then be evaluated, namely Australia and Portugal, for the maintenance and optimisation of natural gas transportation networks and storage sites.

Snam's launch in the Asian market will be strengthened further by the signing of a Memorandum of Understanding with Beijing Gas, the largest distributor and supplier of natural gas in China. This understanding involves the commitment of the two companies to evaluate possible collaborations in China, specifically in the sector of biomethane and technologies for natural gas storage. The agreement will allow Snam to evaluate expanding its business in the Chinese market, confirming its European leadership role in the gas transportation sector. At the same time, the understanding will make it possible to support the transition of the Chinese energy mix towards more sustainable fuels, through projects linked to the use of natural gas developed in a country in which the energy scenarios include the tripling of methane demand between now and 2040.

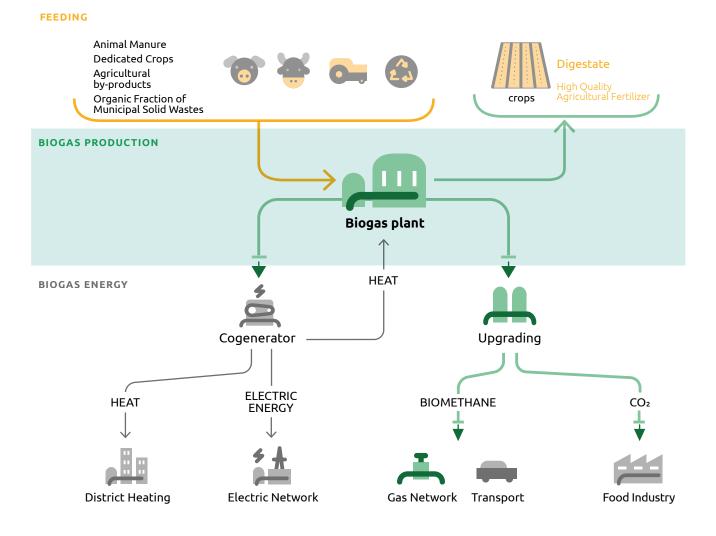
### BIOMETHANE: A CURRENTLY REALITY AND OPPORTUNITY FOR THE FUTURE

Biomethane is a renewable, flexible, efficient and programmable source, also thanks to existing transport and storage infrastructures, which are perfectly and totally integrated with other renewable sources like solar and wind energy.

Dedicated plants produce both agricultural and agro-industrial by-products from anaerobic digestion and organic fraction of waste through a biogas upgrading process.

Biomethane can already be injected into the network and used in all sectors where the gas is present. Because it is a renewable energy, on March the 2nd 2018 the Italian government issued a Ministerial Decree which promotes the use of biomethane as a fuel for road transportation.

#### The biomethane cycle





were concluded in 2018 for the injection of biomethane



Italy, with around **1,900** anaerobic digestion plants in operation, is currently the third largest producer in the world of biogas from agricultural matrices with approximately **2.4 billion** cubic metres per year. In addition, there is great potential for the production of biomethane in Italy from the organic fraction of urban waste. Biomethane has many different advantages:

- A perfect example of the circular economy: both in the field of agriculture, agro-industry and with regard to the management of the organic fraction of municipal solid waste (FORSU), biomethane is produced through waste products and by-products which, once the anaerobic digestion process is completed, are used as totally natural fertilizers capable of restoring the necessary organic substances and nutrients to the soil from a circular economy perspective.
- An efficient, flexible and programmable energy source: the production of biomethane is per se inflexible and non-programmable; however, the presence of infrastructure such as gas transportation networks and storage facilities ensure that, unlike other renewable energies, once it has been injected into the Snam network, the consumption of biomethane can be modulated as needed without requiring additional investments;
- Totally renewable and sustainable: despite being a gas, biomethane is considered a neutral source from the perspective of greenhouse gas emissions and it is totally renewable since its production takes place through the transformation of waste and organic material which in any case would produce greenhouse gas emissions. In addition, it is acknowledged that for biomethane from agricultural sources, the carbon dioxide emissions produced during combustion are the same as the quantity of carbon dioxide absorbed by crops when growing, rendering the process neutral from an emissions point of view. The process can become "negative" from "neutral" if the carbon dioxide produced and separated during the biogas upgrading phase is used for industrial and/or food purposes. In addition, the production of biomethane does not compete with the production of food and promoting the use of particular "second harvest" energy crops it makes it possible to maintain the agricultural balances of the existing economy;
- It creates value for local communities: biomethane can be the source of a new economy at a local level, creating jobs, increasing tax revenues for local communities, answering to the needs of disposing and exploiting the organic fraction of urban waste and, through particular cultivation techniques; it also fights the effects of desertification, preserving and sometimes restoring specific soil nutrients;
- It minimises the costs of decarbonisation: biomethane becomes a fundamental source to achieve national and European objectives in terms of decarbonisation, as new investments in infrastructure are not required and helping to use waste and by-products.

Snam supports the Italian biomethane chain and will invest at least €100 million in this business segment by 2022. In addition to the previously mentioned acquisitions (IES Biogas and Enersi), in the biomethane production and distribution sector, Snam and BHGE (Baker Hughes, a GE Group company) signed an agreement in 2018 aimed at creating four micro-liquefaction plants in Italy. These plants will also be capable of liquefying biomethane produced from renewable sources and transforming it into bio LNG (Liquefied Natural Gas), which will then be used in the heavy road transport sector and to promote the expansion of this technology to sea transport in Italy. The Consorzio Italiano Biogas (CIB) estimated a biomethane production potential in Italy of 10 billion cubic metres by 2030, 80% of which will be produced from agricultural origins. If used entirely in the transport sector, biomethane would guarantee the possibility of running a third of all the vehicles in Italy with renewable energy, which could rely on a distribution network of around 1300 facilities constantly increasing. In Italy the opportunities of exploiting and developing more the sustainable mobility have also been confirmed by what was established in the new Interministerial Decree of March the 2nd 2018, which promotes the use of bio-fuels and biomethane in the transport industry, in line with the provisions of the EU Directives promoting renewable energy sources and reaching the targets set for bio-fuels to be used in the transport sector. By 2020, 10% of the fuel used in the transport sector in EU countries should be renewable.

#### DRIVING THE ENERGY OF THE FUTURE: SUSTAINABLE MOBILITY

The dissemination of natural gas in the transport sector and the integration of biogas and biomethane will play a crucial role in supporting the domestic economic growth and in fighting climate change, in a global transition process that is rapidly moving towards decarbonised economies.

The ease of transporting and storing natural gas allows the development of multiple projects linked to the deployment of compressed natural gas (CNG) for road transportation and liquefied natural gas (LNG) used in heavy land and sea

transport. In addition, biomethane can also be compressed, liquefied, transported and used as a renewable fuel.

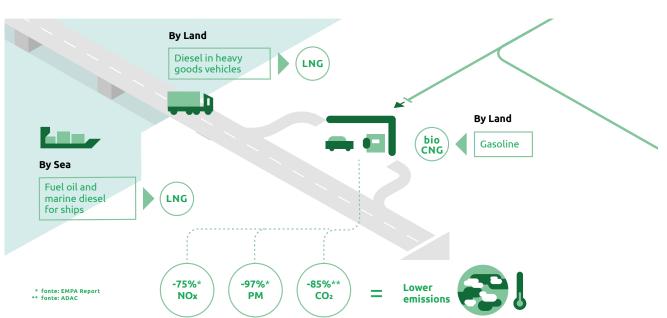
Alongside the development of low emission fuels, Snam's commitment outlined in its Business Plan will lead it to upgrade the existing infrastructure in order to expand the network of natural gas refuelling stations. This objective will also be achieved through partnerships with other players in the industry, like the previously mentioned acquisition of Cubogas, engaged in the business of natural gas compressors for sustainable mobility.

## Liquefied natural gas (LNG): a solution for reducing maritime and heavy transport emissions

LNG is produced starting with natural gas, which is cooled and compressed until it reaches a liquid state. In this form the gas can be easily stored and transported, and importing it by sea allows a further diversification of sources of procurement, with positive effects on national energy security.

The LNG can be used in traditional plants or as an alternative to other fossil fuels for automotive and sea transport, replacing diesel, fuel oil or marine diesel oil.

The use of LNG instead of diesel has significant environmental advantages with a considerable reduction in emissions both in terms of climate changing gases and local pollutants, specifically in the case of the use of methane produced from renewable sources.



#### Alternative to traditional fuels

## 83 new cars

#### powered by natural gas in the Snam car fleet



This new partnership will allow the promotion of the further development of natural gas and biomethane sustainable development, both in Italy and across Europe, since it joins together two European leaders: us in the creation of innovative infrastructure and SEAT in the development of new sustainable car models.

#### Compressed natural gas (CNG) for automotive transport: an effective response to the transport-related air pollution

The natural gas transported in the Snam network can be compressed and used as an alternative to traditional fossil fuels for cars, lorries and buses. The use of CNG instead of petrol and diesel fuel has considerable environmental advantages: compared with traditional fuels, CNG allows a reduction in the CO<sub>2</sub> emissions of around 33% (85% if from biomethane), nitrogen oxide (NOx) emissions of around 75% and particulate matter of around 97%. With a good extensive network of methane pipelines, which allows the transportation of CNG with very little impact on the environment and vehicle traffic, Italy is already the European market leader for methane consumption for automotive transport, with over one billion cubic metres consumed in 2017 and around one million vehicles currently on the roads.

During the year Snam ratified the agreements and partnerships with the goal of promoting sustainable mobility throughout the country.

At the annual Partners' Day, Snam and the Spanish car manufacturer SEAT signed a strategic agreement for the technological development and expansion of compressed natural gas and biogas refuelling facilities for sustainable mobility. This partnership will see Snam committed to the creation of an innovative infrastructure and the development, by SEAT, of new models of cars running on methane. The agreement concluded involves the commitment, by the two companies, to exploring development opportunities and initiatives aimed at retailers, commercial customers and car owners to promote the natural gas refuelling network and identify initiatives for the technological development of biomethane. The sharing of Italian, French and Austrian market strategies will enable SEAT and Snam to create synergies for the expansion of the CNG and bio-CNG market as alternatives to traditional fuels.

Under the scope of the promotion of sustainable mobility in Italy, in 2018 Snam was involved in the upgrading of the existing infrastructure necessary for the development of the CNG and LNG markets. In order to expand the network of refuelling stations for vehicles running on natural gas, during the year the Company made two important deals with two important players in the transport sector: Eni and API. Through its subsidiary Snam4Mobility, Snam is committed to developing the infrastructure for the use of natural gas in the transportation sector. In particular, in 2017 it signed the first agreements with different counterparts to develop 50 fuel stations (2 LNG and 48 CNG stations), including the first two batches for a total of 34 refuelling stations within the national Eni network of gas stations. 6 of the sales outlets in the contracts are already in service. Snam reached an agreement with the API Group for the creation of around 200 new natural gas and biomethane refuelling facilities, which will be included in the Italian IP fuel sales outlets. These refuelling stations will have gas compression systems produced by the subsidiary Cubogas. Snam's goal is to create over 250 new distributors on a national scale, which will be part of the existing network in Italy, to better balance the deployment in the different regions of the Country.

### EXPLOITING THE ENERGY OF CHANGE: SUSTAINABLE FINANCE

In 2018 Snam decided to diversify its sources of funding leveraging "sustainable finance" instruments for the purpose of aligning its financing strategy as closely as possible with the general goal of the Group of making its business more sustainable and climate-friendly in the medium/long term.

Snam decided to integrate its financing options with two types of financial products: sustainable loans (lines of credit linked to sustainability indices, ESG performance and business ethics) and climate action bonds (bonds whose issue is linked to projects with a positive impact on the environment).

With regard to the first of the two types of funding mentioned above, in 2018 Snam transformed its €3.2 billion syndicated loan into a sustainable loan, making it, in size, the third largest loan of this type in the world and the largest for a utility operating in the natural gas sector. This loan involves bonus/malus mechanisms dependent on the reaching of certain KPIs under the scope of ESG also including the attainment of specific corporate targets.

Specifically, the targets set in the loan agreement consist of:

- a reduction in the natural gas emissions;
- the recovery of the natural gas released each year during transport network maintenance activities;
- an increase in the dissemination of the performance management system within the company.

Whether or not these targets are reached, partly or totally, will result in a potential increase or decrease in the margin applied to the loan. The independent Standard Ethics Rating (SER) company issued a sustainability opinion to the lending banks, noting the consistency of the targets to be reached.

Additionally, during the year Snam published the Climate Action Bond Framework, which defines the criteria for the future issuance of bonds for financing investments under the scope of environmental sustainability. The funds from the issuance of the Snam Climate Action Bond will be used to fund existing or future projects for reducing emissions of pollutant gases, renewable energy, energy efficiency, the development of new green buildings and conservation of natural capital in areas affected by the Company's activities. The Snam's Climate Action Bond Framework received a second party opinion from the independent company DNV GL which gave a positive evaluation of the projects included in the framework and the decision-making process followed by Snam for selecting sustainable investments.

In addition to this, in September, the company became a supporter of the TCFD (Task Force on Climate-related financial disclosures) and made a commitment to report its strategic decisions integrating them with those related to climate change.

#### In 2018 Snam converted its

€ 3.2 Bn

syndicated loan into a sustainable loan (the third largest loan of this type in the world)



### 2018 Engagement activity

In addition to the normal activities of presenting the Strategic Plan and conference calls upon the publication of the Company's results (annual, semi-annual and quarterly) during 2018, the following were carried out:

- 11 road show to meet shareholders and institutional investors at the major financial centres of Europe and North America;
- 15 industry conferences allowing investors specialising in the utilities and nfrastructure sectors to meet senior management;
- 117 one to one meetings between management and investors, in addition to numerous group meetings (for a total of 161 meetings).

All the environmental and climate initiatives make Snam one of the leading Italian organisations in terms of sustainability issues. The company is actually included in many of the most important European and global sustainability indices. In 2018 also, Snam's shares were included on the main international SRI stock exchange indices, a fundamental instrument from the perspective of market transparency and comparability with peers. This result helps improve the company's visibility vis-à-vis investors, as well as the entire financial market. Specifically, Snam shares were confirmed for the tenth consecutive year on the Dow Jones Sustainability World Index, the most important global stock exchange index for evaluating the social responsibility of companies. It takes into consideration the top 300 Dow Jones Global Total Stock Market Index companies based on economic, social and environmental performance, also taking into account how the companies approach issues such as governance, the mitigation of climate change, risk management, the standards of suppliers and the conditions of employees.

This implies the non-participation of those companies which do not operate in an ethical and sustainable way and the exclusion of those already present but which are not committed to the continuous improvement of their performance. The overall share of Snam's institutional investors as at 31.12.2018 that include Corporate Social Responsibility criteria in their investment decisions stood at 9.7% of all institutional investors.

#### RELATIONSHIP WITH THE FINANCIAL COMMUNITY

Snam believes that maintaining constant relations with investors and the entire financial community is of strategic importance for its reputation. In this respect, it endeavours to disseminate comprehensive and timely information, capable of effectively representing the business's strategy and performance, particularly enhancing the dynamics that ensure the creation of value over time.

#### Snam's presence in sustainability indices

Dow Jones Sustainability Indices E Ostomer en Reest Men	For the tenth year in a row, Snam's stock is listed in the Dow Jones Sustainability World Index, the world's most important stock market index assessing corporate social responsibility.
FTSEAGood	Snam is once again present in the FTSE4Good, where it has been listed since 2002, an index created by the FTSE Group to encourage investment in companies that meet globally recognised social responsibility standards and is an important point of reference to establish benchmarks and ethical portfolios.
CONTRACT OF	Snam's listing is confirmed in the Ethibel Sustainability Index (ESI) Excellence Europe and in the Ethibel Sustainability Index (ESI) Excellence Global. Also reconfirmed in the Ethibel PIONEER and in the Ethibel EXCELLENCE Investment Registers: the Forum Ethibel decision indicates that the company can be characterised as an industry leader in terms of CSR.
MSCI (2015 Constituent MSCI (2015 Constituent MSCI (2014) Sustainability Indexes	Snam's listing has been confirmed for the fourth year running in the two sustainability indices MSCI ACWI SRI Index and MSCI ACWI ESG Leaders, by MSCI, an international leader providing IT tools to support the investment decisions of global investors. The MSCI Global Sustainability indices include companies having high sustainability ratings in their affiliated sectors.
	Snam stock, for the ninth year in a row, is included in the STOXX Global ESG Leaders Indices, a group of indices based on a transparent process of selection of performances in terms of sustainability, of 1800 companies listed worldwide.
	Snam is included in five of the main ECPI sustainability indexes. Snam's inclusion in the family of ECPI indices dates back to 2008. The ECPI methodology consists of screening based on testing more than 100 ESG (Environmental, Social and Governance) indicators.

#### ESG Awards

CDP	Included, for the sixth year running, among the top scoring companies of the CDP, as one of the leading international non-profit organizations dealing with climate change, which also included it in the A-List.
<b>€100</b>	Snam was also listed, in 2018, for the fifth year running, in the United Nations Global Compact 100 index (GC 100), developed by the United Nations Global Compact with the research firm Sustainalytics, which includes the 100 companies that have distinguished themselves at global level both for attention to sustainability issues and to financial performance, and that adhere to the ten fundamental principles of the United Nations on human rights, labour, environment and anti-corruption issues.
TXENDAUS	Snam is confirmed to be included also in 2018 in the (Europe, Eurozone, World) NYSE Euronext Vigeo 120 indices, managed by Vigeo, a leading company at a European level in rating companies with regard to CSR issues.
Contract Biogenetics Internet (particular) () 10	In 2018, Snam was confirmed at "PRIME" level (with rating B-) by Oekom research, a leading international agency rating socially responsible investments, which operates on behalf of institutional investors and financial services companies.
	Snam was also confirmed in the Sustainalytics index, the leading ratings agency for the evaluation of companies from an ESG perspective which the company has been on since 2013.

# Environment





With regard to environmental protection, Snam spent approximately €100.3 million (€89.2 million on investments and €11.1 million on operating costs). In 2018 approximately €0.4 million were allocated to the territory as donations and sponsorships and about €2.3 million in environmental compensation.

# Protecting the climate and the air

The fight against climate change and the land and biodiversity protection are the challenges at the centre of the work of many companies that strive to combine the objectives of business and social responsibility. When creating new infrastructures and managing the existing ones, Snam has a tight, transparent, collaborative and constructive approach to ensure the environmental compatibility of the sites and to facilitate the stakeholders' acceptance.

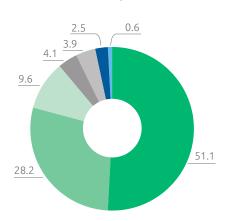
Snam is present, through its infrastructure, in almost all the country's regions, in areas and communities that vary in terms of culture, traditions and economic, social and environmental conditions.

Protecting the environment, biodiversity, and the territory are integral parts in defining Snam's corporate policies and investment decisions.

All of the Snam's activities are monitored by certified environmental management systems (ISO 14001).

Natural gas is an energy source that can guarantee a pathway to decarbonisation at a national and European level. Snam is investing to develop the infrastructures necessary to enhance the security of energy supplies, to facilitate the creation of an European market and to promote the use of compressed natural gas in the transportation sector, to increase the use of liquefied natural gas and biomethane.

# SUSTAINABILITY OF THE GAS SYSTEM



**Enviromental Expenses (%)** 

In the coming years there will be a significant increase in the global gas demand, driven by the Americas and by China, where an increase in energy requirements will be accompanied by the growing role of renewable energy, more efficient technology and the gradual transition from other fossil sources to natural gas. The main factors fuelling the global energy demand, according to the future scenarios developed by the International Energy Agency (IEA), are the economic growth and the increasing populations of emerging countries. Natural gas will be a protagonist in the evolution of the energy mix, taking on different roles in different geographical areas.

Gas will continue to play a central role in the European decarbonisation, in line with the EU objectives already or to be defined (2020 Climate & Energy Package and Clean Energy Package) specifically making an important contribution to the transport and thermoelectric sectors, while coal gradually being phased out of production and increasing intermittent renewable sources. The use of the latter, which is hardly foreseeable, will require greater support from natural gas, a source which, by definition, can be programmed.

Volumes in Italy remain essentially stable.

European trends in demand, together with the decline in the domestic and coal production, will require the development of new import routes.

#### Landscape and biodiversity protection

- Air and climate protection
- Other environmental protection activities
- Soil and subsoil protection
- Waste management
- Noise cancellation
- Water management

#### Investment plan (2018-2022)

# € 5.7 Bn

of which € 850 million will be allocated to the TEC Project, in order to accelerate Snam's innovative capacity In this context, Snam anticipates an acceleration of the investment plan (€5.7 billion in the five-year period 2018-2022), with a confirmed focus on replacement and maintenance activities in order to guarantee the maximum flexibility and efficiency of the existing infrastructure. Under the scope of the investment plan, €850 million will be allocated to the TEC Project (Tomorrow's Energy Company), whose goal will be to accelerate the Snam's innovative capacity and its assets to take advantage of the opportunities offered by the development of the energy system. The TEC Project will focus, in particular, on four areas: greater operational efficiency, reduction of methane emissions (-25% by 2025); energy transition; innovation and the strengthening of core competencies.

Natural gas can contribute to the goal of guaranteeing a progressive decarbonisation together with other non-programmable renewable sources such as wind energy and solar energy. A greater use of natural gas means fighting climate change and lower emissions of sulphur dioxide, nitrogen oxides and particulates, with a crucial impact on the air pollution abatement measures in cities.

Additionally, the gas system could facilitate the options of decarbonisation and renewable consumption thanks to the introduction into the network of:

- renewable gases, such as biomethane, bio syngas and "green" hydrogen, obtained from anaerobic digestion and biomass gasification technologies, electrolysis of renewable electricity;
- low carbon natural gas and hydrogen, obtained from technologies that capture carbon and then store or reuse it (CCS/CCU).

Furthermore, other options which contribute to decarbonisation are made possible thanks to the spread of technologies based on the possibility of incorporating renewable energy from the environment (gas heating pumps) or using renewable gases very efficiently producing combined renewable electricity and heat and/or renewable hydrogen.



# Hack4Talents

Hack 4 Talents is the Snam's initiative created with a view to attracting young talent, extremely innovative from a digital perspective, to join the Digital Transformation & Technology department. The initiative was presented last August through the launch of the **online platform for gathering candidates** (around 150 applications were received) and, after selecting the best ones, which was concluded in October, the young talents were directly involved in a Hackathon day at the Roncade H-Farm, a digital platform innovation hub designed to host events such as this. A 14-hour marathon in teams - three groups in competition over three projects striving to achieve the best possible result for each of the challenges assigned, working in "agile" mode. Currently 3 people who took part in the initiative have joined the company.

#### **Innovation for business development**

Innovation and exploitation of technological assets are important tools in the Company's strategy. During 2018, various research and development activities launched in previous years were either continued or completed. At the same time, some new projects were launched with a potential impact on various areas of corporate operations.



# metering

The development of innovative technologies and methods for metering and monitoring natural gas and the related impact in the following areas:

- Alternative instruments: the gradual introduction into the transport network of instruments for measuring the quality of gases as an alternative to gas chromatography, the installation of quality analysers and automation and remote reading, the adaptation of the parameters of the quality of the gas meters installed in the network
- н. Forecasting demand: new gas demand forecasting based on the use of machine learning methodology
- Estimating natural gas emissions: under the scope of collaboration with the European research agency GERG (Groupe Européen de Recherches Gazières, www. gerg.eu), the evaluation of two methods for estimating international natural gas emissions and research into the potential impacts, on the entire gas chain, of the chemical components present in traces of biomethane in order to create the conditions for safe development.



#### Governance and monitoring of the network and plants

Installation of innovative systems for controlling and monitoring the network and plants in the following areas:

- Remote control: the development of the Smart Tel н. project designed to analyse the requirements of acquisition processes and the management of network control and operating data,
- **Security:** the installation of phonometric type systems . for detecting any accidental system leaks, initiatives for fire safety, the replacement of security management systems at facilities and the installation of new electronic systems with SIL certification (Safety Integrity Level),
- Monitoring of compression units: the creation of an **.** . acquisition and display system for the main compression unit operating and monitoring data,
- **Electro compressors:** a preliminary feasibility study into н. the introduction of electro compressors at storage sites,
- Cogeneration: the installation of a trigeneration plant at the gas compression stations of Gallese and Istrana.



#### Integrity of infrastructures

Creation of experimental projects and the development of collaboration aimed at guaranteeing the physical integrity of infrastructures in the following areas:

- **Collaboration with EPRG:** collaboration with the EPRG (European Pipeline Research Group, www.eprg.net), an association that carries out research into issues concerning pipelines which Snam is a member of
- Electrical protection: innovation project for the н. electrical protection system, aimed at testing innovative operating solutions and equipment
- Geochemical and micro-seismic monitoring: the creation and installation of geochemical and microseismic monitoring prototypes in the area of storage.

# Maintenance and monitoring of networks

The launch of experimental projects to optimise and strengthen maintenance and monitoring activities for transportation networks in the following areas:

- **Revision of maintenance processes:** the implementation of the "Gas Transportation Network Asset Maintenance System", which is aimed specifically at completely overhauling work processes and regulations related to the transportation network, compression stations, metering and remote control systems.
- н. **Experimentation with leak detection:** the trialling of a system aimed at identifying and locating gas leaks along the transport network, based on the analysis of the pressure waves and the detection of possible disruptions
- Experimentation with monitoring overflight aircraft: the evaluation of currently available satellite detection technologies and participation in experimental activities, conducted by ENAV and ENAC, into the development of flight infrastructure for drones in BVLOS mode (Beyond Visual Line of Sight).



The creation of dedicated working groups for taking an in-depth look at issues related to the development of new businesses, with special reference to:

Working group for the innovative use of existing . **infrastructure**: a working group dedicated to sharing information and experience on the issue of the use of infrastructure in relation to its capacity to transport (and possibly store) gases other than natural gas, including hydrogen.

#### Natural gas represented

96.4%

# of the Company's energy requirements



In February 2018, Snam acquired the **82% of Tep Energy Solution** (**Tep**), one of the major Italian companies active in the energy efficiency industry as an energy service company (ESCO). Tep's mission is to make its customers more competitive by reducing energy expenses. The acquisition falls within Snam's strategic plans focused on facilitating the decarbonisation and a better use of energy.

# ENERGY CONSUMPTION

The Snam energy mix, in line with the company's commitment to fighting climate change, is composed almost entirely of natural gas. In 2018, natural gas represented 96.4% of the Company's energy requirements.

Snam's main energy consumption is due to gas turbines used in the compression plants that provide the pressure needed to transport gas (boost consumption) and storage concessions (storage consumption), which globally represent 88% of total consumption.

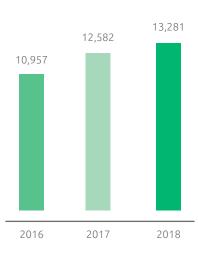
In 2018, energy consumption totalled around 13,281 TJ (+5.6% compared with 2017). This increase is mainly due to greater natural gas consumption due to the increase in the quantity of gas stored in deposits (+9%).

The energy consumption from transportation, which depends on a series of factors, some of which are out of the Company's control because they are depend on the commercial decisions of customers (e.g. gas delivery and collection points and therefore which backbone corridor is used), have essentially remained unchanged compared with 2017 in spite of two new stations (Minerbio and Sergnano) coming into service which has led to greater consumption of fuel gas through their commissioning.

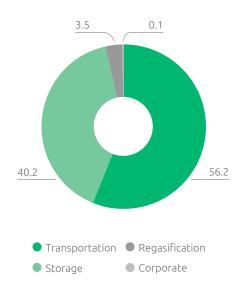
The energy consumption from the regasification activity, which has a relative low weight on total consumption (3.5%), increased by 42% compared with 2017, perfectly in line with the increase in the quantity of gas regasified.

In addition to natural gas, the other energy sources are electricity (2.8%) and other fuels (diesel fuel, petrol, LPG and heat), which together amount to 0.8% of the total consumption.

#### Energy consumption (TJ)

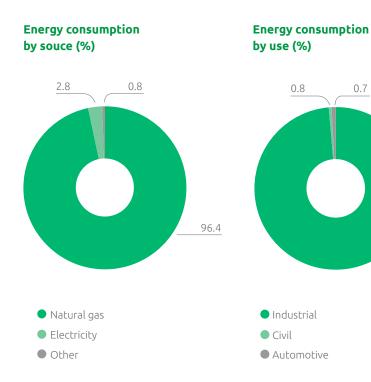


Energy consumption by activity (%)



#### The future is already out there

There was an advertising campaign in 2018 dedicated to biomethane and energy efficiency. The multichannel communication project was aimed at a wide-ranging audience with the objective of publicising the company's commitment to the decarbonisation of cities through the use of renewable gas and the optimisation of energy consumption. In addition to social networks and digital media, the campaign, with the slogan "The future is already out there", was released throughout the country and in Milan, specifically, through images telling of the importance of the circular economy and the energy efficiency of buildings to improve air quality and the battle against climate change.



## THE PRODUCTION OF ENERGY FROM RENEWABLE SOURCES

Snam installed photovoltaic plants on several of its real estate properties (territorial headquarters and maintenance centres) and also at some of the gas storage facilities.

0.8

0.7

98.5

In 2018 the total number of plants reached 1,535 units (+12% compared to 2017) and the installed power increased by 68 kW compared to 2017, passing from 986 kW to 1,054 kW (+7%).

This increase mainly regards the installation of 168 new back-up plants.

The total energy produced by the renewable-source plants increased by approximately 8% compared to 2017, going from 1,044,300 kWh to 1,128,400 kWh in 2018. This increase is due to the connection of equipment previously installed but not yet connected to the network.

Туре		2016			2017			2018	
	(no.)	Total capacity (kW)	Energy Produced (kWh)	(no.)	Total capacity (kW)	Energy Produced (kWh)	(no.)	Total capacity (kW)	Energy Produced (kWh)
Wind generators	1	1.7		1	1.7		1	1.7	
Photovoltaic plants	1,153	938.2	844,608	1,366 (*)	984.4	1,044,309	1,534 (*)	1052.7	1,128,383
Total	1,154	940	-	1,367	986	_	1,535 (*)	1054.4	_

#### **Renewable source plants**

(\*) Including 1,497 back-up plants.

#### Key performance indicators (KPI)

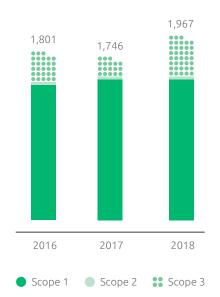
KPI name	KPI date	Set target	Target achieved in 2018	Sector	Activity
Increase the production of electricity from photovoltaic plants	2017	Produce at least 860 MWh annually (Up until 2022)	1,128	Snam	
High-efficiency heat generators	2017	Install power of 100 MW in 2022	20.7	Transportation	
Trigeneration plants	2017	Produce 5,200 MWh in 2022	under construction	Transportation	
Installation of LED lighting systems	2017	Replace 534 kW in 2022 with a saving of 1860 MWh	209 kW installed 44 MWh saved (*)	Transportation Storage	
Improved energy efficiency of buildings	2017	Renovation of buildings annually saving 25,000 m <sup>3</sup> of gas and 65 MWh of electricity by 2022	under construction	Transportation	

(\*) The saving is calculated at 3 sites because the remaining plants came into service at the end of the year and therefore the saving is negligible.

Annual target reached (KPI with multi-year target)

Activity in progress

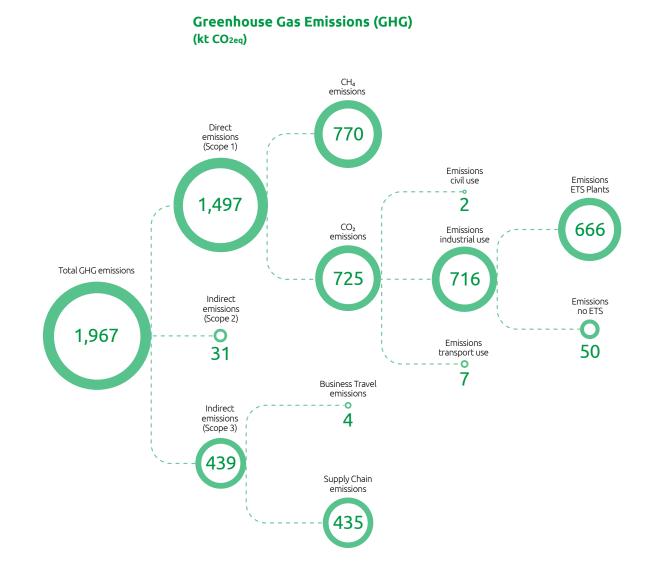
#### GHG emissions (kt CO<sub>2eq</sub>)



## **GREENHOUSE GAS EMISSIONS**

The greenhouse gases (GHG) emitted in the atmosphere by the Snam's activities are methane (CH4), the main component of natural gas, and carbon dioxide (CO<sub>2</sub>). Methane emissions arise from the release of natural gas into the atmosphere and are generated by normal plant operation, by operations to connect new gas pipelines and the maintenance thereof, or by accidental events occurring at infrastructures, whereas the CO<sub>2</sub> produced is directly correlated with fuel consumption. In 2018 Scope 1 direct emissions also evaluated the marginal contribution from the use of hydrofluorocarbons (HFCs) at refrigeration plants which was around 0.14 kt CO<sub>2eq</sub>.

In 2018, the total GHG emissions (direct Scope 1, indirect Scope 2MB and Scope 3) amounted to approximately 1.97 million tonnes of CO<sub>2eq</sub> (+12.7% compared with 2017). The increase is entirely due to Scope 3 emissions which doubled compared with the previous year.



In 2018, tons of CO<sub>2eq</sub> avoided

In 2018, the various initiatives undertaken by the Company (lost natural gas emissions, the production of electricity from photovoltaic plants, the acquisition of green electricity, the installation of LED bulbs to replace other light fittings, smart working) made it possible for us, globally, to prevent the emission of 154,800 tonnes of CO<sub>2eq</sub> into the atmosphere.

# DIRECT CO2eq EMISSIONS (SCOPE1)

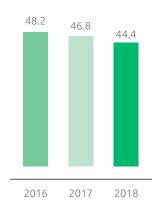
In 2018 direct CO<sub>2eq</sub> emissions amounted to approximately 1.5 million tonnes (stable compared with 2017). CO<sub>2</sub> emissions from combustion amounted to approx. 0.727 million tonnes (+5.2% compared with 2017), whereas the CO<sub>2eq</sub> emissions deriving from the methane emissions amounted to approximately 0.77 million tonnes (-4.8% compared with 2017). Natural gas emissions were equal to 44.4 Mm<sup>3</sup>, down compared with the figure of 46.8 Mm<sup>3</sup> in 2017.

The company, in accordance with its sustainable growth model, sets the targets to reduce its natural gas emissions by 2022 and 2025, respectively, by 15% and 25%, excluding emergencies, compared with 2016.

3 The CO<sub>2eq</sub> was assessed in accordance with the instructions of the most recent Intergovernmental Panel on Climate Change (IPCC) "Fifth Assessment IPCC Reports" that assigned methane a Global Warming Potential (GWP) of 28.

In 2018, 8.2 million cubic metres of natural gas were prevented from being emitted, equal to around 142,200 tonnes of CO<sub>2eq</sub> (+99% compared with the figure of 71,500 tonnes of CO<sub>2eq</sub>. in 2017). These performances were made possible by the recompression of line gas (13 operations compared with 8 in 2017) and interventions with tapping machines, a technology that makes it possible to detach methane gas pipelines in operation for new connections without a break in service. These initiatives led to a decrease in natural gas emissions by 7.9% compared with 2016, a trend which is absolutely in line with the general reduction goal.

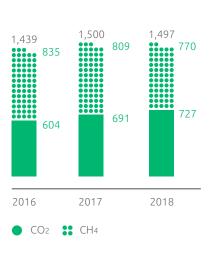
The methane emissions per kilometre of transportation network decreased by a further 4.3% compared to 2017 and by 6% compared with 2016.



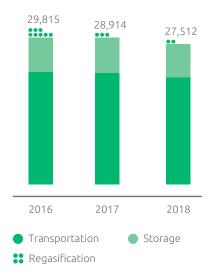
Natural gas emissions

(Mm<sup>3</sup>)

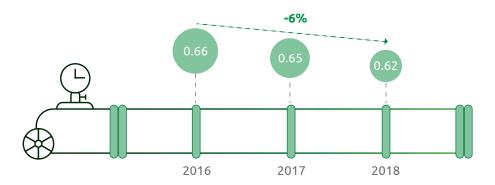
Direct GHG emissions - scope 1 (kt CO<sub>2eq</sub>)



Methane emissions (t)



#### Methane emissions /km network (t/km)



#### Key performance indicators (KPI)

KPI name	KPI date	Set target	Target achieved in 2018	Sector	Activity
Natural gas recovered over total potential emissions from maintenance activities	2017	Recover at least 33% every year (up to 2022)	56%	Transportation	
Limit natural-gas emissions (*)	2018	Reduce 2022 emissions by -15% and 2025 emissions by -25% compared with 2016, excluding emergencies	-7.9%	Transportation, Storage, Regasification	

(\*) The KPI was reprogrammed with more challenging targets.

• Annual objective reached (KPIs with multi-year target)

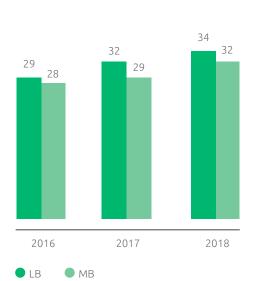
# INDIRECT CO<sub>2eq</sub> ENERGY EMISSIONS (SCOPE 2)

The Indirect CO<sub>2eq</sub> energy emissions are due to the procurement of electricity and heat produced by third parties and used by Snam for its activities. Snam calculates indirect CO<sub>2eq</sub> emissions through the Market Based (MB) approach, which gives a nil CO<sub>2eq</sub> emission factor for energy consumption from renewable sources, and the Location Based (LB) approach, which instead considers an average CO<sub>2eq</sub> emission factor of the national electricity grid.

In 2018, total electricity consumption increased by +12% compared with 2017, as a result of two new compression

stations (Minerbio and Sergnano) coming into service and greater use of storage plants as a result of the greater amount of gas stored (+9%) and increased ICT consumption (+18%) due to the installation of new equipment.

Emissions (calculated using the MB method) stood at 31,887 tonnes of CO<sub>2eq</sub> (+10.9% compared with 2017), a lower rise compared with energy fees. In 2018, Snam increased the consumption of electricity produced from renewable sources, which went from 35.4% in 2017 to 37% in 2018, thus avoiding emissions into the atmosphere of approx. 12,100 tonnes of CO<sub>2eq</sub> (11,040 tonnes of CO<sub>2eq</sub> with respect to those of 2017). The emissions avoided correspond to approximately 39% of total indirect Scope 2 emissions.



#### Indirect GHG emissions scope 2 (kt CO<sub>2eq</sub>)

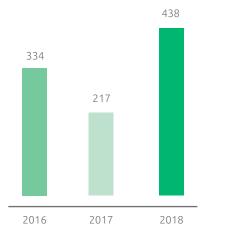
## Green electricity/ total electricity consumption (%)



# OTHER CO<sub>2eq</sub> ENERGY EMISSIONS (SCOPE 3)

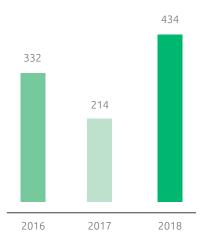
Indirect Scope 3 emissions in 2018 stood at around 438,000 tonnes of CO<sub>2eq</sub>, up compared with 2017 figures (217,000 tCO<sub>2eq</sub>) and they refer for the 99% to the supply chain emissions and for the remaining part to the employees' commute to work and business trips.

The supply chain emissions were calculated by applying a method developed by a leading international company in the field of the Carbon Footprint analysis. The considerable increase in emissions compared to 2017 is mainly due to a substantial increase in the procurement activities (+80%) and to the different types of procured goods and services.



#### Indirect GHG emissions scope 3 (kt CO<sub>2eq</sub>)

# Supply Chain indirect GHG emissions scope 3 (kt CO<sub>2eq</sub>)



# **EMISSION TRADING**

In 2018, the total CO<sub>2</sub> emissions from Snam ETS plants certified by an accredited body according to the instructions given by the competent national authority, amounted to approximately 0.67 million tonnes, out of total annual allowances of approximately 0.20 million assigned by the Ministry for the Environment, Land and Sea (for a negative balance of 0.47 million in allowances). This deficit is partly offset by the shares already in the Snam plant registers, thanks to the accumulated surplus from previous years and the acquisition of around another 0.20 million tonnes from the European market.

# CO<sub>2</sub> emissions ETS plants (10<sup>6</sup>t)



Allocations

#### **Snam Emission Trading Plants**

Activity	Number of plants	Name of plants
Transportation	13	Gas compression stations in Enna, Gallese, Istrana, Malborghetto, Masera, Melizzano, Messina, Montesano, Poggio Renatico, Tarsia, Terranuova Bracciolini, Minerbio, Sergnano
Storage	8	Storage gas compression stations in Cortemaggiore, Fiume Treste, Minerbio, Ripalta, Sabbioncello, Sergnano, Settala and Bordolano
Regasification	1	Liquefied natural gas regasification plant in Panigaglia

#### NOx emissions (t)



NOx emissions/ energy use (kg/GJ)

0.040	0.042	0.042
2016	2017	2018

#### NITROGEN OXIDE EMISSIONS

Nitrogen oxide (NOx) emissions, the only significant pollutant emissions from Snam's activities, is mainly due to the combustion of natural gas in turbines installed in the compression systems (thrust and storage).

The use of natural gas as the main energy source allows sulphur oxides and particulate emissions to be minimised.

Total emissions of nitrogen oxides in 2018 amounted to 564 tonnes (+6.0% compared with 2017), while the indicator that parametrises emissions over the energy used remained unchanged.

The increase in NOx emissions is mainly due to the increase in the gas storage activity (+9%) and the need to use non-low emissions turbines (DLE- Dry Low Emissions) in the Minerbio storage plant. In 2019 the Minerbio storage plant will be equipped with DLE turbines only.

To contain emissions, a programme that calls for modifying certain turbines already in operation and the installation of new units with low emission combustion systems has been in the process of being implemented for years.

In 2018, 5 new DLE turbines came into service for transport operations in the Sergnano and Minerbio thrust plants. With these new turbines the average emissions ratings for the machinery installed capacity already low, were further reduced by 13.6% going from 4.4 to 3.8 ([mg/Nm<sup>3</sup>]/MW).



4 Emissions of NOx in the atmosphere were calculated based on direct measurements or, if not available, by means of emission factors present in the literature (EMEP/EEA "Air pollutant emission inventory guidebook" European Environment Agency).



#### The Dispatching Centre

The Dispatching Centre provides to the monitoring and remote controlling of the transport network operations, receiving data from around **3,800 plants** located along the transport network, with more than **1,600** of them controlled remotely.

Through the use of a specific software application, the data collected, also on the basis of historical consumption and weather forecasts, makes it possible to formulate short-term forecasts for the gas demand and to simulate and optimise the gas flows in the network, guaranteeing the best arrangement for the compression stations to thereby reduce their consumption and containing in this way the emission levels. The network operations and the physical balancing of the system are constantly guaranteed by an operations room staffed 24/7, which, based on the programming defined by customers and in coordination with Italian and foreign infrastructure operators connected to the transportation network. ensures the correct movement of the gas from the injection points to the withdrawal points. In addition to that, the dispatching Centre remotely controls more than 9 storage plants, planning and carrying out the operations for the surface treatment plants, shaft and compression area, guaranteeing a secure execution in ordinary, irregular or emergency operating conditions.

# Protecting the local area and biodiversity

# INFRASTRUCTURE RELIABILITY

The infrastructure reliability is central to the design and management of the gas network. During the design phase, the routing of the gas pipelines is chosen from various alternatives based on considerations involving the reliability of transportation, technical and economic feasibility and the environmental impact: specifically, it is necessary to ascertain that the routing shall not interfere with the existing ecosystems' balance, avoiding passing through areas of significant natural, cultural, or archaeological interest or at least keeping it to a minimum and through geologically unstable or man-made areas.

During the construction phase, in accordance with the technical feasibility, advanced excavation and installation procedures and technologies which interfere as little as possible with the surrounding environment are used: reduction of the width of the work zone, minimisation of the infrastructures and construction site vehicles, trenchless techniques (tunnels and micro tunnels) as an alternative to traditional excavation methods.

When the installation is complete a thorough environmental restoration is carried out to return the area to its original morphological and vegetation conditions keeping the pre-existing natural balances. During the operations, the network infrastructures are monitored by the dispatching centre, using simulation and optimisation programmes that guarantee the optimum arrangement for an efficient and secure transport service, with the goal of reducing fuel consumption for the gas thrust and therefore containing emission levels.

The reliability of the natural gas pipelines is guaranteed in various ways, through their regular inspection carried out on foot, with vehicles and helicopters to detect potentially dangerous situations caused, for example, by the work of third parties near the pipelines or by potential instability that has occurred along the track. Geological inspections are also conducted and any landslide in specific areas of the pipeline layout is kept under control with the help of the most suitable and sophisticated equipment. Periodically, a smart device equipped with sensors runs inside the network; this so-called "pig" makes it possible to detect the presence of any faults or irregularities with the material and even the slightest movement of the pipeline.

#### Monitoring and inspecting the network

	2016	2017	2018
network inspected using smart pigs (km)	1,660	1,632	1,651
network inspected by helicopter (km)	16,218	16,274	18,462
network subject to geological inspection (km)	1,478	4,080	4,209



In addition to the drills required by the Seveso Directive, in 2018, at the Panigaglia regasification terminals, Snam conducted monthly safety drills simulating accidental leaks of LNG. A joint Security and Safety exercise was also carried out with the Port Authority, the local fire department, the national police, and the emergency medical services.

During the course of the year and in the transport sector alone, **127 meetings** were held with local government authorities and regional associations to present projects involving the construction of works. Together with these associations, **3 agreements** concerning easements were stipulated.

# PROTECTION OF BIODIVERSITY

Special attention is paid to safeguarding the natural heritage of the local areas affected by the operational activities.

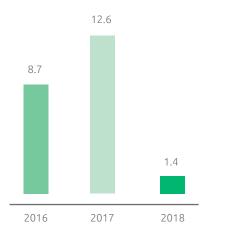
Morphological and vegetation restoration operations, carried out after the installation works, are designed to reconstruct the pre-existing natural landscape as accurately as possible and to encourage the resumption of the biological functioning of the area and the development of biodiversity.

Snam's commitment does not end with this environmental restoration, but continues with the launch of a cultivation treatment plan lasting at least five years to look after and maintain the plants and shrubs planted, which the company guarantees will become an integral part of both the restoration process per se and the environmental monitoring required by the institutions.

#### Environmental monitoring and restoration (km of network)

	2016	2017	2018
Restoration	227	203	227
New reforestation *	3.7	21	21
Plant care	98	59	74
Environmental monitoring	565	388	445

\* In 2018 the new reforestation areas covered approximately 410,500 m<sup>2</sup> (380,000 m<sup>2</sup> in 2017).



Monitoring projects concern the extensions of some methane pipelines that interfere, even marginally, with the natural local areas high in fauna and ecological value, and aim to the verification of the process of re-naturalising areas affected by construction works, comparing the conditions after the restoration ("postcompletion") with the original conditions ("pre-completion"). Monitoring is normally performed for the most significant habitats identified in the design phase.

As far as storage activities are concerned, in 2018 5 shaft (mining) areas were closed and, after environmental investigations, the terrain was completely restored and returned to the owners for agricultural use (involving a total area of 28,977 m<sup>2</sup>).

The Natura 2000 sites are the main instrument in the European Union's policy for preserving biodiversity. Established pursuant to the Habitat Directive 92/43/CEE for preserving the natural habitats at EU level, the Natura 2000 network is made up of Sites of Community Importance (SCIs), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). In 2018, Snam's activities only involved an area of around 1.4 km (SIC IT 3120079 Lago di Loppio) for upgrading works on the "Arco-Riva del Garda" pipeline.

#### Distance covered by pipelines in Natura 2000 networking sites (km)



#### Fauna study in Sardinia

In order to direct the planning of works, environmental restoration and mitigation activities and ante operam environmental monitoring, during operations and post operam, under the scope of the Environmental Impact Assessment procedure for some investments, a detailed study was carried out into the fauna of the area that will be affected by the planned methane gas pipeline construction works.

This research took into consideration **fauna species protected at an international, national and local** level also taking into account the presence of Natura 2000 sites (SCIs, SACs, SPAs), bird protection sites known as Important Bird Areas (IBAs) and specific reproduction habitats of internationally protected bird species, such as, for example the little bustard (Tetrax Tetrax).

The aim of the work was to identify and map the habitats which play an important role in the conservation of the rarest and threatened bird species and to check, with regard to the position of the planned works layouts, the degree of interference with them and the temporary disturbance in order to be able to calibrate the actions for monitoring the environmental impact of the works and the consequent mitigation and restoration measures.

The environmental preferences were analysed for all the species identified to define the link with the habitats in the area studied. A matrix was then implemented in which a coefficient was assigned for each habitat according to its recognised availability for each species.

Having defined the "species/habitat" environmental preference level, to estimate the fauna suitability figure the rarity of the actual habitats and the presence of protected areas were also taken into consideration.

The habitat rarity coefficient is a parameter that was evaluated in order to enhance less widespread habitats which are therefore more exposed to the risk of erosion, alteration, fragmentation or disappearance.

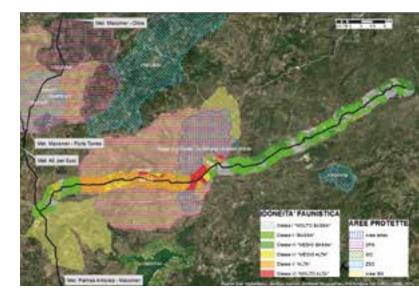
In addition, the areas within the boundaries of Natura 2000 sites were developed by applying a coefficient taking into consideration the particular protection status which makes them more practical for the conservation of the fauna. In this way, once the **fauna suitability for all habitats is defined in a standardised way**, the protection role that the establishment of protected areas can offer with regard to habitats giving them a higher status compared with the same areas outside of the protected boundaries was enhanced.

Based on the figures obtained, a **map on a scale of 1: 10,000** was drawn up where, by superimposing the layout of the planned methane pipelines, the fauna suitability areas of the habitats, greater or lesser depending on the environmental characteristics in the area or depending on the habitats present, were shown using different chromatic solutions.

The map is therefore an operational tool which makes it possible to highlight the different "values" of the area in relation to its role in fauna conservation and, specifically, the rarest or threatened species and it provides useful information support for the **correct planning of the works**.

In conclusion, the research and the Fauna Suitability Map produced have made it possible to define the fauna potential of the habitats affected by the construction of the Methanisation of north Sardinia project.

Specifically, the Map refers to internationally, nationally and regionally protected fauna species and their connection to the habitats near the areas affected by planned works, thereby providing useful information support for the correct plan of the works.



For the development of new sites, in addition to the technical-economic feasibility criteria, Snam adopts procedures that meet strict environmental compatibility and safety assessments.

The assessments of the environmental effects involve all the phases of the work life cycle, site selection, planning, construction, operation and decommissioning. These assessments are made within the purview of the Environmental Impact Assessment (EIA) and the Integrated Environmental Permit (IEP) procedures, at the end of which the central and local administrations issue the permits required under the current law.



Snam also evaluates, in relation to the performance of the most important works (compression systems or large natural gas pipelines), the direct and indirect economic and social impact on the territory and on the local communities with "**Social Impact Assessment**" tools and methods. Specifically, in 2018, the methodology used was reviewed, in conjunction with the Department of Economics and Management of the University of Brescia, and a regionalised **Input-Output model** was adopted. This model makes it possible to assess the impact of a project, calculating the added value created by the investment starting with the total value of production.

#### EIA decrees obtained during the year

Name	Length (km)	Regions involved	Competent agencies	Date of decree	
Pipelines					
Overhauling of the Rimini-Sansepolcro methane pipeline and ancillary works	81.915	Emilia Romagna and Tuscany	Tuscany region	18/06/2018	

#### IEP decrees obtained during the year

Name	number of compression units	Regions involved	Competent agencies	Date of decree	
Gas compression stations					
Gallese (review for substantial modification)	3	Lazio	Ministry of the Environment and Protection of Land and Sea	11/05/2018	

#### Provisions for verification of whether subject to EIA obtained during the year

Name Pipelines	Length (km)	Regions involved	Competent agencies	Date of decree
Mornico al Serio-Travagliato-Chiari-Travagliato section	24.94	Lombardy	Brescia province	03/05/2018
Asti-Cuneo Variants for the construction of pig launch/ reception systems	3.941	Piedmont	Ministry of the Environment and Protection of Land and Sea	26/09/2018

#### EIA applications submitted to Ministry of the Environment and Ministry of Cultural Heritage

Name	Length (km)	Regions involved	Date of submission
Pipelines			
Overhauling of Ravenna – Chieti - Ravenna-Jesi section	142.6	Emilia Romagna - Marche	30/04/2018

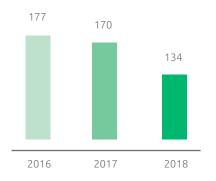
#### Applications submitted to the Ministry of the Environment to check EIA requirements

Name	Length (km)	Regions – Provinces involved	Date of submission
Pipelines			
Reconnection - Connection of Torino di Sangro (CH)	1.132	Abruzzo	22/06/2018
Variant for PIDI insertion no. 18.2 at Chieti - San Salvo (CH)	0.113	Abruzzo	22/06/2018
HPRS IS64/24 bar Castellana Grotte system on Castellaneta - Castellana Grotte pipeline	_	Apulia	17/07/2018
Tortona - Alessandria - Asti - Turin Overhaul FR 39.1	3.68	Piedmont	26/07/2018
Variants S. Eufemia – Crotone Ref. S. Anna River crossing (KR)	0.64	Calabria	01/08/2018
By-pass for Altino 2° Tronco Variant construction of Secco River hydraulic works	0.07	Abruzzo	21/12/2018
Asti-Cuneo Variants for the construction of pig launch/reception systems	3.941	Piedmont	28/03/2018

#### Applications for Integrated Environmental Permit (IEP) reviews submitted to the Ministry of the Environment

Name Gas compression stations	number of compression units	Regions – Provinces involved	Date of submission
Melizzano (review)	4	Campania-Benevento	24/12/2018
Montesano sulla Marcellana (review)	4	Campania-Salerno	24/12/2018
Tarsia (review)	4	Calabria-Cosenza	24/12/2018
Istrana (review, renewal and substantial modification)	4	Veneto-Treviso	27/11/2018

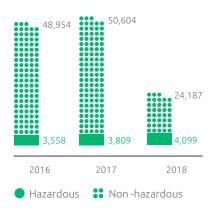
Fresh water procurement (10<sup>3</sup> m<sup>3</sup>)



Fresh water discharge (10<sup>3</sup> m<sup>3</sup>)



#### Waste production (t)



# Waste by production activities (t)



# WATER AND WASTE MANAGEMENT

Snam's water procurement and disposal activities are of little environmental significance, both in relation to the quantities used and the type of discharge. However, the Company considers water a resource that should be conserved and in that respect it is committed to keeping down its consumption and reducing its environmental impacts. Consistent with the activities carried out in previous years, in 2018 a closed-loop constructed wetland plant was installed in the Masera gas compression plant, which will make it possible to eliminate domestic waste water discharges, because they are treated and totally absorbed by the planted vegetation. With this latest installation all the compression plants, except for the Messina compression plant, which is connected to the national sewage system, are equipped with constructed wetland plant systems.

In 2018, approximately 4.13 million cubic metres of water (4 million cubic metres of sea water and 0.13 million cubic metres fresh water) were extracted. The procurement of sea water remains practically constant over time, as it is used for cooling auxiliary equipment in the LNG regasification plant. The extraction of fresh water, used mainly for office activities, fire-protection systems and for the watering of green areas, fell by 23.5% compared with 2017 and stands at around 134 thousand m<sup>3</sup>.

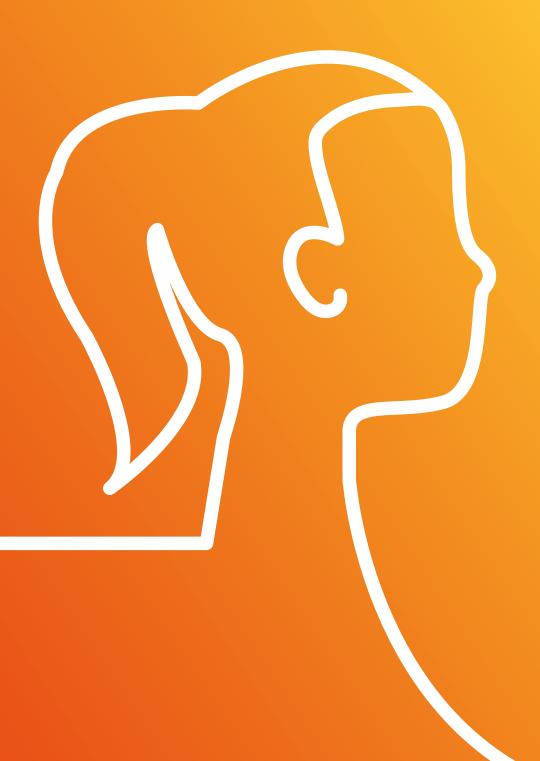
With regard to water discharges, the sea water is released into the sea as it is, without any treatment, since it is only used for cooling circuits, while the waste water is channelled into the sewage networks (58% of the total) or discharged, after treatment, into the soil and into surface water bodies (42% of the total).

The upstream storage activities produced approximately 5,913 cubic metres of process water (+20.6% compared with 2017). Of all this water, 2,185 cubic metres were re-injected as it is, while another (3,728 cubic metres) were sent to a purification plant for treatment.

In 2018, total waste production stood at 28,286 tonnes (-48% compared with 2017), of which over 86% belonged to the category of non-hazardous waste. 91% of waste products is connected to the maintenance and management of plants and 9% to shaft drilling activities. 60% of waste from plant maintenance and management was sent for recovery.

The lower amount of waste produced in 2018 is attributable to the lack of extraordinary works for the replacement of pipelines, activities which were carried out in the previous two-year period and which involved the production and recovery of many tonnes of ferrous metals.

# Social



# Stakeholder relationships

Snam encourages an ongoing dialogue with its stakeholders through constant and proactive communication via specific instruments and channels and inclusion actions with the aim of developing mutual growth and awareness.

The main issues for the stakeholders' engagement 2018 were the changes that took place during the year, especially with regard to the expansion towards new businesses, new uses of natural gas and the Company's international expansion.



# INVOLVEMENT AND SHARING

Under the scope of the activities carried out with its stakeholders, at the Partners Day held in November in Milan, Snam met more than 500 people, including suppliers, customers, employees, institutions, the financial community and the media. The Chairman of the Board, representatives of the institutions and businesses took part in the initiative, which was an opportunity to debate on innovation and growth.

Four new initiatives were presented: Snamtec, the project aimed at creating the energy company of the future, the Company's policy with regard to the Social Supply Chain to facilitate the involvement of social companies in the supply chain, the Carbon Disclosure Project (CDP) supply chain programme to raise awareness among suppliers on their GHG emissions and the new "Snam Up" open innovation platform to share the culture of corporate innovation. Some of the issues dealt with during the discussions were social development policies in the local areas, the role of companies as drivers of growth, digital transformation and network security. A strategic agreement for gas sustainable mobility in Europe was signed with SEAT during the event.

Partners' Day: Snam met more than





# Energy to inspire the world

In 2018 Snam relaunched its **brand identity** by revamping its logo and the values that will drive its future challenges. The logo, revamped and in line with the purpose "Energy to inspire the world", remains bound up in Snam's tradition stressing the characteristic of **gas sustainability** through the introduction of the green colour. The restyling of the Snam's brand identity places emphasis on the role of the company in energy transition and its expertise in building infrastructures that supply **natural gas**. Snam is abreast of a society that is changing and which aspires to improve the lifestyle conditions.

Snam was also a protagonist at the 27th edition of the World Gas Conference held in Washington. The conference, organised by the International Gas Union (IGU), is the most important event of the gas industry at global level, attended by over 10,000 people with more than 600 speakers including representatives of institutions and the top management of major companies in the industry. Snam's strategic guidelines and future energy scenarios were announced at the event, and the CEO took part in two panel discussions on the European energy market and the skills required for future leaders in the energy industry. The Natural Gas World Atlas was also presented; it is the first gas world atlas, created in collaboration with Libreria Geografica and National Geographic.

For many years Snam has promoted positive experiences with Italian National parks through its "Sustainable Paths" series. This publishing initiative highlights the company's commitment to the environmental protection and the adoption of best infrastructures construction practices well-established by now and which have always distinguished the way in which the Company operates.

A fifth publication was added to the existing four volumes of the series, which is about the Foreste Casentinesi Park, a national park stretching from Tuscany to the Emilia Romagna region and crossed by a short section made up by two parallel gas pipelines belonging to the core transportation network, importing the gas from North Africa to Italy. Like in the other volumes, the story of the park and its specific geographical, nature, historical and cultural heritage is interwoven with the methods practised by Snam in an area of particular value, which enable vital infrastructures for the country's energy requirements to coexist with the environment and the ecosystems.

# WEB PRESENCE AND MULTIMEDIA RELATIONS

The new layout of the company website was launched with the restyling of the brand. Following the development of "One Company", the website incorporates the contents of the websites of the operating companies and proposes itself as a space for information, interaction with customers and dialogue with many company stakeholders, giving practical answers through ad hoc instruments and specific contents, which are simple to browse and user-friendly. During the year the Global Solutions business unit website and the areas dedicated to Snam4Mobility, Snam for Abruzzo and Snam for Minerbio were developed. Snam was awarded with the third place in the Italian and European Webranking contest and the Company was deemed for the fifth year in a row as one of the best European companies in terms of accuracy and the transparency of the information on its website and on the major social platforms.

During the year Snam adopted a communication style integrated between traditional and digital channels allowing a considerable increase in its exposure on the main Italian and international media outlets. Alongside this, Snam created a storytelling on the digital channels aimed at promoting the company, its people and the new businesses, strongly engaging with direct language. As a testament to this, Snam was recognised as the best Italian company for the use of Facebook and was quoted by LinkedIn for best practice in the use of this professional platform.



#### Snam in the international climate strategy

Activities in a European context promoted the development of new forms of renewable gas (e.g. biomethane and hydrogen), as key energy sources in the transition process towards an economy based on the decarbonisation of the future energy system.

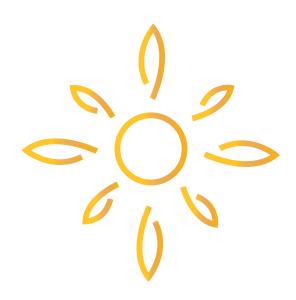
Snam actively participated to the definition of the European Union strategies which pave the way towards a new long-term vision for energy and climate policies in continental Europe, "A cleaner planet for all". Snam's participation particularly involved the public consultation of the European Commission and the Katowice United Nations Climate Change Conference (UNFCCC COP 24).

Snam confirmed its leadership position in Europe by representing the interests of the entire gas chain through GasNaturally, the representative body of gas value chain associations.

Work continued under the auspices of the "Gas for Climate" consortium, created in 2017 to join seven European TSOs (Snam, Enagás, Fluxys, Gasunie, GRTgaz, Open Grid Europe and Teréga) and two associations operating in the field of renewable gas (Consorzio Italiano Biogas and European Biogas Association). The consortium promoted the results of a study, commissioned to Ecofys, in which it was shown that there are opportunities of around €140 billion of annual savings by increasing the production of renewable gas. The study is among the reference sources of the EU climate strategy for 2050 published by the European Commission in November 2018.

At the informal meeting of European Energy Ministers, which was held in Linz in September 2018, under the Austrian presidency of the EU, Snam, together with other European energy companies, signed a declaration aimed at supporting hydrogen and its extensive potential as a sustainable technology for decarbonisation and energy security in the EU.

Snam also continued its activities within the European association the "Natural & bio Gas Vehicle Association" (NGVA Europe) with the objective of promoting the use of natural gas and biogas as alternative energy sources for both land and maritime sustainable mobility.



#### With the increase in renewable gas production, Ecofys estimates annual savings of around

# € 140 Bn

# People

Social and economic changes in recent years have resulted in Snam operating in a constantly evolving context, which requires constant investments in terms of the training needed to deal with future challenges. In this transformation process, all the employees are increasingly called upon to play an active role in promoting cultural change and in creating a more motivational setting, more connected to the business purpose and to the values that the Company stands for. Sharing the objectives and challenges which the natural gas sector faces and the promotion of behaviour which provides evidence for the Snam's managerial model on a daily basis are key elements in guaranteeing the necessary technical and technological know-how continuity and Snam's international development. The Company is committed to developing the professional qualities and talents of each and every

one, through transparent and merit-based management capable of creating an inclusive work environment for all.

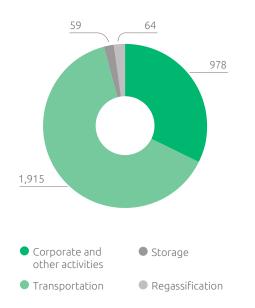
## EMPLOYMENT

Snam, in line with the goal of sustainable development "Decent work and economic growth" (SDG 8), offers a stable and constant employment relationship, mainly in Italy, with qualified and specialist activities (56% of employees have a technical diploma and 26% are graduates). 93% of personnel are on a permanent employment contract. At the end of the year, there were 41 part-time contacts and 185 apprenticeship contracts in force. During the year there were 33 workers under a staff leasing contract.

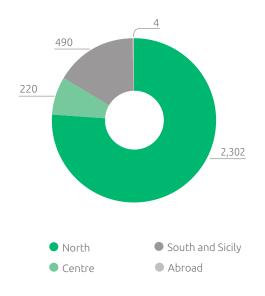
#### Snam Personnel at 31.12. (no.)

	2016	2017	2018
Executives	87	93	107
Middle Managers	421	456	480
Office workers	1,651	1,655	1,682
Manual workers	724	715	747
Total employees	2,883	2,919	3,016





#### Employees by geographical area (no.)



#### **Employment dynamics**

In 2018, 321 people in total joined the company, including 195 hired from the market and another 126 joined, including 61 resources as a result of the change of the scope of consolidation of Cubogas S.r.l. (from July 2018), 22 resources came through the acquisition of TEP energy solution (from June 2018), 34 resources through the acquisition of IES Biogas (from July 2018), 9 returns to service from leave of absence.

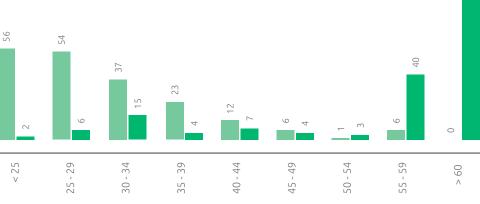
189 people left the company, including 49 as a result of the termination of their employment, 41 unilateral terminations of the employment relationship,99 exits for "Isopensione". There were also 10 exits for various reasons and 25 transfers to unconsolidated companies.

#### 609 585 582 573 564 558 385 351 $\infty$ 329 312 277 285 279 283 277 261 252 263 210 223 92 170 158 53 67 45 - 49 50 - 54 < 25 25 - 29 30 - 34 35 - 39 40 - 44 55 - 59 > 60

#### Employees age bracket (no.)



Entries and departures from market by age group (no.)



Entries from market

2016

2017

2018

08

People under the age of 35 (811) represented 27% of the corporate population and increased by 98 units compared with 2017, also thanks to the constant hiring of young talent, a feature of recent years.

The absenteeism rate does not include senior managers and it was calculated taking into consideration all hours not worked (paid and unpaid) excluding holidays, catch up leaves and periods of absence from work for compulsory and optional maternity leave. In 2018 the absenteeism rate stood at 4.6%, essentially in line with the previous year and has settled at the minimum physiological values. No substantial changes are observed between the absenteeism rates for men and women, which are 4.6% and 4.8%, respectively. The 2018 turnover rate increased by 5.6% by virtue of the hiring campaign and the retirement and "isopensione" incentive campaign.

# 6.3 2.4 1.8 1.0 1.2 2016 2017 2018

Voluntary turnover rate

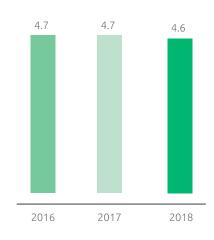
Turnover rate

Turnover rate (%)

Voluntary turnover rate = (departures due to resignation/average headcount employed)\*100 Turnover rate = (departures/ total headcount at 31/12)\*100

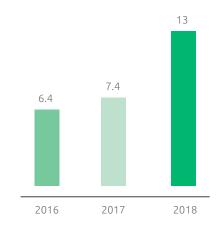
(\*) Data do not include staff relocated to non consolidated entities

#### Absenteeism rate (%)



Absenteeism rate = (hours absent/workable hours)\*100

Staff turnover (%)



Turnover = (incoming + departures)/average headcount employed)\*100

## DIVERSITY

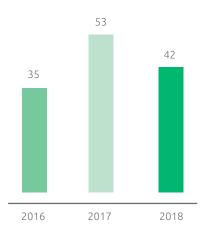
The Company offers equal opportunities to people in terms of employment, avoiding all forms of discrimination due to gender, age, health, nationality, political opinions or religious persuasion.

The female workforce, at the end of the year, comprised 419 resources (+6.6% compared with 2017), equal to 13.9% of the corporate population (+0.4% compared with 2017). Women make use of 90% of active part-time contracts (37 out of 41).

#### Female personnel at 31.12. (no.)

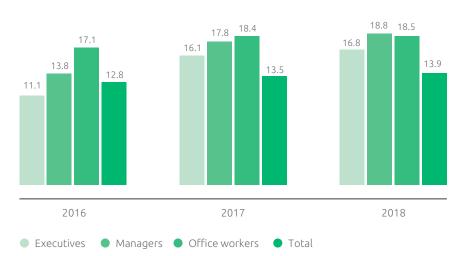
	2016	2017	2018
Executives	11	14	18
Middle Managers	62	75	90
Office workers	296	304	311
Total	369	393	419

The presence of female workers is mainly concentrated in northern Italy (around 92% of the total) since they work predominantly at the S. Donato Milanese headquarters.



Women hired from the market (no.)

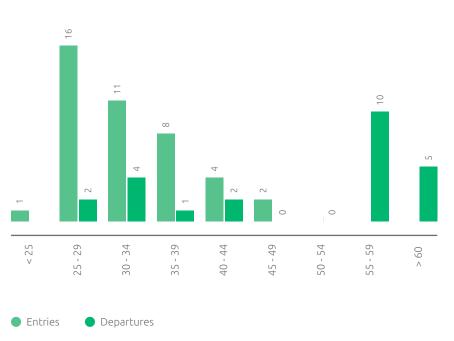
#### Female presence category breakdown (%)



#### Pay gap (women/men)



#### Entrance from the market and departures for female gender (no.)



The fall in the pay gap between women and men in 2018 was due to the entry level remuneration (new middle management and senior management) which had a greater influence on the average RAL of women.



#### Snam4STEM

This is the event that was held in December and enabled **20 young women** to spend a day at Snam to meet role models and gain greater awareness of the importance of the role of women in business. The girls, young graduates and undergraduates in humanities and STEM disciplines, were chosen during the career days held in recent months at some of the best universities throughout Italy. **Two interns were taken on in early 2019 and one new hire**.

#### Support for parenting and work-life balance

Employees receive company benefits the entire time they are on maternity leave and, during the period of compulsory leave, maternity pay is 100% of their salary rather than the 80% required by law.

#### Personnel on maternity leave at 31.12. (no.)

	2016	2017	2018
Persons on maternity leave	48	53	59
of which women	41	42	45
Positions closed during the year	28	33	44
of which women	22	23	30
Positions remaining active	20	20	15
of which women	19	19	15
Percentage of women returning to work (%)	95	96	91

With regard to parental leave, 254 positions (including 43 women) were opened during the year and 253 closed (44 of which were assigned to women). At year's end, 31 positions were still active (6 of which were female).

# GROW Job Shadowing

The GROW project (Generating Real Opportunities for Women) is designed to promote, support and improve the personal and professional development of women at the **Luiss Business School** with special attention to entry into the world of work and professional career promotion. The Job Shadowing programme was part of the Snam project to give an opportunity to female students to spend a working day with a Top Manager. **Five managers and 8 students took part**.

## DEVELOPMENT OF SKILLS

The People Strategy focuses on three main pillars: enhancing the value of human resources, increasing productivity and the level of engagement, disseminating a culture of innovation and renewal.

In this context, training plays a fundamental role in supporting management and the whole corporate population towards the development of managerial and technical skills, know-how and innovation.

Snam's commitment for 2018 was to increase the average number of training hours up to 32 per employee and to involve the 80% of the population in at least one training session. The target was reached with around 36 hours of training per employee and the involvement of 93% of the corporate population.

#### Key training initiatives

Description	Hours provided (no.)	Attendances (no.)
Technical training	58,120	4,454
Health, Safety, Environmental Protection and Quality training	28,345	4,953
Managerial training	19,257	3,822

Upon completing the courses established in previous years in matters of business ethics and anti-corruption, in 2018 321 hours of training were provided with 123 attendances.

#### **Personnel Training**

	2016	2017	2018
Training hours (no.)	82,184	85,346	107,771
of which Senior Management	2,940	1,908	4,392
of which Middle Management	31,072	8,600	19,072
of which Office Workers	10,021	39,316	49,650
of which Manual Workers	38,151	35,522	34,657
Attendances (no.)	10,396	8,604	13,999
Average hours of training per employee (no.)	28.5	29.2	35.7
Average hours of training provided to men (no.)	30.2	31.3	36.9
Average hours of training provided to women (no.)	17.0	15.8	28.7
Engagement (%)	97.5	75.4	93



#### Snam Empowerment Program

This is a managerial training catalogue aimed at enhancing the skills of everyone focusing on the priorities identified in order to improve company performance still further. It is a project developed to translate the new Snam skills model into actions of value (Act for continuous improvement, Act with vision, Entrepreneurship, Work in connection with others, Motivate with passion). The learning process for each of the **5 skills** involves **2 training days** plus a half-day follow up.

In 2018 **14 sessions** were delivered involving **178 people**. In 2019 around **20 sessions** are planned with the aim of involving the largest possible number of employees.





#### Fare scuola

The **Snam Institute** was presented in July 2018 during a day organised in Rome in conjunction with the LUISS University. Support was also announced during the event for the LUISS Business School Masters in Management and Technology, a major in Energy Industry, and the establishment of a Chair in Energy Economics and Policies, aimed at creating a research project on energy transition. The active role of businesses in supporting the educational system was also discussed through initiatives like "Fare scuola", a virtuous collaboration between businesses and the school system in the area of education dedicated to school leaders and teachers, but also for infrastructural interventions such as, for example, the redevelopment of school buildings. The pilot phase of the project was launched in 2018 in **30 institutes** throughout Italy targeting **30 school leaders, 30 educational lecturers** and **10 school governors** (around 70 people in total). There are plans to extend this project to 100 institutes in 2020.

#### School-Work Alternation programme

Snam's commitment to schools is continuing through the Young Energy project which launched the School-Work Alternation programme for the academic year 2018/19. In 2018 Snam hired **13 young people** from the previous year's project. This academic year, the Young Energy project is happening in **6 regions** and at 9 schools (7 technical institutes and 2 secondary schools) and will involve around **800 students**.

#### Professional institute for young people

Snam is the leader of a schools' network programme dedicated to preparing blue collar workers and technicians for the gas industry involving several professional and technical institutes throughout Italy. The first session will take place at the **Elis School** dedicating **20% of total teaching hours** to enable young people to get technical certificates. The Snam personnel will be responsible for the teaching at its regional offices.

# COMPENSATION POLICIES AND SYSTEMS

At Snam, the administrative and reward practices are merit-based, both in terms of professional development and with regard to career opportunities. At the same time, it is a benchmark so that personnel management can meet the fairness and sustainability criteria.

Compensation systems are updated periodically based on a comparison with the reference markets and in consideration of instructions received from external stakeholders. In particular, these systems are meant to ensure recognition of the results achieved, the quality of the professional contribution provided and individual development potential of the person. In 2018, with the objective of creating greater alignment of the long-term variable remuneration with the primary goal of creating value for shareholders, the scope of possible recipients of the Long-Term Incentive Plan (ILT) was extended to cover all senior management.

All employees annually receive a **Participation Bonus** based on the company's profitability and productivity

#### Incentive systems for the various brackets of the corporate population

Executives	The remuneration system consists of two parts: a fixed remuneration, with annual adjustments for merit or increased responsibility or more senior role, and a variable remuneration with incentives aimed at enhancing professional contributions in the short-term, by awarding an annual monetary incentive (IMS), as well as in the medium-/long-term by allocating a long-term share-based incentive (ILT). Claw-back mechanisms are also provided, for the recovery of the variable portion if the resulting compensation is not due because it was earned based on targets that were attained as a result of malicious or grossly negligent behaviour or that were proven to be manifestly incorrect. The Total Reward Statement, an information package on the composition of the individual remuneration, guarantees the enhancement and transparency of the remuneration system.
Non-executive population	Snam adopts a short-term variable incentive plan intended to reward best performance and the young resources with potential for development. All the companies in the group provide a "Participation Bonus", instituted by the National Collective Labour Agreement, based on the performance of profitability and productivity parameters, measured in relation to the targets agreed upon every year between the company and the trade-union representatives.

In 2018, the use of the new target assignment and assessment system known as Performance Management, was confirmed; it also contains targets regarding behavioural aspects, sustainability and the prevention of accidents in the workplace. All the assessment processes adopted are formalised and include a feedback interview, which constitutes an institutional opportunity for discussion and communication between managers and employees, also in order to gather information that can be used to define new actions for personnel development and enhancement.

In 2018, Snam focused on improving leadership skills by implementing the new skill model, keeping succession plans solid and structured, identifying and enhancing the value of talent throughout the organisation to ensure a sustainable line of succession and to intensify the level of engagement. Specifically, the new Performance Management System was launched during the year, which was decisive for the Talent Review Discussion and the creation of the Succession Plans. When it is fully operational the new system will involve the entire business through the progressive extension of the performance scope over a three-year period (2018-2020).

#### Employees evaluated in Performance Management (no.)

	Men	Women	Total
Executives	87	15	102
Middle Managers	392	77	469
Office workers	124	38	162
Total	603	130	733

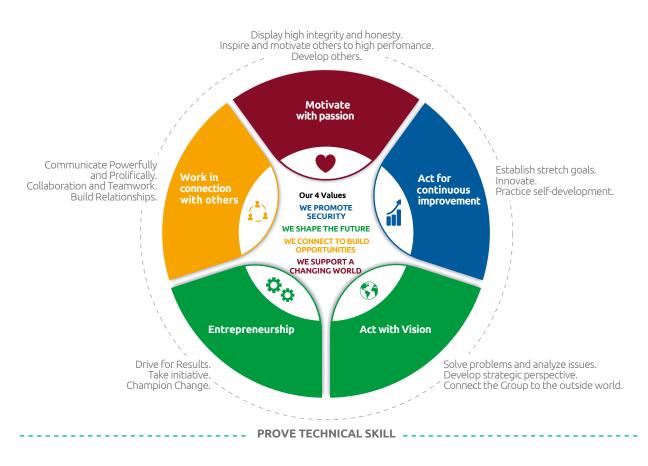
#### Assigned sustainability topic goals

	20	16	20	17	20	18
	Assigned (no.)	Attained (%)	Assigned (no.)	Attained (%)	Assigned (no.)	Attained (%)
Executives	67	91	77	95	131	97
Middle Managers	313	93	291	97	274	87
Other personnel	88	100	67	96	63	89

In 2018, fewer sustainability goals were assigned to middle managers and office workers compared to the previous years. Anyway, behavioural targets were proposed for the entire corporate population, as set out in the Snam leadership model.

The model contains the five fundamental skills and the five types of virtuous behaviour which represent the key elements of motivation and incentives for employees. This distinctive behaviour, also included in the Performance Management system, demonstrates how the Company is integrating its sustainable business model with the promotion of virtuous behaviour.

#### Snam leadership model



All the jobs within Snam, with the exclusion of executives, undergo an analytical and overall evaluation regarding the Complexity, Responsibility, Experience and Autonomy (C.R.E.A.) factors. In 2018, 198 CREA assessments were approved.

## HEALTH AND SAFETY

Company results and performance are achieved thanks to the skills and abilities of the people working in the business. The Company is constantly committed to safeguarding health and safety in the workplace by adopting measures aimed at eliminating or, at least, reducing the risk factors featured in the work activities. All of the Snam's business activities are governed by certified management systems in accordance with OHSAS 18001 (occupational safety and health rules).

In this area, the adoption of good practices promoted and also shared with suppliers has led to a progressive fall in accidents, both for the company personnel and contractors, and to an overall performance improvement throughout the supply chain.

In 2018 there was a total of 7 accidents (11 in 2017), 4 of them involving employees (6 in 2017) and 3 involving supply contractors (5 in 2017).

#### Accidents at work

	2016	2017	2018
Employees			
Total accidents (no.)	4	6	4
Fatal accidents (no.)	0	0	0
Frequency index	0.81	1.24	0.84
Severity index	0.04	0.05	0.02
Contract workers			
Total accidents (no.)	5	5	3
Fatal accidents (no.)	0	1	0
Frequency index	0.71	0.54	0.41
Severity index	0.05	0.83	0.03
Employees and contract workers			
Total accidents (no.)	9	11	7
Frequency index	0.75	0.78	0.58
Severity index	0.05	0.56	0.02

#### Employee workplace accidents by event type (no.)

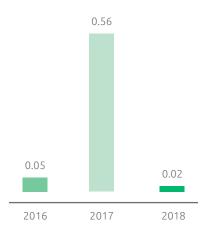
Туре	2016	2017	2018
Caraccidents	0	1	2
Occupational accidents (maintenance, inspection, checks)	1	1	1
Generic accidents (slipping, impact, tripping)	3	4	1

#### Employee and Contractor accidents at work frequency index



number of non-commuting accidents with incapacity of at least one day, per million hours worked.

#### Employee and Contractor accidents at work gravity index



number of working days lost in relation to non-commuting accidents with incapacity of at least one day, per thousand hours worked. Data includes fatal accidents. Alongside the consistent commitment achieved through tools such as training, technological innovation, and work organisation, in the early months of 2018 Snam initiated the new "Snam4Safety" project to further strengthen the culture and awareness of health and safety issues among all the employees and contractors.

In order to raise awareness among employees on safety issues, in 2011 Snam established an initiative called the "Zero Accident Award", which rewards employees who go 365 consecutive days without an accident in the workplace. Personnel are divided into standardised teams identified by operational unit/ safety manager. In 2018 13 teams involving a total of 1,550 employees received the award.

The "Contractor's Safety Prize" awareness raising initiative was also dedicated to contractors with the aim of focusing the attention of suppliers on these issues. Specifically, the performance of businesses is evaluated by collecting and analysing specific indicators (e.g. accident indices and negative feedback on the subjects of interest). In 2018, the prize for the 2017 results, was awarded to Max Streicher, for the second year in a row, a company specialised in the building of energy infrastructure and in particular in the construction of gas pipelines.

# PROTECTING HEALTH

The health status of workers who, on account of the jobs they perform, are exposed to specific risk factors in the work environment, is monitored through regular health checks, carried out by medical personnel trained for this purpose.

To guarantee a working environment that complies with workplace hygiene standards, environmental screening is periodically carried out to monitor microclimate, biological and physical aspects of the workplaces.

Snam absolutely prohibits the drinking of alcoholic beverages while at work.

## Medical surveillance (no.)

	2016	2017	2018
Medical visits	1,561	1,914	1,350
Periodical medical visits	1,337	1,688	1,061
Diagnostic examinations	2,252	3,508	2,020
Environmental surveys	172	279	247
Occupational illnesses diagnosed	0	0	0

#### Workers receiving regular health checks (no.)

	2016	2017	2018
Total number of workers exposed	2,105	2,646	2,652
Workers who sit at a computer station	1,864	1,817	1,923
Workers with responsibility in an emergency	625	627	599
Workers exposed to chemical agents	28	52	10
Workers responsible for moving heavy loads	101	5	94
Night workers	100	109	113
Workers exposed to noise pollution	24	24	24
Workers (blue-collar) with operational tasks*	-	536	517
Work in compression plants *	-	73	70
Workers exposed in confined spaces*	-	119	139
Workers exposed for other reasons (IE, abroad, TOX, welding)	108	78	127

\* New workers who, starting from 2017 are subject to medical surveillance.

Finally, Snam promotes various initiatives focused on promoting health for its employees, including through its company welfare system. The description of the services offered, together with any other welfare activity, is reported on page 68.

# THE INNOVATION BEHIND SNAM'S COMPANY WELFARE SYSTEM

Corporate welfare is the set of operations - both as monetary support and services - which increases the level of social protection and the purchasing power of employees and can indirectly generate a good working environment.

The company's welfare system was created over time with the goal of accommodating the emerging needs and requirements of the corporate population.

Digital culture and the well-being of people are the drivers of the new 2018 welfare plan, reorganised around five areas of intervention: Family, Education, Work/Life Balance, Well-being and leisure time, Health. Five areas and 28 services (including corporate and contractual) to respond to the current needs and requirements of the company.

One of the most interesting new features is dediCARE (Family area), a service that helps resolve large and small family problems, from care of the elderly to school tuition fees, to babysitting services.

In the age of digital communication, the Educational area guides children, teenagers and adults to the correct use of the web and social media through Coding Generation courses and Digital Education courses, while in the Wellbeing and leisure time area there are plans for workshops dedicated to Food Education, Financial Education and Mindfulness, namely awareness of the self and the outside environment.

During the year the agreements with the Trade Unions organisations on the "Welfare Bonus" and the Smart Working project designed to provide a better response to the work/life balance were renewed.

In 2018 more than 470 employees took advantage of smart working for total of approximately 62,930 hours. The project will continue in 2019 and be extended (around 700 people in the first months of the year).

In particular, with the Welfare Bonus it will be possible for the employees, as an alternative to the total payment of the individual amount of the Participation Bonus, to voluntarily choose whether to convert a percentage of the Bonus into a welfare credit which they can use to purchase services for themselves or for their family members.

#### The Snam Company welfare system

Агеаз		Activity
Family	Nursery school	Reimbursement for employees who use it
	"dediCARE"	Social service for children, the elderly, disabled, etc. developed courtesy of the partnership with the regional cooperatives of the 3rd sector
	Summer and study periods stays	Stays for children of employees in certain locations of Italy
	S.O.S. family	Professionally managed family counselling service
	Microcredit	Low-interest loans
	Legal and tax expert	The service helps you in resolving your legal and tax questions
	Maternity, adoptions and foster care	Parenting guide
Health	Accidents	Insurance coverage for non-occupational accidents
	Supplementary healthcare	Insurance coverage that guarantees a portion for the reimbursement of expenses incurred for medical and hospital services at public and private healthcare facilities
	Cancer prevention	Prevention protocols
	Specialised medical services and check-ups	Arrangement with Monzino Cardiology Centre for visits intended for employees and their family members
	Hours	Smart Working
	Mobility	Subsidised purchase of public transportation passes; shuttle service to San Donate Milanese
	Mobility portal	Traffic information, mobility app
	Diet	High-quality company restaurant and takeaway service for private use
	Arrangements	Insurance policies, bank credit cards, car hire, purchase of name-brand products, holiday bookings, under favourable conditions, methane car purchase
	Sports centres	Discounts and favourable conditions for employees
	Workplace Health Programme	Membership in the health programme launched by the Region of Lombardy
Well-being and leisure time	Supplementary pension schemes	Supplementary pension funds, also funded by employer voluntary contributions
	Snammy bene	Workshops on food education, financial eduction and mindfulness
	Safe Driving	Company arrangements for safe driving courses
	"Snam Senza Frontiere"	2 corporate team-building events: winter games and summer games
Education	School	Subsidies to purchase school textbooks
	Talent days	Work orientation courses for employees' children
	Coding Generation	Creating a video game Stimulating different approaches to using the Internet Training for employees and their children
	Digital education	Digital education courses for employees and their children

## INTERNAL COMMUNICATION

Snam promotes direct and constant communication with its people, with the aim of actively involving them in the corporate life, bolstering the spirit of the group and directing them to adopting behaviours which can facilitate the cultural change in progress.

The 2018 internal communication plan strived to enrich the amount of content and increase the updating frequency on all the existing channels, as well as to introduce new initiatives/activities and information formats and to involve people, thanks also to the collaboration with the Snam Foundation and Snam Institute.

#### Internal communication tools

"Easy" the Intranet portal	Hard copies	Strategic cascade events with the company management
Available to all the corporate employees, it represents an important area of information and awareness and a tool for sharing expertise and thought facilitating team work.	The " <b>Energie</b> " magazine, which increased its circulation and is published quarterly, represents the identity and voice of the company.	July 2018 - Cascade meetings on the strategic plan aimed at senior and middle management and circulated via streaming to the entire corporate population.
In 2018 there was an increase in the volume of information published and updates.	" <b>Speciali Energie</b> " – increased in number/ frequency enclosed to the editorial project or distributed independently, with a focus on specific topics.	November 2018 - Online webinar presenting the strategic plan with the CEO illustrating the pillars of the new plan, directly answering to questions coming from all the employees.
	Available to all the employees also on mobile devices, the newsletter " <b>Osservatorio</b> <b>Domanda Gas</b> " with news, analysis and comments on the gas demand.	December 2018 - End of year event with video-conferencing connections bringing together the 11 main hubs of the company and exchanging season's greetings.
		Throughout the year about 20 stages of the HRO and DT&T department Roadshows took place to inform the local population about the planned activities.
Social engagement initiatives	Other engagement, cultural and training initiatives	Video screens installed at company premises
Two initiatives were launched jointly with the Snam Foundation for supporting the company's social commitment and encouraging team and relationship-building: (Snam volunteering day throughout Italy, Family Christmas with employees and their children at 11 company premises).	Thanks to the spread of streaming methods and webinars for events, a plan of initiatives was launched with the Snam Institute open for people to participate in, to disseminate new work philosophies and digital culture (Lean Speech, Digital Journeys), accessible through the company intranet.	Video screens were installed at all company premises, used as a complementary communication channel which involved an ad hoc production/adaptation of video contents, organised in a specific line ups.

## INDUSTRIAL RELATIONS

In 2018, the relationship with the trade union organisations at a national and local level was characterised by several meetings regarding plans for business evolution and new organisational structures, following the acquisition of Cubogas.

As regards transportation and storage, the integration process created by the Integra project continued to integrate the cross sectoral activities of the operational companies in order to develop and exploit specific skills.

Regarding the transportation business, the Smart Gas technical committee's work continued, seeking for a more rational scheduling of the operations with the goal of analysing the technical aspects of the project. A technical commission was launched for the "Smart Gas Plants" project with the aim of analysing technical issues relating to this further technical-organisational development.

In the regasification business, meetings were held with the trade unions, at national and local level, aimed at sharing and comparing the issues concerning the evolution of the business.

The bargaining dynamics, consistent with the provisions of the 2013 Industrial Relations Protocol, whose reasoning were imbued with the concept of strengthening second-level negotiations, led the Parties to define productivity and profitability indicators for the 2018 Participation Bonus for all Snam Group companies.

In addition, all the Snam Group companies signed the agreement implementing former Article 4 Law 92/2012 for the early departure in 2019 of further 110 employees in possession of the requirements.

Electronic ticketing was introduced at group level in all the regional operating premises through a trade union agreement.

# Labour disputes (no.)

	2016	2017	2018
Total disputes pending as at 31.12	9	29	13
Opened during the year	10	32	51*
Closed during the year	13	12	67

\* 46 grievances filed in 2018 are to be attributed to joint responsibility in procurement contracts.

## In 2018,



were held between the company and the union representatives (OO.SS. and RSU)

# The supply chain

# THE NEW ORGANISATION OF THE SUPPLY CHAIN FUNCTION

In 2018 the supply chain management structure was renewed creating a new matrix organisation and identifying the contacts for procurement in the most effective corporate positions from the point of view of acquisitions. Generating an increasingly effective partnership between corporate functions and business functions will enable Snam to simplify processes, cut costs and adjust flexibility in response to market requirements. Innovating processes, keeping a vision focused on change, anticipating future needs and developing the skills of suppliers are the essential elements at the foundation of the new model adopted by the Company to strengthen the supply chain.

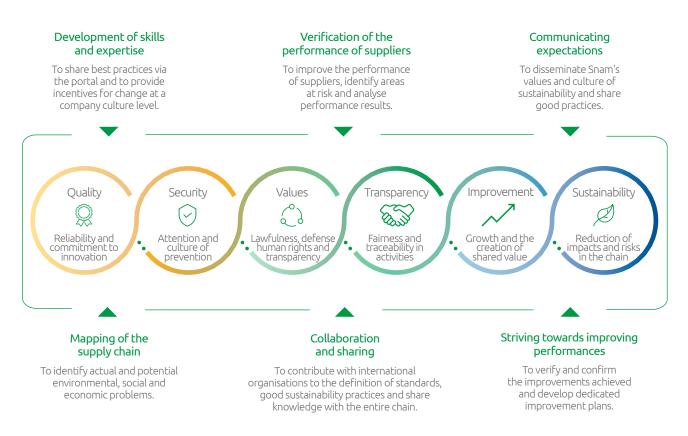
This vision of operational excellence also includes the establishment of a procurement academy, a working group set up during the year including the functions responsible for procurement in Snam and some leading publicly-owned Italian companies to share best practices and provide the best solutions currently available.

# THE SUSTAINABLE SUPPLY CHAIN

Snam operates transparently and absolutely respectfully for free competition by committing itself to engage the suppliers to achieve high and enduring performance levels, with a view towards mutual growth and creation of value. It also promotes anti-corruption, safe working conditions, the protection of human rights and environmental protection.

The Company adopts an "expanded" management model based on the engagement and empowerment of the supply chain players: all the suppliers and subcontractors are encouraged to compete and operate fairly, improving their performance in the area of risk mitigation, innovation of management processes, increased operational efficiency and promotion of responsible governance procedures. In particular, Snam, always keen on spreading a culture of legality and maintaining efficient anti-corruption measures, requires suppliers to adhere to the Ethics and Integrity Agreement, an undertaking to maintain transparent relations and meet strict requirements for the conduct of business, also engaging subcontractors in this same quest.

#### Supply chain: the management model



# Social Supply Chain Policy

Snam bases its business development model on sustainable growth, the promotion of economic and social development and a constant dialogue with the areas and communities in which it operates. Under the scope of this model the Company is committed, not only to disseminate the sustainable development goals (SDGs) promoted by the UN, but also to steer corporate activities so that they contribute to their achievement. The supply chain activities also strive towards an inclusive growth and in 2018 the Company published a social supply chain policy through which it is committed to open and sustain the involvement of social businesses in its supply chain, promoting opportunities of collaboration through networks and consortia of social enterprises.

The publication of a specific policy formally promotes the attention which Snam focuses on the third sector, in line with

the sustainable development processes in the supply chain. The involvement of social cooperatives in the supply chain, in accordance with methods that are obviously in line with Snam processes and provisions in this area, also represents an opportunity for development in the areas and local communities in which the Company operates and where these cooperatives have stronger roots. Snam therefore recognises the role of business organisations which relate to the social economy and the third sector and which play a role in labour policies and social inclusion, in order to promote the employment of weaker and socially disadvantaged groups. With this line of reasoning, it promotes potential opportunities for collaboration through networks and consortia of social enterprises and fosters the inclusion of social enterprises as sub-contractors, also through the introduction of reward mechanisms in the criteria for evaluating bids. Snam also encourages its suppliers to define policies that include social cooperatives and enterprises in their supply chain.



In 2018, thanks to its consolidated know-how in the management of complex contracts, Snam operated for the first time in the United Kingdom as **Engineering**, **Procurement & Construction** (EPC contractor), simultaneously managing the procurement of materials, engineering and plant construction (gas turbines).

# THE WEB PORTAL DEDICATED TO SUPPLIERS

There is a special Snam web platform available to suppliers. This portal is the main tool through which the Company implements its procurement policy, making it totally transparent and traceable, with full information available. Suppliers and candidates get in touch with Snam through this tool where the documents, best practices, updates on the processes and procedures regulating qualification and procurement activities and full details are available (more than 470 thousand pages were read during the year).

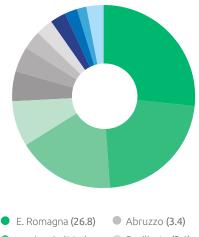
There is also a dedicated reserved area available to suppliers, containing information involving them directly (product sectors for which they are qualified, active contracts, performance in terms of workplace safety, notifications for invoicing the services provided).

The supplier portal is a tool that is constantly developing and growing: the new functionalities introduced year after year make it more efficient and stimulate how often it is used when interacting with Snam.

The increase in the main measurement indices demonstrates that the portal is well appreciated among suppliers:

- over 2,000 registered suppliers
- 1,410 users accessed it at least once
- 1,033 content items added by Snam users and Suppliers
- 11,737 email communications sent to Suppliers

## Geographic breakdown of procurement in Italy (%)





• Lombardy (22.1) Marche (17.3) Campania (2.8) Tuscany (8.1) Veneto (2.2) • Lazio (5.3) Calabria (1.6) • Other (2.9) Piedmont (4.4)

## PROCUREMENT NUMBERS

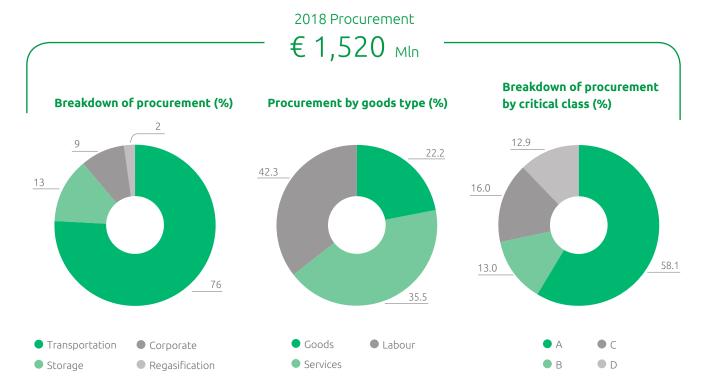
At the end of 2018 1,465 suppliers had been gualified and 611 suppliers were in the process of renewing their qualifications or newly qualifying. Snam's suppliers are mostly small and medium-sized Italian enterprises (SMES) located in almost every region of the country, consistent with the company's distribution throughout the territory. In 2018, the SMEs to which Snam assigned work amounted to 399 out of a total of 540 active suppliers. Approximately 753 supply contracts were stipulated, 61% of which in favour of SMEs, for a total of approximately €1,520 million (+80% compared with 2017) of which more than 92% were in Italy and 8% in Europe. The change in the amount procured compared to the previous year should take into account the cyclical nature of the procurement process. During the year about 20 contracts were stipulated for new activities abroad, worth approximately €6.5 million, giving a strong boost to the internationalisation process. The above mentioned data do not include the newly acquired companies: TEP, IES Biogas and Cubogas.

#### **Procurement (millions of euros)**

	2016	2017	2018
Procurement value*	1,359	844	1,520

\*the value of the procurement is calculated assigning the entire value of each contract in the year it was concluded

The Company's works categories (goods, services and works) are classified based on their level of criticality (A, B, C, D), according to the technological complexity and the impact on Snam's performance. Classes A and B are the most critical levels and mainly involve activities relating to the core business. In 2018, 71% of procurement concerned these two classes involving 128 suppliers. The most significant of the goods purchased was steel (pipes, valves, connectors, etc.) with more than 46,400 tonnes supplied.



# THE ROUTE TO BECOME A PARTNER

The management of the procurement process ensures that companies applying to supply goods, works and services are aware that they must satisfy not only requirements of quality, price and reliability, but they must also share the commitment to adopt sustainability criteria, throughout the production chain, in order to reduce potential economic, environmental and social risks.

The evaluation of the suitability of the candidate suppliers takes place exclusively through a rigorous qualification process aimed at verifying the current capacities of the supplier and its future potential, in accordance to unbiased criteria. The evaluation takes place according to the nature and criticality of the works. There are many factors subject to evaluation: technical and management skills, economic and financial reliability, ethical and reputational risk, commitment to anti-corruption, environmental protection, and promotion of healthy and safe working conditions, and the absence of forced labour and economic exploitation of underage labour. There are further requirements for more critical works categories such as the possession of certified management systems in accordance with international standards. Specifically, for the works category (criticality classes A and B) having Management Systems certified in accordance with international standards (ISO 9001, ISO14001, OHSAS 18001) is required. Snam has also set itself the goal of extending the environmental certification requirement to all suppliers of goods (criticality class A).

#### Key performance indicators (KPI)

KPI name	KPI date	Set target	Target reached	Sector	Activity
Number of Goods suppliers (criticality A) ISO 14001 certified	2017	Reach a Target of at least 65% in 2018	70%	Snam Group	

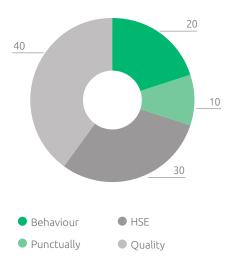
• Objective achieved.

During the year, the objective set in 2017 was achieved and exceeded. Snam is committed to carrying out more awareness actions on the possession of ISO 14001 certification with regard to suppliers of Goods (criticality class A) in 2019 aimed at maintaining the results achieved. The adoption in 2018 of new corporate rules made the entire qualification process simpler, quicker and more effective, with the total transparency and traceability of the system remaining unchanged. This was also possible thanks to the introduction of automated systems for recovering information (e.g. certifications) which reduced the burden of documents to be produced in terms of the private or public process.

In order to ensure that the list of approved suppliers is adequate to meet current and future procurement requirements, Snam constantly conducts market intelligence analyses and scouts for new suppliers: in 2018 more than 500 businesses were contacted, involving around sixty different works categories, and around 200 new applicant qualification processes were launched. The number of spontaneous applications received from prospective suppliers amounted to approximately 1,300. The multi-year planned procurements, the consistency of the vendor list of already qualified suppliers and the numerous spontaneous applications sent by businesses ensure the presence of adequate entities to be asked to tender for contracts.

The strategic sourcing tool also contributes to the excellent management of the supply chain. It is a strong lever for successfully identifying future purchasing policies and working positively to cut costs. Starting with the collection of procurement requirements over a multi-year time horizon, strategic sourcing identifies the most strategic works categories to be focused on. The purchasing strategies that follow make it possible to mitigate procurement risks.

Rating index - Assessment area (%)



# MONITORING THE SUPPLIERS' PERFORMANCE

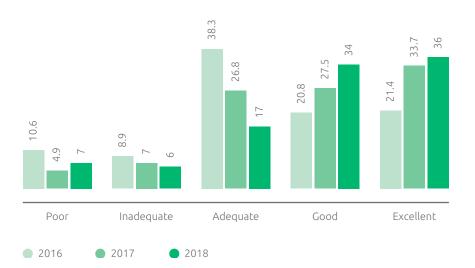
To guarantee the stability and efficiency of the supply chain, the Company establishes constant dialogue with suppliers, evaluates their performance over a period of time and keeps continously in check their requirements.

The performance monitoring during the execution of contracts, audits, inspection visits and assessment processes are the main instruments employed to protect the integrity of the supply chain sustainability and ensure that the expected standards of quality and efficiency are maintained.

Over the course of the year 815 items of feedback were received about the performance of 157 suppliers.

To evaluate their performance, Snam uses a rating index (IR) which takes into consideration the compliance with technical contractual requirements (Quality), the health-safety-environment (HSE) requirements, the agreed delivery times (Punctuality), the setting up of a good relationship with the customer for the entire duration of the contract (Behaviour). The assessment is periodically communicated to the suppliers in the form of an analytical assessment. Snam may restrict, suspend or even revoke the qualification of a supplier who fails to meet the agreed standards. The possible cases could, include, for example, the failure to meet technical-organisational requirements, negative performance evaluation for it or its subcontractors and a non-compliance with the provisions about social security contribution regularity and with the rules laid out in the Snam Code of Ethics. During 2018, 35 measures were adopted within this scope.

Suppliers Performance Evaluation (%)



Contribution Regularity: In 2018, **3,980 checks** were carried out involving **1,831 suppliers and subcontractors**. The checks conducted made it possible to intercept irregularities in 2.2% of cases.

#### Supplier sustainability analysis

	Ν	lumber	(1)		ployme actices		Environmental criteria		ntal		Human ights <sup>(3)</sup>	
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Goods												
Qualified suppliers	754	533	495	42%	60%	45%	42%	60%	45%	100%	100%	100%
of which A and B level	129	113	105	100%	100%	100%	100%	100%	100%	100%	100%	100%
Suppliers qualified during the year	54	46	85	50%	65%	35%	50%	65%	35%	100%	100%	100%
of which A and B level	7	15	9	100%	100%	100%	100%	100%	100%	100%	100%	100%
Works												
Qualified suppliers	310	250	244	75%	87%	65%	75%	87%	65%	100%	100%	100%
of which A and B level	83	68	81	100%	100%	100%	100%	100%	100%	100%	100%	100%
Suppliers qualified during the year	30	39	59	80%	95%	59%	80%	95%	59%	100%	100%	100%
of which A and B level	9	24	17	100%	100%	100%	100%	100%	100%	100%	100%	100%
Services												
Qualified suppliers	1.631	1.177	1.066	34%	38%	37%	34%	38%	37%	100%	100%	100%
of which A and B level	133	85	91	100%	100%	100%	100%	100%	100%	100%	100%	100%
Suppliers qualified during the year	130	163	265	36%	33%	28%	36%	33%	28%	100%	100%	100%
of which A and B level	10	9	19	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-EU international projects												
Qualified suppliers	-	-	7	-	-	100%	-	-	100%	-	-	100%
of which A and B level	-	-	0	-	-	0	-	-	0	-	-	0
Suppliers qualified during the year	-	-	7	-	-	100%	-	-	100%	-	-	100%
of which A and B level	-	-	0	-	-	0	-	-	0	-	-	0

(1) A supplier may hold several qualifications for different categories.
 (2) Aspects relating to health and safety.
 (3) Aspects relating to ethics (regularity of social security contributions, Law 231, child labour, forced labour, etc.).



The tariff criteria are usually defined **every four years** and guarantee a coverage of the operating costs, the depreciation/ amortisation and a fair remuneration of the net invested capital.

**Incentives** are laid down, differentiated based on the type of capital expenditures made during the course of each regulatory period.

Every year each Snam subsidiary formulates a tariff proposal which is submitted to the Authority for approval.

# Regulation and Quality of Services

Snam is committed to providing and improving its services with regard to customers with a view to efficiency, continuity, transparency, quality and market orientation, fostering working relationships with regulators and institutions and guaranteeing adequate economic returns to make investment strategies sustainable.

# **REGULATION IN ITALY**

Tariff regulation is an essential condition for enhancing the infrastructure capital from an economic perspective and for channelling investments into the network. Today, in fact, 96% of Snam's revenues are regulated.

Snam interacts with the ARERA (Italian Regulatory Authority for Electricity Gas and Water) in the following ways:

- responding, directly or through trade associations, to public consultations held by the Authority in relation to the industry activities in order to define new standards or to review the standards in force;
- participating in the technical working groups established by the Authority with regard to the evolution of the regulatory framework;
- drafting amendments to the Transportation, Storage, and Regasification Network Codes, later submitted to the Authority for approval;
- participating in the collection of data and the investigations carried out in the course of the year for the purposes of assessing the state of the industry or of the individual services. It periodically sends the data requested to comply with the information requirements.

In 2018, Snam contributed to the development of the regulatory system by providing the Authority with numerous contributions and proposals. Specifically, the activity concerned the definition of the tariff and transport service criteria for the fifth regulatory period (2020-2023), both under the scope of public consultation processes and through specific meetings. In this context - in the light of the energy transition process - innovative uses of the transportation network and technologies for the integration of renewable gases (such as, for example, biomethane and other green gases) were also examined in depth. From the perspective of the development of the regulatory system in terms of output based arrangements, guidelines in the preparation of the Ten Year Plans were also adopted and those for the definition of cost-benefit analysis methodologies for new investment in infrastructure development.

In relation to the services offered, new storage products were introduced and new market-based methodologies for the transfer of the regasification capacities of the LNG terminals, with the aim of meeting and supporting the increasing flexibility requirements of infrastructure users. Lastly, Snam contributed to the total redesigning of the settlement scheme to promote a better allocation of quantities of energy withdrawn from the network by its customers.

#### **Relations with the ARERA**

Description	Transportation	Storage	Regasification
Responses to consultation documents (no.)*	10	1	1
Tariff proposals (no.)	3	3	2
Data-gathering exercises (no.)	143	122	34
Investigations** (no.)	2	0	0
Proposed changes to codes and contractual documents*** (no.)	12	3	3
Proposed changes to approved codes and contractual documents (no.)	10	2	3

\* A similar number of responses to consultation documents was provided through trade associations.

\*\* Information transmitted to the Authority during the year with reference to investigations within the industry. This includes exploratory investigations. \*\*\* This also includes proposals still being assessed by the ARERA, including agreements and contracts with operators regarding regulated services.

EUROPEAN DEVELOPMENTS

A wide-ranging debate is ongoing at a European level about the role of gas in the future energy mix and on how new renewable energy (green gas) operators can support the energy transition process.

In 2018, the European Commission launched numerous analyses and studies to identify a package of measures (the so-called 2020 Gas Package) aimed at supporting this process, specifically with the objective of analysing how the gas infrastructures will be capable of accommodating the renewable gases and which regulatory solutions could support their development to the benefit of society as a whole.

Snam has actively taken part in this process making contributions, both through the industry associations to which it belongs (such as ENTSO-G and Gas Infrastructure Europe) and directly, through the development of specific evaluations based on the requests received from the European Commission.

# THE BALANCING OF THE SYSTEM

In 2018, the integration process which brought together the commercial management activities of the three transport, storage and regasification businesses within one single organisation allowing the optimisation of processes within Snam.

A project was implemented in this respect which integrates know-how and improves performance: a single Commercial Control Room for the management of daily gas deliveries and movements, as well as the balancing of the network, activities which define Snam's responsibilities to the market.

The main activities of the Control Room, which operates 24/7 overseeing the Italian gas system, include the balancing of the system which has a dual purpose: physical and commercial.



Thanks to the development of the Snam services over the last ten years, the Italian gas market has seen constant growth in the transportation operators, passing from 30 in 2003 to almost **200**.

In 2018, **88 connection contracts** were signed for the construction of new delivery/redelivery points (of which 14 are for biomethane injection) or the upgrading of existing points. The physical balancing of the system consists of a set of operations through which the Snam Dispatching Center controls real time flow parameters (capacity and pressure) in order to ensure that gas moves safely and efficiently from the injection points to the withdrawal points.

Commercial balancing, on the other hand, consists of the activities required to correctly schedule, account for and allocate the transported gas, as well as the fee system that encourages customers to maintain a balance between the volumes they inject into and withdraw from the network.

Snam receives requests for transport and storage capacities from its customers on a daily basis. In confirming the request, the Control Room complies with, among other things, the specific disclosure requirements of the Balancing Network Code (UE Regulation 312/2014) such as the daily publication, on the Snam website, of the information on the balancing status of the system, as well as the publication, twice a day and for each shipper, of information on withdrawals measured during the course of the gas day. The New Commercial Control Room pursues and facilitates the objective of improving the quality of service provided to customers thereby also reducing management times. In this way customers who, according to the Balancing Network Code, are responsible for the daily balancing of their positions, receive adequate information to evaluate their status and, if necessary, undertake actions aimed at correcting any imbalances.

# FLEXIBILITY AND DEFAULT SERVICES

New flexibility services were also introduced in 2018, such as intra-day storage tenders, which offers supply capacities exceeding the initial contracted amount, which are transferred to customers according to tenders during the gas day in progress.

To encourage a greater operational flexibility, in accordance to the 336/2016/R/gas and 512/2017/R/gas Authority resolutions, the Italian gas system introduced the possibility to book monthly and daily transportation capacity at the redelivery points, and related extraction areas, which feed the electric power generation plants directly, only paying for booked quantities and not for the service over the entire thermal year. This way of accessing the gas transportation system accommodates the electrical system's requirements for a more flexible conveyance method to respond promptly and efficiently to the electrical system's new operational conditions. Since 2015 Snam has fulfilled the role of Default Transport Supplier, in other words providing gas to sales companies in the distribution networks connected to the transport network and to final customers connected directly to its network where their supplier is no longer on the market. The same service is also carried out for the sales companies and final customers at third-party transporters who explicitly requested it. In the thermal year 2017-2018, this service involved 192 subjects between end customers and sales companies for volumes of approximately 263,300 MWh.

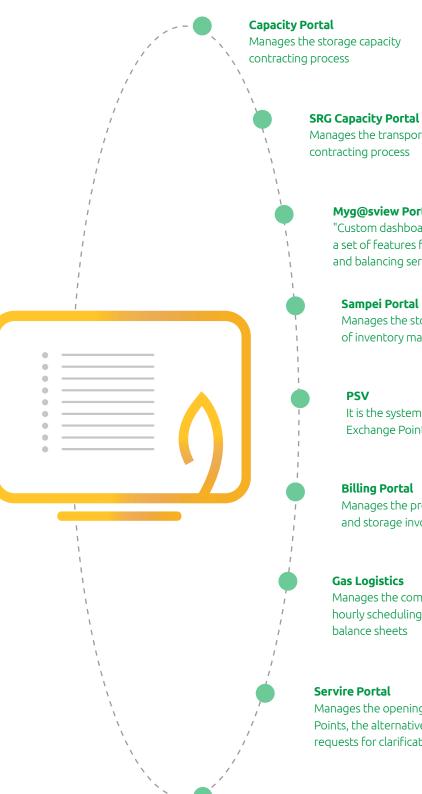
# INFORMATION SYSTEMS AT THE SERVICE OF CUSTOMERS

The Company offers its customers an information channel aimed at facilitating promptness and flexibility in communication that provides information in a "smart" way depending on needs, as well as direct and informal communication in a "chat" mode. The portal provides customers with a system of widgets and notifications which can be customised.

In 2018 the "myg@sview" portal was implemented further also thanks to suggestions from operators, through the release of new widgets, for example, with the possibility of extracting the data displayed, indicate the number and details of reduction points and/or breaks in transport capacity, report the failure to declare subscription to the alternative transport service, indicate the total amount of transport and balancing invoices with details of those which are past due or due. In addition, the widgets show the gas in stock and guaranteed, broken down by type of service indicating the daily gas price and unbalance.

The project for the total revision of the company website was launched, redefining the sections for the gas transport, storage and regasification businesses with the aim of improving the user-friendliness of the information for customers also introducing the new graphics.

## Main online systems at the service of customers



Manages the transportation capacity

#### **Myg@sview Portal**

"Custom dashboard" for shippers and traders with a set of features for a quick access to transportation and balancing services

Manages the storage agreements in terms of inventory management and gas movements

It is the system to exchange gas at the Virtual Exchange Point

Manages the process of issuing the transportation and storage invoices

Manages the commercial processes of daily and hourly scheduling, allocation and temporary or final

Manages the opening/closing request of Redelivering Points, the alternative gas supply service and the shippers' requests for clarification

#### **PRISMA Platform \***

Manages the contracting and the exchange of transportation capacity at the interconnection points with foreign countries.

\* system managed by PRISMA GmbH of which Snam is a shareholder

#### Quality supplied (compliance with network codes)

Transportation	2016	2017	2018
Active customers (shippers) (no.)	136	128	136
New connection agreements for delivery/redelivery/interconnection points (no.)	45	78	88
Transportation capacity allocated under contract / Available transportation capacity (entry points – foreign interconnection points) (%)	72	71	79
Compliance with time frames for issuing connection offers (%)	100	100	100
Compliance with time frames for providing services subject to specific commercial quality standards (%)	100	100	100
Interruptions carried out with adequate warning (%)	98	98	97
Regasification			
Active customers (shippers) (no.)	4	4	2
Compliance with the maximum time to accept proposals for monthly scheduling of deliveries (%)	100	100	100
Compliance with maximum interruption/reduction of capacity for maintenance work at the terminal (%)	100	100	100
Storage			
Active customers (shippers) (no.)	91	89	91
Storage capacity allocated under contract / Available storage capacity (%)	100	99.9	99.7
Compliance with time frames for providing services subject to specific commercial quality standards (%)	100	100	100
Connection flow lines subject to supervision (%)	100	100	100
Total capacity not made available following service interruptions/reductions (%)	0	0	0

In 2018 the Company embarked on a project (Jarvis) aimed at improving its internal commercial platform. Workshops dedicated to customers were held during the research phase in order to design the new information system together.

The Jarvis project, by actively involving customers, is designed to review the commercial platform on the basis of the feedback received from customers and adopt a renewal process for services and technologies to support all transport, storage and regasification commercial processes. The project also aims to promote the offering of integrated services for the Italian market and enable possible developments for the overseas market.

# MARKET ENGAGEMENT ACTIVITIES

The customer care initiatives represent the consolidation of a sustainability process through which the Company aims to increase the involvement and interaction with customers in order to achieve a constant improvement in the quality of the offered services.

Codes list a number of indicators for monitoring the quality of service offered by the companies. Regarding these indicators, Snam maintained a good performance in 2018 as well. One part of these indicators, which refers to specific levels of business quality, generates an automatic claim for customers in the event of a failure in the service quality standards.

Five commercial workshops were held in 2018 (plus one on biomethane) aimed at comparing the functioning of balancing and market mechanisms. In particular, the meetings provided the opportunity to discuss innovations and the progress of balancing and transportation, storage and regasification, as well as providing feedback on the process of the updating of IT systems.

At the Partners' Day, which took place in November, a debate was held, as part of the commercial issues, on digital transformation in the gas industry, block chain and new technologies.

# 192 155 164 2016 2017 2018 • Questionnaires sent

Customer survey -

Shippers and Traders (no.)



# CUSTOMER SATISFACTION

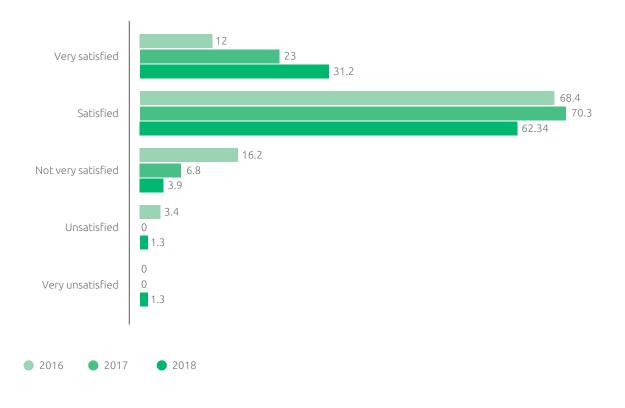
The quality perceived by customers is constantly measured through customer satisfaction surveys.

A new online customer satisfaction survey was conducted in November involving all the shippers and traders who collaborated with Snam in the concluded Thermal Year 2017-2018.

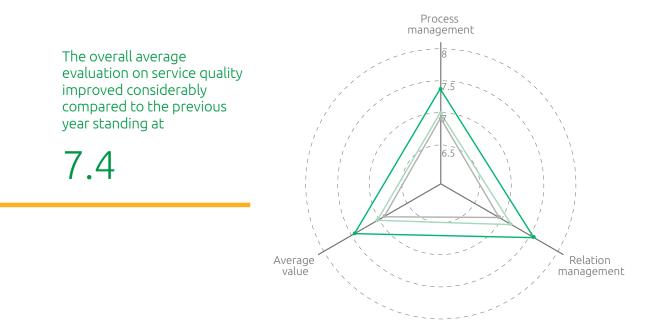
The analysis was extended to transportation, storage and regasification activities. The survey involved a poll about customer satisfaction in relation to the quality of services offered, the customer engagement activities undertaken by the Company and the functionalities and additional services introduced in 2018 also following the requirements revealed by the customers themselves as well as regulatory developments.

The turnout rate was 55% and about 93% of the results were positive about the customer engagement activities which were implemented by Snam to improve the services offered and consolidate a proactive collaboration with its stakeholders.

#### Customer assessment on satisfaction initiative (%)



## Results by survey area (scale from 1 to 10)



● 2016 ● 2017 ● 2018

# SNAM FOUNDATION

In more than 75 years since its establishment, Snam has made a contribution to the innovation, progress and social growth of Italy through the creation and management of complex infrastructures. Taking inspiration from the Snam infrastructural vocation, and placing itself as an player for the development of the social system through the construction of networks also listening directly to stakeholders in the communities, the Foundation aims to redevelop the most vulnerable areas of the country also through the protection and care of the landscape and environment heritage as well as the development of cultural and social activities by all means.

The Snam Foundation, as a system integrator, places itself as an connection between Snam and the social sector. It promotes partnerships with different players within the local communities prioritising agreements with social enterprises and making available its methodology, managerial skills and the capacity to attract investments and developing relational networks. Strengthening the capacity to support the needs of a changing world, the Foundation promotes the dissemination of social innovation.

Since its establishment in 2017, the Foundation has undertaken the development of new projects, involving the corporate area and its employees in initiatives and gained accreditation from other Foundations and third sector national bodies.

Call for ideas

In 2018, the Foundation replied to a **call for ideas** from the social enterprise "Con i bambini" (With the children) about a research on co-financing projects to fight educational poverty. The idea submitted by the Foundation was chosen and it is based on the promotion of an alliance between schools, families and other players in the community, specifically third sector organisations, to overcome education poverty among underage students and prevent forms of hardship among children. The project strives to contribute to the removal of obstacles of an economic, social and cultural nature which hinder the full use of the educational processes by underage students and aims to define an experimental collaboration model between schools and third-sector organisations to implement integrated educational services that can be scaled up on a national level.

The idea will be developed, on a trial basis, through a codesign project, in schools in three cities: Milan, Palermo and Brindisi with the goal, in each specific situation, of defining a joint educational project for schools and thirdsector organisations, which can then be replicated in different settings on a national scale.

Activities have been developed involving corporate people, promoting both interaction between business and the non-profit world, and encouraging the engagement of employees and involving them in social impact initiatives.



**Free Energy** is an initiative to support ideas and projects of third-sector organisations suggested by the Snam Group employees and which are aligned to the actions already implemented by the Snam Foundation. The goal of the project is to increase the positive impact of supportive initiatives to which employees already dedicate their leisure time. The Free Energy project was organised around 4 themes: "Double your contribution", "Suggest a project", "Submit an idea", "Indicate your commitment" and around 70 people have been involved with approximately 100 reports.



With the **volunteering day** Snam employees spent a working day voluntereeing for third-sector organizations identified by the Foundation.

Three hundred employees (more than 10% of the corporate population) joined the initiative working at 23 non-profit organizations, 49 different activities in 28 Italian locations.



The **Tesori - Terre Solidali in Reti Inclusive** initiative continued. The project was launched in 2017 to promote social agricultural projects in partnership with

Confagricoltura with the purpose of building on corporate assets, local experiences and skills and strengthening relationships with the local communities.

In 2018, two calls for tender were launched, addressed to social workers, mainly in the agricultural sector, which have led to the selection of projects which are better able to connect aspects of inclusion, social impact on local communities, and sustainability, through innovation and experimentation.

Currently, also thanks to the support of the Snam employees in the area, a detailed plan is being developed for interventions in the areas of Camerino, Ronco all'Adige and Messina.

The free ten-year use of the land, together with the economic support and the financing of the online Masters in Social Agriculture organised by the University of Tor Vergata, are the prize for project winners.

Welfare che impresa

In 2018, the Foundation followed the winners of **Welfare**, **che impresa!** namely the start-ups Tripmetoo and Agrishelter, supporting them during the incubation process and accompanying them on the subsequent launch and consolidation phases; it also renewed its participation in the new edition of the "Welfare, che impresa!" competition, contributing, together with"Fondazione con il Sud" and the other partners to the implementation of the third edition planned for 2019.



This year, Snam again participated to **Youth in Action for Sustainable Development Goals**, a competition promoted by Fondazione Italiana Accenture, Fondazione Eni Enrico Mattei and Fondazione Giangiacomo Feltrinelli, aimed at young people under 30, with the goal of collecting and rewarding the best design ideas to promote the achievement of the Sustainable Development Goals (SDGs) in Italy. The winners were rewarded with a paid internship. The role of the Snam Foundation was to facilitate the relationship between Snam and the other sponsoring Foundations taking part in the selection of the final ideas and offering to the internship to the chosen candidate. The Snam Foundation will support this competition also in 2019.

In 2018, the Snam Foundation signed agreements with different partners, including: Fondazione Con il Sud, CGM (Consorzio Nazionale della Cooperazione Sociale Gino Mattarelli), Confagricoltura, Assifero, (Associazione Italiana delle Fondazioni ed Enti della filantropia Istituzionale), EVPA (European Venture Philantropy Association), IID (L'Istituto Italiano della Donazione) and Fondazione Lang.







# Business integrity

Snam operates within the framework of the United Nations' Universal Declaration of Human Rights, the Fundamental Conventions of the ILO - International Labour Organisation - and the OECD Guidelines for Multinational Enterprises and the principles enshrined in the United Nations Global Compact. In this context, Snam constantly endeavours to maintain and strengthen a Corporate Governance system in line with both national and international best practices.

# THE CORPORATE AND ORGANIZATIONAL STRUCTURE

Snam's Corporate Governance system consists of a set of planning, management and control rules and methods necessary for the company to operate. These were outlined by the Board of Directors, in accordance with the laws which apply to company as a listed issuer and in adherence to the Code of Corporate Governance approved by the Corporate Governance Committee.

This Corporate Governance system is based on principles, such as correct and transparent business management implemented through the identification of information flows between corporate bodies and an efficient definition of the internal control and risk management system.

Snam exercises management and coordination activities with regard to subsidiaries and has adopted specific guidelines on Corporate Governance which define, among other things, the principles, contents, instruments and operating methods for the strategic guidelines implemented by Snam. In line with the corporate governance system and characteristics of its organisational structure, the management and coordination activities take into adequate consideration the legal autonomy and principles of correct corporate and business management of the subsidiaries.

Snam's organisational structure is divided into four business units and staff functions, arranged with a view to simplifying processes, efficiency and continuous improvement. The business units are focused on the commercial-development activities, management of the Italian subsidiaries, management of the foreign shareholdings, and development of technical services focused on specialised skills and know-how for the gas-industry operators.

# **BUSINESS ARRANGEMENTS**

The management of business activities refers to an organisational and procedural system that is consistent for all Snam Group companies, in Italy and abroad, created for the purpose of making the corporate management rules clear, simple and systematic.

Snam also adheres to the UN Global Compact, the most important international sustainable development initiative, which promotes and disseminates the ten global ethical principles concerning human rights, environmental protection, workers' rights and anti-corruption. These principles come from the Universal



## The main policies are:

Sustainable development policy;

Health, safety and environmental protection policy;

Diversity policy;

**Corporate Governance** guidelines;

Enterprise Risk Management guidelines;

Stakeholder **engagement** policy;

Human rights policy;

**Philanthropic** and **social** initiative activities management policy;

Anticorruption guideline;

Supply chain social policy.



The Snam Board of Directors has a high degree of:

independence, with 5 out of 9 directors qualified as independent pursuant to the Consolidated Finance Law and the Code of Corporate Governance; representativeness, with a third of its members elected in the lists submitted by minority shareholders;

**gender diversity:** 44% of its directors are women, one of the highest values observed in companies listed on the Italian Stock Exchange (Borsa). Declaration of Human Rights, the Declaration of the International Labour Organization on fundamental work principles and rights, the Rio Declaration on Environment and Development and, lastly the United Nations Convention Against Corruption. Fundamental to the well-functioning of the system is the allocation of specific objectives to each position of responsibility and the transparent assessment of results, thus enabling continuous improvements in the effectiveness and efficiency of the corporate processes.

# THE BOARD OF DIRECTORS

The Board of Directors is the central body in the corporate governance system and is vested with the highest powers for the ordinary and extraordinary company management.

The Snam Board currently in office, appointed by the Shareholders' Meeting of 27 April 2016, is composed of nine directors who will remain in office for a period of three years. The Board of Directors plays a central role in overseeing the company's commitment to sustainable development along the value chain. The Board is assisted in these tasks by the Sustainability Committee, which plays a proactive and consulting role and it is composed of three non-executive directors, two of which are independent, including the Chairman.

During the year the Committee met 10 times with the competent corporate functions on environmental, social and economic issues. The participation rate of the Committee members was 100%.

#### Evolution in the Terms of Office

Previous terms of office	Current terms of office	Averange FTSE MIB
9	9	12.7*
3 (33.3%)	3 (33.3%)	2 (15.8*)
33%	44.4%	35,5% *
56%	56%	62% *
56	54	58.2
Non executive	Non executive	Non executive 75%**
NO	NO	16%*
	terms of office 9 3 (33.3%) 33% 56% 56 Non executive	terms of officeterms of office993 (33.3%)3 (33.3%)33%44.4%56%56%5654Non executiveNon executive

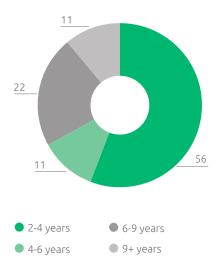
\* The European House – Ambrosetti S.p.A., L'osservatorio sull'eccellenza dei sistemi di governo in Italia, 2018 Edition. The data refers to FY 2017 and is taken from public sources, such as the 2017 Financial Statements and the Report on Corporate Governance published in the spring of 2018. \*\* Assonime – La corporate Governance in Italia: autodisciplina, remunerazione e comply-or-explain (2017),

Abstract Notes and Studies. The 2017 survey includes 221 Italian companies, listed as at 31 December 2016, the Reports of which were available at 15 July 2017. The figure refers to the average number of companies in the FTSE MIB in which the Chairman is not Chairman-CEO.

## During 2018, the Sustainability Committee met

10 times

## Seniority of office of the Directors on the BoD (%)



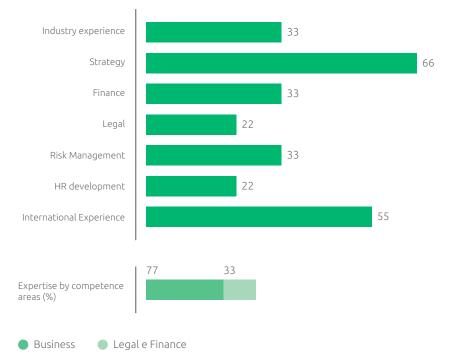
#### Board of Directors Members by Age (no.)

	2016	2017	2018
Bod Members < 30	0	0	0
BoD Members between 30 and 49	3	2	2
BoD Members > 50	6	7	7

#### Directors' expertise (%)



The detailed information about the Corporate Governance system is reported in the "**Relazione sul governo societario e gli assetti proprietari 2018**", published on the website (http://www.snam.it/ export/sites/snam-rp/repository/ ENG\_file/Governance/Social\_ bodies/Shareholders\_meeting/ Minutes\_documents/2019/Report\_ on\_Corporate\_Governance\_and\_ Ownership\_Structure\_2018.pdf).





## Ethical principles and business values

**Transparency, honesty, fairness,** good faith in compliance with the competition protection rules;

#### Stakeholder engagement,

including a dialogue on issues such as sustainability and corporate responsibility;

Creating competitive **value** for the company, its Stakeholders and the territories in which it operates;

**Protecting** and promoting human rights;

Protecting all forms of individual **freedom** and repudiating any type of discrimination, violence, corruption (in any form thereof with reference to any public or private persons), and forced or child labour;

Recognising and **safeguarding** the dignity, freedom and equality of human beings;

**Protecting** jobs and trade-union freedom, health, safety, the environment and biodiversity.

# The fight against corruption and illegality

The main internal regulatory framework for fighting corruption is the Anticorruption Guideline which applies to Snam and the subsidiaries and which the other participating companies have been made aware of in order to promote principles and behaviour consistent with those expressed by Snam. The Guideline is inspired by the principles of ethics, transparency, fairness and professionalism already referred to in the Code of Ethics and also strives for the continuous improvement of the sensitivities of the Snam people in recognising corruption issues and other types of fraud, as well as their responsiveness in taking an active role in preventing, suppressing or reporting possible violations of the anticorruption laws. The Anticorruption Guideline is consistent with the tenth principle of the Global Compact that states that businesses should work against corruption "in all its forms, including extortion and bribery" and clearly outlines permitted and prohibited conduct. In particular:

- it prohibits the offering, promising, giving, paying, or allowing anyone to give or pay, directly or indirectly, an economic or material advantage or other benefits to a public official or to a private person (Active Corruption); it prohibits accepting the request from, or solicitations from, or allowing someone to accept or solicit, directly or indirectly, an economic or material advantage or other benefits from anyone (Passive Corruption);
- it pays particular attention to the selection of suppliers and the qualification process, the awarding of contracts, the management of contracts, the standard terms of protection, including those of commitment to respect Anti-Corruption Laws and to verify the ethical requirements of suppliers;
- it establishes that all relations with Snam which refer to or involve third parties should be conducted in compliance with the provisions of the Anticorruption Guideline and the instruments therein.

The Anti-Corruption Guideline is part and parcel of a broader business ethics control system adopted by Snam that aims to ensure the company's compliance with national and international laws and best standards. In this regard, Snam provides special awareness training to its staff and carries out monitoring activities to analyse the degree of dissemination and knowledge. To prevent the risk of corruption and fraud in general in supply chain relations, all suppliers and subcontractors are required to sign the Ethics and Integrity Agreement that allows the performance of reputational analysis aimed at the early identification - also based on public information - of possible risks of infiltration by organised crime.

In 2018, Snam collaborated with:

- the OECD taking part in the:
  - Anti-Corruption and Integrity Forum in Paris in March. Snam was the only Italian private company to take part in a discussion comparing the various national approaches to the fight against corruption and the promotion of integrity in businesses;
  - at two discussions, in specific seminars, held at St. Petersburg and Moscow in June, which Snam was the only European company to take part in, on respectively: i) the improved control procedures in companies aimed at identifying any unlawful behaviour; ii) the contribution of companies in the public participation in the development of the new OECD guidelines on business integrity;

- at the Working Party on State Ownership and Privatisation Practices, organised in November, also in Paris, Snam intervened on the issue of promoting integrity and preventing corruption at corporate level, illustrating the company's experience in the management of relations with its business associates, also for the purpose of defining the new Guidelines on the subject;
- Transparency International, intervening:
  - at the "*BIF Roadshow 2018* Against grey areas and corruption for a culture of legality" held in Terni in the month of June. Specifically, Snam participated illustrating the actions that the company has undertaken to disseminate the principles of business integrity in relations with suppliers;
  - at the presentation of the Business Index on Transparency at the Business Integrity Forum held in November. On this occasion, the Company took part in a discussion comparing good practices for fighting corruption and, as the representative of the Energy sector, it stood out for its own best practices and for the extent of its culture of business ethics and preventive measures adopted;
- the Ministry of Foreign Affairs and International Cooperation, taking part in:
  - the "27<sup>th</sup> Session of the United Nations Commission on Crime Prevention and Criminal Justice" organised in May under the auspices of the Italian Business Integrity Day, in conjunction with Transparency International, at the United Nations in Vienna. The event was also preceded by a seminar at the International Anti-Corruption Academy, where Snam illustrated its experience in the fight against corruption;

- at the Italian Business Integrity Day (IBID), in December at the Italian Embassy in Washington.
   Snam took part in a discussion about preventive approaches implemented by businesses, counterparty risk management and new strategies to make the internal anticorruption control system effective;
- at the 2018 International Anticorruption Day at the Ministry of Foreign Affairs and International Cooperation in December. The Company was invited by the Ministry to take part in the revision of the first draft of the G20 High-Level Principles, on the issue of the prevention of corruption and the promotion of integrity in public or investee companies, which is expected to be finalised in 2019.

On these occasions the Company illustrated its instruments for overseeing transparency and fighting against corruption. Additionally, in matters of business ethics, legality and anti-corruption, approximately 321 hours of training were provided to new employees.

Snam, computerised the data flows to the National Anti-Corruption Authority. The direct interface between the computer systems, allows the Tender ID Code (IGC) to be obtained, to eliminate all manual filling procedures and to improve traceability, transparency and security for all the operations.

# REPUTATIONAL CHECKS

4

Denial of

subcontracting

authorization

Oualification

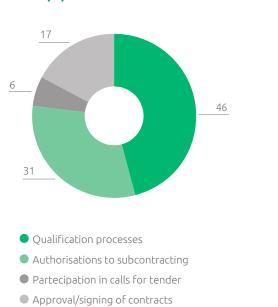
suspension

Denial of

tender

clearance

In 2018, about 2,074 reputational checks were carried out on suppliers, subcontractors and participants in calls for tender. 31 measures were adopted as a result of these checks.



#### Breakdown of reputational audits (%)

## Measures (no.)

22

Denial of

qualification

clearance



Reputational

alert

# Management systems

The main goal of the management systems is to promote constant improvements in corporate performance (environmental, health and safety and the quality of services provided) and to guarantee regulatory conformity, through the introduction and implementation of policies, organisational systems and specific programmes.

In 2018 Snam implemented all the activities necessary to extend the management system certifications to the new companies entering the scope of consolidation and to maintain and update other existing certifications, in accordance to the new standards (ISO 14001:15 and ISO 9001:15).

To check the effectiveness of the management systems, in 2018, 237 audits were carried out at various Group companies (95 of which were conducted by an outside team) and 54 audits on health, safety and the environment, at contractors working at sites. There are also 27 auditors, also qualified for external audits, working at Snam.

#### Audit (no.)

	2016	2017	2018
Internal	166	127	142
External	46	36	95
Total	212	163	237



#### Management systems

Company	Certification scope	Type of certification and accreditation	Year of first certification
	Management of operational continuity for the planning, development, centralised management of process and remote control systems for the dispatching of natural gas transport	ISO 22301	2018
Snam	Processes for natural gas transportation via gas pipelines, ancillary systems and compression stations (Administration, Business Development, Marketing of Services, Asset Creation, Asset Management, HSEQ, Planning and Control, Supply Chain) and for natural gas storage in geological units (Marketing of Services)	ISO 9001	2016
	Company	ISO 14001	2015
	Management of information security for the planning, development, centralised management of process and remote control systems for the dispatching of natural gas transport	ISO 27001	2014
	Company	BS OHSAS 18001	2012
	Company	ISO 9001	2016
	Natural gas transportation dispatching activities	ISO 22301	2015
Snam Rete gas	Company	ISO 14001	2013
	Company	BS OHSAS 18001	2010
	Testing laboratory (LAB 764 Piped gaseous flows)	ISO 17025	2007
	Calibration laboratory (LAT 155 Natural gas mixtures)	ISO 17025	2002
		BS OHSAS 18001	2012
GNL Italia	Company	ISO 14001	2000
	Company	BS OHSAS 18001	2012
Stogit	Design and delivery of natural gas metering and accounting	ISO 9001	2008
	Company	ISO 14001	2002
		ISO 9001	2018
ITG	Company	ISO 14001	2010
		BS OHSAS 18001	2009
		BS OHSAS 18001	2018
Snam 4 Mobility	Company	ISO 9001	2018
		ISO 14001	2018
TED	Company	UNI 11352:2014	2013
TEP	Company	ISO 9001	2010
		BS OHSAS 18001	2018
Cubogas	Company	ISO 9001	2018
		ISO 14001	2018
IES Biogas	Company	ISO 9001	2018



# Performance figures and indicators

#### Key operating figures

	2016	2017	2018
Natural gas transportation			
Gas injected into the network (10º m³)	70.63	74.59	72.82
Gas pipeline network (km)	32,508	32,584	32,625
Average travel distance of gas in Italian transportation network (km)	582	551	510
Gas compression stations (no.)	11	11	13
Installed power in the gas compression stations (MW)	922	902	961
Liquefied natural gas regasification			
Regasified natural gas (10° m³)	0.21	0.63	0.91
Number of LNG tanker loads	5	15	21
Natural gas storage			
Gas injected in storage (10 <sup>9</sup> m <sup>3</sup> )	9.97	9.80	10.64
Gas delivered from storage (10° m³)	10.03	10.12	10.43
Operating concessions (no.)	9	9	9

## Key financial figures (\*)

	2016	2017	2018
Economic and financial data (millions of €)			
Total revenue	2,560	2,533	2,586
Total revenue - net pass through items	2,444	2,441	2,528
Adjusted EBIT	1,336	1,363	1,405
Adjusted net profit	845 (*)	940	1,010
Operating costs	573	511	491
Total revenue - net pass through items	428	419	433
EBITDA	1,987	2,022	2,095
Net invested capital at 31 December	17,553	17,738	17,533
Shareholders' equity at 31 December	6,497	6,188	5,985
Net financial debt at 31 December	11,056	11,550	11,548
Free Cash Flow	1,707	423	1,161
Added value produced	2,518	2,447	2,532
Added value distributed	1,913	1,621	1,634
Snam's stock			
Number of shares in share capital (mln)	3,501	3,501	3,469
Number of shares outstanding on 31 December (mln)	3,471	3,415	3,301
Average number of shares outstanding during the year (mln)	3,497	3,422	3,358
Year-end official share price (€)	3.922	4.086	3.820
Average official share price during the period (€)	4.101	4.043	3.747
Market capitalisation (millions of €)	13,612	13,953	12,606
Dividends paid in the period (millions of €)	875	718	731

(\*) For additional information please refer to the Snam 2018 Annual Report

# Key employees figures and indicators

Total employees (no.)2.8.9 2.9.912.9.91 3.0.00of which women (no.)3693.93419Average leadscourt (no.)3.0262.9272.943Average length of service (vers)21.121.01.925Employees by subsess segment21.121.01.925Corporate (no.)7858.82978Transportation (no.)1.7261.9721.915Storage (no.)3016059Regasification (no.)716.364Employees by grade716.364Executives (no.)879.0070Midle Managers (no.)1.6511.6551.682Blue collar workers (no.)7247.157.47Employees by type of contract716.36.81Permente contract (no.)2.6762.7552.812of which women (no.)3483.633.82Apprenticeship or internship contract (no.)3.313.673.82of which women (no.)3.313.633.82Partitic contract (no.)2.1692.2073.92of which women (no.)3.313.673.92Storage by geographical area7.164.94.99North (no.)2.1692.2042.302Of which women (no.)3.93.934.99Aprenticeship or internship contract (no.)2.1692.302of which women (no.)3.93.933.92Storage by geographical area3.92 <th></th> <th></th> <th></th> <th></th>				
of whine women (no.)369369369369Average headcount (no.)3,0262,9272,943Average length of service (years)46.145.744.9Average length of service (years)21.121.019.5Employees by business segment7858.82978Corporate (no.)7858.82978Transportation (no.)1,7261,9721,975Storage (no.)3016059Regasification (no.)716364Employees by grade716364Execubives (no.)879310Administrative staff (no.)1,6511,6551,682Blue-colar workers (no.)724715747Employees by type of contract7463395Apprenticeship or internship contract (no.)348369395Apprenticeship or internship contract (no.)331357362of which women (no.)331357362364partitime contract (no.)2,1692,2042,3022,302of which women (no.)331357362364partitime contract (no.)2,1692,2042,3022,302central (no.)2,1692,2042,3022,302Central (no.)2,5142,5574,494Apprentices by genger (no.)444Apprentices by genger (no.)2,5142,52572,597Morth (no.)369333<		2016	2017	2018
Average headcount (no.)3.0.262.9.272.943Average age of employees (years)46.145.744.9Average length of service (years)21.121.019.5Employees by business segment78.582.4978Corporate (no.)7.8582.4978Transportation (no.)1.7261.9721.915Storage (no.)3016059Regasification (no.)716364Employees by grade8793107Middle Managers (no.)8793107Middle Managers (no.)1.6511.6521.682Permanent contract (no.)72.4715747Employees by grade72.4715747Employees by grade contract72.4715747Employees by grade contract (no.)2.6762.7552.812of which women (no.)3.483.69335Apprenticeship or internship contract (no.)2.6762.7552.812of which women (no.)3.813.673.62Temployees by grage phere3.63.753.62North (no.)2.1632.2073.644.04Apprenticeship or internship contract (no.)3.63.63.75Employees by grage phere4.64.044.04Apprenticeship or internship contract (no.)2.6.65.044.04Apprenticeship or internship contract (no.)2.6.65.044.04Contract (no.)2.1.62.2.04	Total employees (no.)	2,883	2,919	3,016
Average age of employees (years)46.145.7444.9Average length of service (years)21.121.019.5Employees by business segment785824978Corporate (no.)785824978Transportation (no.)1.7261.9721.915Storage (no.)3016059Regasification (no.)8793107Middle Managers (no.)4214554400Administrative staff (no.)1.6511.6521.682Blue collar workers (no.)724715747Employees by type of contract724715747Employees by type of contract (no.)2.6752.7552.812of which women (no.)348369395Apprenticeship or interrship contract (no.)31357322of which women (no.)331357322Part-time contract (no.)331357322of which women (no.)331357322Part-time contract (no.)331357322Orth (no.)2.1632.2002.302South (no.)2.1692.2002.302South (no.)2.1693.3037Employees by gender44Morth (no.)363.40Onth (no.)363.40Onth (no.)363.40Onth (no.)363.40Onth (no.)3.603.40Onth (no.)3.603.40Onth (	of which women (no.)	369	393	419
Average length of service (years)21.121.019.5Employees by business segment785824978Corporate (no.)785824978Transportation (no.)1,7261,9721,915Storage (no.)3016059Regasification (no.)716364Employees by grade8793107Middle Managers (no.)8793107Middle Managers (no.)1,6511,6521,652Bue-collar workers (no.)724715747Employees by type of contract724715747Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)11419Fullume contract (no.)2,6762,8772,975of which women (no.)381337332Part-time contract (no.)444of which women (no.)381336337Employees by geographical area331332332North (no.)2,1692,2042,3022,302Central (no.)2,1692,2042,3022,302South and Sidly (no.)36369349Abroad (no.)4444Men (no.)2,5142,5262,597Women (no.)369339419Remloyees by gender444Employees by gender4 <td>Average headcount (no.)</td> <td>3,026</td> <td>2,927</td> <td>2,943</td>	Average headcount (no.)	3,026	2,927	2,943
Employees by business segment785824978Corporate (no.)785824978Transportation (no.)1.7261.9721.915Storage (no.)3016059Regasification (no.)716364Employees by grade716364Executives (no.)8799107Middle Maagers (no.)421456480Administrative staff (no.)1.6551.6821.682Blue collar workers (no.)724715747Employees by type of contract724715747Employees by type of contract2.6762.7552.812of which women (no.)348369395Apprenticeship or internship contract (no.)2061501885Fixed-term contract (no.)2.6813.83387of which women (no.)348368395of which women (no.)369368 </td <td>Average age of employees (years)</td> <td>46.1</td> <td>45.7</td> <td>44.9</td>	Average age of employees (years)	46.1	45.7	44.9
Corporate (n.)785822978Transportation (no.)1,7261,9721,975Storage (no.)3016659Regasification (no.)716364Employees by grade8793107Kiddle Managers (no.)421455480Administrative staff (no.)1,6511,6551,682Blue-collar workers (no.)724715747Employees by grode footnact2,6762,7552,812Permanent contract (no.)2,6762,7552,812of which women (no.)368369395Apprenticeship or internship contract (no.)11419Fulltime contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)2,1692,2042,302of which women (no.)3636367Employees by geographical area36367North (no.)2,1692,2042,302Central (no.)2,1692,2042,302Central (no.)2,1692,2042,302Central (no.)3636369South and Sirdly (no.)444Employees by gender369369369Men (no.)2,5142,5252,597Women (no.)369369369 <td< td=""><td>Average length of service (years)</td><td>21.1</td><td>21.0</td><td>19.5</td></td<>	Average length of service (years)	21.1	21.0	19.5
Transportation (no.)1,7261,9721,975Storage (no.)3016059Regasification (no.)716364Employees by grade8793107Middle Managers (no.)8793107Middle Managers (no.)1,6511,6551,682Blue-collar workers (no.)724715747Employees by type of contract724715747Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)11419Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)313357382Part-time contract (no.)313357382Part-time contract (no.)2,1692,2042,302of which women (no.)2,1692,2042,302of which women (no.)2,1692,2042,302Central (no.)2,1692,2042,302South and Sicily (no.)506504440Employees by gender444Employees by gender444Employees by gender369393419Remuneration differential-women/men (middle manager grade)0.960.960.96	Employees by business segment			
Storage (no.)30160Regasification (no.)716364Employees by grade8793107Middle Managers (no.)421456480Administrative staff (no.)1,6511,6521,682Blue-collar workers (no.)724715747Employees by type of contract724715747Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)2061501185Fixed-term contract (no.)11419Full time contract (no.)311357382of which women (no.)331357382of which women (no.)331357382Part-time contract (no.)11419of which women (no.)331357382of which women (no.)331357382Dentate (no.)2,1692,2042,302Central (no.)2,1692,2042,302Central (no.)2,04202220South and Sicily (no.)506504440Atorad (no.)444Employees by gender44Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential-women/men (widdle manager grade)0.960.960.980.960.960.98	Corporate (no.)	785	824	978
Regasification (no.)         71         63         64           Employees by grade         E           Executives (no.)         87         93         107           Middle Managers (no.)         421         456         480           Administrative staff (no.)         1,651         1,655         1,662           Blue-collar workers (no.)         724         715         747           Employees by type of contract         724         715         747           Permanent contract (no.)         2,676         2,755         2,812           of which women (no.)         348         369         395           Apprenticeship or internship contract (no.)         206         150         185           Fixed-term contract (no.)         2         2,838         2,877         2,975           of which women (no.)         331         357         382         385           Part-time contract (no.)         45         42         441           of which women (no.)         38         36         37           Employees by geographical area         2         2         2204         2,204         2,204         2,204         2,204         2,204         2,204         2,204         2,204	Transportation (no.)	1,726	1,972	1,915
Employees by grade8793107Executives (no.)8793107Middle Managers (no.)4214564400Administrative staff (no.)1,6511,6551,682Blue-collar workers (no.)724715747Employees by type of contract724715747Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Etked-term contract (no.)2,067313357of which women (no.)331357382Part-time contract (no.)313357382of which women (no.)331357382Part-time contract (no.)4542441of which women (no.)383637Employees by geographical area383637Employees by geographical area2,1692,2042,204North (no.)2,1692,20444044Employees by gender444Employees by gender444Employees by gender369393419Remuneration differential - women/men (middle manager grade)0.960.960.93	Storage (no.)	301	60	59
Executives (no.)8793107Middle Managers (no.)421456460Administrative staff (no.)1,6511,6521,682Blue-collar workers (no.)724715747Employees by type of contract724715747Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)1119Full time contract (no.)2,8332,8772,975of which women (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)331357382Contract (no.)331357382Part-time contract (no.)33357382Part-time contract (no.)331357382Part-time contract (no.)3313573202Contral (no.)363637Employees by geographical area122202North (no.)2,5142,5262,597Moren (no.)369393419Remuneration differential -women/men (executive grade)1,021,03Remuneration differential -women/men (middle manager grade)0,060,06On Set0,050,050,05	Regasification (no.)	71	63	64
Middle Managers (no.)4214564600Administrative staff (no.)1,6511,6521,682Blue-collar workers (no.)724773747Employees by type of contract2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)11419Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)383637Employees by geographical area22,200200North (no.)2,1692,2002200South and Sicily (no.)2,01444Employees by gender444Employees by gender369393419Renuneration differential - women/men (executive grade)0.050.060.088Renuneration differential - women/men (middle manager grade)0.960.960.93	Employees by grade			
Administrative staff (no.)1,6511,6521,652Blue-collar workers (no.)724715747Employees by type of contract2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)2,8382,8772,975of which women (no.)3,31357382Part-time contract (no.)11419Full time contract (no.)2,8382,877382Part-time contract (no.)331357382Part-time contract (no.)383637Employees by geographical area2,1692,200North (no.)2,1692,202South and Sicily (no.)204202Abroad (no.)44Employees by gender44Men (no.)3.693.93Abroad (no.)3.693.93Abroad (no.)3.693.93Abroad (no.)3.693.93Men (no.)3.693.93Aproad (no.)3.693.93Aproad (no.)3.693.93Anoral (no.)3.693.93Aproad (no.)3.693.93Aproad (no.)3.693.93Aproad (no.)3.693.93Aproad (no.)3.693.93Aproad (no.)3.693.93Apploaces by gender3.693.93Men (no.)3.693.93 <t< td=""><td>Executives (no.)</td><td>87</td><td>93</td><td>107</td></t<>	Executives (no.)	87	93	107
Blue-collar workers (no.)724715747Employees by type of contract222Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206100185Fixed-term contract (no.)2,6382,8772,975of which women (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)4,5382,877382of which women (no.)331357382Part-time contract (no.)4542411of which women (no.)3836377Employees by geographical area2,1692,2042,302Central (no.)2,1692,2042,302South and Sicily (no.)2,0144040Abroad (no.)444Employees by gender444Men (no.)369363319Remuneration differential - women/men (executive grade)1,021,030,88Remuneration differential - women/men (middle manager grade)0,960,960,95	Middle Managers (no.)	421	456	480
Employees by type of contractPermanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)11419Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)454241of which women (no.)383637Employees by geographical area383637North (no.)2,1692,204202200South and Sicily (no.)506504490Abroad (no.)444Employees by gender444Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1021030.98Remuneration differential - women/men (middle manager grade)0.960.960.96	Administrative staff (no.)	1,651	1,655	1,682
Permanent contract (no.)2,6762,7552,812of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)11419Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)454241of which women (no.)33357382Part-time contract (no.)454241of which women (no.)383637Employees by geographical area383637North (no.)2,1692,2042,202South and Sicily (no.)204202220South and Sicily (no.)444Employees by geoder444Employees by gender506504490Momen (no.)369393419Renuneration differential - women/men (executive grade)1.021.03Renuneration differential - women/men (middle manager grade)0.960.96	Blue-collar workers (no.)	724	715	747
of which women (no.)348369395Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)11419Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)331357382Part-time contract (no.)454241of which women (no.)383637Employees by geographical area383637North (no.)2,1692,2002200South and Sicily (no.)2042022200Abroad (no.)444Employees by gender44Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.97	Employees by type of contract			
Apprenticeship or internship contract (no.)206150185Fixed-term contract (no.)11419Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)331357382of which women (no.)383637Employees by geographical area383637North (no.)2,1692,2042,302Central (no.)204202220South and Sicily (no.)444Employees by gender444Employees by gender506504450Moren (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.93	Permanent contract (no.)	2,676	2,755	2,812
Fixed-term contract (no.)       1       14       19         Fixed-term contract (no.)       2,838       2,877       2,975         of which women (no.)       331       357       382         Part-time contract (no.)       45       42       41         of which women (no.)       38       36       37         Employees by geographical area       38       36       37         North (no.)       2,169       2,204       2302         Central (no.)       204       202       2200         South and Sicily (no.)       506       504       490         Abroad (no.)       4       4       4         Employees by gender       4       4       4         Men (no.)       2,514       2,526       2,597         Women (no.)       369       393       419         Remuneration differential - women/men (executive grade)       1.02       1.03       0.98         Remuneration differential - women/men (middle manager grade)       0.96       0.96       0.93	of which women (no.)	348	369	395
Full time contract (no.)2,8382,8772,975of which women (no.)331357382Part-time contract (no.)454241of which women (no.)383637Employees by geographical area383637North (no.)2,1692,2042,302Central (no.)204202220South and Sicily (no.)506504490Abroad (no.)444Employees by gender44Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.93	Apprenticeship or internship contract (no.)	206	150	185
of which women (no.)331357382Part-time contract (no.)454241of which women (no.)383637Employees by geographical area383637North (no.)2,1692,2042,302Central (no.)204202220South and Sicily (no.)506504490Abroad (no.)444Employees by gender44Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.97	Fixed-term contract (no.)	1	14	19
Part-time contract (no.)454241of which women (no.)383637Employees by geographical area2,1692,2042,302North (no.)2,1692,2042,202Central (no.)204202220South and Sicily (no.)506504490Abroad (no.)444Employees by gender444Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.97	Full time contract (no.)	2,838	2,877	2,975
of which women (no.)         38         36         37           Employees by geographical area <td>of which women (no.)</td> <td>331</td> <td>357</td> <td>382</td>	of which women (no.)	331	357	382
Employees by geographical area         2,169         2,204         2,302           North (no.)         2,169         2,204         2,302           Central (no.)         204         202         220           South and Sicily (no.)         506         504         490           Abroad (no.)         4         4         4           Employees by gender         7         7         7           Men (no.)         2,514         2,526         2,597           Women (no.)         369         393         419           Remuneration differential - women/men (executive grade)         1.02         1.03         0.98           Remuneration differential - women/men (middle manager grade)         0.96         0.96         0.93	Part-time contract (no.)	45	42	41
North (no.)2,1692,2042,302Central (no.)204202220South and Sicily (no.)506504490Abroad (no.)4444Employees by gender4444Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.97	of which women (no.)	38	36	37
North (no.)2,1692,2042,302Central (no.)204202220South and Sicily (no.)506504490Abroad (no.)4444Employees by gender4444Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.97	Employees by geographical area			
South and Sicily (no.)506504490Abroad (no.)444Employees by genderMen (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.96	North (no.)	2,169	2,204	2,302
Abroad (no.)444Employees by gender2,5142,5262,597Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.96	Central (no.)	204	202	220
Employees by gender2,5142,5262,597Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.96	South and Sicily (no.)	506	504	490
Men (no.)2,5142,5262,597Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.93	Abroad (no.)	4	4	4
Women (no.)369393419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.96	Employees by gender			
Women (no.)369369419Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.96	Men (no.)	2,514	2,526	2,597
Remuneration differential - women/men (executive grade)1.021.030.98Remuneration differential - women/men (middle manager grade)0.960.960.93	Women (no.)	369	393	419
		1.02	1.03	0.98
Remuneration differential - women/men (administrative staff grade) 0.89 0.89 0.89	Remuneration differential - women/men (middle manager grade)	0.96	0.96	0.93
		0.89	0.89	0.89

(follows)

	2016	2017	2018
Entries and Departures			
Hired from the market (no.)	141	148	195
of which university graduates (no.)	73	100	108
of which high school graduates (no.)	66	48	86
of which women (no.)	35	53	42
of which men (no.)	106	95	153
Hiring rate (%) (*)	4.9	5.1	6.5
Hiring rate < 30 years old (%) (**)	20.5	13.3	22.8
Hiring rate between 30 and 49 years old (%) (**)	4.9	8.4	6.9
Hiring rate > 50 years old (%) (**)	0.5	0.2	0.5
Other new employees (non-consolidated companies, acquisitions, etc.)	36	36	126
Percentage of university graduates hired (%)	52	67	55
Departures in the year (no.)	53	69	189
Other Departures (non-consolidated entities etc.)	246	79	35
Departure rate (%)	1.8	2.4	6.3
Voluntary Departure rate (%)	0.5	1	1.2
Turnover (%)	6.4	7.4	13.0
Absenteeism rate (no.)	4.7	4.7	4.6
Training			
Training hours (no.)	82,184	85,346	107,711
Attendances (no.)	10,396	8,604	13,999
Average hours of training per employee (no.)	28.5	29.2	35.7
Executive training hours (no.)	2,940	1,908	4,392
Middle Manager training hours (no.)	10,021	8,600	19,072
Administrative staff training hours (no.)	31,072	39,316	49,650
Blue-collar worker training hours (no.)	38,151	35,522	34,657
Average training hours delivered to men (no.)	30.2	31.3	36.9
Average training hours delivered to women (no.)	17.0	15.8	28.7
Average training hours delivered to executives (no.)	33.8	20.5	41.0
Average training hours delivered to middle managers (no.)	23.8	18.9	39.7
Average training hours delivered to administrative staff (no.)	18.8	23.8	29.5
Average training hours delivered to blue-collar workers (no.)	52.7	49.7	46.4
Training hours for health, safety and environment (no.)	19,288	9,641	28,345
Attendances for health, safety and environment (no.)	3,484	1,695	4,953

33 people were employed on staff leasing contracts in 2018 (33 in 2017 and 36 in 2016).

(\*) Hiring rate = (market hires/average workforce \*100).

(\*\*) Hiring rate by age = (market hires by age range/total employees by age range at 31/12 \*100).

#### Main HSE data and indicators

	2016	2017	2018
Health and Safety			
Employee accidents (no.)	4	6	4
Employee accident frequency index	0.81	1.24	0.84
Employee accident severity index	0.04	0.05	0.02
Contractor accidents (no.)	5	5	3
Contractor accident frequency index	0.71	0.54	0.41
Contractor accident severity index	0.05	0.83	0.03
Employee and contractor accident frequency index	0.75	0.78	0.58
Employee and contractor severity index	0.05	0.56	0.02
Energy			
Total energy consumption (TJ)	10,957.4	12,582.3	13,281.0
of which natural gas (TJ)	10,541.7	12,153.2	12,801.4
of which diesel (TJ)	84.4	77.9	91.0
of which gasoline (TJ)	2.2	2.3	2.8
of which LPG (TJ)	0.4	0.4	0.4
of which heat (TJ)	14.5	10.8	8.5
of which electricity (TJ)	314.2	337.7	376.9
Emissions			
Natural gas emissions (10 <sup>6</sup> m <sup>3</sup> )	48.2	46.8	44.4
GHG scope 1-2-3 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> )	1,801	1,746	1,967
GHG scope 1 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> )	1,439	1,500	1,497
GHG scope 2 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> ) - Market based	28	29	32
GHG scope 3 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> )	334	217	438
NOx emissions (t)	434	532	564
CO emissions (t)	281	329	196
CO2 emissions /energy used (kg/GJ)	55.0	54.9	54.7
NOx emissions/energy used (kg/ GJ)	0.040	0.042	0.042

#### (follows)

	2016	2017	2018
Waste			
Total waste production (t)	52,513	54,413	28,286
Non-hazardous waste production (t)	48,954	50,604	24,187
Hazardous waste production (t)	3,558	3,809	4,099
Waste recovered from production operations (%)	77	80	60
Water extraction and discharge			
Freshwater extractions (10 <sup>3</sup> m <sup>3</sup> )	177	170	134
Fresh water discharges (10³ m³)	139	112	68
Seawater extractions (10 <sup>3</sup> m <sup>3</sup> )	4,000	4,000	4,000
Seawater discharges (10 <sup>3</sup> m <sup>3</sup> )	4,000	4,000	4,000
HSE management			
Environmental expenses (millions of €)	139.8	120.6	100.3
Safety and health expenses (millions of €)	47.9	34.7	32.4
Medical visits (no.)	1,561	1,914	1,350
Periodical medical visits	1,337	1,688	1,061
Diagnostic examinations (no.)	2,252	3,508	2.020
Total HSEQ audits conducted (no.)	212	163	237
Environmental surveys (no.)	172	279	247

#### Main HSE Data and Indicators – Business Segments

	2016	2017	2018
Natural gas transportation			
Health and safety			
Employee accidents (no.)	1	2	4
Contractor accidents (no.)	4	4	3
Employee frequency index	0.32	0.66	1.29
Employee severity index	0.004	0.03	0.03
Contractor frequency index	0.65	0.47	0.46
Contractor severity index	0.05	0.90	0.03
Energy and the Environment			
Energy consumption (TJ)	5,824	7,459	7,463
GHG scope 1 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> )	922	1,008	982
Natural gas emissions (10 <sup>6</sup> m³)	34.6	34.4	32.8
Natural gas recovered (10 <sup>6</sup> m <sup>3</sup> )	4.5	4.1	8.2
NOx emissions (t)	228	342	305
Energy consumption/compressed energy (%)	0.25	0.25	0.25
CO2 emissions/compressed gas (kg/10 <sup>6</sup> m <sup>3</sup> )	6,023	5,767	5,644
Natural gas emissions/km of network (m³/km)	1,066	1,057	1,007
NOx emissions/compressed gas (kg/10 <sup>6</sup> m <sup>3</sup> )	4.4	4.8	4.2
Average emissions of NOx per turbine/installed capacity ([mg/Nm³]/MW)	4.4	4.4	3.8
DLE turbine operating hours/Total turbine operating hours (%)	94	93	97
Liquefied natural gas regasification			
Health and safety			
Employee accidents (no.)	1	1	0
Contractor accidents (no.)	0	0	0
Employee frequency index	8.65	9.31	0
Employee severity index	0.66	0.17	0
Contractor frequency index	0	0	0
Contractor severity index	0	0	0

#### (follows)

	2016	2017	2018
Energy and the Environment			
Energy consumption (TJ)	128	325	462
GHG scope 1 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> )	54	44	41
Natural gas emissions (10 <sup>6</sup> m <sup>3</sup> )	2.9	1.7	1.2
NOx emissions (t)	5.5	14.8	22.4
Natural gas storage			
Health and safety			
Employee accidents (no.)	1	2	0
Contractor accidents (no.)	1	0	0
Employee frequency index	2.00	6.71	0
Employee severity index	0.11	0.43	0
Contractor frequency index	1.27	0	0
Contractor severity index	0.07	0	0
Energy and the Environment			
Energy consumption (TJ)	4,985	4,787	5,337
GHG scope 1 Emissions (10 <sup>3</sup> t CO <sub>2eq</sub> )	462	448	476
Natural gas emissions (10 <sup>6</sup> m <sup>3</sup> )	10.7	10.7	10.5
NOx emissions (t)	201	175	236
Emissions of natural gas for storage/gas stored (%)	0.047	0.048	0.041
NOx emissions/stored gas (kg/10 <sup>6</sup> m³)	20.1	17.9	22.2
Average emissions of NOx per turbine/installed capacity ([mg/Nm³]/MW)	5.4	5.2	5.2

# Methodological note

# INTRODUCTION AND PRESENTATION OF THE DOCUMENT

The Snam Sustainability Report is published to maintain complete and exhaustive reporting on material topics affecting the company, for the benefit of all stakeholders and in particular of SRI analysts and of the Global Compact program.

This report has been prepared in accordance with the GRI Standards: Comprehensive option. The GRI Standards have been published by GRI in 2016.

The Sustainability Report completes the non-financial data and information of other documents published by the Company. Specifically:

- the Integrated Management Report, attached to the financial report drafted following the instructions of the International Integrated Reporting Council;
- the Consolidated Non-Financial Statement included in the Annual Report, which deals specifically with the environmental aspects of health and safety, personnel management, anti-corruption and the protection of human rights, in compliance with the requirements of Italian Legislative Decree 254/2016.
- corporate Governance and Ownership Structure Report;
- the Remuneration Report;
- the document "Snam in the future" prepared according to the recommendations of the Task Force on Climaterelated Financial Disclosure (TCFD), which describes the Snam's activities in relation to the climate change issues.

# CONSOLIDATION SCOPE AND CRITERIA

The boundaries of the Sustainability Report are the same of the one of Annual Report and includes:

- **Corporate** (Snam SpA with the subsidiaries Gasrule Insurance Limited and Snam International BV);
- Transport (Snam Rete Gas SpA, Asset Company 2, Infrastrutture Trasporto Gas SpA);
- LNG regasification (GNL Italia SpA);
- Storage (Stogit SpA);
- Sustainable mobility and biomethane (Snam4Mobility SpA, Cubogas, IES Biogas Srl and Enersi Sicilia Srl);
- Energy efficiency (Asset Company 4 Srl and TEP Energy Solution Srl).

Within the document, data on companies operating in the new business, such as sustainable mobility, biomethane and energy efficiency, are aggregated within the "Corporate" business segment.

The data reported in the "Procurement numbers" chapter do not include the newly acquired companies: TEP, IES Biogas and Cubogas.

# REPORTING PROCESS AND METHODOLOGY

The process of gathering data and information and preparing the report was coordinated and managed by the CSR unit of the parent company Snam, in cooperation with the other corporate functions and operating companies. Publication of the document, concurrent to the Annual Report, was subject to the approval by the Snam Board of Directors on 18<sup>th</sup> February 2019.

The economic and financial, operating and governance data was taken directly from the Annual Report and from the Corporate Governance and Ownership Structure Report. Data concerning the environment, employees and the other aspects addressed in the document were gathered from the process owners.

The calculation methodology used to determine the figures are indicated in the specific related sections. To ensure the comparability of the most significant indicators over time and to allow the reader to compare the performance achieved, 2018 values have been compared with those of the previous two years, using graphs and tables. The document has been drafted with the aim of report in a balanced way both the positive and negative aspects with equal emphasis, providing, where appropriate, a comment to the obtained results, including the facts and events that affected the Company during 2018.

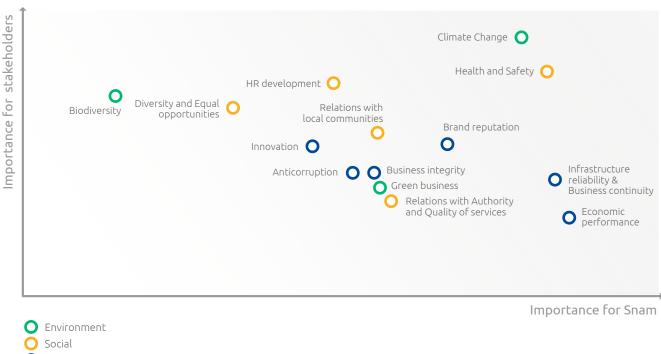
# Materiality analysis

Snam annually updates its materiality analysis in order to understand the material issues, the topics that best reflect the economic, environmental and social impacts of the company or which can substantially influence the stakeholders' assessments and decisions. The materiality, and its analysis, has been repeatedly proposed by the Global Reporting Initiative (GRI) and the International Integrated Reporting Committee (IIRC) as a necessary starting point to bring reporting in line with stakeholders' expectations. On this matter, the Directive 2014/95/EU, transposed in Italy by the Legislative Decree 254/2016, requires the institutions/companies that fall within the scope of the decree, to apply this approach.5 Starting from the relevant issues arisen from the materiality analysis of the last year, at the end of 2018 Snam initiated the process for their updating, by analyzing the main sustainability trends, the most important publications in the sector and through a benchmark with the main peers and comparable companies of Snam at national and international level. In order to identify the most relevant issues from the company's point of view, Snam proceeded by analyzing the available internal documentation (e.g. the 2019-2022 Strategic Plan), the main adopted policies, the main risks identified by the ERM model and the issues on which they insisted on. The preliminary internal relevance of the issues identified in this way was then submitted to management, through direct interviews with the managers of each

department, in order to analyze the perception of the issues from the company's point of view. Each function, where appropriate, was allowed to update the relative scoring of these issues.

Differently, in order to define the most relevant issues from the stakeholders' point of view, Snam proceeded using the analyses described above, identifying the most recurrent and most significant issues. The order obtained was then merged with the results of the last survey submitted to the stakeholders. The categories of stakeholders considered were: Community and Territories, Investors and Lenders, Other operators, Media, Suppliers, Clients, People (Employees) and Authorities and Institutions.

The joint consideration of internal and external significance led to the identification of priority and materiality areas. Compared to last year, the number of material issues has been reduced from 19 to 14 based on a specific analysis that allowed to group some similar issues. Compared to 2017, the most significant changes concern the inclusion in the material issues of the "Diversity and equal opportunities" issue and the new "Green Business" issue, which became materials thanks also to the relevance of these issues in the 2019-2022 Strategic Plan, and the exclusion of "Employment" issue and "Human Rights" issue, since Snam operates mainly in the Italian boundaries, widely controlled over these aspects.



# Materiality matrix

Ο

Governance (including economics)

5 The Snam Group publishes its Consolidated Non-Financial Statement, drafted in compliance with the Italian Legislative Decree 254/2016, within its Annual Report.

To allow all stakeholders to fully understand the materiality matrix, a description of Snam's issues considered in the materiality analysis are reported below.

Material themes	Description
Reliability of infrastructures and business continuity	Ensure the reliability of infrastructures and services in order to prevent and/or mitigate potential situations that could compromise business continuity (e.g. emergencies, cyber-attacks).
Climate change	Promote strategies to contain climate change, to reduce greenhouse gases and environmental impacts, develop energy efficiency initiatives at Group plants and sites and promote a more sustainable business through the use and production of energy from renewable sources.
Diversity and equal opportunities	Promote and ensure equal opportunities for all employees, and protect diversity (race, religion, culture, gender and age) by promoting initiatives for dialogue and collaboration.
Business integrity	Carry out activities with loyalty and fairness in compliance with laws, regulations, additional and improving company dispositions and ensuring the efficiency of corporate governance, with particular attention to the issues of remuneration and balanced participation in the main corporate governance bodies.
Innovation	Research new technologies with a view to increasing efficiency in the conduct of business and reducing environmental impacts.
Anti-corruption	Adopt preventive measures and targeted policies, and promote partnerships aimed at combating corruption and crime in general and at spreading a culture of legality.
Green Business	Integrate in its operations, in support of a low-carbon economy new businesses that accompany the processes of decarbonisation, such as biomethane, use of gas for sustainable mobility (CNG, LNG) and new technologies capable of incorporating renewable energy from the environment.
Economic performance and value generation	Promote the creation of shared medium to long-term value for all categories of stakeholders, through operational and financial efficiency and commit to the development of business activities capable of generating value for all stakeholders.
Relations with the Authority and quality of services	Ensure that customers receive a safe and reliable service over time, in compliance with the principles of competition and equal treatment and access to infrastructure. Promote constructive relations with regulatory authorities and institutions, so as to develop services that are satisfactory to customers and at the same time geared to the needs and demands of the market.
Relations with local communities	Engagement with local communities in order to develop project activities that can effectively meet stakeholder expectations and also strengthen the license to operate.
Brand reputation	Enhance and protect the Snam's brand and reputation through ongoing relationships mainly with the financial community and investors (e.g. to disseminate transparent, comprehensive and timely information that can represent the company and its business).
Health & safety	Adopt practices and management systems to safeguard the health and safety of employees and third parties involved in company activities (e.g. suppliers).
Development and protection of human capital	Encouraging professional growth paths and policies for attracting and retaining talent, enhancing the technical, managerial and organizational skills of employees and promoting the reconciliation of employees' working lives also through welfare initiatives.
Land protection and biodiversity	Safeguard the landscape heritage of the territories where the Group's plants or sites are located and promote environmental protection by integrating soil, subsoil and groundwater protection policies into its operational activities.

# APPLICATION OF THE GRI STANDARDS

The report content refers to the material issues of Snam and the related GRI material issues. The main methods of application of the standards are listed below:

- the standard 102 has been fully covered (from disclosure 102-1 to disclosure 102-56);
- the standard specific topics of 200 (Economic), 300 (Environmental) and 400 (Social) series have been selected in relation to the issues reported in the materiality matrix.

With regard to the standard 103 (Management approach) we proceeded as follows:

- for the disclosure 103-1 (definition of the internal and external perimeter for each material topic), the following table has been elaborated;
- for the disclosures 103-2 (management approach), and 103-3 (evaluation of the management approach) the disclosure was made for homogeneous groups of GRI material topics and for each of the Snam material issues that could not be linked to topic specific standard.

## Representation of the material topics boundaries (103-1)

Associated Material Snam issue	GRI standard (topic)	Scope of the topic		Limitations of the scope	
		Internal	External	Internal	External
Climate change	GRI 305 Emissions	T, S, R	Suppliers	-	Emissions related to the energy consumption of suppliers
	GRI 302 Energy	T, S	Suppliers	-	Energy consumption of suppliers
Health & safety	GRI 403 Occupational Health & Safety	One Company	Suppliers	-	-
Land protection and biodiversity	GRI 304 Biodiversity	Т	Suppliers	-	-
Green business	-	One Company	-	-	-
Economic performance	GRI 201 Economic Performance	One Company	-	-	-
Reliability of infrastructures and business continuity	-	One Company	-	-	-
Brand reputation	-	One Company	-	-	-
Innovation	-	One Company	-	-	-
Relations with the Authority and quality of services	-	One Company	-	-	-
	GRI 413 Local communities	One Company	-	-	-
Relations with local communities	GRI 203 Indirect		-	-	-
Anti-corruption	GRI 205 Anti- corruption	One Company	Suppliers	-	-
	GRI 205 Anti- corruption	One Company	Suppliers	-	-
Business integrity	GRI 419 Socio- economic compliance	One Company	-	-	-
	GRI 401 Employment	One Company	-	-	-
Development and protection of human capital	GRI 404 Training and Education	One Company	-	-	-
Diversity and equal opportunities	GRI 405 Diversity and Equal opportunities	One Company	-	-	-
		One Company	-	-	-

Legend: T = Transport; S= Storage; R= Regasification; C= Corporate; M = Sustainable mobility; B = Biomethane; E = Energy efficiency; One Company= T, S, R, C, M, B, E

# ASSURANCE

The report was audited by the independent auditors (PWC S.p.A.) in accordance with the principles and indications of the International Standard on Assurance Engagement (ISAE 3000 Revised) issued by the International Auditing and Assurance Standards Board (IAASB). The results of the audits conducted are given in the Independent Auditors' Report attached.

1-1-2018 to 12-31-2018
Annual
Corporate responsibility and social innovation – 2017 Sustainability Report
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# **GRI** Content Index

GRI Content Index

SR = Sustainability Report

RF = Integrated Financial Report – Annual Report

DNF = Consolidated Non-Financial Statement

RCG = Corporate Governance and Ownership Structure Report

RR = Remuneration Report

TCFD = Task Force on Climate-related Financial Disclosure

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
GRI 102 General disclosu	ıre 2016			
Organizational	102-1	Name of the organization	SR "Cover page"	
profile	102-2	Activities, brands, products, and services	SR "Snam's profile"	-
	102-3	Location of headquarters		Snam HQ is located in San Donato Milanese www.snam.it/en/ about-us/headquarter/ index.html
	102-4	Location of operations	SR "Snam's profile"	
	102-5	Ownership and legal form	SR "Snam's profile"	-
	102-6	Markets served	SR "Snam's profile"	-
	102-7	Scale of the organization	SR "Snam's profile"	
	102-8	Information on employees and other workers	SR "People" - "Performance figures and indicators"	The breakdown by gender and region of the number of employees by type of contract is not significant
	102-9	Supply chain	SR "The supply chain"	
	102-10	Significant changes to the organization and its supply chain	SR "The supply chain"	
	102-11	Precautionary Principle or approach	SR "Protecting the climate and the air " - "The fight against corruption and illegality"	
	102-12	External initiatives	SR "Global Compact reconciliation table"	Snam adheres to the Global Compact and to the Task Force on Climate Related Financial Disclosure (TCFD)

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
Organizational profile	102-13	Membership of associations		Section "Snam and associations" published on the web page www.snam.it/ en/Sustainability/ responsibility_towards_ everyone/innovation_ and_technology.html
Strategy	102-14	Statement from senior decision-maker	SR "Letter to stakeholders"	
	102-15	Key impacts, risks, and opportunities	SR "Climate change: scenarios and challenges"	
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	SR "Business integrity" - "The fight against corruption and illegality"	
	102-17	Mechanisms for advice and concerns about ethics		http://www.snam.it/en/ governance-conduct/ business-conduct/ whistleblowing/index. html
Governance	102-18	Governance structure	SR "Business integrity"	
			RF "Governance and organization"	
	102-19	Delegating authority	SR "Business integrity"	
			RF "Risk management and control system"	
	102-20	Executive-level	SR "Business integrity"	
		responsibility for economic, environmental, and social topics	RCG "Snam's Board of Directors"	
	102-21	Consulting stakeholders on economic, environmental, and social topics	SR "Stakeholder relationships"	
	102-22	Composition of the highest governance body and its	SR "Business integrity"	
	102.22	committees	RCG "Snam's Board of Directors"	
	102-23	Chair of the highest governance body	SR "Business integrity" RCG "Snam's Board of Directors"	
	102-24	Nominating and selecting the highest governance	SR "Business integrity"	
		body	RCG "Snam's Board of Directors"	
	102-25	Conflicts of interest	RCG "Shareholders 'Agreements"	

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
Governance	102-26	Role of highest governance body in setting purpose,	SR "Business integrity"	
		values, and strategy	RCG "Snam's Board of Directors"	
	102-27	Collective knowledge of highest governance body	RCG "Induction programme for Directors and Statutary Auditors"	
			TCFD "The roles and liabilities in managing climate change"	
	102-28	Evaluating the highest governance body's	SR "Business integrity"	
		performance	RCG "Snam's Board of Directors"	
	102-29	Identifying and managing economic, environmental, and social impacts	SR "Business integrity"	
	102-30	Effectiveness of risk management processes	RF ""Risk management and control system"	
			TCFD "The risks and opportunities of climate change"	
	102-31	Review of economic, environmental, and social topics	SR "Business integrity"	
	102-32	Highest governance body's role in sustainability reporting	RS "Methodological note"	
	102-33	Communicating critical concerns		http://www.snam.it/en/ governance-conduct/ business-conduct/ whistleblowing/index. html
	102-34	Nature and total number of critical concerns	RCG "Snam's legal framework"	
	102-35	Remuneration policies	RR "Remuneration Policy Guidelines"	
	102-36	Process for determining remuneration	RR "Governance of the renumeration process"	
	102-37	Stakeholders' involvement in remuneration	RCG "The meeting and the shareholders'rights"	
			RR "Remuneration Policy Guidelines"	
	102-38	Annual total compensation ratio	Confidential disclosure	
	102-39	Percentage increase in annual total compensation ratio	Confidential disclosure	

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
Stakeholder	102-40	List of stakeholder groups	SR "Stakeholder relationships"	
engagement	102-41	Collective bargaining agreements		Non-management personnel are subject to the CCNL (Energy and Oil Contract, Metalworking and Mechanical Engineering Industry contract, Commercial Activities contract). For executive personnel, the National Contract for Managers of Companies producing Goods and Services applies.
	102-42	Identifying and selecting stakeholders	SR "Stakeholder relationships" - "Materiality analysis"	
	102-43	Approach to stakeholder engagement	SR "Stakeholder relationships" - "Materiality analysis"	
	102-44	Key topics and concerns raised	SR "Materiality analysis"	
Processo di reporting	102-45	Entities included in the consolidated financial statements	SR "Methodological note"	There are no differences in the consolidation scope between the Sustainability Report and the Annual Report
	102-46	Defining report content and topic Boundaries	SR "Materiality analysis"	
	102-47	List of material topics	SR "Materiality analysis"	
	102-48	Restatements of information		Any changes with respect to the previous Sustainability Report have been specifically indicated in the text
	102-49	Changes in reporting	SR "Materiality analysis"	
	102-50	Reporting period	SR "Letter of Assurance"	
	102-51	Date of most recent report	SR "Letter of Assurance"	
	102-52	Reporting cycle	SR "Methodological note"	
	102-53	Contact point for questions regarding the report	SR "Letter of Assurance"	
	102-54	Claims of reporting in accordance with the GRI Standards	SR "Methodological note"	
	102-55	GRI content index	SR "GRI Content Index"	
	102-56	External assurance	SR "Letter of Assurance"	

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
Economic material topics	5 (GRI 200)			
GRI 201 Economic performance 2016	103-1 103-2 103-3	Management Approach	SR "Snam's profile"	
	201-1	Direct economic value generated and distributed	SR "Snam's profile" - "Performance figures and indicators"	
	201-2	Financial implications and other risks and opportunities due to climate change	SR "Sustainable finance as a tool for change" - "Snam's central role: Tomorrow's Energy Company"	
	201-3	Defined benefit plan obligations and other retirement plans		In 2018, Snam fulfilled its social obligations under the applicable employment contracts. The active funds are for non-managerial staff or the Energy Fund, while for managers the PREVINDAI and the FOPDIRE
	201-4	Financial assistance received from government		Not applicable
GRI 203 Indirect economic	103-1 103-2 103-3	Management Approach	SR "The supply chain"	
impacts 2016	203-1	Infrastructure investments and services supported	SR "Snam's profile" - "Snam's central role: Tomorrow's Energy Company"	
	203-2	Significant indirect economic impacts	SR "The supply chain"	
GRI 205 Anti-corruption 2016	103-1 103-2 103-3	Management Approach	SR "The fight against corruption and illegality"	
			DNF "Anticorruption and bribery"	
	205-1	Operations assessed for risks related to corruption		All divisions are monitored in relation to the risk of corruption
	205-2	Communication and training about anti- corruption policies and procedures	SR "Business integrity" - "The fight against corruption and illegality" DNF "Anticorruption and bribery" RF "Professional enhancement" (in "Other operating information and results": Development of human capital, social and relationship and intellectual capital)	The 100% of the Snam employees and members of the BoD have been informed about the Snam Anticorruption Policies and Guideline
	205-3	Confirmed incidents of corruption and actions taken	DNF "Anticorruption and bribery"	In 2018, there were no cases of corruption established

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes				
Environmental material t	Environmental material topics (GRI 300)							
GRI 302 Energy 2016	103-1 103-2 103-3	Management Approach	SR "Protecting the climate and the air"					
	302-1	Energy consumption within the organization	SR "Protecting the climate and the air" - "Performance figures and indicators"					
	302-2	Energy consumption outside of the organization		Information not available				
	302-3	Energy intensity	SR "Performance figures and indicators"					
	302-4	Reduction of energy consumption	SR "Protecting the climate and the air" - "Performance figures and indicators"	In this document, the reductions in energy consumption obtained through efficiency measures are quantified by reporting the corresponding CO2eq emissions avoided.				
	302-5	Reductions in energy requirements of products and services		Not applicable				
GRI 304 Biodiversity 2016	103-1 103-2 103-3	Management Approach	SR "Protecting the local area and biodiversity"					
	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SR "Protecting the local area and biodiversity"					
	304-2	Significant impacts of activities, products, and services on biodiversity	SR "Protecting the local area and biodiversity"					
	304-3	Habitats protected or restored	SR "Protecting the local area and biodiversity"					
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	SR "Protecting the local area and biodiversity"					

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
GRI 305 Emissions 2016	103-1 103-2 103-3	Management Approach	SR "Protecting the climate and the air"	
	305-1	Direct (Scope 1) GHG emissions	SR "Protecting the climate and the air" - "Performance figures and indicators"	
	305-2	Energy indirect (Scope 2) GHG emissions	SR "Protecting the climate and the air" - "Performance figures and indicators"	
	305-3	Other indirect (Scope 3) GHG emissions	SR "Protecting the climate and the air" - "Performance figures and indicators"	
	305-4	GHG emissions intensity	SR "Protecting the climate and the air" - "Performance figures and indicators"	
	305-5	Reduction of GHG emissions	SR "Protecting the climate and the air"	
	305-6	Emissions of ozone- depleting substances (ODS)		Not significant quantity
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	SR "Protecting the climate and the air" - "Performance figures and indicators"	
Social material topics (	GRI 400)			
GRI 401 Employment 2016	103-1 103-2 103-3	Management Approach	SR "People"	
	401-1	New employee hires and employee turnover	SR "People" - "Performance figures and indicators"	The breakdowns of the data by country are not shown, as they are not applicable (almost all employees are located in Italy).
	401-2	Benefits provided to full- time employees that are not provided to temporary or part-time employees		There are no differences in access to company benefits
	401-3	Parental leave	SR "People"	The Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, is not reported

GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
GRI 403 Occupational health & safety 2016	103-1 103-2 103-3	Management Approach	SR "People"	
	403-1	Workers representation in formal joint management– worker health and safety committees		Workers are represented by law (ref. TU Dlgs81/2008) and by national contracts.
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	SR "People" DNF "HSE aspects"	There were no cases of occupational disease in 2018
	403-3	Workers with high incidence or high risk of diseases related to their occupation	SR "People"	There were no cases of occupational disease in 2018
	403-4	Health and safety topics covered in formal agreements with trade unions		During the year, there were no trade union agreements in this area.
GRI 404 Training and education	103-1 103-2 103-3	Management Approach	SR "People"	
2016	404-1	Average hours of training per year per employee	SR "People" - "Performance figures and indicators"	
	404-2	Programs for upgrading employee skills and transition assistance programs	SR "People"	
	404-3	Percentage of employees receiving regular performance and career development reviews	SR "People"	The percentage of employees evaluated within the Performance Management system is the 25% which matches with the 24% of the male and the 33% of the female employees
GRI 405 Diversity and equal	103-1, 103-2, 103-3	Management Approach	SR "People"	
opportunities 2016	405-1	Diversity of governance bodies and employees	SR "People" - "Business integrity"	
	405-2	Ratio of basic salary and remuneration of women to men	SR "People"	
GRI 406 Non-discrimination 2016	103-1 103-2 103-3	Management Approach	SR "People"	
	406-1	Incidents of discrimination and corrective actions taken	DNF "Protecting Human Rights"	

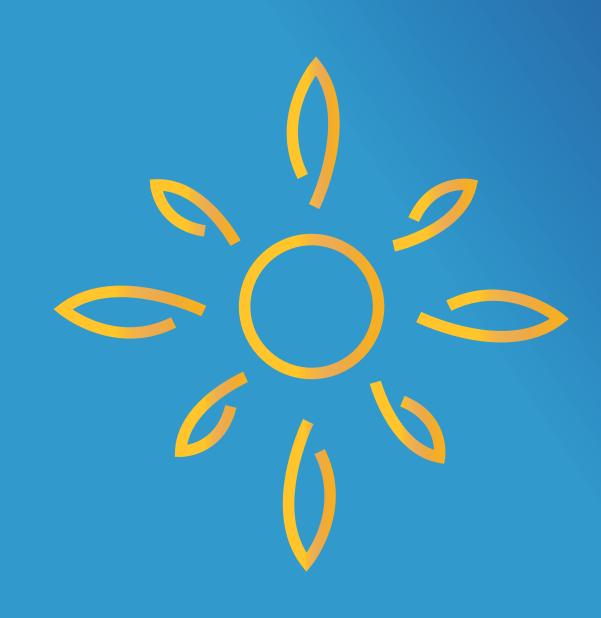
GRI Standard	Disclosure	Description	Reference document and page number	Omissions - Notes
GRI 413 Local communities 2016	103-1 103-2 103-3	Management Approach	SR "Stakeholder relationships" – "Protecting the local area and biodiversity"	
	413-1	Operations with local community engagement, impact assessments, and development programs	SR "Protecting the local area and biodiversity"	
	413-2	Operations with significant actual and potential negative impacts on local communities	SR "Protecting the local area and biodiversity"	
GRI 419 Socio-Economic	103-1 103-2 103-3	Management Approach	DNF "Anticorruption and Bribery"	
Compliance 2016	105-5		RF "Disputes and other measures" (in "Notes to the consolidated financial statements")	
	419-1	Non-compliance with laws	DNF "Anticorruption and Bribery"	
		and regulations in the social and economic area	RF "Disputes and other measures" (in "Notes to the consolidated financial statements"), "Criminal cases" (in "Notes to the consolidated financial statements"), "Autorità di Regolazione per Energia Reti e Ambiente – ARERA" (in "Notes to the consolidated financial statements")	
Other not GRI topics				
Green business	103-1, 103-2, 103-3	Management Approach	SR "Snam's central role: Tomorrow's Energy Company	
			RF "The 2019-2022 Strategic Plan" (in "Business model and sustainable development")	
Reliability of infrastructures and business continuity	103-1, 103-2, 103-3	Management Approach	SR "Snam's profile" - "Protecting the climate and the air"	
Brand reputation	103-1, 103-2, 103-3	Management Approach	SR "Stakeholder relationships"	
Innovation	103-1, 103-2, 103-3	Management Approach	SR "Snam's central role: Tomorrow's Energy Company" - "Protecting the climate and the air"	
Relations with the Authority and quality of services	103-1, 103-2, 103-3	Management Approach	SR "Regulation and quality of services"	

# Global Compact reconciliation table

The Snam management model takes its inspiration from the Code of Ethics and is based on management policies founded on the principles of the United Nations Universal Declaration of Human Rights, the Fundamental Conventions of the ILO and the OECD Guidelines for Multinational Enterprises. The Code of Ethics can be consulted at the address <u>http://www. snam.it/en/governance-conduct/business-conduct/code-of-ethics/</u> and the policies can be consulted on the Company's website at <u>http://www.snam.it/en/Sustainability/strategy\_and\_commitments/index.html</u>.

The ten principles	2018 Sustainability Report	pp.
	Diritti umani	
Principles, 1, 2 - Companies are asked to promote and respect universally recognised human rights in their	Snam operates in the framework of the United Nations Universal Declaration of Human Rights, the Fundamental Conventions of the ILO - International Labour Organisation - and of the OECD Guidelines for Multinational Enterprises and the principles enshrined in the United Nations Global Compact (principles enshrined in its own code of ethics).	87-89
respective spheres of influence and to make sure they are not complicit, even indirectly, in human rights violations.	<ul> <li>Snam promotes sustainability and business ethics in its supply chain and conducts audits in the field of human rights, occupational safety of suppliers and subcontractors.</li> </ul>	71-76
	<ul> <li>Snam safeguards occupational safety and health through training, sensitisation raising and education initiatives.</li> </ul>	65-67
	Labour	
Principles 3, 4, 5, 6 - Businesses are required to uphold freedom of	<ul> <li>Snam respects everyone's dignity, and offers equal opportunities in every phase and every aspect of the employment relationship, avoiding all forms of discrimination based on sex, age, health, nationality, political opinion or religious views.</li> </ul>	58-60
association and the recognition of the right to collective bargaining; the elimination of all forms of forced and compulsory labour; the abolition in practice of child labour; and the elimination of all	<ul> <li>Snam applies the Energy and Petroleum agreement and guarantees trade union rights for all workers.</li> </ul>	111,115
	<ul> <li>Snam holds meetings with Trade Union organisations at a national and local level dedicated to the analysis of business development projects and new organisational structures.</li> </ul>	70
forms of discrimination in respect of	<ul> <li>Snam develops initiatives to reconcile work and life.</li> </ul>	67-68
employment and work.	<ul> <li>Snam provides its employees with training and professional development opportunities.</li> </ul>	60-62
Principles 7, 8, 9 - Companies are asked to maintain a preventive approach	<ul> <li>Snam develops projects to strengthen its operational excellence and to contribute to the containment of greenhouse gas emissions.</li> </ul>	35-45
to environmental challenges; to undertake initiatives that promote	<ul> <li>Protecting the environment and biodiversity are integral parts in defining Snam's corporate policies and investment decisions.</li> </ul>	46-50
greater environmental responsibility; and to encourage the development	<ul> <li>All of Snam's activities are monitored by certified environmental management systems (ISO 14001).</li> </ul>	92-93
and dissemination of technologies that respect the environment.	<ul> <li>Snam performs specific energy management and CO2 saving activities.</li> </ul>	38-42
respect the environment.	Snam also evaluates it suppliers using environmental criteria.	75-76
	Anti-Corruption	
	<ul> <li>Snam disseminates ethical principles and business values.</li> </ul>	90
Principle 10 - Companies commit	<ul> <li>Snam collaborates with International Transparency International on anti-corruption and governance.</li> </ul>	91
to fighting corruption in any form, including extortion and bribery.	<ul> <li>Snam provides training activities in matters of legality and anti-corruption.</li> </ul>	60
	<ul> <li>Snam conducts reputational checks of suppliers and subcontractors.</li> </ul>	91
	No cases of corruption were reported in 2018.	117
Support for Sustainable Development Goals	Snam also undertakes to contribute to the sustainable development of the economy and future society with reference to the Sustainable Development Goals defined by the UN and expresses its contribution to all the goals. With reference to the strategy of the integration of SDGs into the business model, Snam is particularly active in goals 7, 8, 9, 13, 15.	20, 56

# Letter of Assurance





# Independent report on the limited assurance engagement of the Sustainability Report of the Snam Group as of 31 December 2018

To the Board of Directors of Snam SpA

We have carried out a limited assurance engagement on the Sustainabilty Report (hereinafter the "Report") of Snam SpA and its subsidiaries (hereinafter "Snam SpA" or the "Group") for the year ended 31 December 2018.

# Responsibility of the Directors for the Sustainability Report

The Directors are responsible for preparing the Report in compliance with the "GRI-Sustainability Reporting Standards" defined in 2016, as indicated in the paragraph "Methodogical note" of the Report, and for that part of internal control that they consider necessary to prepare a sustainability report that is free from material misstatement, whether due to fraud or unintentional behaviours or events. The Directors are also responsible for defining the sustainability performance targets of the Group, for reporting the sustainability results, as well as for identifying the stakeholders and the significant aspects to be reported.

### Auditor's responsibility

We are responsible for the preparation of this report on the basis of the work performed. We conducted our engagement in accordance with *International Standard on Assurance Engagements 3000 (Revised) – Assurance Engagements other than Audits or Reviews of Historical Financial Information (ISAE 3000)*, issued by the IAASB (*International Auditing and Assurance Standards Board*) for limited assurance engagements. The standard requires that we comply with applicable ethical requirements, including professional independence, and that we plan and perform our work to obtain limited assurance that the Report is free from material misstatement. The procedures consisted in interviews, primarily of company personnel responsible for the preparation of the information presented in the Report, analysis of documents, recalculations and other verification procedures.

Our company applies the *International Standard on Quality Control 1* (*ISQC* (Italy) 1) and, therefore, maintains an overall quality control system that includes directives and procedures on the compliance with the ethical principles, with the professional principles and with the applicable laws and regulations.

The procedures we performed consisted in verifying compliance of the Report with the principles for defining the content and the quality of a sustainability report set out in the GRI Standards and are summarised as follows:

#### PricewaterhouseCoopers SpA

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- comparing the financial information reported in chapter "Snam's profile" of the Report with the information included in the Group's Consolidated Financial Statements as of 31 December 2018 on which we issued our audit opinion, in accordance with articles 14 of legislative decree n° 39 of 27 January 2010, on 11 March 2019;
- analysing, through inquiries, the governance system and the process for managing the sustainability issues relating to the Group's strategy and operations;
- analysing the process aimed at defining the significant reporting areas to be disclosed in the Report, with regard to the methods for their identification, in terms of priority for the various stakeholders, as well as the internal validation of the process findings;
- analysing the processes underlying the generation, recording and management of quantitative data included in the Report. In detail, we carried out:
  - meetings and interviews with management of Snam SpA, to achieve a general understanding
    of the information, accounting and reporting systems in use to prepare the Report, as well as
    of the procedures supporting the collection, aggregation, processing and submission of the
    information to the function responsible for the Report preparation;
  - a sample-based analysis of the documents supporting the preparation of the Report, in order to obtain evidence of the reliability of processes in place and of the treatment of the information relating to the objectives disclosed in the Report;
  - verification on site, for the regasification plant of Panigaglia (GNL Italia SpA) and the storage plant of Cortemaggiore (Stogit SpA) in order to obtain evidence of the reliability of the processes in place underlying the treatment of the information, as well as, on a sample basis, to cross check data from the processes towards supporting documents;
- analysing the internal consistency of the qualitative information described in the Report and its compliance with the guidelines identified in the preceding paragraph "Responsibility of the Directors for the Sustainability Report";
- analysing the engagement of stakeholders and its results through the existing documentation concerning the significant matters arisen during the Group dialogue initiatives;
- obtaining a representation letter, signed by the legal representative of Snam SpA, on the compliance of the Report with the guidelines identified in the paragraph "Responsibility of the Directors for the Sustainability Report", as well as the reliability and completeness of the disclosed information.

Our limited assurance work was less in scope than a reasonable assurance engagement performed in accordance with ISAE 3000 (*reasonable assurance engagement*) and, consequently, it does not provide us with a sufficient level of assurance necessary to became aware of all significant facts and circumstances that might be identified in a reasonable assurance engagement.

# Conclusions

Based on the work performed, nothing has come to our attention that causes us to believe that the Sustainability Report of Snam Group as of 31 December 2018 has not been prepared, in all material



respects, in compliance with the GRI Standards defined in 2016 by the *GRI* - *Global Reporting Initiative* as disclosed in the paragraph "Methodological Note" of the Report.

# **Other aspects**

Comparative information of the year ended 31 December 2017, has been subject to a limited assurance from another auditor who expressed a conclusion without any remarks on that Report.

Milan, 11 March 2019

PricewaterhouseCoopers SpA

Signed by

Giulio Grandi (Partner)

This report has been translated from the original, which was issued in Italian, solely for the convenience of international readers.



# Energy to inspire the world

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By Snam

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