2018

SUSTAINABILITY REPORT SOL GROUP

10 YEARS OF SUSTAINABILITY

Consolidated non-financial statement
pursuant to Italian Legislative Decree no. 254/2016

SOLGROUP
a breath of life
1927-2017

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2018

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LETTER TO STAKEHOLDERS

10 YEARS OF SUSTAINABILITY REPORTS, OVER 90 YEARS OF SUSTAINABILITY PRACTICES

Ten years ago, long before it became a law requirement, we decided to publish the SOL Group's **first Sustainability Report** (originally the Health, Safety and Environment Report). The report was easy and natural to draw up. Moreover, it was a way to communicate clearly with stakeholders, providing information on our vision, **our relationship** with the environment, with natural resources, with our employees, customers and business partners. An easy exercise, given that the values that have guided us day by day have always been the same for over 90 years: the values imparted to us by the Group's founders, Giovanni Annoni and Aldo Fumagalli, by their children and by the managers who have shaped these values over time and made them what they are today.

These values entails attention to the proper use of natural resources, to safety at production sites and in the use of our products and services, to interpersonal relationships within the company and externally, to meeting the needs of our customers, to the awareness of our social responsibility as a company which has an impact, as well as on the development of our territory.

These values give way to specific responsibilities and have guided us both in years of dizzying growth, as well as in those of economic and financial crisis in Italy, and in all the other countries in the world where we gradually began to operate; both in the traditional area of technical gases and in those developed later: home care, biotechnology and renewable energy.

2018 was another **positive year for SOL**. Net sales grew by 10.1% to 833.5 million Euro, while maintaining excellent profitability. **Investments** remained high, reaching 99.8 million Euro.

Particular **attention** was dedicated **to our employees**: today the SOL Group employs near 4,000 people, a

considerable growth compared to last year, in 29 countries on 4 continents. These people represent a wealth of experience, passion and expertise, and SOL offers them professional development opportunities with a wide range of training options and a challenging and rewarding work environment.

The Group has continued to devote great attention to the **health and safety** of its employees and the **environmental impact** of its activities: the number of OHSAS 18001 and ISO 14001 certified units has increased, respectively to 75 and 23. In addition, the "zero accidents" goal was reached by 77% of the Group's companies. Our commitment has been recognised by the European Association of Industrial Gases (EIGA), which awarded to SOL Nederland a prize for the best results in terms of reducing its injury rate over the past five years.

In 2018 emissions totalling 35,091 tonnes of CO_2 equivalent were avoided thanks to the production of electrical energy from renewable sources. In addition, the installation of industrial gas self-production plants at customers' premises helped SOL avoid 47,663 tonnes of emissions of CO_2 equivalent by reducing the kilometres travelled and the best specific production consumption.

The Group has continued to grow both organically and through **acquisitions**. In the first half of 2018, the Group completed a promising partnership with the founders of **Cryos** Srl in Italy with the aim of strengthening and expanding the development of services in the carbon dioxide market.

In the first half of 2018 Airsol Srl acquired the majority of two Polish companies: **Pallmed** and **Medseven**. This transaction allowed Vivisol to enter a new European country in a leadership position.

In Germany, still in the home care sector, Vivisol strengthened its presence with the acquisition of two other companies: **Medtek** at the end of 2018, which operates in the Frankfurt home respiratory support sector, and **Wanninger** at the beginning of 2019, active in Bavaria in high-complexity home respiratory support and enteral nutrition.

Again, in the first months of 2019, Airsol Srl acquired 85% of **P Par Participacoes** Ltda, already a 40% partner of Vivisol Brazil, which in turn controls Global Care and Unit Care, among the leading companies in the home care sector in Brazil.

2019 has a more uncertain economic climate compared to 2018 due to rising protectionism and the trade wars going on in the world, as well as the economic slowdown in Europe and especially in Italy. SOL, however, is confidently ready to face another **year of business development and growth**, knowing it can count on strong values, product and technology excellence, and on its qualified and dedicated workforce.

Aldo Fumagalli Romario
SOL Group Chairman

Marco Annoni
SOL Group Vice Chairman

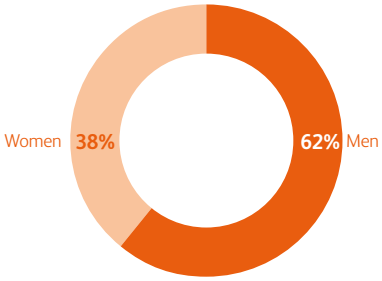
THE 2018 KEY NUMBERS

	2014	2015	2016	2017	2018	Δ 2018/2014
THE ECONOMIC DIMENSION (million euro)						
Group's net sales	636.4	674.2	703.4	756.8	**833.5**	**+ 31%**
Technical gas area net sales	351.7	363.6	373.1	369.2	**403.2**	
Home care area net sales	312.8	339.8	360.0	387.6	**430.3**	
Gross operating margin	142.9	148.4	167.6	167.2	**186.9**	**+ 31%**
Operating result	61.9	65.6	80.9	76.2	**89.7**	**+ 45%**
Investments	98.0	89.8	103.7	99.3	**99.8**	
THE ENVIRONMENTAL DIMENSION						
Specific consumption of electrical energy (ASU; base 2014=100)	100	108	106	103	**106**	
Electrical energy produced (GWh)	83	77	108	77	**101**	
Greenhouses gas emissions (tonnes CO_2 equivalent)						
- Direct GHG emissions	27,932	29,426	26,383	39,765	**45,372**	
- Indirect emissions	ND	240,159	239,357	256,467	**270,539**	
- GHG emissions for products transportation	ND	31,000	50,611	48,951	**52,175**	
THE PEOPLE						
Number of employees as of December 31st	2,806	2,995	3,127	3,556	**3,958**	**+ 41%**
- Italy	955	986	995	1,136	**1,194**	
- Other countries	1,851	2,009	2,132	2,420	**2,764**	
Training hours	ND	30,000	38,700	50,501	**64,739**	
Injuries at work						
- Injury rate	4.5	3.6	4.0	2.9	**4.6**	

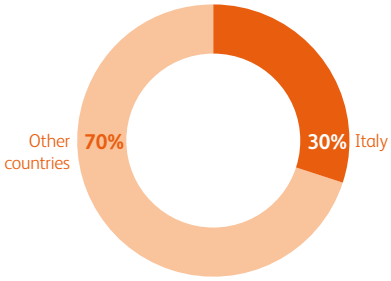
SOL PEOPLE IN 2018

DIVERSITY

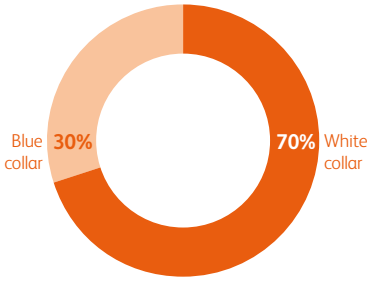
BY GENDER



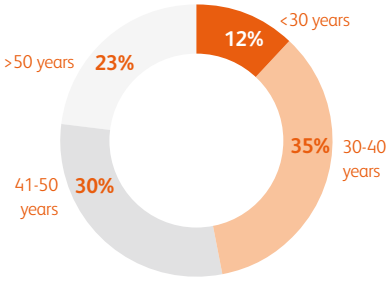
BY REGION



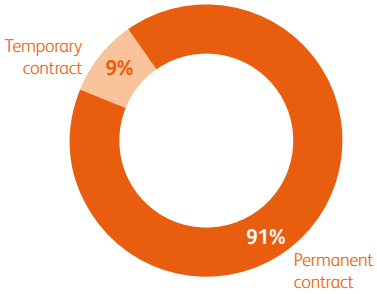
BY EMPLOYEE CATEGORY



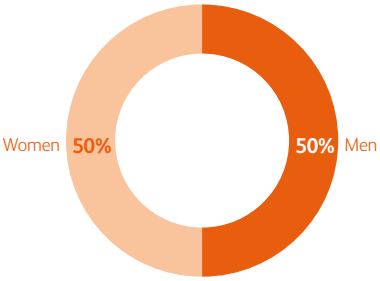
BY AGE GROUP



BY EMPLOYMENT CONTRACT

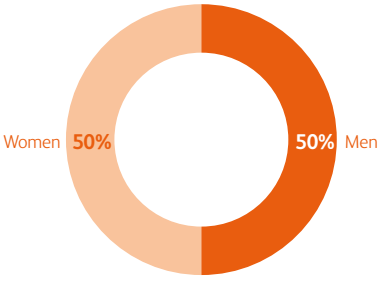


BOARD OF DIRECTORS COMPOSITION

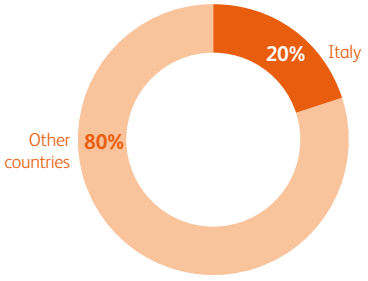


NEW EMPLOYEE HIRES

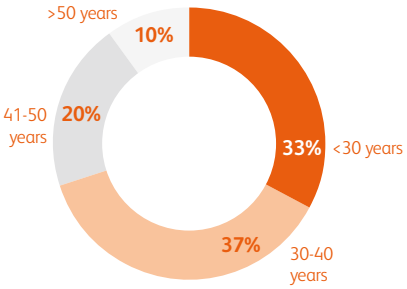
BY GENDER



BY REGION



BY AGE GROUP



OUR IDENTITY

29
countries
in 4 continents

833.5
million Euro
net sales

3,958
employees

over
410,000
patients

ABOUT US

Established in Italy in 1927, the SOL Group operates in the sectors of the production, applied research and marketing of **technical and medical gases, home care services, biotechnology and energy production from renewable sources**.

It is present in 29 countries with over 3,900 employees. In 2018, its net sales came to 833.5 million Euro.

In the **technical gases sector (industrial and medical, pure and specialty gases)**, in addition to compressed and liquefied gases, the SOL Group provides equipment, facilities and services and is therefore recognised as a qualified partner by customers in many industries: steel, chemicals and pharmaceuticals, food, oil and environmental services.

It is present in the **healthcare sector**, where it supports public and private hospitals, providing medical gases and gases classified as medical devices, equipment, systems and services.

In the **home care sector**, the Group delivers comprehensive services to patients who receive medical care and assistance at home: oxygen therapy, ventilation therapy, treatment of sleep apnea, artificial nutrition, integrated home care and telemedicine.

These have been supplemented by the **biotechnology sector** (diagnostics, services for the conservation and transportation of biological samples, research and development of biopharmaceuticals, genomics, etc.) and the **production sector of energy from renewable sources** (hydroelectric power stations).

Parent company SOL Spa has been listed on the Borsa Italiana since July 1998.

SOL

Technical and Medical Gases

VIVISOL

Home Care Services

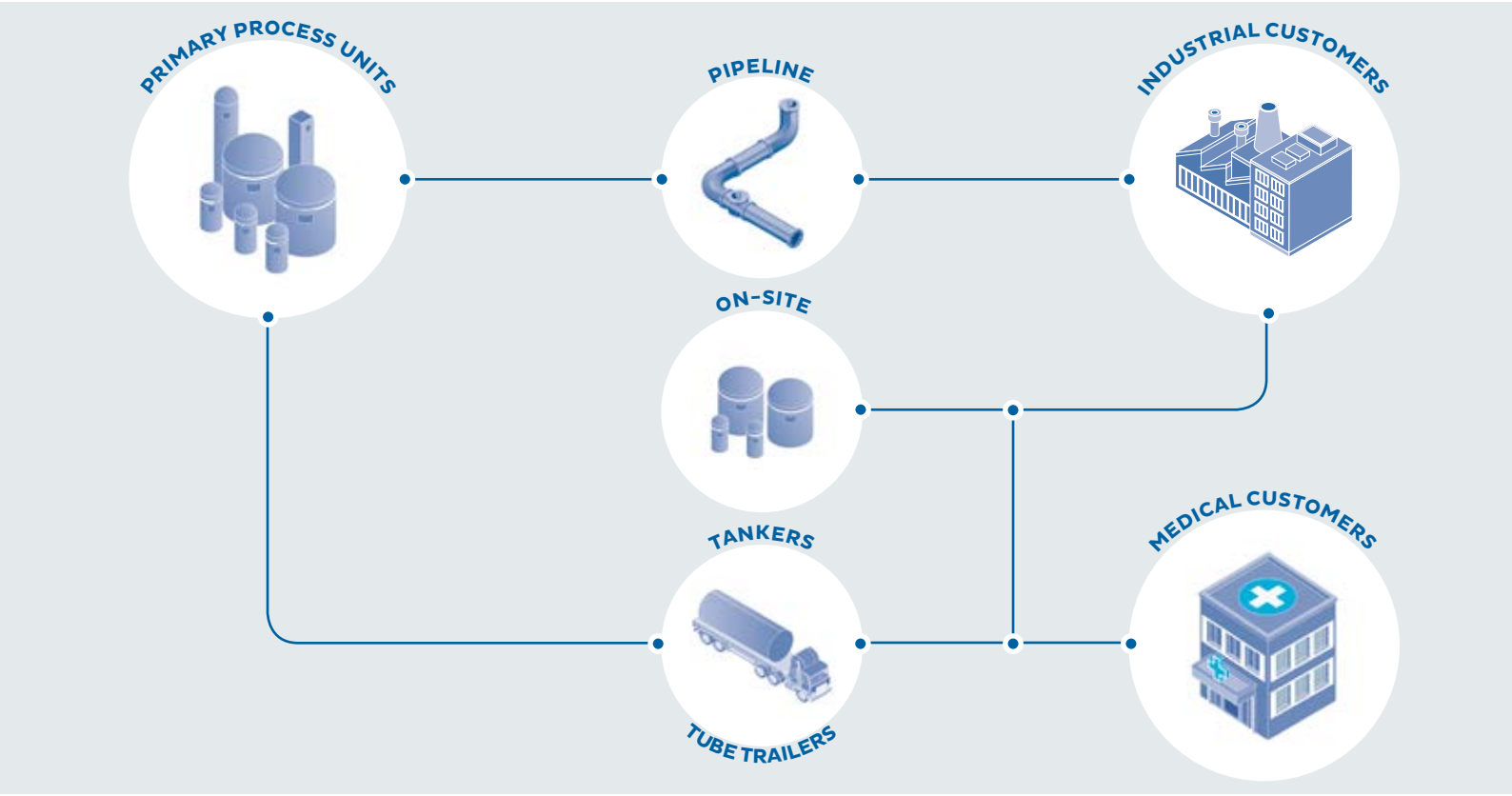
BIOTECHSOL

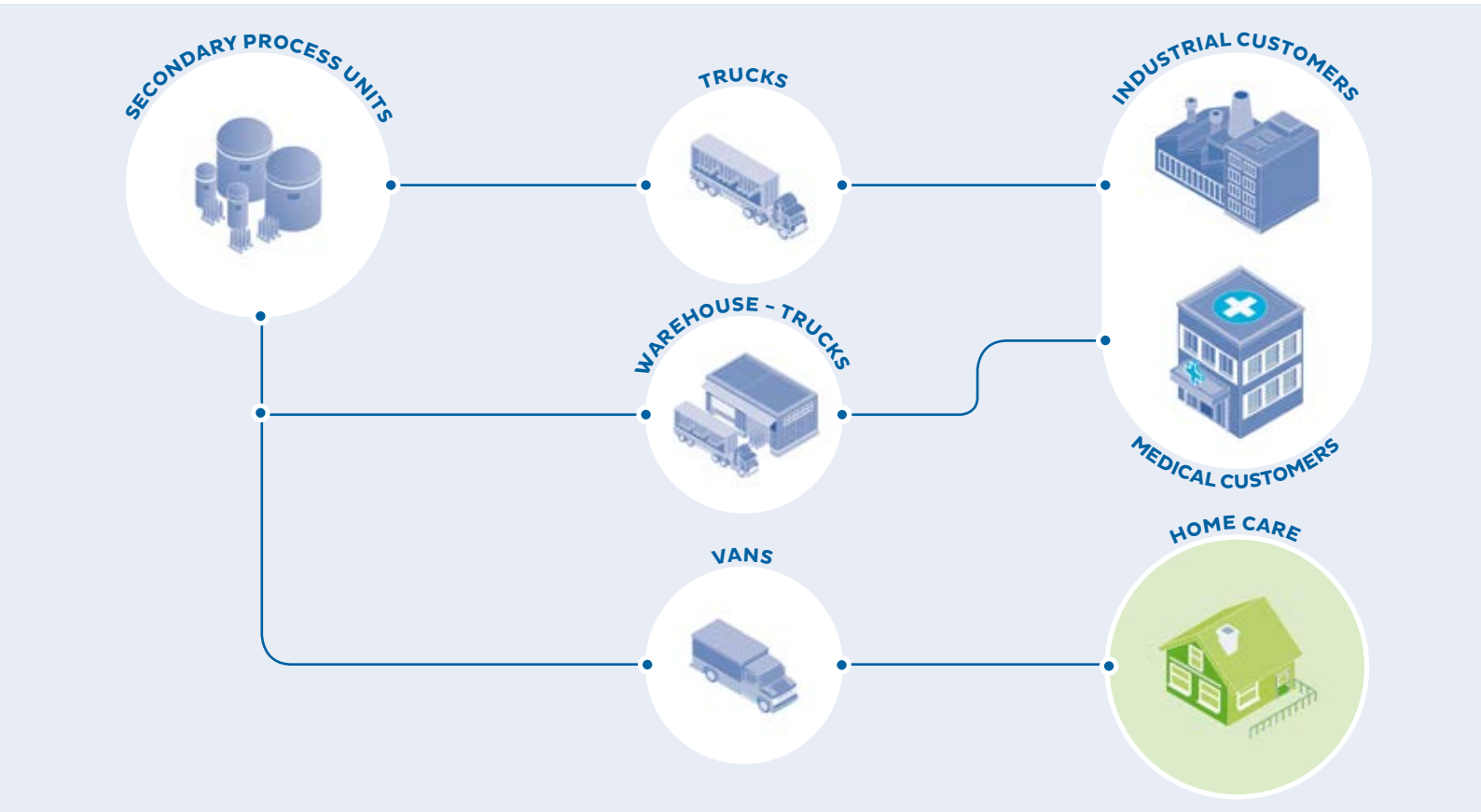
Biotechnologies

HYDROSOL

Renewable Energy

THE VALUE CHAIN OF THE SOL GROUP





MISSION AND ETHICAL PRINCIPLES

The Group's mission is to provide its customers with **innovative and technologically advanced solutions** at all times and to offer patients the best possible home care services, contributing to **improving the quality of life** on the planet.

The values in which the SOL Group believes and from which it takes daily inspiration are:

Ethical behaviour: in interpersonal relations, towards employees, customers, suppliers and all stakeholders.

Safety: we consider the safety in the workplace for all employees and collaborators, as well as the safety of the products and services we provide to our customers and patients, as a top priority.

Customer satisfaction: we are committed to providing our customers with innovative and technologically advanced solutions at all times and to improving the quality of life of our patients, guaranteeing them the best treatment and the finest home care.

Balanced development: we strive to create balanced economic growth and constant development over the long term, employing resources efficiently and orienting them constantly towards change.

Environmental protection: we seek to safeguard the environment by optimising processes, and therefore using energy resources in the best possible way, and by developing technologies and services that help our customers improve their environmental efficiency.

Development of human resources: we believe that attracting and retaining new talents and, in a broad sense, training and developing the capacities of individuals are fundamental tools for the success of the SOL Group.

The SOL Group adopted its own **Code of Ethics** in 2006, which is a tool for the implementation of good behavioural practices, a reference point and a guide for those working at SOL and those interested in pursuing its mission. It expresses the commitments and responsibilities that all SOL employees assume in conducting any business activity. Among the various issues addressed, of particular importance are the respect for human and individual rights, the prevention and combating of corruption, the safeguarding of workplace health and safety and environmental protection, along the supply chain.

The Code was reviewed in 2017 with the aim of further highlighting the principles and conduct that must characterise relationships with all stakeholders. A clear and simple style was adopted to make sure that the contents are immediately comprehensible.

A PAST IN CONSTANT EVOLUTION

1927

Giovanni Annoni and Aldo Fumagalli Romario founded the SOL Group with the **first two** oxygen and acetylene **production sites** in Livorno and Ancona.

1960

Alessandro and Renzo Annoni, Giulio and Ugo Fumagalli Romario, the second generation, launched an ambitious project for the **innovative development** of SOL: these are the years of the first technical gas production plants, located close to the Group's major key customers, such as steelworks and glassmakers.

1970

SOL switched from a regional to a national strategy, embracing the major transformations taking place in the technical gas industry at the time due to the development of technologies for the storage and distribution of gases in cryogenic liquid state. This allowed SOL to become a **leading operator on the Italian market**.

1984

In 1984 the Group began to **look towards Europe**, developing sites and branches and launching joint ventures in most European countries, in addition to taking advantage of the opportunities stemming from the opening of new markets in South-Eastern Europe.

1986

SOL was one of the first companies in Europe to introduce a new form of treatment, developed in the US, for patients affected by serious respiratory disorders. This treatment involves significant quantities of oxygen and a highly specialist **home care** service. In 1986 **Vivisol** was established, a company dedicated to developing this market.

1998

In order to be more competitive on the international markets, in July 1998 parent company SOL Spa was listed on the **Milan Stock Exchange**. The arrival of the third generation of the Annoni and Fumagalli Romario families at the helm of the company, together with a young executive management team from outside the families, allowed the Group to pursue its strategy of internationalisation.

2002

The Group decided to enter the **renewable hydroelectric energy production** sector to cover part of its energy requirements, acquiring and developing hydroelectric power plants in Slovenia, Bosnia Herzegovina, Albania and Macedonia for an overall installed capacity today of around 31 MW.

2010

The SOL Group expanded its borders **beyond Europe**, founding SicgilSOL in **India** in 2010, a joint venture for the production and marketing of air separation gases.

Taking advantage of the experience it had acquired in the creation and management of cryobanks for the storage of biological samples, in 2010 the Group entered the **biotechnology sector**.

2012

SOL entered **Turkey** with a joint venture in the home care sector and the constitution of a second company dedicated to the development of industrial activities.

2014

Thanks to the acquisition of the German company SKS, SOL became one of the most important players in the CO_2 production market in Germany.

2015

SOL entered the **Moroccan** market with the acquisition of a 100% stake in Flosit, and the **Brazilian** market through a joint venture with a local entrepreneur, acquiring a majority stake in Vivisol Brasil.

2017

SOL expanded its activities in the biotechnology sector by acquiring a majority stake in **Personal Genomics**, a Verona-based company with a lab for DNA sequencing and genetic data interpreting services.

2018

In June the Group acquired two companies in **Poland**, Pallmed and Medseven, strengthening its international presence in the home care sector, and in particular in **palliative care**. It also established a **Centre for the testing and maintenance of cylinders and packs** with the aim of increasing container quality to further guarantee the health and safety of patients and clients.


THE SOL GROUP WORLDWIDE
EMEA
Germany
The Netherlands
Belgium
Ireland
United Kingdom
France
Switzerland
Portugal
Spain
Italy
Morocco
Poland
Czech Republic
Austria
Slovak Republic
Slovenia
Hungary
Romania
Serbia
Bulgaria
Turkey
Kosovo
Macedonia
Greece
Croatia
Bosnia and Herzegovina
Albania
SOUTH AMERICA
Brazil
ASIA
India

10 YEARS OF SUSTAINABILITY

This is the tenth year that the SOL Group has published a Sustainability Report: the tenth edition is an opportunity to recount how the SOL Group has changed its way of reporting its commitment to sustainability to all key stakeholders.

2009

The Group's **first** Health, Safety and Environment Report was drafted.

2011

Social performance was added along with KPIs related to employees and community initiatives, thus the first Sustainability Report.

2016

The first **stakeholder engagement** process was launched in order to identify significant issues to include in the Report, i.e. those issues that reflect the significant economic, environmental and social impacts of the organisation which substantially influence stakeholders' assessments and decisions.

2017

The **data collection** process of all Group companies was consolidated thanks to a software developed to manage the computerised flow of qualitative and quantitative information and relative controls.

2018

Publication of an internal **Directive** on the Sustainability Report management process that defines roles, responsibilities and resources.

SUSTAINABILITY, A GLOBAL GOAL

In September 2015 over 150 international leaders met at the United Nations to define the 2030 Agenda for sustainable development with the aim of contributing to global development, promoting human well-being and protecting the environment. The Agenda is based on 17 Sustainable Development Goals (SDGs) to be achieved by 2030.

Aware of its role in sustainable development, the SOL Group has connected its activities to the UN Agenda with the aim of highlighting its contribution to achieving 7 of the 17 goals.

SUSTAINABILITY FOR CUSTOMERS AND PATIENTS

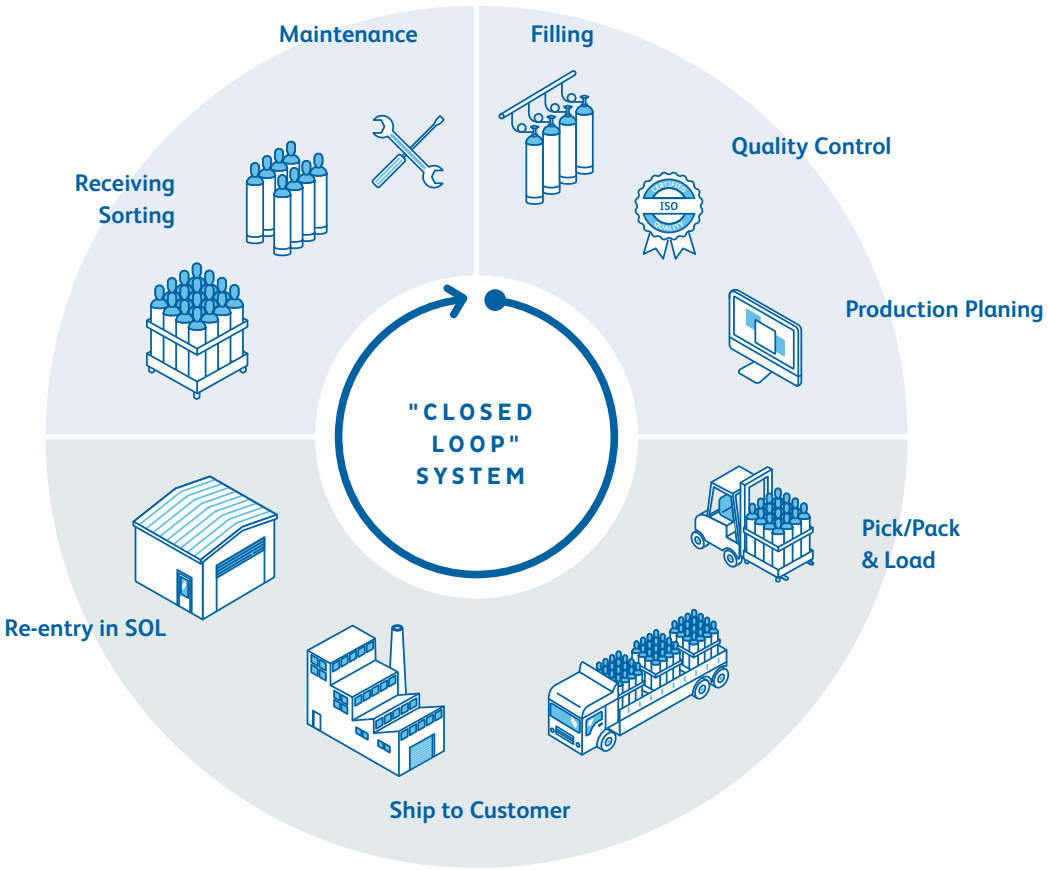
The SOL Group aims to satisfy its customers' needs in all of the sectors in which it operates and to contribute to guaranteeing the quality of life of the patients it serves.

It offers **industrial customers** products, services and technologies that help them do business in a **safer, less costly and more environmentally-friendly way**.

In addition to medical gases, it provides **hospitals** with support services for the administrative and technical management of gas supplies and sanitising services designed to **ensure the health safety of patients** and more generally the services related to maintenance and management of **high-tech equipment**.

Finally, the **home care service** allows patients suffering from chronic diseases to lead more serene lives in their homes, **avoiding hospitalisation**.

For the **distribution of bottled products** (cylinders, cylinder baskets, dewars) reusable items are used which have a long duration. During their lifetimes these recipients remain the property of SOL, which makes them available to its customers. When the cylinder is empty it is returned by the customer to SOL so it can be refilled and reused as part of what is a **"closed loop" system**. SOL is responsible for all aspects connected to the maintenance and periodic inspection and testing of the recipients, ensuring that they are safe as well as suitable and compliant with applicable regulations.



TECHNOLOGIES FOR INDUSTRY

Given the growing sensitivity of customers to environmental and safety matters, the SOL Group has invested in the identification and development of innovative technologies which make it possible to improve working conditions from an environmental, economic and safety point of view.

Improving water quality: the use of oxygen in wastewater treatment makes the purification process more effective, reducing environmental impact and ensuring better control over the treatment.

Disinfection with ozone protects the watercourses where wastewater is re-emitted after treatment from bacterial pollution and also avoids the use of chlorine compounds.

Reduction of energy consumption and emissions: the use of oxy-combustible burners developed by SOL in the metal and glass industries permits more efficient combustion than using only air, with a consequent reduction in energy consumption and atmospheric emissions.

On-site plants: producing gas directly on industrial customer premises using on-site plants, where the characteristics of the gas and the needs of the customer allow it, significantly contributes to protecting the environment because it makes it possible to:

- reduce the atmospheric pollution associated with road transport, typical of traditional supplies in cylinders or tanks;
- reduce energy consumption since the process, specialising in just a single gas with specific characteristics, consumes less energy than a traditional centralised plant.

Promotion of more sustainable transport: the use of fuels with lower environmental impact, like hydrogen and liquefied natural gas, makes it possible to reduce emissions deriving from the circulation of cars, buses and lorries.

Increase in safety: the use of nitrogen to neutralize environments and plants at risk of explosion or fire contributes to the safety of production processes.

Reduction of pollutants: pH control with CO_2 substitutes mineral acids (sulphuric and hydrochloric) which leave pollutants in the water.

Reduction of food waste: technologies that make it possible to conserve food products (freezing of foods and conservation in protective atmospheres without preservatives).

HEALTHCARE SERVICES

The SOL Group is constantly looking for answers to the health management challenges that are posed both by hospitals and by patients who use home care services.

That's why SOL believes that hospitals must not only be supplied with traditional medical gases (oxygen and nitrous oxide), but also with the equipment to use them and, above all, the services enabling clients and doctors to focus on the main purpose of their activities, namely patient care.

The safety of patients, operators and all those present for various reasons in the places where medical gases and services are supplied, managed and administered is a primary objective. The experience gained and continuous feedback allows SOL to innovate products and services for the purpose, among others, of making them inherently safer: examples are the integrated reducing valves for compressed gas packages, safety and protective devices for handling cryogenic gases and safety and monitoring sensors for the rapid analysis of hazardous atmospheres.

The reduction of the Group's environmental impact is pursued through **transportation efficiency, the computerisation of** accounting and reporting **documents** and **optimising inventory** thanks to the use of management systems that monitor tank levels and track the packages distributed in healthcare facilities.

Over the years, the SOL Group has flanked these hospital services alongside increased attention to **patient treatment**: the healthcare worker seeing to home oxygen delivery is not merely seeing to logistics, but takes on a true role as healthcare worker, taking charge of the patient's **clinical governance**

by providing targeted therapeutic hospital and home care services.

Patients with chronic conditions can therefore count on integrated care services at their home which, if conditions allow, guarantee as independent and high-quality a life as possible, avoiding hospitalisation thanks to an efficient remote monitoring service.

GENOMIC DIAGNOSTICS

There are several advantages of genomic diagnostics which the Group makes available to its customers:

- **Prevention:** by performing tests on a healthy population, there is a higher probability of being able to take prompt action to prevent certain illnesses.
- **Early identification of problems:** by screening new-born babies and carrying out predictive tests on a population that is at high risk of a specific illness it is possible to identify anomalies in advance and, potentially, take early action.
- **Assistance for the ill:** by identifying DNA mutations it is possible to modulate personalised treatments to improve the effectiveness of healthcare.

SAFE PRODUCT MANAGEMENT

The safety of products is monitored both in the production phase and during transportation, right up to the final professional user, using risk assessment processes.

The SOL Group takes part in national and international working groups on product safety matters in order to stay constantly updated on the evolution of regulations and to be able to operate in harmony with other companies in the sector.

The **management of the Safety Data Sheets** (SDS) of all substances and for all companies operating in the European Community is centralised at the Monza headquarters. There are currently more than 4,000 available SDSs in 20 languages. All of the safety data sheets and all of the labels applied to mobile containers conform to Regulation 1272/2008 (CLP - Classification, Labelling and Packaging), which regards the European standardisation of the classification and labelling of hazardous substances and preparations.

As regards **REACh** (Regulation on Registration, Evaluation, Authorisation and restriction of Chemicals), the process of registering the substances marketed by SOL was completed in 2018.

Product traceability, and in particular for medical gas containers, provides information on their location at any time in order to make timely withdrawal actions, in case flaws were found in the products delivered.

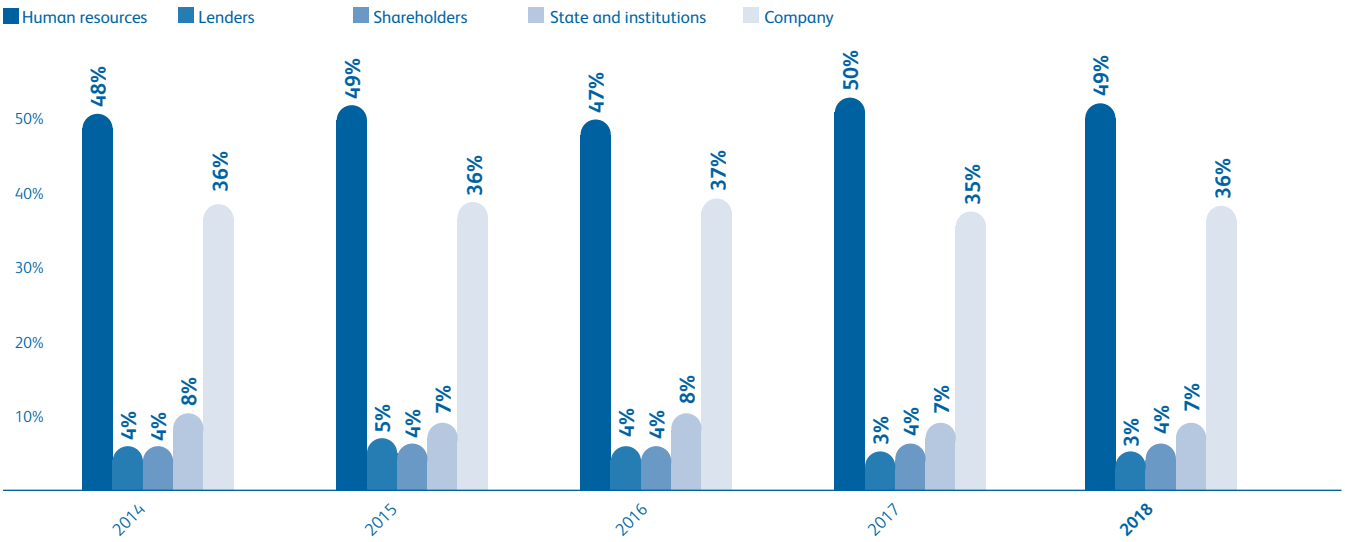
SUSTAINABILITY FOR EMPLOYEES

The engine behind SOL's development is its human capital. The attention to people translates into a corporate culture which promotes individual merit, teamwork, communication, results orientation and the delegation of responsibilities as relevant determinants of significant organisational performance. The Company bases its relationship with employees on the fundamental principles of equal opportunity, listening to needs and also personal expectations, safeguarding health, its commitment to professional development and the recognition of results achieved.

THE DISTRIBUTION OF VALUE GENERATED

The distribution of **added value** is how the wealth generated by the company in carrying out its activities is **distributed to its stakeholders**. It is calculated by reclassifying certain items in the consolidated Income Statement.

The economic value generated, which in 2018 was equal to approximately 369 million Euro, was then distributed to stakeholders as employee wages (human resources), returns on loans granted (lenders), return on risk capital (shareholders), taxes (state and institutions) and amortisation and non-distributed profits (company system).



The distribution of the economic value to shareholders for the 2018 fiscal year corresponds to the dividend that the Board of Directors will propose to the Shareholders' Meeting.
The data related to 2017 and the previous years have been restated for greater alignment with respect to 2018.

GROUP DEVELOPMENT

THE ACQUISITIONS

Different corporate transactions were carried out during 2018.

In the **technical gases sector**, Cryos was acquired in Italy, a company that produces and distributes technical gases, in particular dry ice. Cryos has developed a technology for industrial cleaning with dry ice that replaces the use of chemicals.

In the **home care sector**, the following companies joined the Group: in Italy Fisio Med Service, incorporated in Vivisol Srl; in Poland Pallmed and Medseven and in Germany Medtek.

MAIN INVESTMENTS

During the 2018 financial year 51.8 million Euro of technical investments were made in the technical gases area, 18.1 million Euro of which by parent company SOL Spa, and 42.7 million Euro in the home care sector. 5.3 million Euro have also been invested in intangible assets, such as software development.

In **Italy** the modernisation and expansion works of the

Monza plant for the production of pure, medical and specialty gases were completed. In addition, the works for the construction of a new highly automated plant for the testing and maintenance of compressed gas cylinders were completed in Campania; the plant will run at full capacity in 2019.

In **Slovenia** the production capacity for the supply of industrial gases to customers in the pipeline was expanded.

In **Bulgaria** a plant for the production of carbon dioxide began construction.

In **Albania** works are under way to build a new sulphur dioxide production plant. In addition, an analysis laboratory was created to ensure product quality, for which an accreditation process has been started according to ISO 17025 which will end in the first half of 2019.

In **France** the works to enhance the production of dry ice were concluded at the secondary production plant in Cergy Pontoise.

In **Ireland** the works for a new technical gas filling plant were completed and the plant began operations.

The **programme for the improvement, modernisation and streamlining of the production plants** continued. This activity especially concerned the primary production units of Augusta in Italy, Frankfurt in Germany and Trichy in India, as well as the secondary production units of Ancona, Bologna and Pisa in Italy, Gersthofen and Krefeld in Germany, and Wiener Neustadt in Austria.

Various on-site industrial and medical plants were built and put into operation in Italy and abroad, and the vehicles for the transportation, distribution and sale of products were enhanced with the acquisition of cryogenic tankers, cryogenic liquid tanks, cylinders, dewars and electromedical equipment in order to support the Group's development in all of its business areas and geographical regions.

Finally, the investments to improve the information systems also continued.

DEVELOPMENT OF PURE GASES AND MIXTURES PRODUCTION

In Italy a major investment involved the expansion of the SOL plant in Monza (SGPM). The SPGM plant is specialised in the production of pure, specialty and medical gases used among other things in research centres, university centres, analytical laboratories as well as in industry and health care facilities.

The covered surface area was more than doubled and innovative departments were created for the production of gas and high-end gas mixtures both for the medical sector and the environmental sector, as well as a modern and equipped dedicated analysis laboratory.

Today SGPM is thus able to better support the Group's growth at European level with its products in specific markets.

GOVERNANCE SYSTEM

125
certified units
ISO 9001

75
certified units
OHSAS 18001

25
certified units
ISO 22000

23
certified units
ISO 14001

15
certified units
ISO 13485

CORPORATE GOVERNANCE

The SOL Group corporate governance and control system refers directly to the central role of the Board of Directors of the parent company SOL Spa.

The system is based on the concept of **balance** in the representation and roles of the governing bodies, **dialogue with stakeholders** and on **transparency**, both in relation to the market and to internal procedures.

The **SOL governance structure** comprises the following bodies: Board of Directors, Shareholders' Meeting, Board of Statutory Auditors and Independent Auditors.

The Board of Directors has the primary role of governing and managing the company with the basic objective of creating value for shareholders, in accordance with legislation and the Group's mission and values.

All of the most significant projects, including those relating to sustainability performance, are assessed by the Board of Directors.

For further information, please see the "Investor Relations" section of the website www.solgroup.com

THE INTERNAL CONTROL SYSTEM

The internal control system is the set of processes, rules, procedures and standards aimed at monitoring and preventing fraud against the Company as well as to prevent the commission of offences reflecting an apparent interest or benefit of the company by either top management or, more generally, all its employees, ensuring compliance with laws based on the principles of fairness, transparency, efficiency and reliability of corporate management.

The system is guided by the Code of Ethics and all internal regulations and procedures, including those of the integrated Quality, Safety and Environmental Management System.

Both SOL Spa and Vivisol Srl have adopted the **organisation, management and control Model** established by Italian Legislative Decree no. 231/2001 and subsequent amendments and additions, which forms an integral part of the internal control system. The Model of SOL Spa was then also extended to SOL Gas Primari Srl, thereby constituting a spin-off of the parent company dedicated to primary production.

Both SOL Spa and Vivisol Srl have formed their own **Supervisory Bodies** which have the necessary independence to verify compliance with the organisation, management and control Model pursuant to Italian Legislative Decree no. 231/2001 and, more generally, respect for the Code of Ethics.

The Companies REVI and Sterimed which were acquired by the Group in 2018 already had a 231 Model which was maintained, ensuring coordination among the Supervisory Bodies.

The first versions of the SOL and Vivisol Models pursuant to Legislative Decree no. 231/2001 were approved by the respective Boards of Directors in 2006 and were then updated over time based on the experience gained in management, the introduction of new predicate offences and the relevant case law.

The Models were most recently revised at the end of 2018, with a major revision and simplification of the text that took account of the experience gained over ten years, both in the evolution of corporate organisation and considering regulatory updates.

Training sessions will be organised for all employees of SOL SpA and Vivisol Srl during 2019 to ensure the dissemination of the principles and behaviours defined within the Model and to illustrate the major changes introduced.

The SOL Group is also strongly committed to protecting and respecting the **principles of free market and competition**. In 2017 the **Antitrust Compliance Program** was adopted and the **Antitrust Code** and **Handbook** were disseminated, which very simply and clearly explained the fundamental principles of the legislation to be observed. These documents have been translated into English and distributed to all Group companies. Widespread information and training was provided to all Program recipients during 2018.

The Antitrust Code ensures that the core values in terms of protecting competition are well known and constitute a standard of conduct for all SOL Group personnel. The Handbook summarises some basic behavioural rules.

An **Antitrust Function** was also created, which is covered by the Legal Affairs Department for Italy and by the Country Managers for the Group's non-Italian companies. It is responsible for monitoring the implementation of the Antitrust program and providing assistance in this area to everyone in the Group. Among its other duties, the Antitrust Function also organises training events to promote the awareness and understanding of the regulation's contents.

During 2018, also in light of the entry of the new European Directive on the **general data protection** (the so-called "GDPR") into force, the SOL Group completely reviewed its policy on the subject, appointing a Group DPO (Data Protection Officer), publishing a procedure according to the new legislation and proceeding with all other required obligations. After this, the Group continued with a widespread training campaign, also via distance learning, using the communication tools available.

Also in 2018, the market abuse procedures were updated to match the evolution of the specific legislation for listed companies.

The systematic monitoring of the correct application of the corporate governance principles takes place via a system that involves the presence of dedicated company structures which carry out monitoring, control and risk management activities.

The Board of Directors of parent company SOL Spa has created the **Internal Control Function**, which is tasked with ensuring that internal operating and administrative procedures are correctly respected. The Internal Control Function reports directly to the Board of Directors. Verification activities are performed both at the management offices of the Monza headquarters and at the sites of the Group's operating companies.

GOVERNANCE OF SUSTAINABILITY

On 28 November 2016 the **Corporate Social Responsibility (CSR) Committee** was set up with Directors, General managers and Central managers appointed as its members.

The CSR Committee validates the sustainability goals and coordinates and stimulates the operating structures of all of the Group's companies.

MANAGEMENT SYSTEMS

The SOL Group has chosen to organise its Quality, Safety and Environmental Management System in an integrated way in order to guarantee coverage of all its activities, emphasising synergies.

The governance of the Management Systems, the re-examination of their proper functioning and the verification of their effectiveness is entrusted to the **Quality, Safety and Environmental Management System Steering Committee** (CGSQ) made up of the executive directors, general managers and central directors.

The **Central Quality, Safety and Environmental Regulatory Affairs Management** (DIQS) instead deals with the operational aspect of the management systems, reporting annually to the CGSQ.

The DIQS presents the progress of the projects and activities to the executive directors and central directors on a quarterly basis.

Policies are documents at the foundation of the Management system and are signed by the Chairman and General Managers of the Group. These set out the principles underlying the work of the Group's companies and define the objectives that Management intends to pursue in the various areas. The SOL Group has recently introduced a new corporate governance tool, **Directives**. These documents are issued at the corporate level and are obligatorily received by all the Group companies.

RESPONSIBLE CARE

SOL Spa has subscribed to **Responsible Care** in Italy as far back as 1995: it is the voluntary program of the world's chemical industry, supported in Italy by Federchimica, in which it plays an active part with its own representative on the managing Committee.

On 7 January 2015, **SOL** also adhered to the "**Responsible Care Global Charter**", committing itself to promoting the principles and contents of the initiative in all countries where the Group is present.

On 23 April 2015 the subsidiary **Flosit** also subscribed to the program, promoted in Morocco by the "**Federation de la Chimie et de la Parachimie**".

The implementation of the "Responsible Care" Program at SOL Spa is checked every two years by a certification body. The 2017 audit confirmed compliance with the principles and requirements of the Program.

RISK ANALYSIS

SOL Group's activities, products, services and supply chain, as well as its commercial relations, are exposed to social and environmental risks.

SOL Group adopts a **risk mapping and assessment** methodology that assigns a relevance score to each risk according to the impact assessment, the probability of occurrence and the management system in place. The analysis of the context in which SOL Group operates, including the expectations of the Group's main stakeholders, was a fundamental part of the process.

The main risks regarding non-financial matters to which the Group is exposed are attributable to:

- **Environmental matters**: potential risks related to electricity consumption of the Group's primary transformation plants, potential risks related to direct and indirect greenhouse gas emissions, potential risks related to outbound logistics, with particular reference to road transport.

- **Social matters**: potential risks related to compliance with existing regulations regarding information to customers and patients, risks related to the supply of products and services that address customers' needs, potential risks related to the traceability of the origin of products and services, potential risks regarding the suppliers of services in the home care sector and in general the management of social and environmental risks along the supply chain, potential risks related to the market and the respect for human rights, with particular reference to the supply chain.
- **Employees' related matters**: potential risks related to employees' health and safety and to compliance with legislation concerning occupational health and safety.
- **Compliance with laws and regulations**: potential risks of non-compliance with laws and regulations, including the issue of bribery and corruption.

Given the above-mentioned potential risks, the Group has assessed the existing internal control system for the different activities, possible gap to be filled and related measures to improve internal controls. For the identification of risks related to material issues and the risk responses reference is made to the table in the chapter "Materiality analysis".

The Company Managers are coordinated by the Central Quality, Safety and Regulatory Affairs Management and are the governing bodies that oversee the main **environmental, health and safety risks**.

Furthermore the Company Managers, supported by any local or corporate designated functions, also oversee the **risks related to employees' management and the issues covered by the Code of Ethics**. The Code of Ethics, which includes issues such as protecting the safety, health and environment, respect for human rights and preventing and combating corruption, applies to all those who come into contact with the Group, including suppliers, partners and customers.

The Group has activated **processes and management systems in order to mitigate the most relevant risks**, in order to guarantee the correct control of the matters. In particular, the Group's units have obtained certifications such as ISO 9001, OHSAS 18001, ISO 14001, ISO 50001, ISO 13485, ISO 27001 and ISO 22000. During 2017, thanks to the new requirements introduced by the standards ISO 9001 and ISO 14001, a new risk analysis process was implemented in relation to business activities and assessing opportunities. The analysis included reference to the sustainability issues that are relevant to the SOL Group, in particular the risks potentially present in product production phases and service delivery, as well as in business relationships. The assessment was extended, where relevant, to the supply chain.

The Group has also adopted **specific Policies** signed by the Chairman and by the General Managers containing the principles that underlie the activities of the Group's companies, in particular:

- **Quality management** policy of SOL Group companies;
- **Food safety** policy of SOL Group companies;
- **Energy management** policy of SOL Group companies;
- **Information security management** policy of SOL Group companies;
- **Safety and environment** principles of SOL Group companies;
- **Principles and values** on which personnel policies are based in SOL Group companies and the **Social Media Policy** for the responsible use of social media.

CERTIFICATIONS

The SOL Group launched the certification process for its units in 1994. The main Italian locations were first certified according to ISO 9001, and other standards have gradually been implemented in relation to Group activities. The scope was then extended to other locations and countries.

The following table shows the situation of the certificates obtained by the SOL Group as of December 31st, 2018, broken down by country and Company (see the glossary for a description of the scope of reference of the various standards).

In addition to the certifications listed in the table, the SOL Group has accredited the Pure Gases Plant of Monza (SGPM) according to **ISO 17025**, the specific standard for testing and calibration laboratories.

The reconditioning plant in Verona has instead been certified according to UNI 14065, focused on biocontamination control systems.

Because of the kind of gases they produce and the quantities they stock, 22 Group plants fall into the field of application of Directive 2012/18/EU ("Seveso Directive"). Directive 2012/18/EC makes it obligatory to adopt a specific safety management system (which has much in common with the provisions of OHSAS 18001 and ISO 45001), and, therefore, to be periodically subjected to controls by the Authorities (nine during 2018, all with positive outcomes).

Some Units of SOL Spa and SGP Srl fall under the field of application of European Directive no. 75 of 24/11/2010, "Industrial Emission Directive" (IED), which governs the granting, renewal and review of Integrated Environmental Authorisations. The company has authorisations for its hydrogen (Ravenna), nitrous oxide (Cremona, Marcianise and Tilburg) and acetylene (Ancona) production plants.

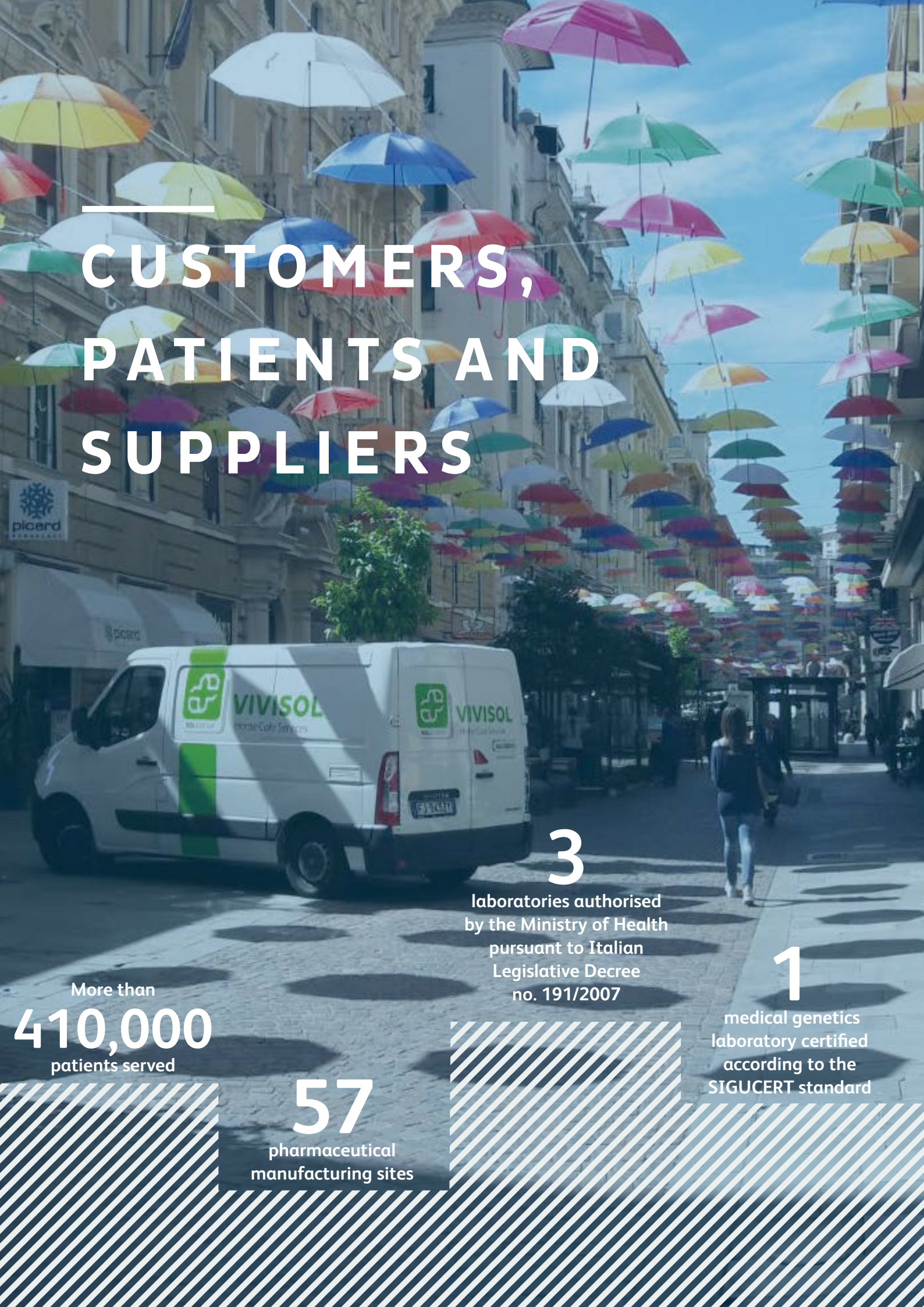
CERTIFICATIONS AS OF DECEMBER 31ST, 2018

Country	Company	ISO 9001 Quality	OHSAS 18001 Health and safety of employees	ISO 14001 Environment	EMAS Environment	ISO 50001 Energy	ISO 13485 Medical devices	ISO 27001 Data security	ISO 22000 Food safety
TECHNICAL GASES SECTOR									
Albania	GTS	1	1				1		1
Austria	SOL TG	1					1		
Belgium	SOL Spa Feluy	1		1					1
	BTG	1							
Bosnia-Herzegovina	TGP	1		1					1
	TGT	1							
Bulgaria	SOL Bulgaria	2	2						2
Croatia	UTP	2							
	Kisikana	2							
France	SOL France	1							
Germany	SOL Deutschland	2							2
	SOL Spa Frankfurt	1				1			1
	SOL Kohlensäure	1				3			1
	CT Biocarbonic[1]	1				2			1
Greece	SOL Hellas	2		1			1		2
India	Sicgilsol[1]	3							
Ireland	Irish Oxygen	1							
Italy	SOL Spa	21	30	3			2	1	
	SGP	6	7	3	2			1	2
	ICOA	1		1			1		
	SG Lab	1					1		
	CTS	1							
	Behringer	2					2		
	Medes	1					1		
	Tesi	1							
	Sterimed	2	1	1			2		
	REVI	1	1	1			1		
Republic of Macedonia	TGS	3							3
	SOL SEE	2							1
Morocco	Flosit	1							
The Netherlands	SOL Nederland	2	3						2
Romania	GTH	1	1						1
Serbia	SOL Srbija	1							1
Slovenia	SPG	1	1	1	1	1			1
	TPJ	1	1	1		1			1
Turkey	Gebze Gaz	1							
	SOL TK	1							1

Country	Company	**ISO 9001** Quality	**OHSAS 18001** Health and safety of employees	**ISO 14001** Environment	**EMAS** Environment	**ISO 50001** Energy	**ISO 13485** Medical devices	**ISO 27001** Data security	**ISO 22000** Food safety
HOME CARE SECTOR									
Austria	Vivisol Austria	2							
Germany	Vivisol Deutschland	7							
	Pielmeier	1							
Greece	Vivisol Hellas	2							
Italy	Vivisol	20	20	1			2	1	
	Vivisol Calabria	1							
	Vivisol Napoli	1							
	Vivisol Silarus	1							
	App4Health							1	
The Netherlands	Vivisol Nederland	1						1	
Poland	Pallmed	1						1	
United Kingdom	Vivisol Dolby	4	4	4				2	
Spain	Vivisol Iberica	4	3	4					
Switzerland	Sitex	1							
BIOTECHNOLOGIES SECTOR									
Italy	Biotechsol	1						1	
	Diatheva	1							
	Cryolab	1							
	Personal Genomics	1							
TOTAL		**125**	**75**	**23**	**3**	**8**	**15**	**9**	**25**

(1) Jointly controlled company, consolidated by adopting the equity method.

CUSTOMERS, PATIENTS AND SUPPLIERS



3
laboratories authorised by the Ministry of Health pursuant to Italian Legislative Decree no. 191/2007

1
medical genetics laboratory certified according to the SIGUCERT standard

More than
410,000
patients served

57
pharmaceutical manufacturing sites

THE TECHNICAL GASES SECTOR

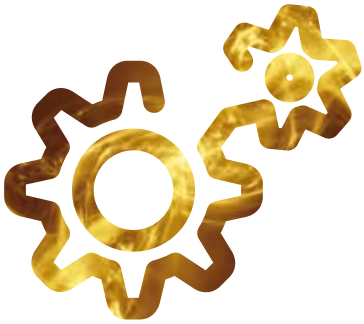
Focus on the customer

The development plan of the SOL Group focuses on continual research into innovative **technological solutions** which, through the use of the technical gases it produces in its plants and markets, enable its customers to pursue goals in the area of **energy and production efficiency**, the improvement of **environmental compatibility** and the **protection of the health** of their employees.

To achieve these objectives the proposed solutions not only concern the supply of technical gases but also the **development of applied technologies**, the construction of the plants and the provision of the services necessary for using the gases.

The products, technologies and services have been developed by placing the needs of **customers at the centre of our attention** and are able to cover a variety of industrial sectors such as: the food industry, metallurgical, chemical and pharmaceutical industries, oil and gas, and the environment and energy sector.

The gases produced and distributed by SOL are: Oxygen, Nitrogen, Argon, Hydrogen, Carbon dioxide, Sulphur dioxide, Acetylene, Nitrous oxide, Gas mixtures, High purity gases, Food gases, Gaseous helium, Liquid helium, Gases for electronics, Ammonia, Combustible gases for industrial use and liquefied natural gas (LNG).



FOOD & BEVERAGE

Industries served

- Agriculture
- Fish
- Red and white meat
- Fruit and vegetables
- Milk and derivatives
- Ready meals
- Bread and pastries
- Ice cream
- Beverages
- Wine and oil
- Catering

Technologies and solutions for:

- Carbonic fertilisation with CO_2: increase in production and in quality and look of the product
- Fumigation and pest control with CO_2 of biological agricultural products for which no chemical products, such as phosphine, can be used
- Fish and mussle farming with O_2: increase in production and quality of the finished product.
- Cooling, flash freezing, cryogenic freezing, IQF with Lin o LCO_2: improved quality of frozen product, taste characteristics maintained, better aesthetic aspect, reduced freezing times and space saving.
- Packaging in atmosphere modified with N_2 and CO_2: shelf life optimisation, improved aesthetic aspect, freshness maintained
- Transport at temperature controlled with Lin or dry ice: safeguarding of freezing chain to preserve quality of food and avoid spread of bacteria
- Gassing, pressing with nitrogen, water dosage: plastic bottle weight reduction.

METAL PRODUCTION

Industries served

- Carbon and stainless steel
- Aluminium
- Ferrous products and cast-iron
- Nonferrous products: zinc, lead, copper, magnesium
- Semifinished products and forges
- Mineral extraction
- Precious metal processing
- Glass and ceramics
- Cement and lime

Technologies and solutions for:

- Oxy combustion and hyper oxygenation with oxygen: reduction of exhaust gas volumes and methane used for combustion, helping safeguard the environment and at the same time increasing productivity
- Wall and fall burners, with conforming flame, low NO_x: plant designed to optimise emission reduction and limited environmental impact, adaptable to the various types of furnace present.
- Inertisation and degassing with argon, nitrogen and SF6: maintenance and improvement of quality of metals produced, reduced waste. Substitutes such toxic chemical compounds as chlorine
- After burners with oxygen: complete treatment of emissions, limiting quantity and environmental impact

METAL FABRICATION

Industries served

- Thermal treatments
- Carbon and stainless steel processing
- Aluminium and nonferrous metal processing
- Automotive industry
- Aeronautical and railway construction
- Shipyards
- Construction sites
- Boilers
- Tools

Technologies and solutions for:

- Controlled protective and reactive atmospheres with nitrogen and hydrogen
- Endothermic and exothermic atmospheres with solmix controlled carbon potential
- Keying with Lin: products made not using heat but cold, limiting fuel consumption.
- Lin soldering of electronic cards: reduced waste and manual elimination of defective cards, increasing production quality
- Cutting and laser welding with nitrogen and oxygen: increased productivity and product quality
- Oxy cutting and oxyacetylene welding, Mig/Mag, Tig and plasma welding and welders.
- Gas distribution automation and plant: reduced manual operations help reduce risk of accidents
- Pressure & fugitive tests with helium and nitrogen: guarantees tightness of components treated, reducing risks of leakage of products, also toxic products, from plant where they are used (e.g. offshore oil wellhead valves).

CHEMISTRY & PHARMA

Industries served

- Basic and inorganic chemistry
- Synthetic intermediates
- Polymers
- Fine chemistry
- Bulk pharmaceuticals
- Pharmaceutical specialities
- Cosmetics
- Herbalism
- Plastics and rubber

Technologies and solutions for:

- Inert and protective atmospheres with nitrogen: reduction of risk of accident from contact of products with oxygen, at the same time preserving their quality.
- Fluxing, pressurisation and stripping with nitrogen: plant cleaning with reduced use of polluting chemical additives.
- Grinding and micronisation with Lin and gaseous nitrogen: increased quality of ground product.
- Packaging in inert and sterile atmosphere of pharmaceutical products: preserving and guaranteeing product quality.
- VOC treatment and solvent recovery with Lin: reduced environmental emissions and at the same time recovery of the chemical products they contain
- Cryogenic cleaning with CO_2: replaces cleaning methods using water, solvents or sandblasting, thus limiting the environmental impact of residues.

OIL & GAS

Industries served

- Extraction
- Transport and pipelines
- Refining
- Raw materials and finished products stocking
- Off-shore
- Components and equipment

Technologies and solutions for:

- EOR processes with nitrogen and CO_2: increased extraction productivity avoiding the need for new wells
- Fluxing, pressurisation and stripping: plant cleaning with reduced use of polluting chemical additives.
- Controlled cooling with Lin: reduced plant maintenance times, faster cooling and less risk for operators.
- Inertisation and drying with nitrogen: plant maintained in controlled stand-by, limiting accident risks and permitting fast restart
- Cryogenic cooling with Lin: permits work on filled pipes without need for emptying.
- Claus processes with oxygen: improved and optimised recovery of sulphur from refinery flows and lower emissions.
- Control and regulation of technical and special gases, management and maintenance of emission control units: emission control units are kept efficient, reducing the risks of accidental emissions.
- LNG Services: gas stations, cryogenic equipment and LNG-powered trucks

ENERGY & ENVIRONMENT

Industries served

- Multiutility
- Wastewater purification
- Purification
- Waste Management
- Special waste management
- Incineration
- Chemical, pharmaceutical, fabric and leather, food, paper, petrochemical and extraction industries.

Technologies and solutions for:

- Waste water treatment with O_2: makes purification more effective and increases purification capacity, reducing environmental impact and giving better control.
- Waste water treatment with ozone: reduction of colour, micro contaminants, nitrates: optimization of treatments, with reduced environmental impact
- AOP processes with ozone: on-site environmental clean-up, less removal of terrain and combustion treatments having higher environmental impact.
- Deodorising waste water with oxygen: reduced environmental impact.
- Disinfection with ozone: watercourses receiving treated wastewater are protected from bacterial pollution without the use of chlorine compounds.
- Reduction of surplus sludge with oxygen: less sludge to send for disposal, reduced environmental impact.
- pH control with CO_2: this substitutes mineral acids (sulphuric and hydrochloric) which leave pollutants in the water.
- Recarbonation and remineralisation of drinking water with CO_2: makes water drinkable meeting legal requirements using a certified food additive.
- Oxy-combustion of waste with O_2: reduction of aeriform emissions and increased control of incinerator plant with widely varying waste loads (tourist areas).
- Afterburners with O_2: complete treatment of emissions, limiting quantity and environmental impact.
- VOC treatment and solvent recovery: reduced environmental emissions and recovery of the chemical products they contain.

HEAT TREATMENT OF METALS: SOL TECHNOLOGY SUPPORTING CUSTOMERS

The SolMix® technology patented by SOL allows the production, directly at the customer's site, of a gaseous mixture containing inert elements (nitrogen), reducing elements (hydrogen) and non-decarbonising elements (carbon monoxide).

Its main application is in the **heat treatment of metals**, such as the normalisation, annealing and carburising used to increase the resistance of steels and decrease the thermal stresses, because, in particular, it allows to avoid product oxidation as a result of high-temperature processing.

SolMix® allows controlling heat treatments through the choice of the carbon potential: the system is flexible and able to automatically manage all the variables that influence the process, such as the ratio between the reagents and the relative chemical reactions, the temperature and the operating pressure.

Thanks to this targeted management system of reagents, SolMix® **efficiently and effectively controls machining processes**, reducing the corrective actions the customer must apply to finished products, allowing the containment of costs and methane and energy consumption with a consequent **positive effect for the environment**.

The flexibility in managing the quantity of mixture produced eliminates waste and optimises maintenance interventions. Eliminating the use of methanol is equally important, as an alternative product to SolMix®, with a significant **reduction in the risks related to the health and safety of workers** and an improvement in the same **product quality**.

During 2018 an important partnership was initiated with a customer in the automotive sector, with several facilities located in Europe, America and Asia. In its factory in Linz, Austria, a system has been installed composed of three latest-generation units called SolmixECO®, which feature an even more stringent containment of methane consumption, capable of producing up to 270 Nm^3/h of a mixture.

THE MEDICAL GASES SECTOR

SOL for the hospital sector

The new health and therapeutic protocols require scientifically and technologically updated products, services and devices which allow obtaining the best performance and the best possible therapeutic result.

The SOL Group therefore acts as a partner for the **supply of products, services and equipment**, allowing the healthcare system to focus on its core business of delivering the "health" product to a very particular customer - "the patient".

Design and development of medical devices

The SOL Group designs, manufactures and manages Medical Devices such as centralised plants for the production and distribution of medical gases, endocavitary aspiration and the evacuation of anaesthetic gases; devices for the administration of drugs, devices for the emergency management of gases; accessories and consumable materials for the administration of drugs and the use of gases.

In this context SOL has accredited its own laboratory for verifying the quality of the medical gases administered at the terminal distribution units.

Total Gas Management Services

The Total Gas Management Service (TGM) offers health structures the possibility of **optimising the activities related to handling medical gas packages and containers and their supplying**. The service is designed on a case by case basis in order to satisfy the requirements of different organisational models.

The SOL Group uses the web platform **InfoHealth® SOLution** to manage the traceability of medical gas packages and mobile medical devices, supplies and stock, the ordinary and extraordinary maintenance of medical devices (including electromedical equipments) and plant technology. Validated according to Good Manufacturing Practices, the platform **guarantees traceability**, contributing to patient safety.

Preparation and distribution of antineoplastic drugs

The focus on **healthcare worker safety** is a priority also in the design and construction of laboratories for handling antineoplastic drugs, where personal exposure to hazardous chemicals should be kept under strict critical thresholds. The adoption of the latest technology ensures accuracy in the dosages of therapies and eliminates the risk of potential handling errors, thus ensuring maximum **safety for the patient**.

Electromedical equipment management service

SOL acts as a partner for the **routine management, operation and emergency management of electromedical equipments**, from the simplest devices to diagnostics for life-saving therapies.

Sanitising services

SOL offers **specialist hygiene programs** that meet the needs of public and private users: from the design, development and operation of sterilisation centres for surgical instruments and units for the treatment and sanitisation of water and air, to the supply of personalised integrated services.

Ambulance management services

Patient care begins from the moment they are transferred to hospital. For this reason, SOL is able to provide ambulance managers with **medical and electromedical devices** for their vehicles, **maintenance** and **safety verification** services, **vehicle sanitisation services** and structured and voluntary staff training.

Monitoring service

SOL offers a complete range of services for **environmental, particle, microbiological, microclimatic and specific substance monitoring** (e.g. anaesthetic gases in operating environments), custom-designed for each type of room in the hospital facility according to the actual risk of exposure established by current regulations.

Training services

Training in the safe use of medical gases, their containers and accessories is fundamental for the correct administration and handling of products.

Training is provided through ECM courses, which can be accredited upon the request of the customer. These can be held both residentially and remotely in order to satisfy the needs of structures and individual students.

THE "TURNKEY" STERILISATION OF SURGICAL INSTRUMENTS

The sterilisation of medical devices is one of the key moments in the process of infection prevention and control.

Sterimed entered the SOL Group in 2017: the company offers to **public and private healthcare facilities** the most complete and advanced sterilisation service management and supply of **surgical instrument rental**, with the objective to certify the sterilisation of medical devices, ensuring high quality standards in the final product and compliance with the relevant regulations (Directive 93/42/EEC).

In relation to the reprocessing and **medical device sterilisation** services, Sterimed designs, certifies, validates and manages the Sterilisation Centres with the most advanced technologies in the industry, defining the structural, plant engineering, technological and organisational structures that provide services in hospital settings.

While considering the microbial load abatement objectives and on the basis of the types of medical devices to be treated, methods are defined to reduce the risks connected to the reconditioning process, assessing the effectiveness of the individual process stages: decontamination, washing, drying, control, packaging, sterilisation and storage.

Furthermore, Sterimed is able to accurately carry out the inventory, cataloguing, promotion and maintenance of an entire set of instruments, managing the customer's surgical instruments and supplying new rental instruments with a reintegration of the devices subject to decommissioning and the integration of equipment in order to adapt to operational requirements.

An advanced IT system ranking at the highest market levels in terms of technology and design techniques, entirely web-native and accessible from any type of operating platform, allows to record individual activities and the operators in charge, ensuring total management and traceability of the surgical process/product to guarantee a **high safety standard**.

THE HOME CARE SECTOR

VIVISOL

Home care services

Vivisol has established itself in Italy and the main European countries in the field of home care and relative care and support services.

Home care affects the patient's health and well-being, as the patient benefits from staying within the family, social and work spheres while having the security of being supported 365 days a year, 24 hours a day.

In 2018 Vivisol supported 418,500 patients around the world. Specifically in Italy, 792,000 home care visits were carried out for 91,600 patients.

Respiratory therapies

Vivisol provides **Oxygen therapy** services for patients with respiratory failure, both at their home and in different places, thanks to the ViviTravel service designed to follow patients travelling throughout Europe.

Through partnerships with established global manufacturers, over the years Vivisol has used the best technology for mechanical ventilation, intervening significantly in the support and management of the patient's chronic disease through the **Home Mechanical Ventilation** service.

Vivisol offers an **aerosol therapy** service which is often used thanks to its effects in the treatment of various

diseases. As an old, natural method, the nebulisation of a drug and its inhalation through a spontaneous act usually lacks contraindications, and is therefore suitable for the elderly and children.

Vivisol is among the industry leaders in the diagnosis and **treatment of sleep breathing disorders**. It offers innovative diagnostic solutions and personalised therapeutic care, supported by the remote monitoring of patient status.

Infusion therapies

Vivisol provides a full **home artificial nutrition** service which involves the supply of mixtures with medicines that are nourishing, a check of the socio-environmental conditions of the place of residence, installation of technical devices and medical and nursing care.

In addition, Vivisol offers **home dialysis** services to support those suffering from terminal renal failure. In addition to the necessary tools, Vivisol provides nursing support with the aim of ensuring continuity of care and its correct provision.

Advanced Homecare Service

Vivisol offers **palliative care** for people with chronic and evolutionary medical conditions for which there is no treatment or, if it does exist, is inadequate or ineffective in stabilising the disease or significantly extending life expectancy. These benefits can be provided at the patient's home or at designated residential structures such as hospices.

Vivisol has clinics dedicated to **psychogeriatrics**, with the aim of providing assistance and support during the neuro-psychological process of ageing in the elderly patient.

In addition, Vivisol has created a residential community for people with complex disabilities. The **protected flats** are living spaces completely free of barriers and designed according to the needs and clinical care needs of the patient.

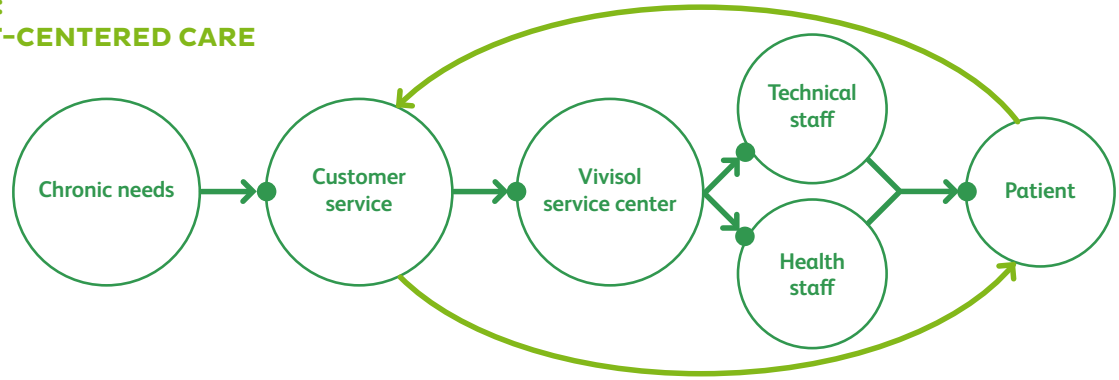
The various **Integrated Home Support** (ADI) services offered by Vivisol can count on an operations centre that is active 24 hours a day and on platforms that allow fluid communication between the service provider and the health board assigned to clinical governance, ensuring the reliability and efficiency of a system structured around the patient's needs.

Therapy aids

Vivisol uses its extensive experience and high competence in the **management and delivery of therapy aids**, offering a comprehensive delivery service at the patient's home, technical assistance, maintenance, sanitation, disinfection and online software for the computerisation of data.

An effective **Telemedicine** service allows the physician to remotely monitor all the data relating to the patient's medical condition, optimising the timing of

VIVISOL: PATIENT-CENTERED CARE



updating and communication between the medical office and the home.

Thanks to the information technologies applied to overcoming disabilities, Vivisol provides **augmentative and alternative communication** that allows the patients who are voiceless due to their disease (which often also involves the loss of movement of the upper limbs) an aid for the remaining motor abilities, to allow autonomous communication.

The **eyepiece pointer** is a rather advanced computer device that allows voice communication via the recording and analysis of eye movement, making it possible to reproduce the sound of the voice.

Ancillary Services

Vivisol sees to more and more of a patient's clinical governance by providing, through the drafting of an Individualised Service Plan (PAI), a service for the **Management of a chronic patient's care pathway** which includes a set of management and organisational interventions favouring rapid access to effective and consistent care.

During 2018, Vivisol promoted **training and information** for healthcare professionals with the aim of spreading the culture of home healthcare in the face of a growing need for updating and professional skills. These courses sought to enhance the learning and advancement of healthcare professionals' knowledge in order to offer a high-quality service in the clinical management of the patient and the multidisciplinary collaboration of operators called upon to assist.

PALLIATIVE CARE: PAIN TREATMENT AND RELIEF FROM SUFFERING

Palliative care is currently a holistic medical-healthcare approach whose purpose is to assist and improve the quality of life of patients and their families, stepping in where every chronic and progressive terminal illness no longer responds to specific treatments.

The objective is therefore to **take care of the patient** as a whole, based on principles that affirm life and consider dying as a natural event, neither accelerating nor delaying its occurrence, aiming at the relief of pain and other symptoms and considering the fundamental **social, psychological and spiritual** aspects of patient care.

In fact, palliative care arose by overcoming the traditional medical-specialist approach (disease-oriented) to focus on the patient and on the global and multidisciplinary assessment of his problems (person-oriented) to promote the dignity of the person and the quality of life.

The social health network and home social welfare are integrated so that hospitals, clinics and home services can ensure performance according to individual needs: from therapeutic actions and the assessment of symptoms and pain, to family support during illness and in times of mourning. **Hospices** arose in this context as real residential centres for palliative care, where the terminally ill patients are welcomed and accompanied in the last stages of their lives with the support of a team consisting of a doctor, psychologist, nurse, social worker, chaplain and volunteer.

Vivisol is able to provide medical, nursing, rehabilitation and psychological and spiritual support, diagnostic tests, supply drugs, medical devices, aids and services envisaged by the care plan established for each patient.

Thanks to Sitex, a Swiss company acquired by the Group in 2017, besides being able to count on a team of specialist nurses for the management of palliative care service, Vivisol has its own **pharmaceutical manufacturing sites**.

Vivisol has several residential buildings, in Germany with Vivicare and Kompass and in Poland with Pallmed, which allow the temporary or permanent housing of those who cannot be assisted in a specialised home care program, or for which admission to a hospital is no longer adequate.

THE BIOTECHNOLOGY SECTOR

BIOTECHSOL

Design and development of biobanks

The service of designing and creating ISO 9001-certified cryo-biological rooms is aimed at public and private structures that carry out **scientific research, assisted reproduction and manipulation for cell, tissue and organ transplants** and need to preserve their biological samples for long periods of time in liquid nitrogen.

Disaster Recovery

The Disaster Recovery service guarantees public and private structures the **transfer**, in emergency situations, of **precious biological samples** to cryo-biological rooms owned by the SOL Group. In particular, Cryolab is authorised by the Italian Ministry of Health and the Italian National Transplant Centre for the long-term and disaster recovery conservation of human gametes and blood.

Bioshipping

The Bioshipping service provided by Cryolab makes it possible to **transport biological samples** between health structures in completely safe and traceable conditions, with continuous temperature monitoring.

This service is becoming increasingly popular and important, and is also used for delicate and often

unique samples such as gametes. Cryolab is able to satisfy the reliability and very high specialisation requirements established by applicable regulations for Medically Assisted Procreation structures.

Genomic diagnostics

Biotechsol provides **pre- and post-natal diagnostic screening services** which are important for ensuring the correct development of new-born babies, as they enable the early diagnosis of numerous diseases which, if diagnosed in time, can be treated.

Diatheva diagnostic systems are innovative because they permit the identification and quantification of pathogens through DNA amplification techniques in any matrix and for any requirement.

Compared with traditional techniques, such as cultures, the new Diatheva systems can reduce the time required to obtain results to just a few hours and are aimed principally at the food and environmental control sectors where fast analytical results are critical for making decisions that affect the safety of people and the environment.

These activities were joined by genetic and bioinformatic analyses thanks to the SIGUCERT accredited Personal Genomics laboratory, which makes N**ext Generation Sequencing technologies** and advanced **bioinformatic tools** available to preventive and precision medicine.

Biotechnology and biomedical research and applications

Diatheva is the SOL Group company operating in the field of industrial and biomedical biotechnology, focusing on the research, development, production and marketing of new and innovative products (such as monoclonal antibodies, recombinant proteins, molecular kits) for research, diagnosis and clinical application in the hospital, environmental, veterinary and food sectors, with a particular focus on the field of oncology, microbial infections and pharmacogenetics.

Diatheva aims to **translate basic research results into industrial applications** in biomedical and industrial fields, cooperating with public and private research companies and institutions.

MOLECULAR KITS FOR MONITORING THE HIV VIRUS

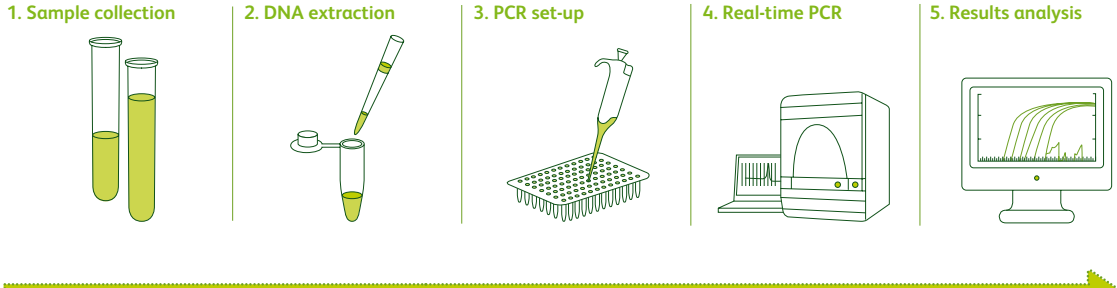
Antiretroviral therapies (ART) are today's method for **significantly reducing the mortality of AIDS**, even managing to transform an HIV infection into a manageable chronic medical condition. ART makes it possible to inhibit the replication of the human acquired immunodeficiency virus (HIV), blocking the natural evolution of the disease. However the current antiretroviral therapy **does not cure**, as it is unable to completely eradicate the virus which can remain integrated in the DNA of resting CD4 lymphocytes for years (Viral Reservoir).

At the second edition of the National Congress of the Italian Virology Society (SIV), the SOL Group company Diatheva presented a **molecular kit** for research purposes for the quantification of the DNA of the most common HIV virus, type 1. The kit allows specialists to quantify the presence of viral DNA in the sample thanks to a real-time PCR analysis: this method simultaneously amplifies and quantifies the DNA.

The kit has been used for research purposes in some of the most important virology centres at national level. In association with the plasma RNA assay (viremia) and the T CD4+ lymphocytes count, the quantification of the HIV DNA allows obtaining accurate results on the state of care applied.

The kit provided by Diatheva is completely ready for use and has a mixture formulated with reagents that make it possible to neutralise the main inhibitors of PCR, ensuring accurate viral HIV-DNA quantification.

WORKFLOW



Total analysis time: less than 3 hours

ENERGY PRODUCTION FROM RENEWABLE SOURCES SECTOR

HYDROSOL

The production of technical gases is highly dependent on electricity, which is mostly produced from fossil fuels like gas, coal and oil that have a considerable negative impact on the environment.

One of the objectives the SOL Group has pursued since 2002 is the **production of electricity from renewable sources** in order to mitigate the indirect environmental impact of its activities.

To date, the Group has 16 power plants with a total installed capacity of 31 MW, located in Slovenia, Albania, Bosnia Herzegovina and Macedonia.

It can be estimated that **35,091 tonnes of CO_2 equivalent emissions into the atmosphere were avoided** in 2018 thanks to the generation of electricity in the Group's power plants (26,074 tonnes of CO_2 equivalent in 2017).

CUSTOMER AND PATIENT SATISFACTION

Customer and patient satisfaction is a priority for SOL which must be monitored constantly, checking the quality of service and identifying the areas for intervention with a view to continuous improvement.

Some key performance indicators (KPIs) of satisfaction are constantly monitored (customer complaints, response times to customer orders and patient requests, etc.) in order to promptly activate the necessary corrective actions.

In addition, during 2018 certain Group companies carried out **ad hoc surveys** which demonstrated very positive results. Within the industrial and medical sector in Albania, Bosnia Herzegovina, Bulgaria, Ireland, France and Turkey, 189 customers were involved, and 1,473 patients were involved in relation to home care in Brazil, Ireland, the Netherlands and Poland. In the UK alone, feedback was collected from 30,009 patients.

In order to be even closer to the needs of its customers, SOL has developed a new **Customer Portal online**. Characterised by its ease of use, the portal automates ordering, offers real-time tracking of deliveries and makes accounting or technical documentation always available. In addition, integration has been prepared with all of SOL's services (such as InfoHealth and remote sensing).

SUPPLIERS

SOL is aware that the role of the supplier is central in all the development phases of a project, an idea, and the company's same image. The suppliers the company maintains contact with are asked to assume the SOL value system, as it is an effective and safe vehicle for doing good business.

The companies that are part of the SOL Group are essentially **'local' businesses**. Production facilities are built close to customers and distribution is usually carried out within the home country of the vendor company.

The main products and services purchased by the Group companies are electricity and transport, maintenance and technical assistance services. A wider choice exists for supply sources in respect of capital goods: sales means (cylinders, tanks, tankers, etc.), plants, and equipment.

In 2018 the Group adopted a new directive valid for all Group companies in the supplier evaluation process in terms of risk analysis. When selecting its partners for the supply of goods and services that are critical for safety, quality and the environment, SOL uses a qualifying process to establish whether a potential partner meets the requirements demanded by company procedures. Possession of these requisites is verified by objective methods such as the filling out of questionnaires and, where necessary, the carrying out of audits at supplier premises.

During 2018, 100 supplier audits were performed (81 in 2017), which mainly concerned aspects connected to quality, environment and health and safety.

Suppliers are required to read and adhere to the Group Code of Ethics and, in Italy, also the organisation, management and control Model pursuant to Italian Legislative Decree no. 231/01, as well as the Group's safety and environment policies.

THE ENVIRONMENT

47,663t

CO_2 equivalent avoided thanks to the creation of on-site plants

35,091t

CO_2 equivalent avoided thanks to the production of renewable energy

MAIN ENVIRONMENTAL ASPECTS

The most important environmental aspects for the SOL Group relate to the use of **electricity in its production plants** and fuel consumption during the **distribution of its products**.

The activities of the SOL Group have a fairly limited impact on biodiversity as the production units are relatively small and located in industrial areas.

Furthermore, the substances produced and handled by the SOL Group do not pose a contamination risk to the soil and subsoil. Some SOL units have been constructed in locations that have soil and groundwater contamination problems, but these have other causes and pre-dated the arrival of SOL.

The table shows the raw materials used for the main types of production units and the environmental aspects connected to these activities.

The environmental data within this Report refer to the types of plants listed below, unless otherwise indicated.

TYPE OF UNIT	N°	RAW MATERIALS	ENVIRONMENTAL ASPECTS
AIR SEPARATION UNITS (ASU)	15	The process of air separation for the production of oxygen, nitrogen and argon is a physical one. It is a process that uses atmospheric air as raw material.	The process has significant indirect environmental impacts because it uses a great deal of electricity. On the other hand, it does not use raw materials other than atmospheric air and emits negligible amounts of CO_2, sulphur oxides (SO_x) and nitrogen oxides (NO_x), already present in the treated air.
HYDROGEN PRODUCTION PLANTS	2	These use natural gas and water (steam) as raw materials, which chemically react with each other to produce hydrogen.	Hydrogen production plants emit CO_2 as a sub product of the chemical reaction and negligible quantities of nitrogen oxides (NO_x), and consume natural gas to produce steam.
NITROUS OXIDE PRODUCTION PLANTS	3	These use ammonium nitrate, either solid or in water solution, as a raw material in a thermal dissociation process.	N_2O production plants can emit the gas produced (greenhouse gas) from their vents, and consume electricity to bring the ammonium nitrate to reaction temperature.
ACETYLENE PRODUCTION PLANTS	4	These use calcium carbide as a raw material, a solid that decomposes in water.	One by-product of this process is calcium hydroxide which, where possible, is used in industry or agriculture.
PLANTS FOR PURIFYING AND LIQUEFYING CARBON DIOXIDE	6	The raw material is carbon dioxide itself, obtained as a by-product from chemical plants or from natural underground deposits. The carbon dioxide is purified and liquefied with the use of energy.	CO_2 production plants can emit the gas produced (greenhouse gas) from their vents. On the other hand, the carbon dioxide obtained in this way is reused in industrial applications instead of being emitted directly into the atmosphere.

ENERGY CONSUMPTION

The SOL Group's activities use **electricity, methane and steam** as energy vectors.

Its methane and steam consumption is negligible and, as such, this Report only analyses the consumption of electricity of primary productions units, one of the critical factors in the air separation process for the production of cryogenic gases. Both the compression of gases and their liquefaction, in fact, are highly energy-intensive operations: as a result, it is estimated that the energy consumption of the primary production plants represents about 90% of the Group's energy consumption.

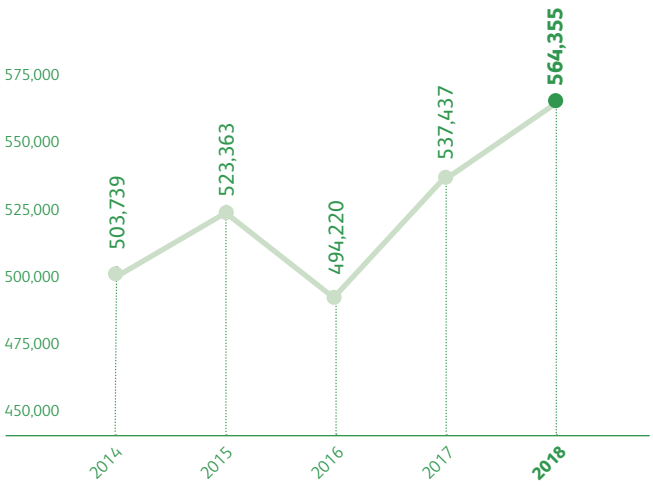
In light of its highly energy-intensive activities, since 2002 the Group has invested in production from renewable sources, acquiring 7 hydroelectric power plants and constructing 8 in Slovenia, Albania, Bosnia Herzegovina and Macedonia. During 2018 a further power plant was built in Bosnia Herzegovina, bringing the total installed power to about 31 MW. The electricity produced in 2018 was equal to 101 GWh, corresponding to 18% of energy consumption.

The actions to reduce energy consumption include care in the design and operation of the plants, process optimisation and upgrading of the machinery used in plants, to which an important percentage of investment budget is set aside each year.

Consumption is however considerably influenced by customer demand and the start-up (or shutdown) of production plants.

In particular, the increase in consumption in 2018 is due to an increase in production. A slight worsening of efficiency index should be noted, due both to a different combination of products which required a higher energy consumption and to a downtime for the scheduled maintenance of certain plants which are among the most efficient from a consumption perspective.

ELECTRICITY CONSUMPTION
(MWh)



The consumption of electric energy considers the primary production plants of the Group. Currently the Group has not signed specific contracts for the supply of electric energy from renewable sources.

ELECTRICITY CONSUMPTION PER M³ OF GAS PRODUCED
(Base 2014=100)

The indicator relating to electricity consumption per gas produced is calculated on the basis of the electricity consumption of the air separation units.

GREENHOUSE GAS EMISSIONS

The SOL Group's emissions can be separated into:

- **direct emissions** from its production plants;
- **indirect emissions d**eriving from the consumption of electricity by the primary production plants;
- **emissions connected with deliveries** to customers and patients.

Furthermore, the emissions avoided thanks to the installation of technical gases self-production plants at customers' premises referred to as "on-site plants" were calculated. This solution, whether the gas characteristics and clients needs allow it, represents an alternative to the traditional supply of cylinders or liquefied cryogenic gas which takes place via road transport. This implies a benefit from an environmental perspective, as on-site plants have lower specific energy consumption compared to centralised production plants; furthermore, emissions due to road transport are avoided. In 2018, the carbon dioxide emissions avoided totalled **47,663 tonnes of CO_2 equivalent**.

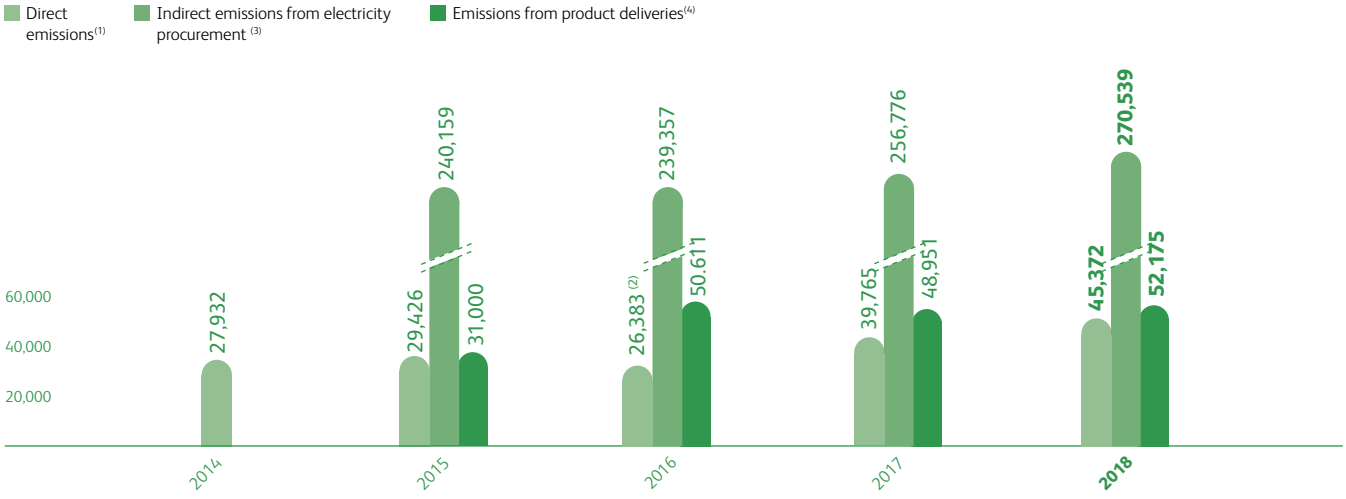
Direct emissions

The direct emission of greenhouse gases is made up of:

- carbon dioxide: a by-product in plants producing hydrogen through the steam reforming of methane, emitted in plants producing CO_2 or vented during the dry ice production process;
- nitrous oxide: emitted from plants producing N_2O from ammonium nitrate;
- HFC (hydrofluorocarbons): used in plant refrigeration circuits.

GREENHOUSE GAS EMISSIONS

(tCO_2 equivalent/year)



(1) The direct emissions related to 2017 and 2018 include the estimated emission data from the production of dry ice, which is not available for previous years. Direct emissions from the Italian units in Caserta and Cremona in Italy were estimated.
The emissions from company cars are currently not available.
The emissions related to the deliveries of products using Group vehicles are reported for greater clarity in the emissions from product deliveries.

(2) Direct emissions related to 2016 have been recalculated following a more accurate data collection process.

(3) Following the update of methodology due to the adoption of the Emission Factors 2018 edition published by the International Energy Agency, data related to indirect emissions from electricity procurement for 2017 has been restated. For historical data and information previously published, please refer to 2017 Sustainability Report.

(4) With regards to the home care sector from 2014 to 2017, the kilometres travelled have been estimated considering the number of patients.

Indirect emissions

Starting with an analysis of the energy supply mix, the indirect emissions generated by the production of the electricity used by the SOL Group were evaluated. These emissions came to around **270,539 tonnes of CO_2 equivalent**, higher than in 2017 due to the increase in production.

Emissions from deliveries to customers and patients

Starting from 2016, the monitoring of emissions as a result of delivery activities was extended to all product types:

- products in tankers and tube trailers;
- products in mobile containers;
- home care products.

Attention to transportation is of fundamental importance as regards environmental and safety aspects.

Products are distributed mainly by road and to an extremely widespread customer base.

The chemical and physical characteristics of the main products also make it necessary to use special vehicles for transportation (heavily insulated tankers for cryogenic liquids) or special containers (cylinders for compressed gases and base units for liquid oxygen for home care use). In both cases, the unfavourable ratio between the tare weight and the weight of the transported products results in a low level of fuel consumption efficiency per product unit sold.

Bearing these restrictions in mind, the SOL Group's actions to reduce fuel consumption and therefore its environmental impact have consisted of:

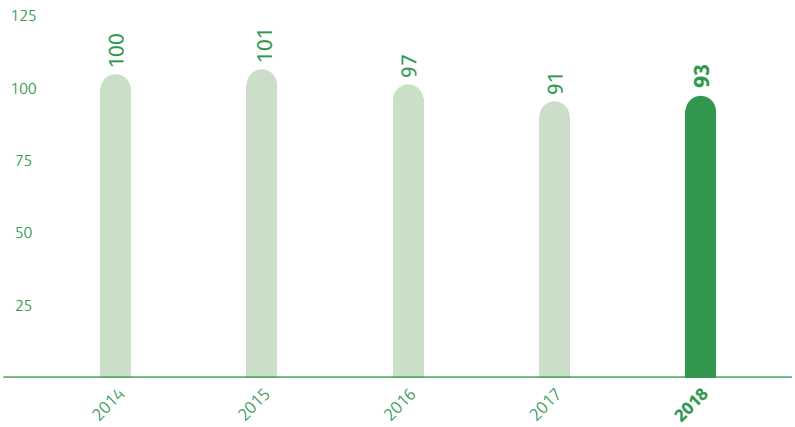
- developing production units spread as widely as possible across the country in order to reduce the journey lengths of vehicles;
- the periodical upgrading of the company fleet, particularly with the purchase of next-generation heavily insulated tankers, with a better ratio between the weight of the transported product and the total weight;
- the adoption of logistics management methods aimed at optimising routes.

Rainbow, the software for planning the distribution of liquid products in tankers and tube trailers adopted and fine-tuned in 2012 for companies operating in Italy, has gradually also been adopted by all of the other companies.

A total of 87.7 million kilometres were travelled.

Based on the type of vehicle for the three main types of products transported, total emissions came to around 52,000 tonnes of CO_2 equivalent.

KILOMETRES TRAVELLED PER M³ OF CRIOGENIC GASES TRANSPORTED IN TANKERS
(Base 2014=100)



ON-SITE OXYGEN PRODUCTION: NEW VSA UNITS IN SLOVENIA

In 2018 in Jesenice, Slovenia, a new plant was inaugurated for the production of gaseous oxygen at the premises of a major customer in the metal industry.

The system uses **Vacuum Swing Adsorption** (VSA) technology, which allows the separation of the gas constituting the air in a non-cryogenic manner (i.e. not through the fractional distillation of air at low temperatures) through the use of mineral compounds, such as zeolites, for the selective adsorption of nitrogen compared to oxygen.

The system consists of two identical containers containing alumina and zeolite: the first to adsorb water and carbon dioxide, and the second for nitrogen. Three successive phases of the process are carried out in each container: a first phase of adsorption, in which air is introduced and oxygen exits that starts the process; a decompression phase, which takes place when it reaches saturation, i.e. when the zeolite is no longer capable of adsorbing nitrogen, during which, thanks to the creation of the vacuum, the previously adsorbed molecules are ejected and the material is regenerated; a third recompression phase in preparation for the next adsorption phase. At any given moment there is always a container producing oxygen to ensure **continuous production**.

The oxygen produced, which is around 92-94% pure, is stored in a buffer tank for the subsequent compression and sending via a gas pipeline to the customer's production process.

Among the different non-cryogenic gas separation technologies, the main feature of VSA is that the process takes place at a pressure slightly above atmospheric pressure (1.2 bar).

Where the final application allows using oxygen with purity in line with that produced by VSA, this technology represents is an **ameliorative alternative from an environmental point of view** compared to liquid oxygen produced cryogenically and transported in tankers. Indeed, there are several advantages to this application: the customer immediately has gaseous oxygen available, no longer needing the energy required for liquefaction, and emissions into the atmosphere are reduced because no tanks are required for product delivery.

In addition, this application provides a high level of flexibility, with the advantage of being able to be commissioned in only a few hours.

At the Jesenice site, lower energy consumption per unit of product can be hypothesised at about 25÷30%.

WASTE

The majority of the waste produced derives from activities carried out:

- **in primary production plants**, related to maintenance activities: non-hazardous waste (mainly scrap iron, packaging and insulating materials) and hazardous waste (mainly used oil, used for the lubrication of machines, and ammonia solution from ammonia conditioning);
- **in the specialised maintenance centres of the Group**: testing of cylinders and cryogenic containers, repair of electric and electronic equipment.

The only waste material directly generated by the production processes adopted in the Group's Units is calcium hydroxide (lime), a by-product of the acetylene production process which, when it can not be sold, must be disposed of as hazardous or non-hazardous waste depending on its characteristics.

The distinction made between hazardous waste and non-hazardous waste in 2018 is due to the disposal of calcium hydroxide which, following an analysis of its characteristics, was possible to classify as non-hazardous waste in some plants.

The other types of waste produced vary from year to year depending on the number and type of maintenance activities carried out.

WASTE PRODUCED
(tonnes/year)

	2014	2015	2016	2017	**2018**
Non-hazardous waste	170	515	1,111	2,223	**2,272**
Hazardous waste	582	1,757	2,273	1,117	**1,505**

CO_2 RECOVERY: AN EXAMPLE OF CIRCULAR ECONOMY

In Ihtiman, Bulgaria, SOL has built a new plant that has been in operation since the second half of 2018 for the **recovery of carbon dioxide from a fermentation process**.

In fact, carbon dioxide is a gas with numerous applications in the industrial sector: from the treatment of water to metal processing up to the cooling, freezing and transport of foods. There are several sources of this gas: from natural underground deposits or as a by-product of chemical and biological processes.

Ihtiman hosts a plant for the production of bioethanol from cereal masses in Ihtiman; this process is based on the fermentation of organic matter by microorganisms in the absence of oxygen.

The fermentation process produces carbon dioxide as a by-product that in the past was emitted into the atmosphere. Thanks to SOL, this gas is instead recovered, purified and marketed in liquid form.

WATER CONSUMPTION AND DISCHARGE

For the SOL Group, managing water resources means:

- optimising the use of water in its plants by reducing withdrawals to a minimum also through investments in recycling;
- research and application at customer sites of technologies which, by using technical gases, can improve processes such as the treatment of waste-water or the purification of water for public use.

Most of the withdrawn water is used in the **cooling circuits** of machinery in primary process units. These systems are **closed-circuit**: the consumed water is the water reintroduced into the circuit to compensate for evaporation.

The quantities used in secondary process units and offices are negligible and are therefore not reported.

The 2018 figure is slightly up due to the increase in production. There are however reductions in consumption from the water supply system; problems which have since been resolved led some units to use water from wells.

During 2018 at the transformation plant in Augusta, Italy, a refrigeration unit was installed which is cooled by atmospheric air for the process air cooling to replace a similar appliance cooled with water. In this way the consumption of cooling water was reduced. At the same time some changes were made with the objective of recovering the condensation water naturally present in the process air, further reducing the plant's need for industrial water.

Water discharge in production plants is periodically controlled. Analyses show that their concentration is well below legal limits.

WATER WITHDRAWALS

($m^3 \times 10^3$)

	2013	2014	2015	2016	2017	**2018**
Aqueduct					126	**62**
Well [1]					1,271	**1,419**
TOTAL	3,043	3,112	2,135	1,337	1,397	**1,481**

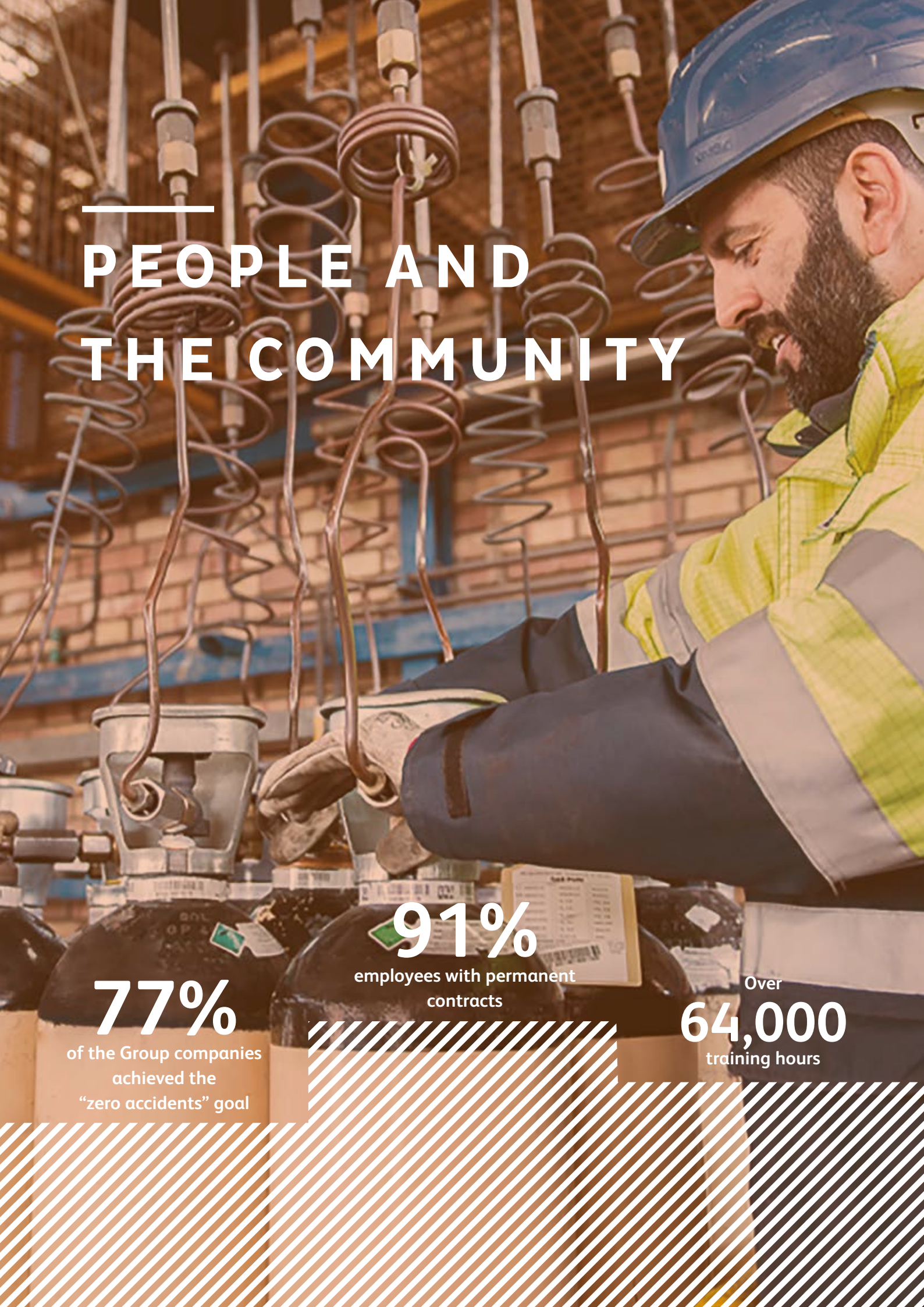
[1] The water consumption of the Augusta unit in Italy was estimated.

PRIMARY PRODUCTION PLANT CERTIFICATIONS

Country	Unit	Plant type	ISO 14001	ISO 50001	EMAS	OHSAS 18001
Belgium	Feluy	Air separation (ASU)	X			
Bosnia Herzegovina	Petrovo	Carbon dioxide production	X			
Bulgaria	Devnya	Carbon dioxide production				X
	Devnya	Air separation (ASU)				X
Germany	Burgbrohl	Carbon dioxide production		X		
	Frankfurt	Air separation (ASU)		X		
	Zeitz[1]	Carbon dioxide production		X		
Italy	Ancona	Acetylene production	X			X
	Augusta	Air separation (ASU)				X
	Marcianise	Nitrous oxide production				X
	Cremona	Nitrous oxide production	X			X
	Cuneo	Air separation (ASU)				X
	Mantua	Air separation (ASU)	X		X	X
	Monza	Special gas production	X			X
	Novara	Air separation (ASU)				X
	Piombino	Air separation (ASU)				X
	Ravenna	Hydrogen production	X			X
	Salerno	Air separation (ASU)				X
	Verona	Air separation (ASU)	X		X	X
The Netherlands	Tilburg	Nitrous oxide production				X
Slovenia	Jesenice	Air separation (ASU)	X	X	X	X

[1] Production plant of CT Biocarbonic, a jointly controlled company, consolidated by adopting the equity method.


SOL



PEOPLE AND THE COMMUNITY

91%
employees with permanent contracts

77%
of the Group companies achieved the "zero accidents" goal

Over
64,000
training hours

OUR PEOPLE

PERSONNEL TRENDS

More than 200 people joined the SOL Group during 2018 thanks to the entry of new companies: Pallmed and Medseven in Poland, Medtek in Germany, Cryos and Fisio Med Service in Italy. Excluding these acquisitions, the number of Group employees regardless increased by 6% over the previous year.

As of December 31st, 2018, the Group counted 3,958 employees, of which 91% with a permanent contract.

Underlining the particular attention it pays to the theme of work-life balance, the Group currently includes 477 people in voluntary part-time positions, the equivalent of 12% of its total staff (10.7% in 2017).

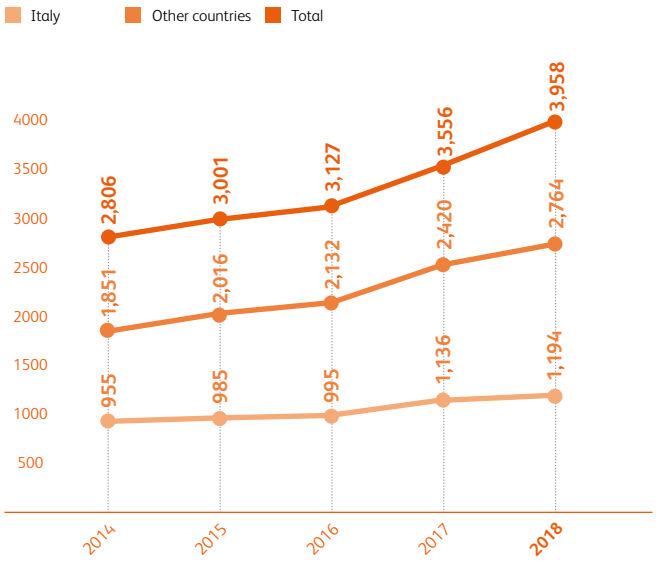
33% of those who have joined the Group in 2018 were younger than 30; 50% of the new hires were women.

The Group's **overall turnover** amounted to 12%, and was lower in Italy (5%) than abroad (15%). In particular, the figure is slightly higher abroad in consideration of the different local labour dynamics and highly competitive markets in which the Group operates, as well as the varying composition of the workforce of each company.

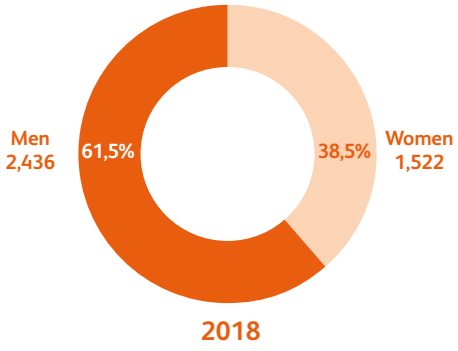
The **overall absenteeism rate** was 3.8% in 2018, but the rates in Italy and abroad were quite different. In Italy it came to 2.9%, well below both the national average for the sector and the average for industry as a whole, while abroad it was 4.1%.

In addition to these employees, the Group uses external collaborators for the transportation and distribution of gas, and for certain services rendered to patients at home, such as nurses, doctors, physiotherapists.

EMPLOYEES BY REGION
(no.)



EMPLOYEES BY GENDER



Data as of December 31st, 2018



TRAINING AND SKILL DEVELOPMENT

People have always been a strategic asset for the achievement of SOL's corporate objectives. Training interventions are structured to respond to the training needs of the entire company, ensuring a differentiated and inclusive offer that is oriented to involve all profiles at all levels.

Over 2018, 64,739 hours of training were provided: on average, **each employee** received **about 16 hours of training** (14 in 2017).

Meetings continued in the **SOL Academy** dedicated to different "job families" to transfer knowledge and share best practices.

SOL YOUth Academy was also launched in 2018, which is the training school for under 35 years old employees who have been with SOL for less than five years. The Academy was created with the aim of developing 8 different skills related to Project Management and Business Presentation. Team building, collaboration and sharing furthered the experience, making it as meaningful as possible.

In order to promote development programs designed for **management**, in 2018 courses were offered to management focusing on resource improvement, the consolidation of leadership and creating a culture of feedback.

A dedicated course was also organised for the **marketing managers** focusing on the management of the indirect sales network. The training touched on several aspects: from the analysis of the partner portfolio, to the evaluation and choice of management strategy.

SOL's ability to act as a reference point for many young talents is also evidenced by the **partnerships** the Group has developed with **Universities** over the years. One such example is the partnership with the **ISTUD Foundation**, the first independent Business School in Italy that operates in the field of higher education and management research. For several years now the Group has hosted a training day for students from the ISTUD "Scientists in the company" Master's course, offering the benefit of the experience and skills of its resources who illustrate the Group's activities in the medical-biological and pharmaceutical sectors to the students. SOL is also partner of the Collège des Ingénieurs Italy (formerly the Scuola di Alta Formazione Manageriale) of Turin and supports the Master's courses of some participants, guaranteeing them a six-month work experience with a view to eventually being hired by the company.

PROTECTING DIVERSITY

SOL believes that diversity, in all its meanings, is a strength and value for safeguarding and promoting the company and in all relationships with stakeholders.

The progressive extension of our activities in new countries requires us to pay increasing attention to the **national and cultural differences** present within the Group companies. The SOL Group's aim is to promote local resources at all levels of the organisation, giving priority to local managers and assigning control and monitoring tasks to central functions.

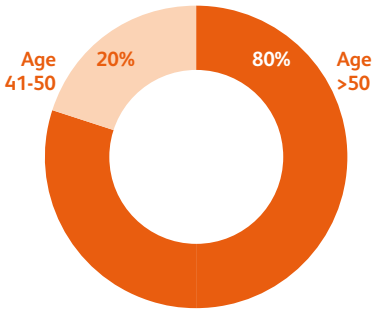
The multiplicity and richness of the SOL Group is clear when considering the following indicators:

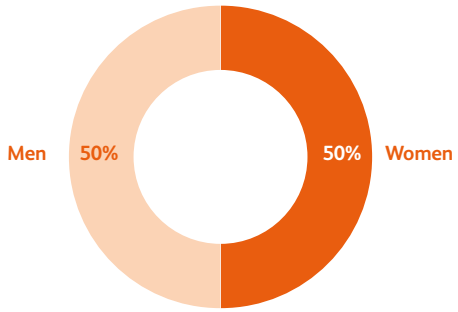
- 38% of employees are women. The presence of women, which is a slight increase compared to 2017, is more consistent among white collar employees, accounting for 51%;
- SOL employees are distributed in the following age groups: twenties (12%), thirties (35%) and forties (30%), those over fifty account for 23% of the workforce.

Of some significance is the fact that when the top company positions were reviewed in May 2016, the number of women who sit on the Board of Directors of parent company SOL Spa rose from four to five, representing 50% of the ten members.

COMPOSITION OF THE SOL SPA BOARD OF DIRECTORS

as of December 31st, 2018





INTERNAL COMMUNICATIONS AND ENGAGEMENT

The desire to share information and involve all people has led to the adoption of various communication tools. First and foremost is the company's house organ **SOL News**, which was renewed in 2017 to reach the entire workforce. In this respect the **company intranet** plays a key role, as it is full of useful information which allows each employee to be an active part of corporate life, thanks to news published regularly in reference to local and global events.

Other ways to communicate with all colleagues are the topical newsletters, for example the Safety Alerts sent by the HSE Department and other corporate management. Through these regular communications, SOL intends to provide its people with the tools they need to cope with new regulations or manage critical situations, starting from specific events which occurred in the sector.

In order to improve the company's internal communication and efficiency in daily work, the SOL Group has taken a decisive step in the adoption of the **Google Operating System Suite**. The platform offers a shared space to users with access and provides a cloud-based content service that allows interaction via email, video calls and chats, as well as sharing information from any device.

In 2018 Vivisol Nederland carried out a **survey** with the aim of assessing the strengths and areas for improvement of the corporate climate. The results of the survey were analysed and communicated to the employees involved, and specific internal meetings were held to assess the data and define any necessary improvement actions.

REMUNERATION AND INDUSTRIAL RELATIONS

The SOL Group makes no distinction between the sexes in the management of remuneration policies which are based on merit, competences and results for each role.

Where required by local legislation in the countries in which it operates, the SOL Group applies the **collective bargaining agreements for the relevant sector** or, alternatively, salaries above the minimum legal wage.

63.5% of the SOL Group's employees are covered by collective bargaining agreements, including 100% of Italian employees and 47.7% of employees in other countries.

On average, wages and salaries, which are monitored by local managers and Personnel and Legal Affairs

Central Management, are in line with or better than those established by the market.

In 2018 the total remuneration paid to the Chairman and Chief Executive Officer Aldo Fumagalli Romario was equal to 14.04 times the average of the total remuneration of Group employees in Italy. [1]

Every year, all managers are required to evaluate the performance of their staff and to refer wage increase and/or career development proposals to the relevant departments and Personnel and Legal Affairs Central Management.

In any case, the wage increases established by collective bargaining industry agreements or by law are guaranteed and, where union representation is present, supplementary contracts are negotiated that can include, as is the case in Italy, France and Macedonia, production and/or participation bonuses connected with corporate productivity profitability parameters such as quality improvement and injuries prevention.

In countries where there is a collective bargaining, the Group strives to incentivize tools that protect the health of employees and their families, and those that integrate the pension services established by local laws.

Personnel and Legal Affairs Central Management directly manages industrial relations for all Italian companies in the Group and coordinates them for overseas companies, intervening when necessary.

SOL is an active member of the chemical industry confederation (Federchimica) and takes part in negotiations in Italy for the renewal of the chemical and chemical-pharmaceutical national collective labour agreements and in other joint schemes by the social partners.

At corporate level SOL maintains periodic relations with its unions based on the utmost cooperation and transparency. No labour disputes occurred in any of the Group companies and in 2018 there were no recorded hours of strike action.

HEALTH AND SAFETY

The promotion and spread of the health and safety culture is guaranteed by the HSE Department, which serves all Group companies, and supported by the Safety and Environment Reference Person (SERP) appointed for each Group company.

Employee training is absolutely essential: all employees are involved in constant **awareness and training** activities aimed at reducing the possible impact of our activities on the environment and ensuring high levels of workplace safety. To this end, periodic meetings are organised, also with the contribution of external specialists, to enhance expertise but also to stimulate collaboration between Units and share management methods.

Also in 2018 the **Annual Meeting of SERPs and all those assigned to the Prevention and Protection Service** was held: an important meeting for sharing experiences and best practices relating to the environment and health and safety. At the end of the two-day meeting, specific time was organised for training with an external trainer, focusing on writing effective procedures in order to simplify documentation.

The SOL Group has several **communication tools** available: these include the “Safety Alerts”, which by highlighting events that have taken place in the sector urge employees to respect correct rules of conduct, and the “Quarterly Accident Reports”, which explain and analyse accidents that have occurred in the Group and in other companies in the sector that belong to Assogastecnici and EIGA.

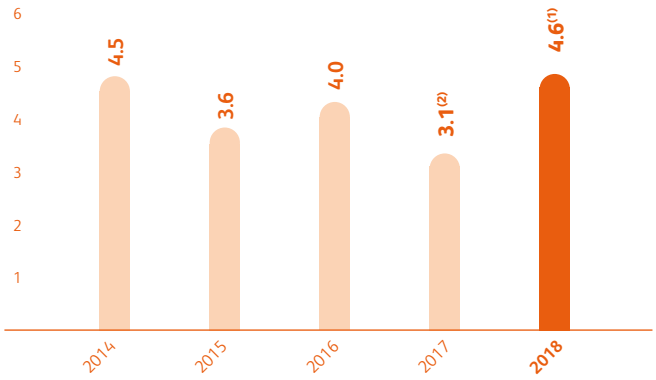
[1] The overall salary includes gross annual remuneration plus the variable components. All employees of SOL Spa and of the other companies whose payroll is managed directly by the Personnel and Legal Affairs Central Management are considered.

Over the last year, despite the continued efforts adopted by the Group, the injury rate (IR) and lost day rate (LDR) of the Group worsened slightly. The injuries were mainly related to tripping and slipping, which caused a high number of days of absence..

In 2018 the "zero accidents" goal was met by 85% of the companies in Italy and 74% of the companies abroad. Furthermore, there were no cases of occupational disease.

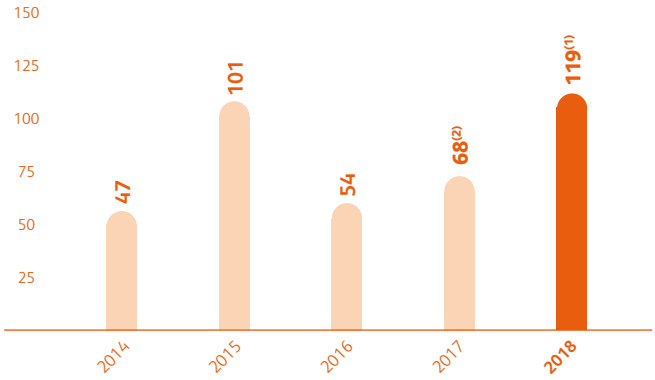
INJURY RATE

(number of injuries/10^6 hours worked)



LOST DAY RATE

(days of absence/10^6 hours worked)



(1) Injury rate and lost day rate do not include an injury registered in a company before it was acquired by SOL Group

(2) In consideration of a continuous improvement of the data collection and consolidation process, data related to health and safety for 2017 has been restated with respect to data published in the Sustainability Report 2017. For historical data and information previously published, please refer to 2017 Sustainability Report.

Only accidents that led to at least one day of absence from work, excluding the day of the event, and which were strictly connected with production, logistics and office activities, were considered.

Only employees in some professional categories are exposed to health risks and these are largely limited to the handling of loads and those that work with VDUs.

In any case, all potential health risks are assessed and potentially exposed personnel undergo medical checks in line with the laws in the various countries and at intervals fixed by the company doctor.

COMMITMENT TO THE COMMUNITY

Since last year the SOL Group has established a work-school program, signing an **agreement with Paolo Frisi** High School in Monza. The chemical industry, job interviews, sustainability, block chains, safety and corporate values are some of the themes of the lectures at school, while from June five students were given the opportunity to work alongside a company tutor to obtain an insider's perspective on working in companies.

The initiative at the **Desio Technical Industrial Institute** was another great occasion for making contacts with the brightest graduates. The involved students designed and presented innovative projects applicable to the industrial world.

The SOL Group has always supported bodies, institutions, associations and sports clubs that operate in harmony with its values, making financial contributions and offering them the benefit of its expertise.

In **Italy**, SOL is a sponsor and partner of Progetto SLAncio, a project promoted by the La Meridiana Cooperative of Monza, which provides assistance to those suffering from invalidating neurological and neuromuscular illnesses.

Vivisol actively supports research by funding grants and scholarships (for example in favour of the Anna Meyer Children's Hospital Foundation and the Salvatore Maugeri Foundation), as well as research projects such as the study on the development and validation of the "Beliefs about ventilation questionnaire" of the Don Carlo Gnocchi Foundation.

Vivisol has supported various associations, such as the Nemo Clinical Centre which provides assistance and care for people with ALS and other muscular dystrophies, the Italian Union for the Fight against Muscular Dystrophy, a reference association for people with dystrophy and other neuromuscular diseases, and the ANT Italy Foundation, which provides free specialist medical care at home for cancer patients.

This year the SOL Group again participated in the eighteenth edition of the **Milan Marathon**, the event in support of the non-profit ViviDown. The company participated in the relay event with its two teams, SOL and Vivisol.

The company also participated in a charity run in Paris, France: La Parisienne is a race exclusively for women, with the goal of raising funds for research on

EIGA REWARDS SOL NEDERLAND

For the second consecutive year in 2018, the SOL Group received the **Peter J. Jackson Award** as official recognition for its performance in terms of safety.

After BTG, now SOL Nederland has been awarded this recognition: awareness, communication, training and education were the four key points highlighted by Bram Coomans (the company's official in the Netherlands) that led to the achievement of zero absences due to injury since 2013.

The European Association of Industrial Gases (EIGA) is a non-profit organisation of European companies and beyond operating in the industrial, medical and food gases sector, which focuses its activities around safety issues.

Each year, the Peter J. Jackson Award established in memory of the President of EIGA's Safety Advisor Group is assigned to the company associated with the organisation that obtained the best results in terms of reducing the rate of workplace accidents over a 5-year period.



breast cancer. This year the 40,000 athletes included some collaborators of SOL France, demonstrating their solidarity along the 6.7 km route.

Also in France Vivisol, France Oxygéne and MBAR supported organisations for clinical research into respiratory illnesses.

In **Austria**, Vivisol replenished the liquid oxygen of 39 Austrian pharmacies, creating a real operating network that serves over **400,000 patients in the area**. Through this project, promoted by the Österreichische Apothekerkammer (Order of Pharmacists) and the Österreichischen Lungenunion (Association for respiratory diseases), patients with chronic obstructive broncopneumoatia (COPD) can replenish their tanks for free.

In the **Netherlands**, Vivisol sponsored the musical event Ademnoot, which saw the participation of professionals, but also music fans, to raise funds for research on lung diseases. The event was organised by Longofonds and Philips to support research on lung diseases.

ASSOCIATIONS

The SOL Group actively participates in the initiatives of the main associations of companies in the technical and medical gases, home care and biotechnology sectors in Europe and in various European countries.

Group experts are members of various working groups in these associations, contributing to the exchange of technical knowledge and the drafting and updating of sector standards.

International industry associations

SOL Spa and Irish Oxygen are members of IOMA (International Oxygen Manufacturers Association), which gathers together the world's leading operators in the technical and medical gases sector. The principal objective of the association is to coordinate the harmonisation of safety rules so that operational practices are the same throughout the world.

SOL Spa, SOL Nederland, BTG, SOL Deutschland, Irish Oxygen and Vivisol Austria are members of EIGA (European Industrial Gases Association), which gathers together Europe's leading operators in the technical and medical gases sector.

Today the SOL Group has its own representatives on the Board of EIGA, in the four Councils (Stefania Mariani is the Chairman of the MGC), in 14 working groups and in 23 ad hoc Groups, contributing to the definition of standards and best practices in the sector.

SOL Spa is a member of the European, Middle Eastern & African Society for Biopreservation & Biobanking (ESBB).

Other associations

FBN-I – The Family Business Network gathers over 3,600 companies, 16,000 members from 65 countries with the goal of helping family businesses to grow, succeed and prosper through the exchange of new ideas and best practices.

AIDAF – Italian Association of Family Businesses, which brings together Italian family companies that share the guiding values of business ethics, meritocracy, social responsibility and sustainability.

Aspen Institute Italy, which promotes and encourages the development of enlightened leadership that is open to dialogue and able to face the challenges of a global society.

ISPI (Istituto Studi di Politica Internazionale) – Institute for International Political Studies, one of the oldest and most prestigious Italian institutions specialising in international activities which, among other things, constitutes a reference point for companies and institutions intending to extend their range of action abroad, offering materials and ad hoc meetings.

SHAREHOLDERS AND FINANCIAL INSTITUTIONS

99.8
million Euro
investments

45.7%
sales in Italy

986.8
million Euro
capitalisation

833.5
million Euro
net sales

FINANCIAL DATA

During 2018 the **technical gases sector showed a sales growth** of 9.2% over the previous year, achieving sales to third parties totalling 403.2 million Euro, with increasing volumes in all sectors of use.

The sales growth was more marked in other European countries than in Italy and it was greater especially in the mechanical engineering industry.

The **hospital sector, on the other hand, has found stability**, with still-shrinking prices due to both policies to reduce spending and strong competition.

The **home care business had good growth** (+11.0% with sales to third parties totalling 430.3 million Euro) achieved more in foreign countries, thanks to a continuous commitment to the development of new products and services, which flanks and complements the oxygen therapy activities.

Overall in the health sector, Group sales totalled 535.4 million Euro, equal to 64.2% of total sales.

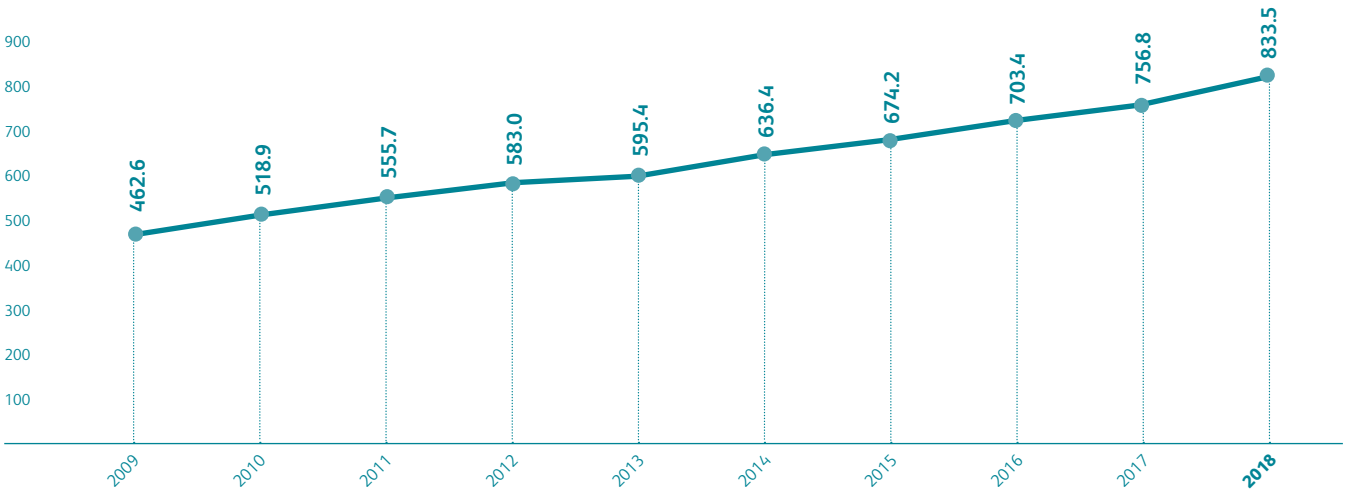
In terms of costs, it should be noted that the gross operating margin grew to 19.7 million Euro compared to 2017, equal to 11.8%.

The operating result increased by 13.5 million Euro compared to 2017, equal to 17.7%, also due to higher amortization and provisions for 5.3 million Euro.

The Group's net debt decreased by 6.1 million Euro, even against the technical investments and the acquisitions made in 2018.

Indebtedness indices remain very solid, with the debt/equity ratio of 0.45 and the cash flow cover reduced to 1.33.

NET SALES
(million Euro)



Financial data refer to the draft annual report approved by the Board of Directors on March 29th, 2019.

	2014	2015	2016	2017	**2018**
Number of countries	24	27	28	28	**29**
Capitalisation [1]	604	749	722.8	964.1	**986.8**
Group's net sales [1]	636.4	674.2	703.4	756.8	**833.5**
Technical gas area net sales [1]	351.7	363.6	373.1	369.2	**403.2**
Home care area net sales [1]	312.8	339.8	360.0	387.6	**430.3**
Gross operating margin [1]	142.9	148.4	167.6	167.2	**186.9**
Operating result [1]	61.9	65.6	80.9	76.2	**89.7**
Group's cash flow [1]	106.2	112.9	127.5	127.3	**142.6**
Net profit [1]	29.2	32.4	44.1	40.2	**51.9**
Group's investments [1]	98	89.8	103.7	99.3	**99.8**
% net sales in Italy	49.4	48.2	47.1	46.0	**45.7**

[1] Million Euro

FINANCIAL COMMUNITY

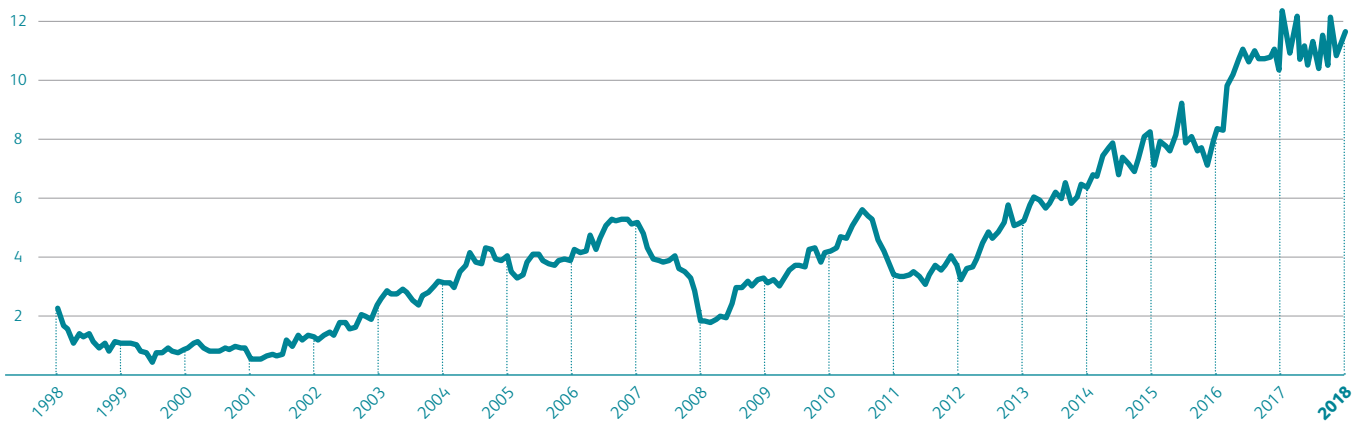
The main communication tools for shareholders are the Financial Statements and the Sustainability Report, published respectively in the Investor Relations/Financial Publications section and in the Sustainability/Sustainability Reports section of the Group's website (www.solgroup.com).

For this reason, in addition to complying with legal obligations, the financial statements have been enriched, in particular in the sections "Explanatory notes" and "Management report", with useful information for a better understanding of the activities carried out.

The communication activity with shareholders and investors is also powered by:

1. the periodic publication of press releases on the Group's website and their spread to institutional investors;
2. participation in conferences promoted by financial institutions;
3. meetings and conference calls with investors and analysts.

PERFORMANCE ON THE STOCK EXCHANGE (in Euro)



MATERIALITY ANALYSIS

IDENTIFICATION OF PRIORITY STAKEHOLDERS AND MATERIAL ISSUES

The SOL Group believes that doing business in a sustainable way means creating value for all those involved in the economic, environmental and social spheres. To do this, it is necessary to take account of the opinions and expectations of all of its stakeholders, because it is they who guide the Group's actions and push it to improve on a continuous basis.

For this reason, we maintain open channels of communication with all those that can influence the decisions and actions of the Group and whose actions and decisions can be influenced by SOL.

The stakeholders considered important to the SOL Group are:

1. Associations
2. Environmental associations
3. Authorities and public bodies
4. Shareholders, investors and financial institutions
5. Patients
6. Customers
7. The community
8. Employees
9. Suppliers and partners

The definition of material aspects for the Group and its stakeholders took into account the analyses carried out by the Group in past years and involved comparing these material issues with the best practices in the sector, also taking into account the stakeholder expectations.

In late 2018, the Group followed an analysis process that, after the identification of stakeholders and possible significant issues, directly involved employees through an online survey. The results from the analysis were integrated with a benchmark analysis, thereby helping to identify the relevant issues to ensure an understanding of the business, its performance, its results and the impact produced by the same.

The issues which resulted as material from these analyses are summarised below.

ECONOMIC RESPONSIBILITY AND GOVERNANCE

1. Balanced economic development
2. Compliance with laws and regulations
3. Internal control system and risk management

PRODUCT RESPONSIBILITY

1. Product information and responsible communication
2. Product and service quality and customer satisfaction
3. Research and Development
4. Sustainability and traceability of products and services

CORPORATE SOCIAL RESPONSIBILITY AND HUMAN RESOURCES

1. Management and development of human resources
2. Employees health and safety
3. Commitment to the community
4. Assessment of suppliers regarding social and environmental aspects
5. Cooperation with the authorities
6. Human rights

ENVIRONMENTAL RESPONSIBILITY

1. Environmental impact of production
2. Energy efficiency
3. Environmental impact of products
4. Environmental impact of transport

MATERIALITY MATRIX

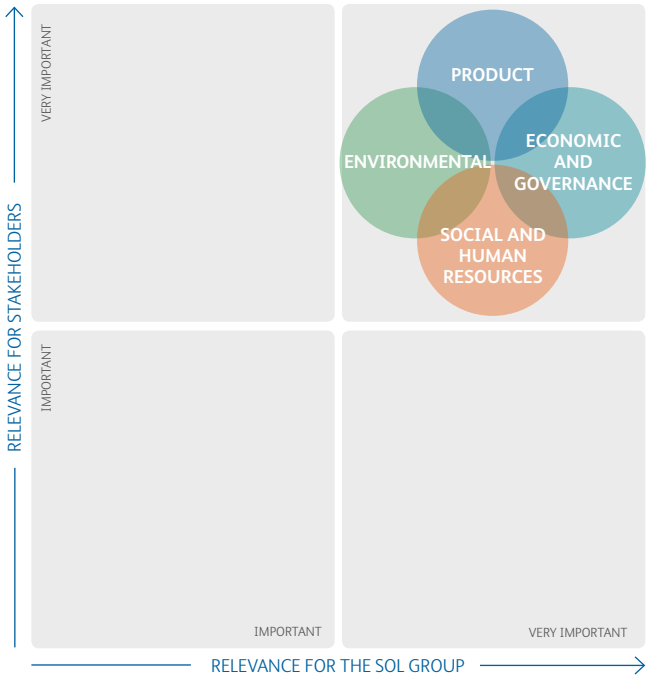


TABLE OF THE BOUNDARY OF MATERIAL TOPICS FOR THE SOL GROUP AND RECONCILIATION WITH THE RELATED TOPIC GRI

Area	Material topic	GRI aspect	Boundary	Type of impact
ECONOMIC RESPONSIBILITY AND GOVERNANCE	Balanced economic development	Economic Performance	SOL Group	Caused by the Group
	Compliance with laws and regulations	Anti-corruption	SOL Group, partner	Caused by the Group Caused by the Group and directly connected through a business relationship
		Anti-competitive behaviour		
		Customer Privacy		
	Internal control system and risk management	Topic - specific Standards not present	SOL Group	Caused by the Group
PRODUCT RESPONSIBILITY	Product information and responsible communication	Marketing and Labeling	SOL Group	Caused by the Group
	Product and service quality and customer satisfaction	Customer Health and Safety	SOL Group, partner	Caused by the Group Caused by the Group and directly connected through a business relationship
	Research and Development	Topic - specific Standards not present	SOL Group	Caused by the Group
	Sustainability and traceability of products and services	Customer Health and Safety	SOL Group	Caused by the Group
CORPORATE SOCIAL RESPONSIBILITY AND HUMAN RESOURCES	Management and development of human resources	Employment	SOL Group, partner	Caused by the Group Caused by the Group and directly connected through a business relationship
		Training and Education		
		Diversity and Equal Opportunities		
	Employees health and safety	Occupational Health and Sfaety	SOL Group employees	Caused by the Group
	Commitment to the community	Topic not present - specific Standards	SOL Group	Caused by the Group
	Assessment of suppliers regarding social and environmental aspects	Supplier Environmental and Social Assessment	SOL Group	Caused by the Group
	Cooperation with the authorities	Topic - specific Standards not present	SOL Group	Caused by the Group
	Human Rights	Non-discrimination	SOL Group	Caused by the Group
ENVIRONMENTAL RESPONSIBILITY	Environmental impact of production	Energy	SOL Group	Caused by the Group
		Emissions		
		Effluents and Waste		
	Energy efficiency	Energy	SOL Group	Caused by the Group
	Environmental impact of products	Effluents and Waste	SOL Group, suppliers and partners, customers, patients	Caused by the Group Caused by the Group and directly connected through a business relationship
	Environmental impact of transport	Emissions	SOL Group, suppliers and partners	Caused by the Group Caused by the Group and directly connected through a business relationship

IDENTIFICATION OF RISKS RELATED TO MATERIAL ISSUES

In addition, for every non-financial aspect identified as significant in the materiality analysis, the following table summarises the main risks incurred or generated by the Group through its activities and along the value chain, as well as the major actions taken in response to such risks.

Topics of Italian Legislative Decree no. 254/2016	Material topics	Risk identification	Risk response
FIGHT AGAINST BRIBERY AND CORRUPTION	Compliance with laws and regulations	Potential risks related to non-compliance with laws and regulations (concerning anti-competitive behaviour, corruption, privacy)	- Implementation of the Code of Ethics - Adopting a model of organisation, management and control pursuant to Italian Legislative Decree no. 231/2001 by the parent company SOL SpA and Vivisol Srl - Employee Training - Audit activities - Adoption of an Antitrust Compliance Program, an Antitrust Code and a Handbook - Appointment of a Group DPO (Data Protection Officer) and publication of a procedure according to GDPR - Certification according to ISO 27001 - Investments in IT security systems
	Internal control system and risk management		
SOCIAL MATTERS	Product information and responsible communication	Potential risk of misinformation	- Training employees and partners who work on behalf of SOL
	Product and service quality and customer satisfaction	Potential risk of losing customers and profits	- Monitoring customer and patient satisfaction - Adoption of a Directive on the qualification process of suppliers and service providers - Audit activities - Training employees and partners who work on behalf of SOL - Adoption of an integrated quality, safety and environment system - Certification according to ISO 9001
	Research and Development	Potential risk of missing business opportunities	- Participation in international research calls - Permanent presence in technical working groups at national and international trade associations
	Sustainability and traceability of products and services	Potential risk of failing to ensure product traceability and potential risk to the health and safety of consumers	- Adoption of software for product traceability - Implementation of a management system for Pharmacovigilance and Materiovigilance - Training employees and partners who work on behalf of SOL - Audit activities - Certification according to ISO 13485
	Commitment to the community	Potential risk of not contributing to the welfare of the community	- Support for organizations, institutions, associations and sports clubs with both financial contributions, and by providing its skills
	Assessment of suppliers regarding social and environmental aspects	Potential social and environmental risks along the supply chain	- Adoption of a risk-based Directive on the supplier approval and evaluation process - When selecting its partners for the supply of goods and services that are critical for safety, quality and the environment, SOL uses a qualifying process to establish whether a potential partner meets the requirements demanded by company procedures.
	Cooperation with the authorities	Potential risk of not conducting open and transparent dialogue	- Cooperation with authorities in technical working groups
EMPLOYEES' RELATED MATTERS	Management and development of human resources	Potential risk related to the lack of adequate and qualified staff	- Collaboration with various universities, social development - Group training program - Recognizing and investing in young resources through international programs - Structured company process of recruitment and onboarding - Retention and development plans
	Worker health and safety	Potential risks related to employees' health and safety and to compliance with legislation concerning occupational health and safety.	- Adoption of an integrated quality, safety and environment system - Personnel training - Audit activities - Certification according to OHSAS 18001
RESPECT FOR HUMAN RIGHTS	Human rights	Respect for human rights, with particular reference to the supply chain	- Implementation of the Code of Ethics - Training employees and partners who work on behalf of SOL - Adoption of a risk-based Directive on the supplier approval and evaluation process
ENVIRONMENTAL MATTERS	Environmental impact of production	Potential risks associated with the consumption of electricity by the Group's primary processing plants, the potential risks of direct and indirect emissions of greenhouse gases	- Adoption of an integrated quality, safety and environment system - Monthly monitoring of the main environmental KPIs - Certification according to ISO 14001/50001 - Audit activities - Training employees and partners who work on behalf of SOL
	Energy efficiency		
	Environmental impact of products	Potential risk associated with low waste management control throughout the value chain	- Compliance with local regulatory systems on waste management in relation to product life cycle - Adoption of an integrated quality, safety and environment system - Certification according to ISO 14001 - Audit activities - Training employees and partners who work on behalf of SOL
	Environmental impact of transport	Potential risks related to outbound logistics, with particular reference to road transport	- Progressive implementation of software for logistics planning - Monitoring kilometres travelled

METHODOLOGY

This document is the Consolidated Non-Financial Statement (hereinafter also the "Sustainability Report"), drafted in compliance with the Italian Legislative Decree no. 254/2016 and, as foreseen by the Art. 5 of aforementioned Decree, constitutes a separate Report from the Management Report. This document gives disclosure about the issues deemed relevant and envisaged by Art. 3 and 4 of **Legislative Decree no. 254/2016 relating the year 2018** (January 1 to December 31), to the extent necessary to ensure an understanding of the Group's activity, its progress, its results and the social and environmental impact generated by the Group's activities.

The reporting **scope** of the Sustainability Report is the same as the SOL Group's Consolidated Financial Statements as of December 31st, 2018 (§ "Group Composition and scope of consolidation" of the Consolidated Financial Statements). In 2018 the companies Cryos and Fisio Med Service in Italy, Pallmed and Medseven in Poland and Medtek in Germany were acquired. For environmental data and information, more details are provided in "The environment" chapter, which explains any variations in the scope of reporting, which do not limit the understanding of the Group's activities or its impact.

The content of this Report refers to 2018 and, in particular, the activities carried out by the SOL Group during the year, unless otherwise noted. Data relating to previous years is reported where possible for comparative purposes, making it possible to assess longer-term trends in the Group's activities. Restatements to previously published comparative data are clearly indicated. Furthermore, in order to guarantee a correct representation of the performance and reliability of the data, estimates have been limited as much as possible. If used, they are based on the best available methodologies and clearly reported.

The Sustainability Report has been prepared in accordance with "**GRI Sustainability Reporting Standards: Core option**" established in 2016 by GRI - Global Reporting Initiative.

The information contained in the Report refers to **topics identified as material** and the related indicators that reflect the significant economic, environmental and social impacts of the organisation or that could substantially influence the assessments and decisions of the Group's stakeholders. The materiality analysis, updated in 2018, served as a guideline for defining the content to report, in line with the stakeholders' expectations. During 2019, the stakeholder engagement process will be expanded to identify material issues.

Following the materiality analysis, the use of water resources was not considered significant; however, given the importance of the topic set out under Article 3 of the Legislative Decree no. 254/2016, the Group decided to report some related KPIs in this document.

The emissions aspect, within the topic of the environmental impact of production, was significant only in terms of CO_2 emissions. It should be noted, however, that with regard to other emissions, some production plants hold an Integrated Environmental Authorisation. The Authorisation provides for the monitoring of emissions of NOx, VOC, NH_3 and CO into the atmosphere and the annual notification of the same to the Competent Authority. In the reporting period there were no out of bounds.

The Report was subject to a **limited assurance engagement** according to the criteria set out by the ISAE 3000 Revised principle. This engagement was carried out by Deloitte & Touche S.p.A. which, at the end of the work performed, issued a specific report with regard to the compliance of the information provided in the Consolidated Non-Financial Statement prepared by SOL Group as required by the Legislative Decree no. 254/2016.

The SOL Group has published an annual Sustainability Report since 2009. This Sustainability Report was **approved by the SOL Spa Board of Directors** on March 29th, 2019.

The Group has envisaged a **continuous improvement** process with regard to material sustainability issues in order to comply in an increasingly virtuous way with regulations and best practices in the sector. More specifically, with regard to the matter of

respecting human rights, in 2006 the Group adopted a Code of Ethics (updated in 2017) which has specific provisions on human rights issues. In fact, SOL Group undertakes to support the protection and defence of human rights according to the principles laid down by the Universal Declaration of Human Rights (1948), and acknowledges the principles established by the basic Conventions of the ILO (International Labour Organisation). The Code of Ethics applies to everyone who carries out work for the SOL Group (including all employees, interns, agency staff) and administrators of SOL Group companies. The Code of Ethics also applies to all those who, in various capacities, come in contact with the Group (such as suppliers, partners, customers etc.), thus contributing to the achievement of corporate goals, in accordance with the SOL Group's mission. During 2018, the Group adopted two new directives, the first related to the supplier evaluation process in terms of risk analysis, including aspects related to human rights, given the importance of increasingly monitoring the supply chain, the other regarding the reporting process. Starting from 2019, for both directives, actions aimed at their complete application will be implemented.

As far as emissions are concerned, the reporting standards used (GRI Sustianability Reporting Standards 2016) foresee two different approaches for the indirect emissions calculations: "Location-based" and "Market-based".

The "Location-based" approach foresees the use of average emission factors related to specific national energetic mix of electricity production. The "Market-based" approach foresees the use of emission factors defined on a contractual base with the electricity supplier. In absence of specific contractual agreements between the Organisation and the electricity supplier (i.e. purchasing of guarantees of origin), for the "Market-based" approach the emission factor related to the national "residual mix", where available, was used.

Greenhouses gas emissions	Source of emission factors used
Direct GHG emissions Indirect GHG emissions for products transportation	UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2018
Indirect GHG emissions according to the Market-based method (UE countries)	Association of Issuing Bodies (AIB), European Residual Mixes 2017
Indirect GHG emissions according to the Market-based method (Bosnia-Erzegovina, Macedonia e Marocco) Indirect GHG emissions according to the Location-based method	International Energy Agency (IEA), Emissions Factors 2018 edition

PERFORMANCE INDICATORS

PEOPLE
Personnel trends

	2017		2018	
Employees by gender and employee category (data as of December 31st)	**n.**	**%**	**n.**	**%**
White collar	2,426	100%	2,763	100%
- Men	1,287	53%	1,366	49%
- Women	1,139	47%	1,397	51%
Blue collar	1,130	100%	1,195	100%
- Men	1,038	92%	1,070	90%
- Women	92	8%	125	10%

Employees by age group and employee category (data as of December 31st)	**n.**	**%**	**n.**	**%**
White collar	2,426	100%	2,763	100%
- Up to 30	279	12%	316	11%
- 30-40	822	34%	955	35%
- 41-50	807	33%	864	31%
- Over 50	518	21%	628	23%
Blue collar	1,130	100%	1,195	100%
- Up to 30	140	13%	146	12%
- 30-40	386	34%	431	36%
- 41-50	307	27%	320	27%
- Over 50	297	26%	298	25%

Absenteeism rate of employees by gender and region (data referred to 2018)	**n.**	**%**	**n.**	**%**
Italy		2.5%		2.9%
- Men		2.4%		2.4%
- Women		2.8%		4.1%
Other countries		4.3%		4.1%
- Men		3.5%		3.3%
- Women		5.6%		5.3%

Employees by region and employment contract (data as of December 31st)	**n.**	**%**	**n.**	**%**
Italy				
Permanent contract	1,065	100%	1,107	100%
- Men	784	74%	810	73%
- Women	281	26%	297	27%
Temporary contract	71	100%	87	100%
- Men	50	70%	55	63%
- Women	21	30%	32	37%

	2017		2018	
Other countries				
Permanent contract	2,218	100%	2,498	100%
- Men	1,391	63%	1,470	59%
- Women	827	37%	1,028	41%
Temporary contract	202	100%	266	100%
- Men	100	50%	101	38%
- Women	102	50%	165	62%

Employees by gender and employment type (data as of December 31st)	n.	%	n.	%
Part-time	379	100%	477	100%
- Men	89	23%	98	21%
- Women	290	77%	379	79%
Full-time	3,177	100%	3,481	100%
- Men	2,236	70%	2,338	67%
- Women	941	30%	1,143	33%

New employee hires (data referred to 2018)	n.	%	n.	%
By gender				
- Men	330	14.2%	374	15.4%
- Women	270	21.9%	368	24.2%
Total	600	16.9%	742	18.7%
By region				
- Italy	127	11.2%	149	12.5%
- Other countries	473	19.5%	593	21.5%
Total	600	16.9%	742	18.7%
By age group				
- Up to 30	192	45.8%	246	53.2%
- 30-40	239	19.8%	275	19.8%
- 41-50	117	10.5%	151	12.8%
- Over 50	52	6.4%	70	7.6%
Total	600	16.9%	742	18.7%

Turnover(1) (data referred to 2018)	n.	%	n.	%
By gender				
- Men	192	8.3%	266	10.9%
- Women	145	11.8%	220	14.5%
Total	337	9.5%	486	12.3%

(1) Turnover includes employees who left the organization voluntarily or due to dismissal

	2017		2018	
By region				
- Italy	58	5.1%	58	4.9%
- Other countries	279	11.5%	428	15.5%
Total	337	9.5%	486	12.3%
By age group				
- Up to 30	84	20.0%	116	25.1%
- 30-40	128	10.6%	192	13.9%
- 41-50	76	6.8%	93	7.9%
- Over 50	49	6.0%	85	9.2%
Total	337	9.5%	486	12.3%

Average training hours provided [1] (data as of December 31st)	**n.**	**%**	**n.**	**%**
By gender				
- Men	33,590	67%	39,438	61%
- Women	16,911	33%	25,300	39%
Total	50,501	100%	64,739	100%
Per Inquadramento				
- White collar	34,326	68%	50,089	77%
- Blue collar	16,175	32%	14,649	23%
Total	50,501	100%	64,738	100%

Average training hours provided [1] (data as of December 31st)	**n.**	**%**	**n.**	**%**
By gender				
- Men	14.45		16.19	
- Women	13.74		16.62	
Total	14.20		16.36	
Per Inquadramento				
- White collar	14.15		18.13	
- Blue collar	14.31		12.26	
Total	14.20		16.36	

[1] In countries where there is no system for collecting data on training hours by gender or role, these figures were estimated on the basis of the composition of the company population in that company

PEOPLE

Health and Safety (data as of December 31st)

		2014	2015	2016	2017	2018
Injury rate [1]						
Italy						
Technical and medical gases sector	n.	2.9	4.8	6.6	1.8	3.5
Home care sector	n.	2.4	0.0	0.0	0.0	2.0
Biotechnologies sector	n.	9.3	0.0	0.0	3.9	2.1
Other countries						
Technical and medical gases sector and energy production	n.	4.0	5.3	6.5	3.0	5.3
Home care sector	n.	5.6	3.2	2.6	4.0	5.3[3]
Lost day rate [1]						
Italy						
Technical and medical gases sector	n.	87	165	142	55	42
Home care	n.	7	0	0	0	14
Biotechnologies sector	n.	32	0	0	146	16
Other countries						
Technical and medical gases sector and energy production	n.	25	109	74	114	203
Home care	n.	50	72	19	50	133[3]
Idoneità al lavoro						
Medical examinations	n.	803	901	859	653	1,130
Clinical analyses	n.	473	567	601	578	662
Additional tests [2]	n.	389	453	456	400	428

[1] In consideration of a continuous improvement of the data collection and consolidation process, data related to health and safety for 2017 has been restated with respect to data published in the Sustainability Report 2017. For historical data and information previously published, please refer to 2017 Sustainability Report.

[2] Electrocardiogram, spirometry, audiometry, etc.

[3] Injury rate and lost day rate do not include an injury registered in a company before it was acquired by SOL Group

ENVIRONMENT

Waste (data as of December 31st)

		2014	2015	2016	2017	2018
Waste disposal [5]						
Landfill						
Non-hazardous	t.	52	172	436	1,492	1,332
Hazardous	t.	581	1,700	2,241	1,069	1,463
Recovery						
Non-hazardous	t.	118	343	675	630	675
Hazardous	t.	1	57	32	44	31
Incineration [4]						
Non-hazardous	t.	-	-	-	101	265
Hazardous	t.	-	-	-	4	11

[4] The data related to waste sent for incineration has been collected since 2017

[5] In consideration of a continuous improvement of the data collection and consolidation process, data related to waste disposal for the years 2014-2017 has been restated with respect to data published in the Sustainability Report 2017. For historical data and information previously published, please refer to 2017 Sustainability Report.

GRI CONTENT INDEX

UNIVERSAL STANDARDS

GRI Standard	Page number	Information
GRI 102: GENERAL DISCLOSURES (2016)		
Organisational profile		
102-1	SOL Spa	Name of the organisation
102-2	7; 29-42	Activities, brands, products, and services
102-3	Back cover	Location of headquarters
102-4	7; 12	Location of operations
102-5	21	Ownership structure and legal form
102-6	7; 29-42	Markets served
102-7	4; 7; 63-64	Size of organisation
102-8	55; 74	Information on employees and other workers
102-9	43	Supply chain of the organisation
102-10	18-19	Significant changes to the organisation and its supply chain
102-11	23-24; 68-69	Precautionary Principle or approach
102-12	14; 17; 23; 25-27	External initiatives
102-13	58; 61	Main partnerships and affiliations
Strategy		
102-14	2-3	Statement from senior decision-maker
102-15	23-24; 68-69	Key impacts, risks, and opportunities
Ethics and integrity		
102-16	9 Code of Ethics of SOL Group	Values, principles, standards, and norms of behaviour
Governance		
102-18	21-22	Governance structure of the organisation
Stakeholder Engagement		
102-40	67	List of stakeholder groups
102-41	57-58	Collective bargaining agreements
102-42	67	Identifying and selecting stakeholders
102-43	67	Approach to stakeholder engagement
102-44	68	Key topics and concerns raised
Reporting practice		
102-45	71 Consolidated financial statements 2018 of SOL Group	Entities included in the consolidated financial statements
102-46	67-68	Defining report content and topic Boundaries
102-47	67	List of material topics
102-48	71	Restatements of information
102-49	67-68	Changes in reporting
102-50	71	Reporting period
102-51	April 18th, 2018	Date of most recent report
102-52	71	Reporting cycle
102-53	Back cover	Contact point for questions regarding the report
102-54	71	Claims of reporting in accordance with the GRI Standards
102-55	77-81	GRI Content Index
102-56	82-84	External assurance

TOPIC-SPECIFIC STANDARDS

GRI Standard	Page number	Omission	Information
GRI 200: ECONOMIC SERIES (2016)			
Material topic: ECONOMIC PERFORMANCE **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	64		The management approach and its components
103-3	18; 64		Evaluation of the management approach
GRI 201: Economic performance (2016)			
201-1	18		Direct economic value generated and distributed
Material topic: ANTI-CORRUPTION **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	9; 21-22 Code of Ethics of SOL Group		The management approach and its components
103-3	9; 21-22		Evaluation of the management approach
GRI 205: Anti-corruption (2016)			
205-3	During 2018 there were no confirmed cases of corruption.		Confirmed incidents of corruption and actions taken
Material topic: ANTI-COMPETITIVE PRACTICES **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	9; 21-22 Code of Ethics of SOL Group		The management approach and its components
103-3	9; 21-22		Evaluation of the management approach
GRI 206: Anti-Competitive Practices (2016)			
206-1	The main legal actions concerning anti-competitive practices are described in the Management report and in the Explanatory notes of SOL Group.		Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices
GRI 300: ENVIRONMENTAL SERIES (2016)			
Material topic: ENERGY **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	23; 46 Energy management policy of SOL Group companies Safety and environment principles of SOL Group companies		The management approach and its components
103-3	23; 46		Evaluation of the management approach
GRI 302: Energy (2016)			
302-1	46		Energy consumption within the organisation
302-3	46		Energy intensity
Material topic: EMISSIONS **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	23; 47-48 Safety and environment principles of SOL Group companies		The management approach and its components
103-3	23; 47-48		Evaluation of the management approach

GRI 305: Emissions (2016)			
305-1	47-48		Energy direct (Scope 1) GHG emissions
305-2	47-48; Indirect emissions, calculated according to the "location based" methodology, are equal to 198,493 tonnes of CO2 equivalent		Energy indirect (Scope 2) GHG emissions
Material topic: EFFLUENTS AND WASTE **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	23; 50 Safety and environment principles of SOL Group companies		The management approach and its components
103-3	23; 50		Evaluation of the management approach
GRI 306: Effluents and waste (2016)			
306-2	50; 76		Waste by type and disposal method
Material topic: SUPPLIER ENVIRONMENTAL ASSESSMENT **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	43		The management approach and its components
103-3	43		Evaluation of the management approach
GRI 308: Supplier Environmental Assessment (2016)			
308-1	The percentage of new suppliers that were screened using environmental criteria is currently not available. The organization is working to provide this information starting from the next reporting periods.		New suppliers that were screened using environmental criteria

GRI 400: SOCIAL SERIES (2016)

Material topic: EMPLOYMENT **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	55		The management approach and its components
103-3	55		Evaluation of the management approach
GRI 401: Employment (2016)			
401-1	74-75		New employee hires and employee turnover
Material topic: OCCUPATIONAL HEALTH AND SAFETY **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	58-59 Safety and environment principles of SOL Group companies		The management approach and its components
103-3	55; 58-59; 73; 76		Evaluation of the management approach
GRI 403: Occupational Health and Safety (2016)			
403-2	59; 73; 76	Data referred to injury rates of worker who are not employees are currently not available. For a greater clarity, data regarding occupational health and safety are disclosed by sectors of activity instead of by gender.	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities
Material topic: TRAINING AND EDUCATION **GRI 103: Management Approach (2016)**			
103-1	68		Explanation of the material topic and its Boundary
103-2	56		The management approach and its components
103-3	56; 75		Evaluation of the management approach

GRI 404: Training and Education (2016)		
404-1	75	Average hours of training per year per employee
Material topic: DIVERSITY AND EQUAL OPPORTUNITY **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	56 Code of Ethics of SOL Group	The management approach and its components
103-3	56-57; 73	Evaluation of the management approach
GRI 405: Diversity and Equal Opportunity (2016)		
405-1	56-57; 73	Diversity of governance bodies and employees
Material topic: NON-DISCRIMINATION **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	56 Code of Ethics of SOL Group	The management approach and its components
103-3	56	Evaluation of the management approach
GRI 406: Non-Discrimination (2016)		
406-1	During 2018 there were no confirmed cases of discrimination	Incidents of discrimination and corrective actions taken
Material topic: SUPPLIER SOCIAL ASSESSMENT **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	43 Code of Ethics of SOL Group	The management approach and its components
103-3	43	Evaluation of the management approach
GRI 414: Supplier Social Assessment (2016)		
414-1	The percentage of new suppliers that were screened using social criteria is currently not available. The organization is working to provide this information starting from the next reporting periods	New suppliers that were screened using social criteria
Material topic: CUSTOMER HEALTH AND SAFETY **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	15-17; 23	The management approach and its components
103-3	15-17; 23	Evaluation of the management approach
GRI 416: Customer Health and Safety (2016)		
416-1	15-17	Assessment of the health and safety impacts of product and service categories
Material topic: MARKETING AND LABELLING **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	15-17	The management approach and its components
103-3	15-17	Evaluation of the management approach
GRI 417: Marketing and Labelling (2016)		
417-1	15-17	Information and labelling required for products and services
Material topic: CUSTOMER PRIVACY **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	22; 26-27 Information security management policy of SOL Group companies	The management approach and its components
103-3	22; 26-27	Evaluation of the management approach

GRI 418: Customer Policy (2016)		
418-1	During 2018 six data breaches were reported to the Guarantor of national privacy	Complaints about the violation of privacy and loss of customer data
Material topic: HUMAN RIGHTS ASSESSMENT **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	43 Code of Ethics of SOL Group	The management approach and its components
103-3	43	Evaluation of the management approach
Material topic: RESEARCH AND DEVELOPMENT **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	29-42	The management approach and its components
103-3	29-42	Evaluation of the management approach
Material topic: COMMITMENT TO THE COMMUNITY **GRI 103: Management Approach (2016)**		
103-1	68	Explanation of the material topic and its Boundary
103-2	60-61	The management approach and its components
103-3	60-61	Evaluation of the management approach

INDEPENDENT AUDITOR'S REPORT

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RELAZIONE DELLA SOCIETÀ DI REVISIONE INDIPENDENTE SULLA DICHIARAZIONE CONSOLIDATA DI CARATTERE NON FINANZIARIO AI SENSI DELL'ART. 3, C. 10, D.LGS. 254/2016 E DELL'ART. 5 REGOLAMENTO CONSOB ADOTTATO CON DELIBERA N. 20267 DEL GENNAIO 2018

Al Consiglio di Amministrazione di
Sol S.p.A.

Ai sensi dell'articolo 3, comma 10, del Decreto Legislativo 30 dicembre 2016, n. 254 (di seguito "Decreto") e dell'articolo 5 del Regolamento CONSOB n. 20267/2018, siamo stati incaricati di effettuare l'esame limitato ("*limited assurance engagement*") della dichiarazione consolidata di carattere non finanziario della Sol S.p.A. e sue controllate (di seguito "Gruppo Sol" o "Gruppo") relativa all'esercizio chiuso al 31 dicembre 2018 predisposta *ex* art. 4 del Decreto, e approvata dal Consiglio di Amministrazione in data 29 marzo 2019 (di seguito "DNF").

Responsabilità degli Amministratori e del Collegio Sindacale per la DNF

Gli Amministratori sono responsabili per la redazione della DNF in conformità a quanto richiesto dagli articoli 3 e 4 del Decreto e ai "*Global Reporting Initiative Sustainability Reporting Standards*" definiti nel 2016 dal GRI - Global Reporting Initiative (di seguito "GRI Standards"), da essi individuati come standard di rendicontazione.

Gli Amministratori sono altresì responsabili, nei termini previsti dalla legge, per quella parte del controllo interno da essi ritenuta necessaria al fine di consentire la redazione di una DNF che non contenga errori significativi dovuti a frodi o a comportamenti o eventi non intenzionali.

Gli Amministratori sono responsabili inoltre per l'individuazione del contenuto della DNF, nell'ambito dei temi menzionati nell'articolo 3, comma 1, del Decreto, tenuto conto delle attività e delle caratteristiche del Gruppo e nella misura necessaria ad assicurare la comprensione dell'attività del Gruppo, del suo andamento, dei suoi risultati e dell'impatto dallo stesso prodotti.

Gli Amministratori sono infine responsabili per la definizione del modello aziendale di gestione e organizzazione dell'attività del Gruppo, nonché, con riferimento ai temi individuati e riportati nella DNF, per le politiche praticate dal Gruppo e per l'individuazione e la gestione dei rischi generati o subiti dallo stesso.

Il Collegio Sindacale ha la responsabilità della vigilanza, nei termini previsti dalla legge, sull'osservanza delle disposizioni stabilite nel Decreto.

Indipendenza della società di revisione e controllo della qualità

Siamo indipendenti in conformità ai principi in materia di etica e di indipendenza del *Code of Ethics for Professional Accountants* emesso dall'*International Ethics Standards Board for Accountants*, basato su principi fondamentali di integrità, obiettività, competenza e diligenza professionale, riservatezza e comportamento professionale. La nostra società di revisione applica l'*International Standard on Quality Control 1 (ISQC Italia 1)* e, di conseguenza, mantiene un sistema di controllo qualità che include direttive e procedure documentate sulla conformità ai principi etici, ai principi professionali e alle disposizioni di legge e dei regolamenti applicabili.

Deloitte.

Responsabilità della società di revisione

È nostra la responsabilità di esprimere, sulla base delle procedure svolte, una conclusione circa la conformità della DNF rispetto a quanto richiesto dal Decreto e dai GRI Standards. Il nostro lavoro è stato svolto secondo quanto previsto dal principio "*International Standard on Assurance Engagements ISAE 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information*" (di seguito "*ISAE 3000 Revised*"), emanato dall'*International Auditing and Assurance Standards Board* (IAASB) per gli incarichi *limited assurance*. Tale principio richiede la pianificazione e lo svolgimento di procedure al fine di acquisire un livello di sicurezza limitato che la DNF non contenga errori significativi. Pertanto, il nostro esame ha comportato un'estensione di lavoro inferiore a quella necessaria per lo svolgimento di un esame completo secondo l'ISAE 3000 Revised ("*reasonable assurance engagement*") e, conseguentemente, non ci consente di avere la sicurezza di essere venuti a conoscenza di tutti i fatti e le circostanze significativi che potrebbero essere identificati con lo svolgimento di tale esame.

Le procedure svolte sulla DNF si sono basate sul nostro giudizio professionale e hanno compreso colloqui, prevalentemente con il personale della società responsabile per la predisposizione delle informazioni presentate nella DNF, nonché analisi di documenti, ricalcoli ed altre procedure volte all'acquisizione di evidenze ritenute utili.

In particolare, abbiamo svolto le seguenti procedure:

1. Analisi dei temi rilevanti in relazione alle attività e alle caratteristiche del Gruppo rendicontati nella DNF, al fine di valutare la ragionevolezza del processo di selezione seguito alla luce di quanto previsto dall'art. 3 del Decreto e tenendo presente lo standard di rendicontazione utilizzato.

2. Analisi e valutazione dei criteri di identificazione del perimetro di consolidamento, al fine di riscontrarne la conformità a quanto previsto dal Decreto.

3. Comparazione tra i dati e le informazioni di carattere economico-finanziario inclusi nella DNF e i dati e le informazioni inclusi nel Bilancio Consolidato del Gruppo Sol.

4. Comprensione dei seguenti aspetti:

   - modello aziendale di gestione e organizzazione dell'attività del Gruppo, con riferimento alla gestione dei temi indicati nell'art. 3 del Decreto;
   - politiche praticate dall'impresa connesse ai temi indicati nell'art. 3 del Decreto, risultati conseguiti e relativi indicatori fondamentali di prestazione;
   - principali rischi, generati o subiti connessi ai temi indicati nell'art. 3 del Decreto.

   Relativamente a tali aspetti sono stati effettuati inoltre i riscontri con le informazioni contenute nella DNF e effettuate le verifiche descritte nel successivo punto 5, lett. a).

5. Comprensione dei processi che sottendono alla generazione, rilevazione e gestione delle informazioni qualitative e quantitative significative incluse nella DNF.

   In particolare, abbiamo svolto interviste e discussioni con il personale della Direzione della Sol S.p.A. e con il personale di Flosit S.A., Pallmed sp.zo.o., Medseven sp.zo.o., Dolby Healthcare Limited, Sol Deutschland GmbH, Vivisol Deutschland GmbH, Vivisol France Sarl, Vivisol Nederland B.V., e abbiamo svolto limitate verifiche documentali, al fine di raccogliere informazioni circa i processi e le procedure che supportano la raccolta, l'aggregazione, l'elaborazione e la trasmissione dei dati e delle informazioni di carattere non finanziario alla funzione responsabile della predisposizione della DNF.

Deloitte.

Inoltre, per le informazioni significative, tenuto conto delle attività e delle caratteristiche del Gruppo:

- a livello di capogruppo e società controllate:

  a) con riferimento alle informazioni qualitative contenute nella DNF, e in particolare a modello aziendale, politiche praticate e principali rischi, abbiamo effettuato interviste e acquisito documentazione di supporto per verificarne la coerenza con le evidenze disponibili;
  b) con riferimento alle informazioni quantitative, abbiamo svolto sia procedure analitiche che limitate verifiche per accertare su base campionaria la corretta aggregazione dei dati.

- per le seguenti società, divisioni e siti, sede di Monza e siti produttivi di San Martino Buon Albergo (Italia) per Sol S.p.A., sito produttivo di Casablanca (Marocco) per Flosit S.A., sede di Bydgoszcz (Polonia) per Pallmed sp.zo.o e Medseven sp.zo.o., che abbiamo selezionato sulla base delle loro attività, del loro contributo agli indicatori di prestazione a livello consolidato e della loro ubicazione, abbiamo effettuato visite in loco nel corso delle quali ci siamo confrontati con i responsabili e abbiamo acquisito riscontri documentali circa la corretta applicazione delle procedure e dei metodi di calcolo utilizzati per gli indicatori.

Conclusioni

Sulla base del lavoro svolto, non sono pervenuti alla nostra attenzione elementi che ci facciano ritenere che la DNF del Gruppo Sol relativa all'esercizio chiuso al 31 dicembre 2018 non sia stata redatta, in tutti gli aspetti significativi, in conformità a quanto richiesto dagli articoli 3 e 4 del Decreto e dai GRI Standards.

Altri aspetti

I dati comparativi presentati nella dichiarazione consolidata di carattere non finanziario in relazione all'esercizio chiuso al 31 dicembre 2016 non sono stati sottoposti a verifica.

DELOITTE & TOUCHE S.p.A.

Riccardo Raffo
Socio

Milano, 17 aprile 2019

GLOSSARY

ASU (Air Separation Unit): unit where the process of separation of air components, to obtain liquid and gaseous products, takes place.

Adsorption: physico-chemical phenomenon by which the surface of a solid substance, so-called adsorbent, fixes one or more components (atoms, molecules or ions) of another substance coming from a gaseous or liquid phase with which it is in contact.

Cylinder: container in steel or light alloy for compressed, liquefied or dissolved gases.

Conditioning: a production operation that consists in taking gas from a secondary storage tank and compressing it in a gaseous or liquid state and transferring it to mobile containers. Conditioning also includes the sequence of operations carried out on the containers from when they arrive at the centre to the storage of full containers ready for delivery.

Seveso Directive (2012/18/EU and later modifications): European standard intended to prevent and control the occurrence of major accidents, through the identification of one's sites at risk.
It governs industrial activities that involve the stocking and/or use of certain quantities of dangerous substances.

Medical Device (DM): any instrument, apparatus, equipment, machine, device, plant, reagent in vitro or for calibration, computer software, material or other similar or related product for use, alone or in culmination, on persons for one or more specific purposes of diagnosis, prevention, control, therapy or attenuation of an illness; for diagnosis, control, therapy, attenuation or compensation of a wound or handicap; for studying, substituting or modifying anatomy or a physiological process; for intervening on conception where the main desired action in or on the human body is not carried out with pharmacological or immunological means or through metabolism, but whose function can be aided by these means.

EMAS (Eco-Management and Audit Scheme): Regulation 761/2001 of the European Community. A voluntary instrument for implementing Community Environmental Policy aimed at continually improving the environmental performance of the companies and businesses adopting it.

Cold converter: container with insulated vacuum chamber for highly refrigerated cryogenic gases, characterised by and constituting interception, measuring and safety instruments.

Medical gases: both gases intended to be administered to the patient (such as medical oxygen, oxygen 93%, nitrous of medical nitrogen, medical air) and gases not intended for administration but used for other purposes in the processing of the same, such as air and nitrogen for foods or surgical instruments.

Global Reporting Initiative (GRI): a multi-stakeholder network instituted in 1997 and made up of companies, NGOs, associations of accountancy experts, business organisations and other international stakeholders involved in subjects relating to Corporate Social Responsibility. GRI's mission is to develop, supply and promote global reference guidelines for the drawing up of Sustainability Reports that describe the economic, environmental and social impacts that companies or organisations cause with their activities.

Accident: unexpected event with potential harmful effect to oneself, other people or third-party objects.

Major accident: event such as a serious spill, fire or explosion due to uncontrolled developments in activities in the presence or use of dangerous substances, that could cause grave danger for human health or the environment.

Frequency index: ratio between the number of accidents and hours worked multiplied by 1 million. It measures the frequency of accident occurrence.

Severity index: ratio between days of absence due to injury and hours worked multiplied by 1 million. It measures the severity of injuries.

Injury: undesired event in the workplace that provokes bodily damage or objectively verifiable illness.

IPPC (Integrated Pollution Prevention and Control): Strategy instituted with European Directive no. 75 of 24/11/2010 "Industrial Emission Directive" (I.E.D.) for minimising the pollution caused by various sources throughout the EU. All types of installation listed in Appendix 1 of the Directive must obtain integrated authorisation from the authorities of the various countries. It is based on the premise that the failure to adopt a common approach for controlling emissions into air, water and terrain could lead not to a reduction of pollution but to its transfer from one compartment to another.

ISO 9001: Recognised standard for Quality Management Systems which provides a method and reference standards for running an organisation in a smart and aware manner for customer satisfaction.

OHSAS 18001: this certification becomes even more important, as a guarantee for the top management, with the entry into force in Italy of Legislative Decree 81/2008, which establishes the adoption of a Management system in line with the OHSAS 18001 standard as a necessary condition for being exempted from the application of the sanctions established by Italian Legislative Decree no. 231 of 2001.

ISO 13485 (Medical devices - Quality management systems): a standard specifically aimed at companies operating in the medical sector such as SOL, designed for those who apply targeted quality controls to medical devices.

ISO 14001 (Environmental Management): ISO 14001 is a guarantor of the precise control of environmental aspects, reducing impact and ensuring legislative compliance, aimed at maintaining an Environmental Management System.

ISO 22000 (Food Safety Management

Systems): the standard defined for the effective control, improvement and development of food safety management, for organisations that want to ensure its safety.

ISO 27001 (Information Security): the ISO 27001 standard defines the requirements for creating and running an Information security management system (logical, physical and organisational security), with the aim of protecting data and information from threats of all kinds, ensuring its integrity, confidentiality and availability.

ISO 50001 (Energy Management): standard aimed at helping organisations improve their energy performance, increasing energy efficiency and reducing climate and environmental impact.

Raw materials – primary process units: atmospheric air, for the production of oxygen, nitrogen and argon; natural gas, for the production of hydrogen and carbon dioxide; calcium carbide for the production of acetylene; ammonium nitrate for the production of nitrous oxide.

Sale equipment: technical/technological equipment purchased from third parties and supplied for use to customers as part of a service, but destined to remain the property of SOL; for example mobile containers, cold converters, etc.

Policy (quality, safety, environment): general principles and guidelines of an organisation, formerly expressed by top management.

REACh: EC regulation no. 1907/2006 (Registration, Evaluation, Authorisation and Restriction of Chemicals). Its main aim is to improve the awareness of the dangers and risks deriving from chemical substances, aiming to ensure a high level of protection of human health and the environment.

Mobile container: container for compressed, liquid, dissolved and cryogenic gases used for transporting products. Mobile containers are: cylinders, drums, gas cylinders, cylinder bundles, dewars, base units and portable units.

Residual mix: refers to the average primary energy sources that were not intended for a specific entity or to an end consumer. If a consumer uses the power grid without having purchased a GO certificate, he then has to use the residual mix in the calculation of its footprint. The Residual mix is calculated for each year and country by organisations that are part of the European E-Track program, such as RE-DISS.

Responsible Care: a voluntary program of the world chemical industry based on the implementation of principles and conduct concerning the safety and health of employees and environmental protection, and the commitment to communicate the results obtained aiming for continual, significant and tangible improvement.

Food safety: hygienic - sanitary prevention, for which food is subjected to strict controls that ensure correct preparation in accordance with its use and consumption, assuring its safety to the consumer.

SIGUCERT: The SIGU (Italian Society of Human Genetics) standard certifies the organisational, operational, management and professional requirements of Medical Genetics Laboratories to carry out special investigations (genetic testing) for the identification of genetic diseases.

Quality, Safety and Environment System (SdG/QSA): that part of the general management system that includes the organisational structure, planning, responsibilities, procedures, processes and resources for drawing up, implementing and maintaining active and well-defined quality, safety and/or environmental policies.

Sustainability (see sustainable development)

Stakeholder: all categories of subjects, private or public, individual or collective, internal or external, that can influence the success of a business or whose interests are involved in business decisions: customers, suppliers, investors, local communities, employees, unions, public administration, future generations, etc.

Steam reforming: process in which methane reacts with steam, in the presence of a catalyst, to produce hydrogen and CO_2.

Primary storage: liquefied cryogenic gas container filled directly by the production plant.

Secondary storage: liquefied cryogenic gas container filled by tankers, normally installed in secondary process units.

Sustainable development: the progress that helps meet current economic, environmental and social needs, consistent with the protection of the environment and the free goods (non-economic) of future generations.

Primary process units: units where gases are produced from raw materials.

Secondary process units: units where gases are conditioned, normally using gases coming from primary process units, into their physical form (which may be compressed gas or cryogenic liquid) in the containers (cylinders, cylinder bundles, drums or tanks) best suited for distribution to end users. Some units also produce pure and high purity gas mixtures.

ACKNOWLEDGEMENTS

For several years now, the Sustainability Report has been a key instrument for keeping all of our stakeholders up to date on the commitments we have made and the initiatives we have carried out.

A sincere thank you goes to all those who contributed to creating this document, whether by helping to collect the information published or, in particular, through their daily commitment to translating the values shared by the SOL Group people into appropriate behaviour.

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