

A close-up photograph of several large, vibrant green leaves with prominent veins, filling the upper two-thirds of the page. The leaves are layered, creating a sense of depth and texture.

# 2022

## SUSTAINABILITY REPORT **SOL GROUP**

Consolidated Non-Financial Statement pursuant  
to Italian Legislative Decree 254/2016

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# 2022

## SUSTAINABILITY REPORT SOL GROUP

Consolidated Non-Financial Statement pursuant to Italian Legislative Decree 254/2016

**SOLGROUP**  
a breath of life



## LETTER TO STAKEHOLDERS

### Company growth and corporate responsibility

Our fourteenth Sustainability Report comes at the end of an extremely complex 2022. Among the most dramatic and impactful events, mention need only be made of Europe, shaken by the war still raging in Ukraine, which continues to resist the Russian invasion, also thanks to massive international aid; or the world economy, slowed by rising inflation and increasing geopolitical tensions; or the European economy, hit by the sudden, and for several months unstoppable, increase in the cost of natural gas and electricity.

Our Group has managed to stay firmly on course in these rough and stormy seas and brilliantly continue its growth path, in line with the objectives of the '**POLARIS 2021-2030**' Plan. We have also progressed along the path of increasing sustainability in the way we operate, achieving important results.

In the field of industrial gases, the enormous increase in the cost of electricity - the raw material for our production - forced us to take decisive action to further improve our already high energy efficiency and to pass part of these costs to our customers as much as possible, at a rate never seen before. In the home care sector, on the other hand, after the slowdown recorded in 2021 due to the effects of the pandemic on hospitals and private laboratories, a recovery gradually consolidated during the year, bringing growth back to the usual levels of the past.

2022 thus ended with an increase in turnover to € 1,379.2 million, with € 266.3 million in growth, amounting to 23.9%, an all-time record for the Group. Investments were also extremely significant, amounting to € 219.4 million, including acquisitions. The margins were maintained at good levels. As at 31 December 2022, 5,751 people worked in the Group, over 600 more than at the end of the previous year.

Among the many **investments** made, we highlight, in the technical gas sector, that the production plant in **Wanze, Belgium**, commissioned in 2021, which **recovers, purifies and liquefies BioCO<sub>2</sub>** ("bio" carbon dioxide), produced at full capacity throughout last year. This made it possible, among other things, to compensate for the shortage of carbon dioxide on the European market that resulted from the closure of several fertiliser plants in Europe during the year and the unsustainable cost of natural gas. In **India**, work began on a new modern air separation plant at our **Ranipet** plant. Major investments were made in upgrading carbon dioxide production in **Germany** and **Greece**. Two new hydrogen and liquid helium storage and filling plants were built in **Krefeld, Germany**, and **Cremona, Italy**.

Among the many investments made in the past year in the home care sector as well, the start of work on a new, modern, automated logistics centre in **Burago, Italy** deserves mention, serving as a hub for the whole country. In **Belgium** and **England**, the company offices were expanded in Lessines and Crawley, respectively.

Investments in ERP platforms and new digital solutions significantly increased last year in order to support innovation in the Group's activities in both core business areas. After the **Netherlands, Germany** and **Austria** also saw our VIVISOL companies start implementing the **new ERP platform VISION4**.

The Group's growth project also continued in 2022 externally, through acquisitions and partnerships. In the industrial gases sector, SOL acquired a majority stake in the dry ice company POLAR ICE LIMITED located in Portlarnong, central Ireland. SOL took over 61%, and **POLAR ICE LIMITED** will continue to grow thanks to the commitment of the founding partners' family, first and foremost Alison Ritchie.

The most significant strategic alliance concluded during 2022 was certainly that in **India** with the Agarwal Family from Bangalore, represented by its Leader S.N. Agarwal, in a transaction involving the company Bhoruka. In December 2022, SOL Group acquired 100% of the company **GREEN ASU PLANT PRIVATE LIMITED**, owner of an air separation unit (ASU) in Bangalore and a wind farm in the same Indian state of Karnataka, which produces renewable energy in quantities largely needed to cover ASU's energy consumption. The products of this plant - oxygen, nitrogen and argon - are considered 'green' products in all respects. SOL Group and the Agarwal family also entered into a second alliance with another company of the Agarwal Group: **BHORUKA SPECIALTY GASES PRIVATE LIMITED**, in which SOL Group now holds 51%, and which is currently the only producer in India of pure, ultra-pure and specialty gases needed for the electronics industry, for the production of solar panels, and for diamond cutting.

In home care, SOL Group concluded the acquisition of 60% of two **'Relief' Transition Hospitals in São Paulo, Brazil** via VIVISOL, initiated by our Brazilian partners in PPAR. In **Germany**, 100% of the company **PROFI GESUNDHEITS - SERVICE GmbH** was acquired, which is active in the intensive care of complex patients. In Italy, VIVISOL formed a strategic alliance with the company **ITOP Spa OFFICINE ORTOPEDICHE**, owned by entrepreneur Francesco Mattogno, of which it acquired 51%. ITOP Spa OFFICINE ORTOPEDICHE is a leader in the field of prostheses and orthoses; the transaction aims to create a national centre of excellence in this field, which is very important for improving the quality of life of many VIVISOL patients, including those suffering from severe neuromuscular diseases.

So many new colleagues to share the upcoming challenges with! To all of them our warmest welcome.

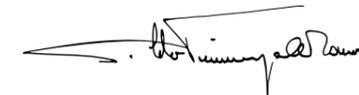
In home care, 2022 coincided with the very important awarding to VIVISOL Iberica of three lots of the primary **tender of the Region of Catalunya**. The first patients have already been served, and the VIVISOL service will become fully operational over the coming months.

In the more specific area of our commitment to sustainable and responsible development, 2022 coincided with important initiatives:

- the **'safety campaign'** programme continued, with initiatives aimed at achieving zero accidents. In this context, a pilot project was launched to reduce collision and investment risks within SOL Group's units, equipping the forklifts used for internal logistics with specific devices, in units dedicated to filling operations.
- some of the initiatives proposed and rewarded within the **'Little Big Innovations' project** were thoroughly investigated and are being implemented. As part of the focus on our people working in the Group, the **'SOL Group Woman Development Program'** project is being launched. As part of the projects to support external communities, the **project to train young welding technicians in Mozambique** was implemented. Lastly, to improve the sustainability of our plant operations, the idea of **replacing plastic film valve covers with more sustainable and recyclable products** was implemented;
- 2022 was also the first year in which SOL applied for the **CDP** rating: on a scale of 'A' to 'F', SOL received a **'B'** rating, indicating that the efforts made so far were appreciated and taken into due consideration;

- finally, in the area of **social initiatives**, SOL decided to cooperate with the **UNHCR** to help refugees from war-torn countries: a Group-wide fundraiser was held for the UNHCR programme for Ukrainian refugees, and a collaboration with the UNHCR was set up to introduce EU refugees with special experience developed in their countries of origin, such as nursing training obtained in their countries of origin, into the labour market.

We now leave you to enjoy the report. We are sure you will find the values that inspire our way of working every day while reading it, and which we believe are at the root of much of our success and above all our satisfaction.



**Aldo Fumagalli Romario**  
Chairman



**Marco Annoni**  
Deputy Chairman



## KEY NUMBERS

	2018	2019	2020	2021	2022
<b>ECONOMIC MEASUREMENTS</b> (€ million)					
Group's net sales	833.5	904.3	973.8	1,112.9	<b>1,379.2</b>
Technical gas area net sales	403.2	412.6	438.2	558.4	<b>762.4</b>
Home care area net sales	430.3	491.7	535.6	554.5	<b>616.7</b>
Gross operating margin	186.9	211.3	255.4	260.8	<b>328.3</b>
Operating result	89.7	88.7	140.0	135.8	<b>192.5</b>
Investments	99.8	103.3	112.9	132.3	<b>131.2</b>

### ENVIRONMENTAL MEASUREMENTS

Specific consumption (ASU; base 2018=100)	100	99	99	102	<b>101</b>
Electrical energy produced (Gj)	365,775	322,072	318,136	327,920	<b>280,429</b>
Greenhouse gas emissions (tonnes CO <sub>2</sub> equivalent)					
- Direct emissions (Scope 1)	45,372	41,792	40,088	46,710	<b>60,040</b>
- Indirect emissions (Scope 2)	260,214	272,317	252,279	288,193	<b>276,263</b>

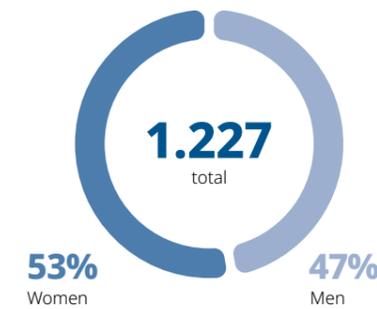
### OUR PEOPLE

Employees as at 31/12	3,958	4,320	4,613	5,101	<b>5,751</b>
- Italy	1,194	1,218	1,248	1,350	<b>1,499</b>
- Other countries	2,764	3,102	3,365	3,751	<b>4,252</b>
Hours of training	64,739	71,821	61,150	67,281	<b>98,549</b>
Work-related injuries					
- Frequency index	4.6	3.4	3.6	3.8	<b>4.0</b>

## SOL GROUP PEOPLE IN 2022

### NEW EMPLOYEE HIRES

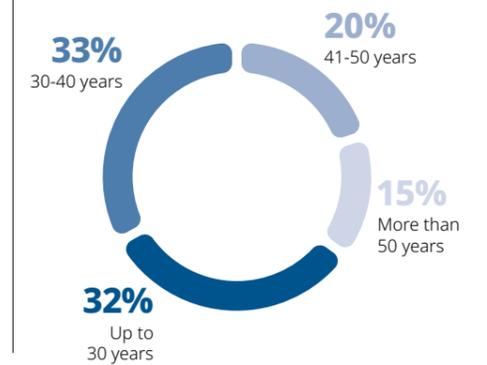
#### By gender



#### By region

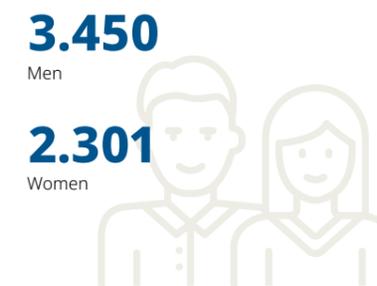


#### By age group

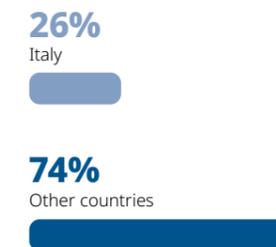


### EMPLOYEES TODAY

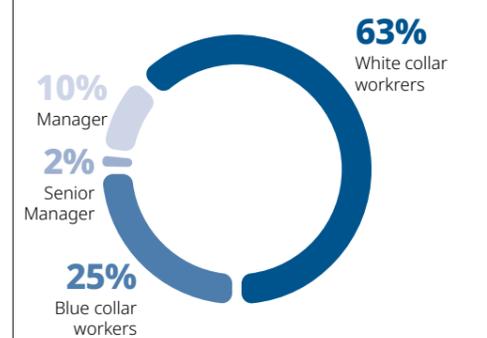
#### By gender



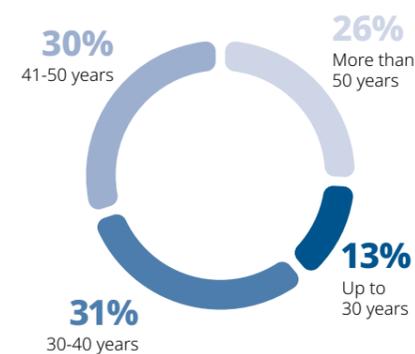
#### By region



#### By employee category



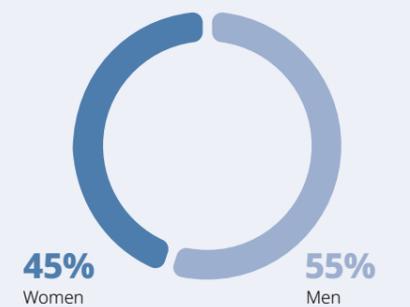
#### By age group



#### By employment contract

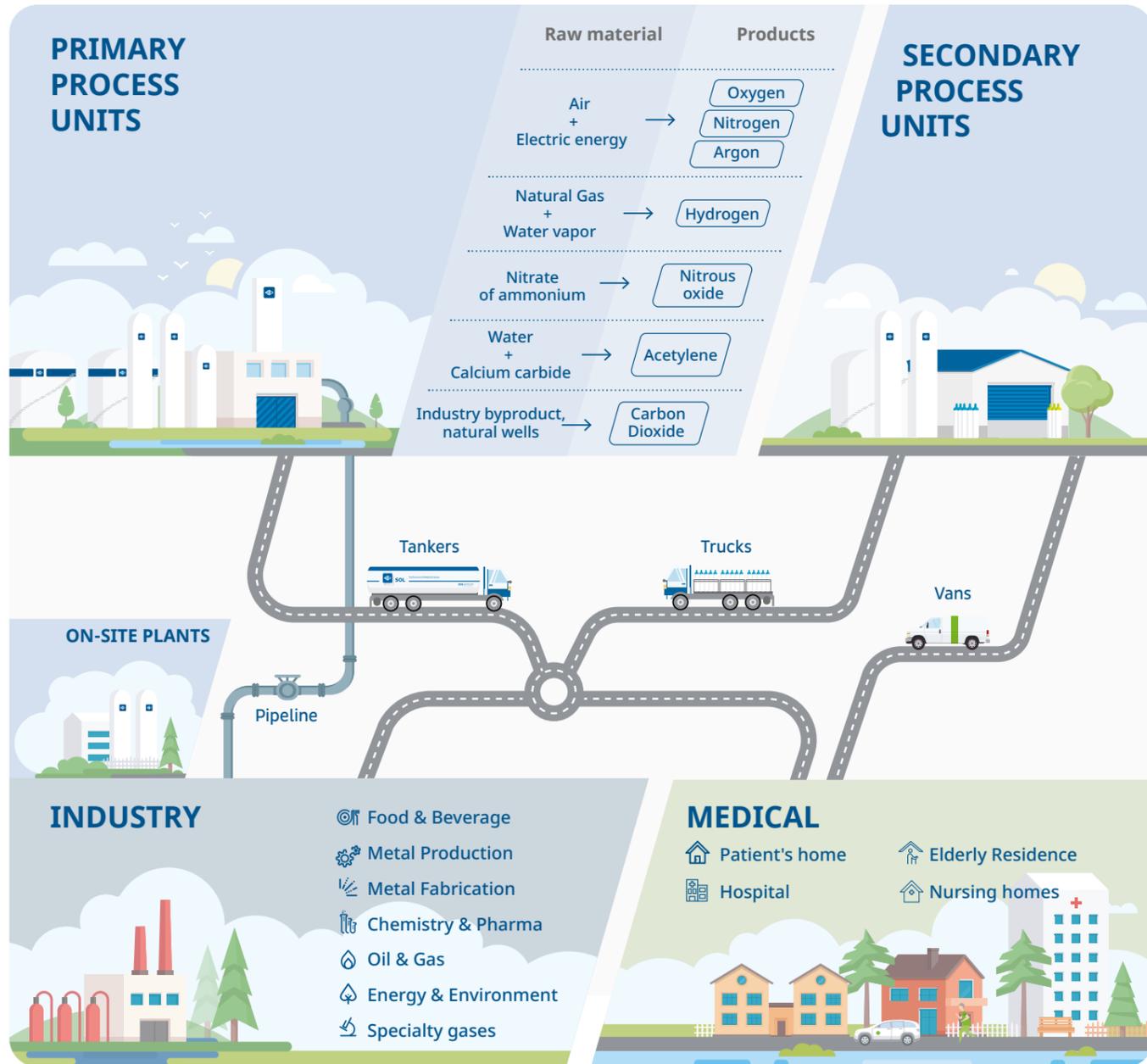


#### Board of Directors Composition





## THE BUSINESS MODEL



**56%**

Healthcare net sales

**44%**

Industry net sales

**44%**

Italy net sales

**56%**

Other countries net sales

## MISSION AND VALUES

We aim to contribute to improving the quality of life on the planet through the **development of innovative and technologically advanced solutions** for industrial and healthcare customers, and the **provision of the best care** for the patients we serve in their homes.

Our growth strategy is focused on creating solid and sustainable value in economic and financial, social and environmental terms, which is built on the trust of all our stakeholders and based on the values stated in the **Code of Ethics**, in force since 2006.

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

**Safety:** we uphold workplace safety of all employees, as well as the safety of the products and services we provide to our customers and patients, as priority issues.

**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 best possible home care.

**Balanced development:** we work to create balanced economic growth and constant development in the long term, employing resources in an efficient and diversified manner.

**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 view attracting and developing the loyalty of new talents and, in general, training and developing the skills of individuals, as key to the success of SOL Group and the satisfaction of all its employees.

The **Code of Ethics** is a reference tool for the members of corporate bodies, SOL Group collaborators, and for any third party (such as suppliers, business and industrial partners) who collaborates or works in the name, on behalf or in the interest of SOL Group, wherever it operates and in any way it contributes to creating value for the company.

In order to be disseminated and understood by all employees, the Code is translated into the different languages of the main countries where the Group operates.



# SUSTAINABILITY, A GLOBAL GOAL

Recognising sustainable growth as a fundamental element for corporate development, SOL Group integrates its corporate strategy

with the priorities of its key stakeholders and with the **goals set by the United Nations 2030 Agenda**.

## Sustainability for employees



### MATERIAL TOPICS

**Ability to attract talent and human resources development**

**Health and safety of workers**

**Corporate welfare and employee well-being**

**Respect for human rights and workers' rights**

### SOL GROUP'S STRATEGY

SOL Group has always invested in the **well-being of its people**, in favour of a meritocratic and inclusive climate, based on the principles of **equality** and **equal opportunities**, where **collaboration** and **listening** are considered essential.

The commitment to workers' **health and safety** is ensured through extensive training, regular inspections, internal audits, investments in vehicles and equipment, but above all thanks to the cooperation of all our employees.

Through the **Code of Ethics**, SOL Group shares with all its collaborators the principles to which the people of the SOL world must refer for the adoption and implementation of good behavioural practices in line with the identity and spirit of the Group.

## Sustainability for customers and patients



### MATERIAL TOPICS

**Customer and patient centrality**

**Traceability of products and services**

**Sustainable solutions for customers**

**Sustainable supply chain**

### SOL GROUP'S STRATEGY

The **centrality of customers and patients** is a primary objective: seeking to anticipate their needs, the Group works on **product and service innovation**, guaranteeing **high standards of quality and safety**.

In the **industrial sector**, solutions with high technological and innovative content offer safer, cheaper and more environmentally friendly performance.

In the **health sector**, the wide range of services offered to hospitals (in terms of services, equipment and facilities) and to patients (through the range of home care services) places the care of people at the centre.

In the **biotechnology sector**, innovative diagnostic products allow the prevention and early detection of possible health problems, significantly affecting the quality of life of people and their treatments.

SOL Group ensures the traceability of products and medical devices, allowing their immediate localisation and, in the event of problems, timely intervention measures.

## Sustainability for the industrial and healthcare sector



### MATERIAL TOPICS

**Energy efficiency and climate change**

**Environmental impact of products**

**Efficient use of raw materials**

**Environmental impact of transport**

**Waste management**

### SOL GROUP'S STRATEGY

The Group works to reduce energy consumption and emissions by offering **highly effective and efficient oxy-fuel solutions**, which are widely used in the production processes of metals, ceramics and cements.

Thanks to the construction of **on-site production plants** (plants built directly at the customer's premises and managed remotely) of oxygen, nitrogen, hydrogen and syngas-type mixtures, it is possible to offer a solution with **lower environmental impact**, which reduces road transport and streamlines energy consumption.

The Group protects water resources by offering customers in the industrial sector a service to **improve waste water quality**, thanks to the use of oxygen in sewage treatment.

It promotes **sustainable mobility** by investing in the development of technological solutions using hydrogen and Liquefied Natural Gas (LNG), including from renewable sources (BioLNG).

It contributes to the **reduction of food waste** and consumer safety, adopting preservative-free food freezing systems and promoting conservation technologies in a modified and controlled atmosphere, able to preserve the organoleptic characteristics of consumer products.

It invests in systems aimed at **recovering carbon dioxide**, which is otherwise released into the atmosphere.

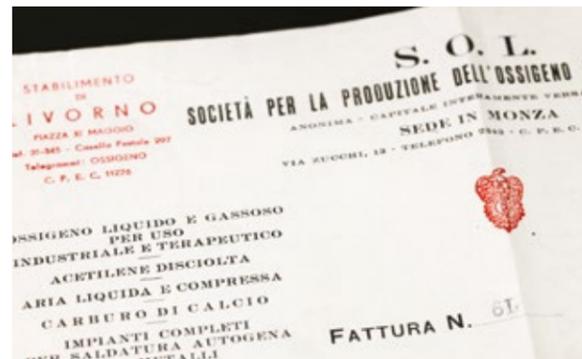
The environmental impact from activities in the health sector is also reduced through the **computerisation of accounting documents** and reporting, and the **optimisation of inventory**. This is possible thanks to management systems that can also monitor the preventive, corrective and extraordinary maintenance of all devices.



## A HISTORY IN CONSTANT EVOLUTION

### 1927

SOL Group was founded under the management of Giovanni Annoni and Aldo Fumagalli, with **two initial plants** for the production of oxygen and acetylene based in Livorno and Ancona.



### 1970

SOL was among the **leaders in the sector in Italy** thanks to the transition from a regional market strategy to a national one. This was made possible by 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.

### 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.



### 1960

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



### 1984

The Group also began to grow in **Europe**, creating plants, **branches and joint ventures** in most European countries over the years, also seizing opportunities offered by the opening of new markets in south-east Europe.

### 1998

In order to be more competitive on the international markets, the 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 internationalisation strategy.



### 2002

The Group entered the **renewable hydroelectric energy production** sector, acquiring and developing hydroelectric power plants in Albania, Bosnia Herzegovina, North Macedonia and Slovenia.

### 2014

With the acquisition of the German company SKS, SOL became one of the most important players in the market for **the production of CO<sub>2</sub> in Germany**.

### 2018

The Group acquired two companies in Poland specialising in **palliative care**. A **Centre for the testing and maintenance of cylinders and cylinder baskets** was created in Italy, with the aim of increasing container quality.



### 2021

The Group **entered China**, strengthening its international presence in the medicinal gases and healthcare services sector. Two companies active in the technical gas sector and in home care were acquired in **Greece**, consolidating the **Group's presence in South-East Europe**.

### 2010

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

### 2015

Construction of the Capo d'Orlando station in Italy for the refuelling of **hydrogen vehicles**, produced solely by means of photovoltaic panels.

### 2020

The Group effectively contributed to the fight against the **Covid-19** pandemic by developing and producing **rapid serological tests and molecular kits** for the identification of Covid-19 in Italy. It also launched a full **service** for molecular swab **analysis** and rapid antigen swabs performed at home.



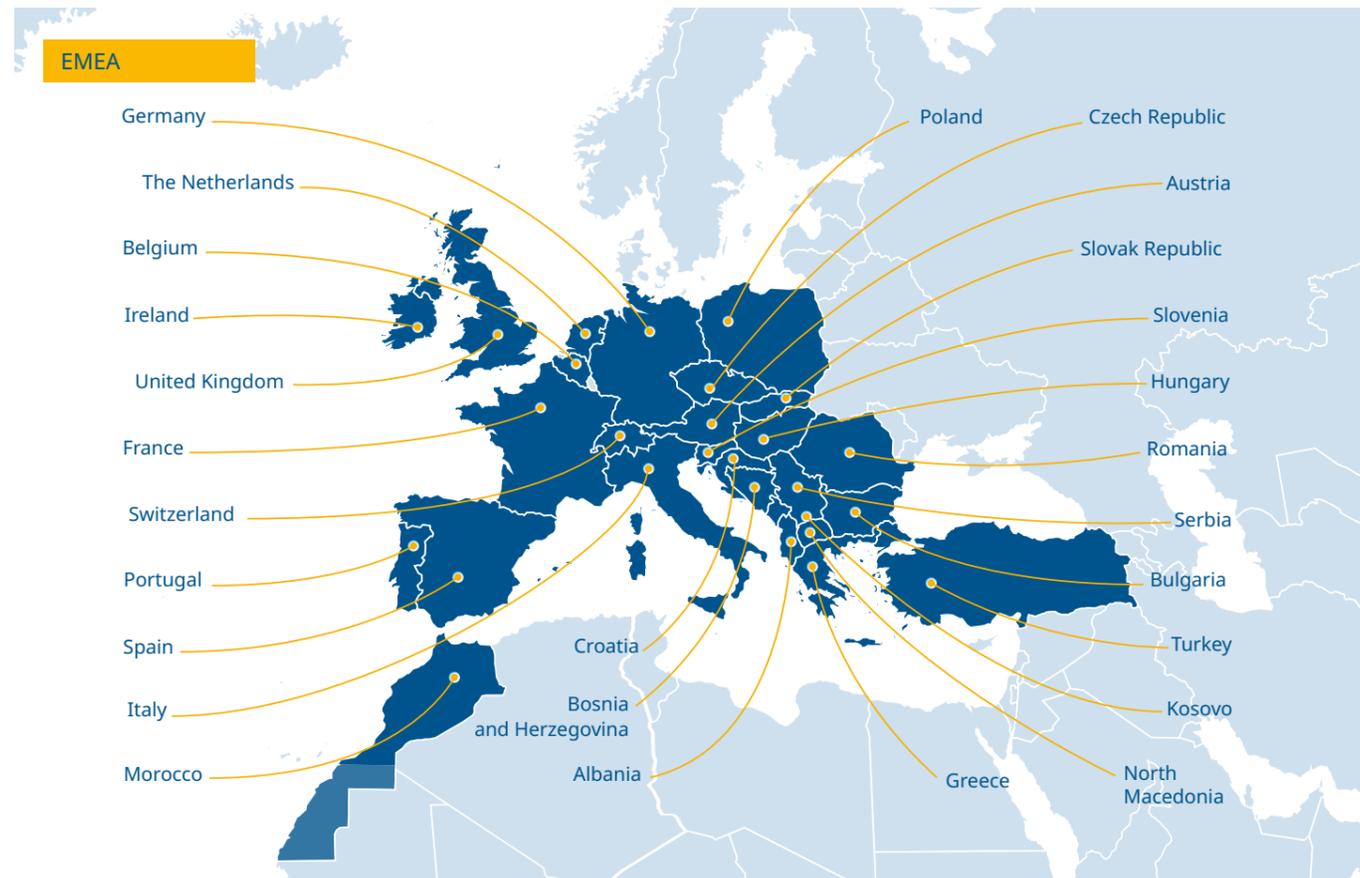
### 2022

The Group strengthened its presence in the **orthopaedic sector** thanks to a majority partnership with ITOP Spa OFFICINE ORTOPEDICHE, a leader in Italy in the design and production of custom-made aids, prostheses and orthoses.

The Group expands its presence in **India** thanks to a partnership with BHURUKA GASES Ltd, the leading company in the production of pure and specialty gases and in the production of gas technical gases with energy from renewable sources.



## SOL GROUP WORLDWIDE



## THE GROUP'S DEVELOPMENT AND INVESTMENTS

### Main corporate operations

SOL Group has carried out a partnership with a majority shareholding with the following companies: BLA SERVIÇOS HOSPITALARES LTDA and JML SERVIÇOS HOSPITALARES LTDA, companies located in São Paulo, in **Brazil**, and operating in the hospital business; ITOP Spa OFFICINE ORTOPEDICHE, leader in **Italy** in the design and production of custom-made aids, prostheses and orthoses; POLAR ICE Ltd, active in the production and marketing of dry ice in **Ireland**. In **Germany**, the company PROFI GESUNDHEITS - SERVICE GmbH active in the homecare sector has been acquired.

The Group has expanded its presence in **India** through a strategic partnership with BHURUKA GASES Ltd, the leading producer of pure and specialty gases and the production of technical gases from renewable energy sources.

### Main investments

In 2022, **€58.2 million of investments were made in the technical gases area and €73 million in the home care sector.**

In **Italy**, the works at the company ILPOINT in Verona to modernise the entire site were completed, with the creation of the new area dedicated to orthopaedics and the new centre for orthopaedic prostheses. In Burago, work started on the construction of VI-VISOL Srl's new logistics centre. The work was completed in Cremona to upgrade the storage and compression of gaseous helium.

In Tilburg in the **Netherlands**, the work on modernising the nitrous oxide production plant finished.

In **Slovenia**, the new TPJ company headquarters in Jesenice was built.

In Florina, **Greece**, work started on upgrading TAE's carbon dioxide production plant.

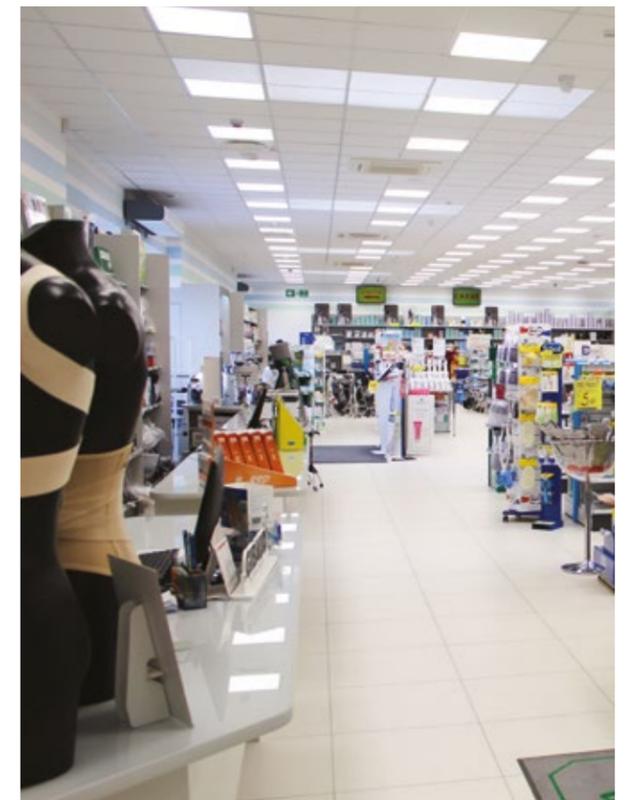
Work for the project of building a new air fractionation plant for the production of oxygen, nitrogen and argon in Ranipet (Tamil Nadu), **India**, has begun.

The **improvement, modernisation and rationalisation** programme in the primary and secondary technical gas production

plants continued. This activity concerned in particular the units of Tanagra and Aspropyrgos in Greece, Trichy in India, Catania in Italy and Sisak in Croatia.

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 apparatuses, all to support the Group's development in all of its business areas and geographical regions.

Investments continued aimed at the improvement of information systems both in the technical gas sector and in the home care sector.



## SOL Group strengthens its presence in India

The strategic partnership with the Bhoruka Group allowed the acquisition of 100% of the company 'GREEN ASU PLANT' and 51% of 'BHORUKA SPECIALTY GASES PRIVATE LIMITED'.

The operation is part of the Group's strategy to **expand its international presence** beyond Europe with a focus on the sustainability of its production processes and the development of high value-added products, such as pure and specialty gases.

Thanks to this new partnership and the development of SOL INDIA, today SOL is a **significant player** with a manufacturing and commercial presence in the main industrial regions of India (the first non-European country in SOL's expansion in 2010) and primary customers in both the industrial and medical sectors that pay attention to the sustainability of their production processes.

In this context, even greater value is taken on by the acquisition of GREEN ASU PLANT PRIVATE LIMITED,

which powers all its plants with **self-generated renewable energy from its own wind farm**, in line with the environmental focus that SOL Group has chosen to embrace and that the market, even in India, is beginning to value.

With BHORUKA SPECIALTY GASES PRIVATE LIMITED, the Harohalli production centre, and the Indapur production centre currently under construction, the **production of pure, ultra-pure and specialty gases** is also extended, integrating the Group's current portfolio and enabling it to develop high value-added products and push our development into innovative markets such as electronics and the production of solar panels, contributing to the development of renewable energies.









COUNTRY	COMPANY	ISO 9001 Quality	ISO 45001 Health and safety of workers	ISO 14001 Environment	EMAS Environment	ISO 50001 Energy	ISO 13485 Medical devices	ISO 27001 Data security	ISO 22000 Food safety
<b>Technical gases sector</b>									
Albania	GTS	1	1	1			1		1
Austria	SOL TG	1					1		
Belgium	SOL Branch Belgium	2		1					2
	BTG	1							
Bosnia-Herzegovina	TGP	1		1					1
	TGT	1							
Bulgaria	SOL BULGARIA	2	2						3
Croatia	UTP	2							
	SOL CROATIA	2							
France	BEH FRANCE	1					1		
	SOL FRANCE	3							
Germany	SOL DEUTSCHLAND	3							2
	SOL Spa Francoforte	1				1			1
	SOL KOHLENSAURE	1				3			1
	CT BIOCARBONIC <sup>(1)</sup>	1				2			1
Greece	SOL HELLAS	2		1			1		2
	TAE HELLAS	5		5			2		4
India	SOL INDIA	2							
	SICGILSOL	1							
Ireland	IRISH OXYGEN	1							
Italy	SOL Spa	21	29	3	1		2	1	
	SGP	7	8	4	2			1	2
	ICOA	1		1			1		
	SOL GROUP LAB	1					1		
	CTS	1							
	CRYOS	1							
	BEHRINGER	2					2		
	MEDES	1					1		
	TESI	1	1	1			1		
	STERIMED	2	1	1			2		
North Macedonia	RE.VI.	1	1	1			1		
	TGS	3	2	2					3
	SOL SEE	2	1	1					1
Morocco	FLOSIT	1							
Netherlands	SOL NEDERLAND	2	2						2
Romania	GTH	1	1						1
Serbia	SOL SRBIJA	1							1

(1) Jointly controlled company consolidated using the equity method and therefore excluded from the reporting scope of this Sustainability Report.

COUNTRY	COMPANY	ISO 9001 Quality	ISO 45001 Health and safety of workers	ISO 14001 Environment	EMAS Environment	ISO 50001 Energy	ISO 13485 Medical devices	ISO 27001 Data security	ISO 22000 Food safety
Slovenia	SPG	1	1	1	1	1			1
	TPJ	1	1	1		1			1
Spain	SOL FRANCE ESPANA	1							
Turkey	GEBZE GAZ	1							
	SOL TK	1							1
Hungary	SOL HUNGARY	1							
<b>Home care sector</b>									
Austria	VIVISOL AUSTRIA	2							
France	VIVISOL FRANCE	1	1						
Germany	VIVISOL DEUTSCHLAND	4							
	MEDTEK	1							
	PGS	1					1		
	INTENSIVSERVICE	1							
	PIELMEIER	1							
Greece	VIVISOL HELLAS	2							
Ireland	DIRECT MEDICAL	1							
Italy	VIVISOL	19	20	1			2	1	
	VIVISOL CALABRIA	1							
	VIVISOL NAPOLI	1	1						
	VIVISOL SILARUS	1							
Netherlands	VIVISOL NEDERLAND	1						1	
Poland	PALLMED	17							4
	Poland	1							
Czech Republic	VIVISOL CZECHIA	1							
United Kingdom	VIVISOL UK	4	4	4				2	
Spain	VIVISOL IBERICA	4	4	4			1		
Switzerland	SITEX	1							
<b>Biotechnologies sector</b>									
Italy	CRYOLAB	1							
	DIATHEVA	1							
	BIOTECHSOL								1
	PERSONAL GENOMICS	1							
<b>Renewable energy production sector</b>									
Slovenia	ENERGETIKA	1							
<b>TOTAL</b>		<b>158</b>	<b>81</b>	<b>34</b>	<b>4</b>	<b>8</b>	<b>21</b>	<b>11</b>	<b>31</b>

In addition to the certifications shown in the table, the Pure Gas Plant (SGPM) in Monza, the company STERMIED in Italy, GTS in Albania and SOL Serbia have been accredited as test laboratories in accordance with **ISO 17025**. SGPM obtained accreditation according to **ISO 17034** as a producer of certified reference materials in 2021.

In 2019, the Group's Information Technology & Digitalisation Department obtained certification according to **ISO 22301**, a standard relating to business continuity management.

Because of the kind of gases they produce and the quantities they stock, 24 Group plants fall into the field of application of **Directive 2012/18/EU ('Seveso Directive')**.

Directive 2012/18/EU requires the adoption of a specific safety management system and regular scrupulous auditing by the Authorities. In 2022, four units were inspected (all the inspections

concerned the Management System), all of which were concluded with positive results.

Some Group units 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 Group has authorisations for its European hydrogen (Ravenna), nitrous oxide (Cremona, Marcanise and Tilburg) and acetylene (Ancona, Pola and Aspropyrgos) production plants

## Carbon Disclosure Project: Group gets 'B' rating

The results of the CDP questionnaire confirm SOL Group's path to mitigating climate change.

In July 2022, SOL Group participated for the first time in CDP - an organisation that measures the impact on the environment by companies, governmental bodies, cities and states - scoring 'B' in the rating (ranging from 'A' to 'F').

With data shared on a voluntary basis by over 15,000 companies worldwide, CDP holds and manages the world's largest database for monitoring corporate performance against climate change. The CDP rating considers the comprehensiveness of disclosure, awareness and management of environmental risks as well as the demonstration of best practices associated with environmental leadership, including setting ambitious targets.

Participation in the CDP questionnaire is a crucial step in SOL's sustainability journey. Furthermore, al-

though this is only its first year participating, the positive result testifies that the commitment and efforts made to date by the Group towards sustainability are also recognised and appreciated externally. In fact, companies that obtain a B rating have addressed the environmental impacts of their business and ensure good environmental management.

Finally, CDP was given an A- rating for the engagement of its supply chain on the sustainability front.

This important achievement comes on top of other ratings obtained in recent years: Ecovadis (Silver), MSCI (BBB) and Sustainalytics (Low Risk).

## The Regulatory Affairs and Pharmaceuticals Department

Oxygen, medical air and nitrogen oxide, Donopa (a mixture of oxygen and nitrogen oxide) and Neophyr® (whose active substance is nitrogen monoxide) are the main **drugs** that the Group distributes in hospitals and, with regard to oxygen, in patients' homes. Also in the healthcare sector, the Group produces and sells **gas for medical devices**, such as liquid nitrogen for cryopreservation and cryotherapy and carbon dioxide for laparoscopy, and medical equipment and systems that are used in **medicine for diagnostic and therapeutic** purposes (from oxygen distribution systems in hospitals to home mechanical fans).

Within the Corporate Executive Department for Quality, Safety and Environment and **Regulatory Affairs, the Regulatory and Pharmaceutical Affairs Department (DARF)** serves to support, control and coordinate all SOL Group companies in the authorisation process for the production, distribution and sale of gases for medical use and medical devices.

Drugs and medical devices are subject to strict controls and the documentation necessary for the authorisation process is increasingly complex. The **pharmaceutical workshops** which produce the drugs must be authorised by the Drug bodies that verify that all phases of the production process follow GMP (Good Manufacturing Practices) at national level. Compliance with these guidelines guarantees the quality of medical products, which in turn is a prerequisite for the medical product to be defined as safe and effective. The manufacturer of a medical device must obtain the **EC marking**, which proves that its product complies with the safety and health requirements laid down in the applicable legislation. EC markings (for Class 2 and 3 devices, which are the prevalent classes in the Group) are issued by Notified Bodies, facilities (laboratories or companies) authorised by the competent authorities of European Union countries.

The DARF is also responsible for managing all **post-marketing activities**. Once a medicinal product or medical device has been placed on the market, the manufacturer must regularly monitor any accidents, adverse effects or lack of efficacy of the products concerned (pharmaco-vigilance for medicinal products and material-vigilance for medical devices). The company procedures establish that each Group company sends specific reports to DARF for the collection of reports, for analyses and for the evaluation of any notification to the competent authority.



### MEDICINAL GASES

**147** Marketing Authorisations for medicinal gases filed in

**25** countries

**64** Pharmaceutical Workshops:  
**62** for the production of medicinal gases  
**1** for the production of Galenic Drugs  
**1** for the production of API from Biotechnology



### MEDICAL DEVICES

Medical device gases produced in

**18** units and distributed in

**15** countries

**6** Group companies are manufacturers (i.e., holders of EC markings) for medical gas distribution plants or equipment.







# TECHNOLOGIES, PRODUCTS, SYSTEMS AND SERVICES

## 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 & SOLUTIONS

- Cooling, flash freezing, cryogenic freezing, IQF with Lin o LCO<sub>2</sub>: improved quality of frozen product, taste characteristics maintained, better aesthetic aspect, reduced freezing times and space saving.
- Packaging in atmosphere modified with N<sub>2</sub> and CO<sub>2</sub>: shelf life optimisation, improved aesthetic aspect, freshness maintained and waste minimisation.
- Transport at temperature controlled with Lin or dry ice: safeguarding of freezing chain to preserve quality of food and avoid spread of bacteria.
- Carbonic fertilisation with CO<sub>2</sub>: increase in production and in quality and look of the product.
- Fish and mussel farming with O<sub>2</sub>: increase in production and quality of the finished product.
- Sanitization and disinfection with CO<sub>2</sub>, avoiding the use of chemicals.
- Fumigation and pest control with CO<sub>2</sub> of biological agricultural products for which no chemical products, such as phosphine, can be used.
- 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 & SOLUTIONS

- 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<sub>x</sub>: 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 SF<sub>6</sub>: 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.
- On-site installations: reduction energy consumption, transport activities and relative emissions.

## 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 & SOLUTIONS

- 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 well-head valves).

## Chemistry & Pharma



### INDUSTRIES SERVED

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

### TECHNOLOGIES & SOLUTIONS

- 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<sub>2</sub>: replaces cleaning methods using water, solvents or sandblasting, thus limiting the environmental impact of residues
- On-site installations: reduction energy consumption, transport activities and relative emissions.

## Oil & Gas



### INDUSTRIES SERVED

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

### TECHNOLOGIES & SOLUTIONS

- EOR processes with nitrogen and CO<sub>2</sub>: 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 maintenance 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, cogenerators.

## 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 & SOLUTIONS

- Waste water treatment with O<sub>2</sub>: makes purification more effective and increases purification capacity, reducing environmental impact and giving better control on effluents.
- pH control with CO<sub>2</sub>: this substitutes mineral acids (sulphuric and hydrochloric), leaving less pollutants in the water.
- 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.
- Recarbonation and remineralisation of drinking water with CO<sub>2</sub>: makes water drinkable meeting legal requirements using a certified food additive.
- Oxycombustion of waste with O<sub>2</sub>: reduction of aeriform emissions and increased control of incinerator plant with widely varying waste loads (tourist areas).
- Afterburners with O<sub>2</sub>: 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.

## Specialty gases



### INDUSTRIES SERVED

- Research centres and universities
- Healthcare sector
- Pharmaceutical industries
- Automotive
- Chemical and petrochemical industries
- Electronics
- Zootechnology
- Safety
- Environmental control
- Energy
- Metal production

- Analytical instrumentation
- Food industry
- Aerospace industry
- Laboratories

### TECHNOLOGIES & SOLUTIONS

- Chemical and pharmaceutical synthesis
- Lasers
- Burner calibration
- Sensor and leak detector calibration
- Exhaust gas calibration
- Emission and immission control
- Spirometry
- Calibration of laboratory equipment and process
- Clinical diagnostics
- Research and testing
- Inert and controlled atmospheres
- Biological research
- Underwater research
- Biological cryopreservation
- Fruit ripening
- Supercritical applications
- Magnetic resonances
- Laboratory generators
- Lamp production
- Fibre optics production
- Solar cell production
- Electronics
- Heat treatment
- Certified installations
- Sanitisation



### MEDICAL DEVICE CLASSIFIED MEDICINAL GAS DISTRIBUTION PLANTS

SOL Group designs, manufactures, certifies and operates **centralised systems for the production and distribution of medical gases**, endocavitary aspiration and anaesthetic gas evacuation within hospital facilities. The certified and high-quality components used are designed and produced by BEHRINGER, a SOL Group company active in the production and sale of devices for the supply and administration of medicinal gases.

### DISPENSING AND MONITORING SYSTEMS FOR MEDICAL DEVICE CLASSIFIED MEDICINAL GASES

SGLAB is SOL Group's company active in the development of electronic systems suitable for the control and management of technical gases and their mixtures for medical, scientific and industrial uses. It has developed CE-IVD certified Medical Devices that allow the administration and dosing, in automated or manual mode, of the nitric oxide nitrogen mixture **Penelope** and **GeaNOX**, respectively. The company also develops the **EMONO** device: a mobile evacuation device designed to draw the exhaled breath of a patient undergoing anaesthetic therapy.

### INFOHEALTH SOLUTION®

The InfoHealth® SOLution web platform **is the control room from which all the activities carried out, planned and managed within the healthcare facilities** that use the medicinal gases and medical devices provided by SOL. The same platform monitors the routine and extraordinary maintenance of medical devices, electromedical equipment and technological systems, as well as the traceability of medicinal gas packages (validated according to Good Manufacturing Practice) and mobile medical devices.

InfoHealth® Solution is also the tool for the integrated maintenance management of medical devices in ambulance fleets, as well as for the management of administrative and technical deadlines related to the vehicles themselves.

### GLOBAL SERVICE OF ELECTROMEDICAL EQUIPMENT

SOL Group is the primary operator in the **management of electromedical equipment** in health facilities, safety checks, routine maintenance and extraordinary emergency repair interventions, under the global service regime.

The skills acquired in over 30 years of activity by SOL Group companies, combined with the constant monitoring of the performance provided by the electromedical equipment, allow the Group to of-

fer its experienced support to healthcare facilities in the definition of asset management programmes relating to the planning of the entire life cycle and the periodic renewal of the machine fleet.

### HOSPITAL HYGIENE AND ENVIRONMENTAL MONITORING

SOL Group offers integrated hospital hygiene management programmes: from the **design, construction and operation of sanitary water and air conditioning treatment and sanitation systems**, to the turnkey construction of surgical instrument sterilisation plants (including integrated management).

To protect the health of staff and patients, the Group offers healthcare companies environmental, particulate, microbiological, microclimatic and specific pollutant monitoring services (such as anaesthetic gases and formaldehyde in operating environments), scalable for each type of room, in order to make the impact on healthcare activities negligible according to the actual exposure limits established by current regulations.

Particular attention was dedicated to environmental monitoring services during the pandemic and contributed to **increased awareness of the healthiness and pollution of healthcare environments**, enabling SOL to provide specialised services for environmental monitoring and sanitation.

### EMERGENCY CARE

Patient care begins from the moment patients are transferred to the hospital. The Emergency Care service ensures emergency associations the **complete take-over and management of the vehicle fleet** including both its sanitary compartment and medical equipment (maintenance, periodic checks, electrical safety checks, sanitation), and for the vehicle, with the related periodic maintenance activities.

### DESIGN AND DEVELOPMENT OF BIOBANKS

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

**Turnkey solutions** are offered, including the design, construction of premises, provision of all devices and maintenance and training services and, where requested, also specialised biotechnological services, including validated sample traceability software.

### DISASTER RECOVERY

The Disaster Recovery service **guarantees the transfer and storage, in emergency situations, of biological samples** from public and private structures to cryobiological rooms owned by SOL Group.

CRYOLAB is authorised by the Italian Ministry of Health, the National Transplant Centre and the National Blood Centre for the long-term storage - or in cases of disaster recovery - of human gametes, stem cells and blood and blood derivatives.

### BIOSHIPPING

The Bioshipping service authorised by the Ministry of Health makes it possible to **transport biological samples all over the world in completely safe and traceable conditions**, with continuous temperature monitoring and tracking.

This service is highly important since it is also used for delicate and often unique samples such as gametes. CRYOLAB, in particular, is able to satisfy the reliability and very high specialisation requirements established by applicable regulations for Medically Assisted Procreation structures.

## The emergency-urgency world of SOL Group

From decades of experience in healthcare: the 'Emergency Care' service.

SOL Group has developed the 'Emergency Care' package over the years: a proposal of products and services to guarantee the best performance of emergency vehicles and the safety of patients and health workers. To date, there are **more than 250 ambulances** throughout Italy managed with this formula.

The development of an **integrated offer** has been possible thanks to several factors, including: the experience gained in public and private healthcare, the continuous interaction with professionals in the sector, and the presence within the Group of companies specialising in multiple fields of the healthcare sector.

The main activities performed by the Group within the service include performing specific tests and trials in accordance with the specific UNI EN 1789 standard for ambulances; providing a specific service to check the purity of the gases supplied by the mobile unit's system, and innovative sanitising services; dealing with the digitalisation of the non-hospital emergency report and computerisation on board the vehicle to guarantee the management and continuous monitoring of ordinary and extraordinary maintenance; supplying the crew with the medical devices to equip the vehicle.

SOL is constantly striving to develop new technologies and services to support the emergency world, and it is for this reason that it has become a **highly qualified supplier and partner** of choice for associations, red crosses, cooperatives and public authorities.





### VIVISOL for home care

In Italy, Europe, Brazil and Turkey VIVISOL is one of the leading **Home Care Providers** of Technological and health services for complex therapies and often life support for chronic patients.

In a demographic context characterised by progressive population ageing and in an epidemiological panorama marked by an increase in major chronic diseases, the role of Home Care Providers becomes increasingly relevant for the **optimised management of chronic patients**, who often suffer from multiple conditions as well as vulnerability. In fact, adequate models of home care provided by specialised providers have a positive impact both on the health and well-being of patients and on the sustainability of different national healthcare systems.

VIVISOL has a **widespread presence in all the countries in which it operates** thanks to a local network of Health Service Centres and Operational Centres active 365 days a year, 24 hours a day, from which home activities are coordinated and managed for over 585,000 patients worldwide.

### RESPIRATORY THERAPIES

VIVISOL provides **oxygen therapy** services for people suffering from chronic respiratory failure at home but also temporarily in other locations. Through the **ViviTravel** service, VIVISOL can guarantee patient care while travelling throughout Europe.

Thanks to close partnerships with well-established manufacturers worldwide, VIVISOL has used the best technologies over the years to guarantee the patient complete management of respiratory therapy through invasive and non-invasive **home mechanical ventilation**. Supporting ventilatory therapy, VIVISOL assists the most complex patients also with complementary technologies and assistance including bronchoaspiration, cough assistants and humidifiers. VIVISOL also provides an **aerosol therapy** service, which is used in the treatment of many diseases, including cystic fibrosis.

VIVISOL is one of the leading companies in the market for the diagnosis and **treatment of respiratory sleep disorders**. Innovative diagnostic solutions and personalised therapeutic care are supported by remote monitoring of patient status with the aim of improving treatment completion rates.



### INFUSION THERAPIES

To support patients requiring intravenous or subcutaneous home drug therapy, VIVISOL (together with industry experts) has designed a series of dedicated services for: **artificial nutrition, insulin therapy** with pumps, **immunotherapy**, the **treatment of pain** and **Parkinson's** disease.

Each service involves a careful **selection of the medical device** by a highly specialised multidisciplinary team. This is supported by **training** for the patient and the caregiver (clinicians, nurses or any family members) on the use of the device, the coordination of activities for the management of the patient upon return from the hospital and the dietary and nursing care dedicated to them, with the aim of ensuring continuity of care at home as best as possible.

**InfuSol** was created in 2019, the new brand of SOL Group's Home Care division dedicated to infusion therapies, and is now active in France.

### HOME AND PALLIATIVE CARE

VIVISOL provides **home healthcare and social care services** for patients with temporary or chronic clinical needs through medical, nursing and rehabilitation teams. The various healthcare activities are managed from 24-hour Operations Centres and on IT platforms that allow a flow of communication between the VIVISOL operators, the patient's clinical referent and the patient himself/herself, guaranteeing reliability and efficiency. VIVISOL has acquired specific know-how in the **management of highly complex patients**, who are guaranteed personalised care, integrating healthcare services with the management of life support technologies. VIVISOL has a structured **palliative care** network

for patients with oncological and degenerative diseases for which there are either no specific therapies or such therapies are ineffective for a significant life extension. These benefits can be provided at the patient's home or in **hospices** (as in Germany and Poland). VIVISOL also has specialised facilities dedicated to psychogeriatrics to assist the neuro-psychological decay of elderly patients, and protected apartments for people with complex disabilities which are designed according to the clinical-care needs of the patient.

One of VIVISOL's strengths is the **continuous training** of its healthcare and technical operators, who are constantly specialised through specific training courses for the different home activities in order to offer increasingly high-quality service.

### TELEMEDICINE AND DIGITAL SERVICES

VIVISOL has consolidated experience in **telemedicine** services. The constant search for innovative solutions to improve the patient's quality of life and the related need for therapeutic adherence have led to the development of a model that combines home care with the possibility of remotely monitoring important clinical and vital patient parameters: advanced monitoring of respiratory function, predictive capacity for COPD flare-ups (using the innovative Resmon Pro Diary device), telemonitoring of nutritional therapy (via automated transmission of pump data) and home dialysis, remote supervision of skin lesion management with specialised vulnologists, technological enhancement of healthcare activities and home palliative care.

To manage the complexity of these activities and to improve the patient care path at home, VIVISOL has set up a **Remote Clinical Centre**. This is a health centre composed entirely of medical staff

### VIVISOL evolution in 30 years of experience

1986



#### HOME OXYGEN THERAPY

Oxygen therapy resulted from the production of medical O<sub>2</sub>

1996



#### DEVICE AND SERVICES MANAGEMENT

Progressive diversification of activities through high-tech home services

2005



#### HOME HEALTH CARE SERVICES

Provision of health and rehabilitative services also of high assistance complexity (including palliative care)

2018



#### MANAGEMENT OF CHRONIC PATIENTS COURSE OF CARE

Integration of the health care element and technological one with a multidimensional and multi professional approach

and nurse coaches who support the patient in the management of their therapy and the hospital specialist (or local doctor) in the remote care of the patient, allowing constant monitoring of clinical outcomes.

#### HOME DIALYSIS

VIVISOL integrates services designed for the **nephropathic patient's home care**, with a special focus on the dialysis patient. The services developed by VIVISOL, in line with its patient-centred approach, propose therapies capable of **adapting dialysis treatment to the lifestyle and possible comorbidities of the nephropathic patient**, providing continuous assistance during the different stages of treatment.

#### HEALTHCARE AIDS

VIVISOL has extensive experience and strong skills in the **management and supply of healthcare aids**, with which it offers a service including delivery to the patient's home, technical assistance, maintenance, sanitation, disinfection and online software for the computerisation of data.

Thanks to the information technologies applied to overcome disabilities, VIVISOL provides an **alternative augmentative communication** service that allows patients without motor skills to have autonomous communication, including through an **eye pointer**.

### VIVITOP: the new SOL Group brand

**A further step towards expanding the offer in the field of aids.**

Thanks to the purchase of a 51% stake in ITOP Spa OFFICINE ORTOPEDICHE by SOL Group, VIVITOP was established in 2022: a brand that symbolises **excellence in offering customised, high-level technological services and products**.

This intervention follows the investment made in May 2022 by the subsidiary ILPOINT, acquired in 2004, to double the exhibition space of its Verona shop and the construction of a new orthopaedic workshop. It is also part of the strategy to diversify into sectors that are synergistic with those in which it already operates, thanks to VIVISOL's home care service in this case.

By combining the specific expertise of the three companies and enhancing the strengths of each, the new brand encapsulates the three souls of the companies forming it, representing a **real novelty in the sector**: the patient can thus take advantage of extremely customised and innovative services and products that correspond to the highest standards of 'Made in Italy' production, enhanced by a human and empa-

thetic approach to the customer, who can go directly to the reference shops in the area.

With this strategic direction, on the one hand SOL Group **consolidates its role within the orthopaedic sector**, and on the other is increasingly oriented towards technological innovation, thanks to ITOP's **significant focus on research and development** which is tailored to the ever-increasing needs of both adult and paediatric patients with serious orthopaedic and neuromuscular diseases.



## THE COMMITMENT IN THE FIELD OF BIOTECHNOLOGY



### Diagnostics

**PERSONAL GENOMICS**, a medical genetics laboratory accredited by the Veneto Region and SIGUCERT certified, offers **diagnostic services in the field of medical genetics analysis**. The laboratory in Verona develops new genetic panels for clinical diagnostics in the field of oncology, cardiology, gynaecology and rare diseases. Alongside these activities in support of preventive and precision medicine, genetic and bioinformatic analyses are carried out to support the scientific research activities.

**DIATHEVA** develops innovative diagnostic systems which allow identification and quantification using DNA amplification techniques of pathogens in any matrix and for any requirements. DIATHEVA also has a proprietary pipeline for the development of new biological drugs in oncology.

The installation of a new area dedicated to the Formulation and Filling of biological drugs for clinical trials was completed in 2022.

### Biotechnology and biomedical research and applications

DIATHEVA focuses on the research, development, production and marketing of **innovative products** (such as monoclonal antibodies, recombinant proteins, molecular kits) **for research, diagnosis and clinical application in the hospital, environmental, veterinary and food sectors**. In addition, the company has conducted studies and research that allow it to operate as a qualified partner of large pharmaceutical companies in the oncology sector, in relation to microbial and viral infections, and pharmacogenetics.

DIATHEVA aims to translate the results of basic research into industrial applications in the biomedical and industrial fields by cooperating with public and private companies and research institutions.



## Predictive genetic tests for bone diseases from PERSONAL GENOMICS

Since 2022, SOL Group has been able to offer tests for the genetic diagnosis of bone diseases.

The tests are for all patients within a diagnostic pathway of a mineral and bone metabolism disorder of genetic aetiology, such as congenital bone dysplasia, bone mineralisation defects and congenital parathyroid disorders.

To perform the three types of tests currently available, PERSONAL GENOMICS uses a **bioinformatics protocol** covered by a patent owned by the company and allowing it to offer tests with unique characteristics. The analyses performed with these tests have analytical sensitivity and specificity exceeding 99% and are therefore useful in corroborating diagnoses and determining the most appropriate therapeutic strategies.

Patients embarking on this pathway have a **complete and integrated service** at their disposal. Following the instructions of the referring doctor, they can contact the customer care service to book a consultation with the PERSONAL GENOMICS geneticists on a dedicated platform and arrange to take the necessary blood sample directly at the patient's home.

Once the sampling, DNA extraction, library preparation, sequencing and related bioinformatic analyses are completed, the report is available in 30 working days.

The service is available under the National Healthcare Service or on a paid basis, and has been available throughout Italy since this year and is being activated internationally.



## CUSTOMER AND PATIENT SATISFACTION

SOL Group monitors customer and patient satisfaction, with the aim of analysing the perception of its service and identifying the areas and services in which quality improvement is possible.

Customer satisfaction is verified through the constant **monitoring of key performance indicators** (customer and patient complaints, response times to customer orders and patient requests, etc.), allowing prompt activation of the necessary corrective actions.

During 2022, some Group companies carried out **ad hoc surveys** that involved 651 customers in the technical gases division and 15,340 patients in home care. These surveys proved very useful and revealed customers' and patients' very positive perception of SOL Group and the service provided.



## SUPPLIERS

SOL Group is aware that the role of the supplier is becoming increasingly important to be able to effectively respond to the new sustainability challenges, seeking to involve the entire value chain more deeply. The suppliers in contact with the company are asked to uphold SOL's value system, as it is deemed an effective and safe mechanism for the correct and transparent management of relations.

The main products and services purchased by the Group companies are electricity, resale gasses and transport, maintenance, technical and nursing assistance services. On the other hand, the choice of supply sources for capital goods and resale products is wider: mainly production facilities, tanks, reservoirs, cylinders for the technical gases division and medical devices for the home care division.

In 2018 the Group issued a **Directive** (document valid for all Group companies) in relation to the **supplier evaluation** process

in a **risk analysis** logic. In 2022, **94% of the critical suppliers** qualified during the year was **audited and assessed** in relation to environmental and social sustainability issues (including health, safety, environment, human rights, anti-corruption, compliance).

Furthermore, **87 supplier audits** were performed, which mainly concerned aspects connected to quality, environment, health and safety.

Suppliers are required to comply with the Group Code of Ethics and, in Italy, also the Organisation, Management and Control Model pursuant to Italian Legislative Decree 231/01, as well as the Group's safety and environment policies, and they are asked to apply them in the conduct of their activities.

# THE ENVIRONMENT

## 28.824

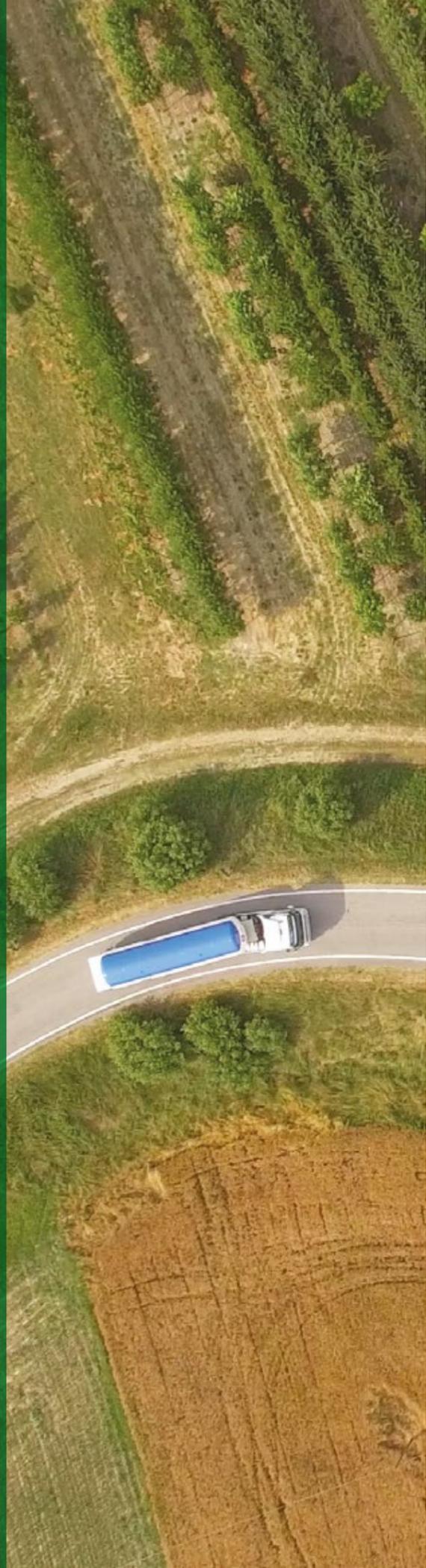
ton CO<sub>2</sub> equivalent avoided for the production of energy from renewable sources

## 43.760

ton CO<sub>2</sub> equivalent avoided thanks to the construction of on-site plants

## 153.646

ton CO<sub>2</sub> recovered from other processes, purified, and reintroduced on the market



## MAIN ENVIRONMENTAL ASPECTS

SOL Group's most significant environmental aspect is its consumption of **electricity in the production plants**. In addition to electricity, the consumption of water used for the cooling process equipment can be significant.

The activities of SOL Group instead have a **negligible impact on biodiversity**, since the production units are relatively small and located in industrial areas.

Most of the **raw materials** used for the production of technical gases consist of **renewable resources**. Furthermore, the substances produced and handled by SOL Group do **not** pose a **polluting risk to the soil and subsoil**. The following table shows the raw materials used and related environmental aspects for the main types of production plants.

TYPE OF PLANT	NUMBER	RAW MATERIALS	ENVIRONMENTAL ASPECTS
<b>Air separation units (ASU)</b>	17	The process of air separation for the production of oxygen, nitrogen and argon is a physical process that uses atmospheric air as its raw material.	The process has significant indirect environmental impacts due to the consumption of a large amount of electricity. On the other hand, it does not use raw materials other than atmospheric air and involves negligible emissions of CO <sub>2</sub> , sulphur oxides (SO <sub>x</sub> ) and nitrogen oxides (NO <sub>x</sub> ), already present in the treated air.
<b>Hydrogen production plants</b>	2	The raw materials are natural gas and water (steam) which chemically react with each other to produce hydrogen.	Hydrogen production plants emit CO <sub>2</sub> as a sub-product of the chemical reaction and negligible quantities of nitrogen oxides (NO <sub>x</sub> ). Added to this is the consumption of methane for heating process currents.
<b>Nitrous oxide production plants</b>	4	These use ammonium nitrate, either solid or in water solution, as a raw material in a thermal dissociation process.	N <sub>2</sub> O production plants can emit the gas produced (greenhouse gas) through vents, and consume electricity to bring the ammonium nitrate to reaction temperature. Chemicals (H <sub>2</sub> SO <sub>4</sub> , KMnO <sub>4</sub> , NaOH) are used for the purification of nitrogen oxide.
<b>Acetylene production plants</b>	5	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. Otherwise the lime is disposed of as waste.
<b>Plants for purifying and liquefying carbon dioxide</b>	6	The raw material is carbon dioxide, 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.	The main environmental aspects are related to CO <sub>2</sub> process vents and the use of hazardous substances for the extraction of CO <sub>2</sub> from process streams (e.g., MEA in the case of stream separation processes of hydrogen production plants).
<b>Sulphur dioxide production plants</b>	1	The raw materials are oxygen and sulphur, from chemical plants or petroleum refining processes. The sulphur is reacted in a controlled manner with an oxygen stream.	The main environmental aspects concern the storage of sulphur and possible emissions in an emergency.
<b>Nitrous oxide production plants</b>	1	The process uses ferrosulphate and sodionitrite in an aqueous solution, in a batch process.	The reaction results in spent aqueous chemical solutions containing mainly sulphates as by-products which are disposed of as waste.

# ENERGY

## Energy consumption

SOL Group uses **electricity, methane and steam** as energy vectors.

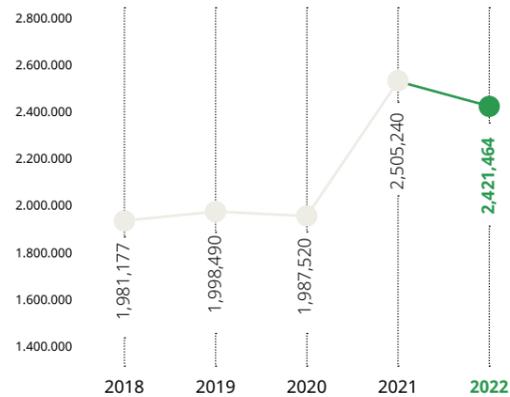
**Electricity consumption in primary production plants** is the **most significant** in terms of environmental impact. In fact, both the compression of gases and their liquefaction are highly energy-intensive operations: it is estimated that these activities constitute about **90% of the energy consumption** of the whole Group.

Conversely, the consumption of methane and steam in primary production plants, and electricity in secondary production plants and offices, have a negligible impact on total consumption.

The measures for reducing energy consumption mainly consist of care in the design and operation of production sites, process optimisation and plant renewal, activities to which significant portions of investments are allocated each year.

Consumption trends are strongly influenced by production levels and the operating speeds of production plants. Energy consumption was almost constant in 2022, even considering the specific values on production.

### ELECTRICITY CONSUMPTION (Gj)



## Energy production from renewable sources

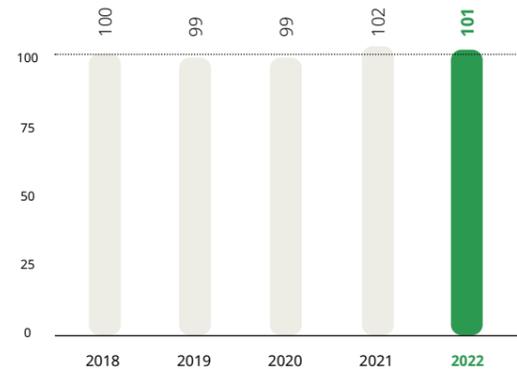
The awareness of the environmental impact of the Group's highly energy-intensive primary activities has led SOL Group to invest in energy production from renewable sources since 2002.

To date, 16 hydroelectric power plants are currently in operation, located in Albania, Bosnia-Herzegovina, North Macedonia and Slovenia, with a total installed capacity of approximately 31 MW. The electricity produced and sold to the grid for the current year amounted to 280,429 GJ, and corresponded to 12% of the Group's energy consumption.

In 2022, it is estimated that **28,824 tonnes of CO<sub>2</sub> equivalent have been avoided** thanks to the generation of electricity in the Group's hydroelectric power plants.

### ELECTRICITY CONSUMPTION (MWh) PER Nm<sup>3</sup> OF GAS PRODUCED (BASE 2018=100)

The indicator is calculated on the basis of the electricity consumption of the air separation units (ASU)



## SOL Group's investments in renewable energy

SOL Group continues to keep a close eye on the renewable energy sector.

In Europe, both TAE HELLAS, as of July 2019, and VIVI-SOL Srl\*, as of January 2022, have signed **renewable energy supply contracts** with their suppliers, and in 2022 they achieved the important goal of covering 100% of their electricity consumption with green energy certified by Guarantees of Origin (GO).

VIVISOL UK has been certified **Carbon Neutral<sup>®</sup> since 2020**. The path towards Carbon Neutrality has involved several corporate functions and stakeholders in projects and initiatives that have led to increasingly ambitious targets for calculating, reducing and offsetting carbon emissions.

SOL INDIA has signed a **Power Purchase Agreement (PPA)** which allows 34% of energy consumption to be covered by wind and solar power.

The Indian company GREEN ASU PLANT PRIVATE LIMITED, which powers all its plants with **self-generated renewable energy from its own wind farm**, was newly acquired in 2022. In addition, **new investments** are planned **for the installation of photovoltaic panels** on some production plants of the Group.

\* The energy consumption of VIVISOL Srl is not included in the reporting scope of this Sustainability Report, where the consumption of primary production plants is reported.



# GREENHOUSE GAS EMISSIONS

SOL Group's greenhouse gas emissions can be allocated to the following categories:

- **Direct emissions** from production facilities and the use of vehicles under the direct control of the Group (**Scope 1**);
- **Indirect emissions** from electricity consumption in primary production plants (**Scope 2**);
- **Indirect emissions** occurring along the Group's value chain (**Scope 3**).

As part of an improvement in the reporting process, the Group has adopted a different classification of the emissions produced, effective as of the 2022 data. In particular, emissions related to transport activities associated with the distribution of products and the provision of home care services, which were previously considered as a separate category ("direct emissions for activities related to the transport of products to customers and patients"), have been allocated to Scope 1 or Scope 3 categories based on the ownership of the vehicles used (respectively of the Group or of third parties). Furthermore, direct Scope 1 emissions also include those generated by the company car fleet, limited to the Italian perimeter.

Where the characteristics of the gas and the customer's needs permit, it is possible to install self-production plants for technical gases at the customer's premises, known as **"on-site plants"**, an alternative to the traditional supply of cylinders or liquefied cryogenic gases. The **environmental benefit** stems from the fact that on-site plants have a lower specific energy consumption than centralised production plants; secondly, emissions due to the transport of gases by road are avoided. In 2022, the avoided carbon dioxide emissions amounted to **43,760 tonnes** of CO<sub>2</sub> equivalent.

## Direct emissions (Scope 1)

**Direct emissions of greenhouse gases** are caused by:

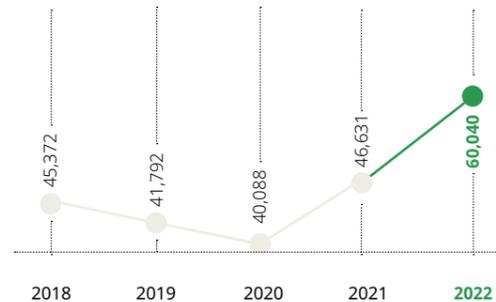
- Carbon dioxide: a by-product generated by the plants producing hydrogen through the steam reforming of methane, emitted from the plants producing CO<sub>2</sub> or vented during the dry ice production process;
- Nitrous oxide: emitted from plants producing N<sub>2</sub>O from ammonium nitrate;
- HFC (hydrofluorocarbons), used in plant refrigeration circuits;
- Emissions from directly controlled Group vehicles (owned or leased) used for the delivery of products and services to customers and from company cars.

In 2022, direct emissions have mostly risen due to an increase in dry ice production.

For 2022, a different **emission classification was adopted, regarding vehicles for customer and patient activities**, in accordance with the GHG Protocol. Direct Scope 1 emissions include emissions from vehicles under the direct control of SOL Group (owned or leased by one of the Group companies). These vehicles are used for transporting products to patients' homes and for home care services. The emissions amounted to 3,543 tonnes of CO<sub>2</sub> equivalent. As for vehicles operated by third-party suppliers, the emissions produced are reported in Scope 3.

With the aim of improving emissions reporting, data on **company car emissions** was also collected, limited to the Italian scope. These emissions amounted to 904 tonnes of CO<sub>2</sub> equivalent for 2022.

## DIRECT (SCOPE 1) GREENHOUSE GAS EMISSIONS (tCO<sub>2</sub> EQUIVALENT)



Emissions from the Caserta and Cremona units in Italy and Ranipet in India have been estimated. Data for 2018-2021 do not include emissions from company cars in Italy and home care vehicles under the direct control of the Group.

## The recovery and use of carbon dioxide

**Carbon dioxide is a gas with many applications in industry:** its uses range from water treatment to metalworking, and even food industry processes, where it is used for cooling, freezing and transporting food. This gas is extracted from multiple sources; in fact, it can be obtained either from natural underground deposits or as a by-product of chemical and biological processes.

For several years now, SOL Group has been investing in facilities that **recover carbon dioxide from production processes**, preventing its release into the atmosphere. Carbon dioxide can thereby be purified and subsequently marketed in liquid form.

The main plants dealing with the treatment of CO<sub>2</sub> obtained from bioethanol are those in Bulgaria (Ihtiman), Germany (Zeitz) and Belgium (Wanze). In 2022, **153,646 tonnes of CO<sub>2</sub>** were recovered, which would have otherwise been released into the atmosphere.

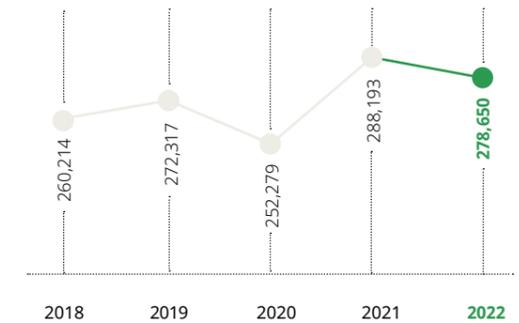
In 2019, SOL Group also contributed to the foundation of a consortium in Italy, of which it currently holds 50%, for the recovery of CO<sub>2</sub> from biogas generated by the anaerobic digestion of the organic fraction of municipal solid waste (FORSU).



## Indirect emissions (Scope 2)

Starting from the energy supply mix analysis, indirect emissions generated by the production of the electricity acquired by SOL Group for its production plants were calculated. These emissions amounted to **278,650 tonnes of CO<sub>2</sub>** equivalent (calculated using the 'market based' method), a decrease compared to 2021 thanks to the initiatives carried out by the Group.

## INDIRECT (SCOPE 2) GREENHOUSE GAS EMISSIONS (tCO<sub>2</sub> EQUIVALENT)



## Indirect emissions (Scope 3)

Being aware of the impact also created along its value chain, although not under its direct control, SOL Group has implemented a **methodology for calculating its Scope 3 emissions**, according to the GHG Protocol guidelines of 2021. As a result of an improved reporting process for emissions along the supply chain, the category 'Transport and downstream emissions' was added to Scope 3, with respect to transport emissions by third-party suppliers.

Transport is an issue of great impact from both an environmental and safety point of view. This is due to the fact that the products and services are mainly distributed using road transport and are delivered to an extremely widespread customer base. The chemical and physical characteristics of the products distributed also make it necessary to use special vehicles for transportation (super-insulating tankers for cryogenic liquids) or specific containers (cylinders for compressed gases and base units for liquid oxygen for home care use).

In order to calculate the emissions caused by deliveries of home care products by third party vehicles, a new methodology was



### The 'Sustainable Seal' project

A more sustainable initiative for cylinder shrink-wrapping.



The 'Sustainable Seal' project is the winner of the 'Environment' category of the Group's 'Little Big Innovations' initiative, which is aimed at employees in order to promote social responsibility at an individual and collective level through their active involvement in project proposals.

The project arose from a quantitative observation: shrink wrap, an essential seal for pure, industrial and medical gas cylinders, is used in large quantities, reaching volumes of more than 2 million sheets per year in Italy alone. As a consequence, SOL took up the challenge to **devise a solution to reduce plastic waste on a large scale.**

Cooperating with leading suppliers, the managers examined various options available on the market. After a careful evaluation and technical

tests, they selected **an alternative now available** to the entire Group, which is valid in many respects:

- **Quality**, ensuring faster heat-forming operations thanks to a thinner film;
- **Economically** sustainable due to price comparability with the old product;
- **More environmentally friendly**, as the new product is made of polyester (PET) or polyolefins (PE, PP), which are recyclable materials and are partially produced from recycled materials, reducing the overall environmental impact.

The Group's commitment does not stop here, but continues with the search for new materials that are even more sustainable, starting with a higher proportion of recycled material, and aiming to the adoption of a compostable product.

## WATER RESOURCES

The responsible management of water resources is a very important element in SOL Group's strategy, in line with its principles. For the Group, managing water resources consists of:

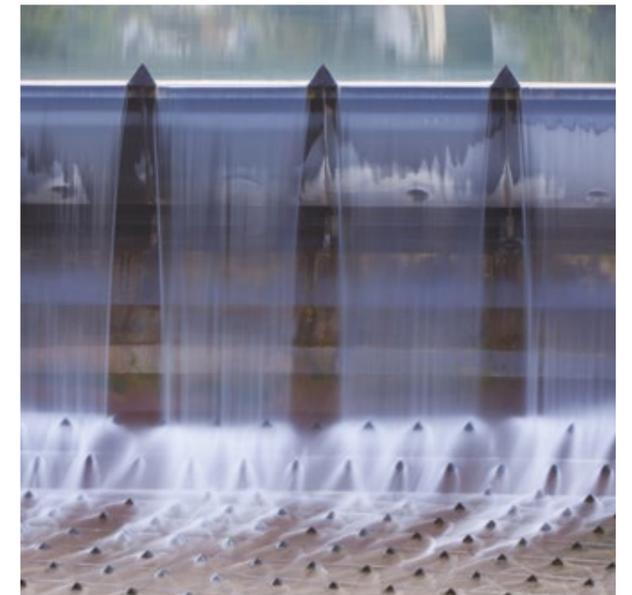
- Optimising the use of water in its plants, reducing withdrawals to a minimum also through the implementation of investments in recycling;
- Promoting research and application at customer sites of technologies which, through the use of technical gases, improve processes such as the treatment of wastewater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

Most of the withdrawn water is used in the **cooling circuits** of machinery inside the primary processing units. A small part is used as **raw material for the production of hydrogen** for the steam reforming process.

With respect to the cooling of ASUs, there are two types of systems in place: most units have systems in which water evaporates during the cooling process, and only a small amount of water is returned. In the remaining separation units, the amount of water extracted and fed into the system for cooling is totally retained. In this case, water consumption is considered to be zero. In both cases, the cooling process has no material impact on the quality of the returned water.

The estimated water use in secondary processing plants and offices is negligible, therefore, water consumption is not reported.

The figure for 2022 is in line with previous years.



### WATER WITHDRAWALS (Megaliters)

	2018	2019	2020	2021	2022
Water network	62	72 (27)	63 (22)	85 (61)	103 (46)
Well	1,435	1,317 (506)	1,266 (461)	1,552 (686)	1,430 (558)
<b>Total</b>	<b>1,498</b>	<b>1,390 (533)</b>	<b>1,329 (483)</b>	<b>1,637 (747)</b>	<b>1,533 (604)</b>

Withdrawals from high and extremely high water stress areas are shown in brackets. The Aqueduct tool developed by the World Resources Institute was used to determine the areas subject to water stress.

## PRIMARY PRODUCTION PLANTS CERTIFICATIONS

COUNTRY	UNIT	PLANT TYPE	ISO 14001	Emas	ISO 50001	ISO 45001
<b>Albania</b>	Tirana	Sulphur dioxide production	●			●
<b>Belgium</b>	Feluy	Air separation (ASU)	●			
<b>Bosnia-Herzegovina</b>	Petrovo	Carbon dioxide production	●			
<b>Bulgaria</b>	Devnya	Air separation (ASU)	●			●
<b>Germany</b>	Burgbrohl	Carbon dioxide production			●	
	Frankfurt	Air separation (ASU)			●	
	Zeitz <sup>2</sup>	Carbon dioxide production			●	
<b>Greece</b>	Florina	Carbon dioxide production	●			
	Schimatari	Air separation (ASU)	●			
<b>Italy</b>	Ancona	Acetylene production	●			●
	Augusta	Air separation (ASU)				●
	Marcianise	Nitrous oxide production				●
	Cremona	Nitrous oxide production	●			●
	Cuneo	Air separation (ASU)				●
	Mantua	Air separation (ASU)	●	●		●
	Monza	Nitrous oxide production				●
	Novara	Air separation (ASU)				●
	Piombino	Air separation (ASU)				●
	Ravenna	Hydrogen production	●			●
	Salerno	Air separation (ASU)	●			●
	Verona	Air separation (ASU)	●	●		●
	<b>North Macedonia</b>	Kavadarci	Air separation (ASU)	●		
Skopje		Air separation (ASU)	●			●
Skopje		Hydrogen production	●			●
Bitola		Carbon dioxide production	●			●
<b>Netherlands</b>	Tilburg	Nitrous oxide production				●
<b>Slovenia</b>	Jesenice	Air separation (ASU)	●	●	●	●

(2) Production plant of CT Biocarbonic, a jointly controlled company consolidated using the equity method and therefore excluded from the reporting scope of this Sustainability Report.



# PEOPLE AND THE COMMUNITY



**5,751**  
total employees

**94%**

of employees have a permanent contract

**82%**

companies in Italy that achieved The 'Zero Accidents' target vs 78% of companies abroad

## OUR PEOPLE

Creating a work environment geared towards the growth and well-being of employees is an essential requirement for a Group like SOL, which aims to attract, retain and develop the talent of younger people and to expand the knowledge and skills of more senior figures with a single objective: to feel part of a broad, shared growth project.

### Staff trends

As a result of the various acquisitions in Brazil, Germany, India, Ireland and Italy and organic growth, SOL Group recorded a **13% increase** in the total number of employees in 2022 compared to the previous year. Net of the change in the scope of the company, the increase was 7%. As at 31 December, there were **5,751 people in the Group**, 60% of whom were men and 40% women. 94% are employed with permanent contracts.

Attention to employees' well-being and stability is also ensured by the measures taken by the Group aimed at creating a collaborative environment that ensures adequate support for balancing work with the needs of personal and family life. There are 824 voluntary part-time positions in place, corresponding to 14% of employees.

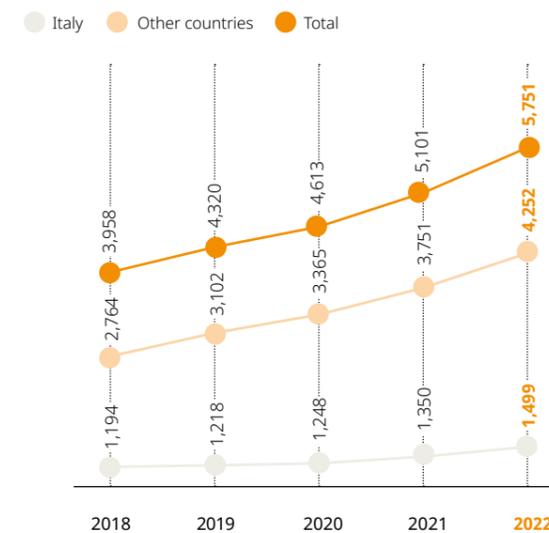
In the face of the Group's continued growth, the contribution of young talent is considered a valuable and fundamental resource for future development open to innovation. In 2022, this resulted in the **recruitment of 1,227 employees**, 32% of whom were under 30 years of age and 53% women.

The Group's overall **turnover** was 13%: lower in Italy (10%) compared to the other countries (15%). The turnover dynamic continues to feel the effects of strong competition on the international market and a worldwide phenomenon of increased voluntary resignations (*great resignation*); in particular, turnover has affected profiles linked to the healthcare sector, where the Group is strongly exposed, and digitalisation projects to a greater extent.

The overall **absenteeism rate** was 5% in 2022, but the rates in Italy and abroad were quite different. In Italy it was 3%, while in the foreign companies there was an absenteeism rate of 6%.

In addition to its direct employees, the Group relies on around 2,450 external collaborators, such as nurses, doctors, physiotherapists, particularly for certain services provided to patients at home.

### EMPLOYEES BY REGION (no.)

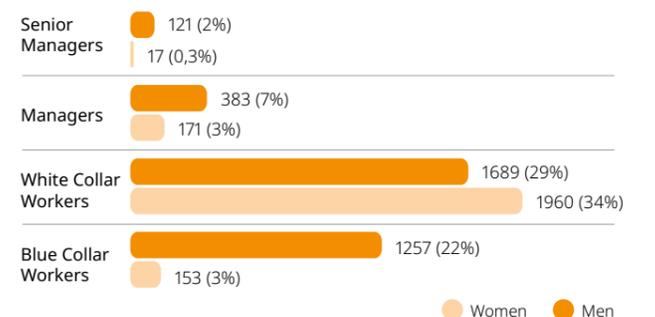


### EMPLOYEES BY GENDER (no.)

**3,450** Men    **2,301** Women



### EMPLOYEES BY ROLE AND GENDER (no.)



## The Group's training pathways

In SOL Group, **professional development** is at the heart of every employee's journey. Therefore, continuous training - in all its different forms - has taken on an important role in the company's day-to-day life.

From the very first days in the company, in fact, the importance of training within the Group is emphasised thanks to the **Onboarding initiative** for welcoming new colleagues, held in-person at the Monza headquarters or remotely. In addition to introducing newcomers to the Group, its history and business organisation, the activity offers the first training meetings (led by the Corporate Quality, Safety, Environment, Regulatory Affairs and Sustainability Department) on key cross-cutting topics and provides an opportunity to get to know the function manager of the area they belong to.

During their professional career in the company, each employee is encouraged to cultivate their skills and inclinations and to develop new ones; to this end, SOL finances various **master's degrees and qualifying study courses**, enabling employees of all kinds, ages and levels to pursue training suited to their professional figure and development.

In addition to this possibility, and again with the aim of promoting professional development, **training hours dedicated** to specific topics are available.

In 2022, there were 17 training hours per employee.

There is a special focus on training for employees under 35: the **SOL YOUth Academy** is specifically dedicated to them. The initiative was created in 2018 and is focused on project management, business presentation and self-leadership, which is organised by alternating in-person lectures held by experts in the field with team working activities.

Given the success of the Italian edition, the SOL YOUth Academy became international in 2021: several young professionals from SOL offices around the world were involved in 2022, with the aim of growing professionally and developing new skills from both a technical and managerial perspective. An enrichment that went beyond the scope of work thanks to the composition of the class, consisting of people with different company roles in terms of tasks and duties and from different countries, which also enabled interesting multicultural exchange, an essential element for the target audience (Generation Y or millennials).

The training activities considered useful not only for the individual employee but above all for group dynamics included team-building projects: examples are the activities conducted at the Salerno plant with a team-building activity called **'Safety Bricks'** dedicated to the theme of safety; and those at Personal Genomics, with a **'crime' themed activity** that marked the end of a course aimed at carrying out a climate survey within the company.

## Collaboration with the academic world

One of the main pillars of SOL Group's corporate culture is contributing to the development of talent. For this reason, partnerships with different universities are of crucial importance. In particular, the Group regularly interfaces with the The Polytechnic University of Milan thanks to frequent meetings throughout the year.

Through these moments of contact with students, the company has the opportunity to make itself known and to offer them assessment, orientation and recruiting activities, providing a tangible service for young people entering the world of work for the first time.

The Group continues to provide training projects for the Collège des Ingénieurs Italia, a management training institute, by making the skills and experiences of its people available. The strength of this initiative is not limited to the sharing of specialist know-how, but lies in the opportunity for young talents to alternate a six-

month work experience in the company with their Master's degree in the classroom.

Another important synergy is the one currently in place with IS-TUD, in particular with respect to the Master's degree 'Scientists in the Company' focused on managerial training in the pharmaceutical and biomedical fields, and the related Career Day.

Lastly, the Group's HR Department took part in several events in collaboration with leading Italian universities again in 2022 in order to introduce its business to the community of recent graduates in scientific subjects, particularly through the Almalaura network.

## Employee engagement

With a major international expansion, keeping employees informed and engaged is an increasingly important corporate prerogative. In fact, SOL Group considers internal communication

## Diversity, equity and inclusion at the heart of the Group's training projects

### Activities implemented and the road towards the Manifesto.

Diversity is an intrinsic condition in a business context, especially within a large multinational group such as SOL Group. With the corporate training pathway 'Diversity, Equity & Inclusion: Be Unique Together', the Group has set itself the goal of continuing to inform and raise awareness on the topic of diversity and inclusion, so as to generate greater awareness and more opportunities to enhance these aspects within the corporate context.

To this end, several activities were launched in 2022: a **short course of training snippets** was created and made available to all Group colleagues, dedicated to the main topics related to the theme of social inclusiveness and offering an opportunity for reflection and training useful for understanding and managing the

dynamics related to it; and a **training session was organised for the HR managers** of the main foreign companies, coordinated by the corporate HR Department, to jointly undertake a path of awareness and enhancement on the subject as well as to build the Group's **policy** in this area.

In fact, they worked on drafting the **Manifesto** during the last HR meeting: **simplicity, transparency, universality of language, and naturally, fairness** were the guiding values identified, which were then further translated into concrete actions, targets to be achieved and KPIs; in other words, into a policy that will soon be made available throughout the Group, aimed at promoting an increasingly fair and inclusive environment capable of enhancing all forms of diversity.





an important support for motivation and for the creation of **corporate culture** and the **growth** of people and the organisation, promoting the exchange of information, knowledge and experience.

The desire to inform and involve all colleagues has led to the adoption and continuous enhancement of various communication tools on the one hand, and the development of dedicated processes on the other.

**SOLConnect** is used as the main communication tool: a company intranet that is the link between the headquarters and the territory, both in Italy and internationally. The platform is continuously updated and is used by employees to find information, news and services, as well as useful tools for their daily work. It is a constantly evolving tool, especially with regard to the 'iApps', applications that are continually updated and developed to ensure that existing workflows are updated and new ones created.

In order to stay constantly up-to-date on company activities and projects, the long-standing in-house newsletter '**SOL News**' continues, the company's house organ with in-depth articles on the main news affecting the Group.

With regard to internal processes, in order to foster the dissemination of national and international initiatives undertaken by the Group, the **Editorial Committee** (set up in 2020 and composed of representatives from the marketing, human resources and new plants departments, and coordinated by the Sustainability

and Communication Department) organises quarterly update and alignment sessions on current activities in order to plan communication activities, not only internally but also on external channels.

### Remuneration and industrial relations

Il Gruppo SOL applica rigorosamente la legislazione in materia di SOL Group strictly enforces labour legislation in the countries where it operates by applying, where present, the national collective labour agreements or, alternatively, guarantees full compliance with the legal minimum wages for each employee. The Group is open to dialogue and discussion with the trade unions with which the HR departments maintain a constant flow of communication. 58% of SOL Group's employees are covered by **collective labour agreements**, in particular 100% of Italian employees and 49,6% of employees in other countries, where national or sectoral collective labour agreements exist without the obligation to adhere to them.

On average, wages and salaries, which are monitored by local managers and by the Corporate Executive Department for Staff and Legal Affairs, are better than those of the market. SOL Group makes no gender distinction in the management of remuneration policies which, for each role, are based on merit, skills and results.

SOL Group is also committed to adopting measures to promote equal treatment and equal opportunities for men and women throughout the organisation. In this regard, it should be noted that the **analysis conducted on the Group's remuneration** in

Italy did not reveal any significant gender pay gap. In particular, it is clear that the remuneration of female staff in middle management/managerial positions shows a -5% pay differential, that of white-collar staff, classified in category C, a differential of -4.8%, while the remuneration of female staff is in line with that of men in categories D and E. However, this figure should also be contextualised with respect to the average age and seniority of the male and female population in the Group in Italy, both of which are higher in the male population than in the female population in all categories, except for categories D and E. The younger age and shorter seniority of employment amply justify the already limited pay difference highlighted above. On the other hand, there is no gender pay gap in the entry conditions for first-time employees with the same job and activity.

A short-term incentive (MBO) was introduced for **General Managers** in 2021, which rewards the achievement of quantitative **objectives**, including those of an **ESG** nature, thus contributing to the sustainable success of the company.

In 2022 the overall salary paid to Chairman and CEO Eng. Aldo Fumagalli Romario was 16.61 times (compared to 16.09 last year) the average overall gross annual salary<sup>3</sup> of Group employees in Italy. As of 2022, the Group reports the ratio of the annual total compensation for the Group's highest-paid individual (Chairman and CEO Eng. Aldo Fumagalli Romario) to the median annual total compensation for all employees<sup>4</sup>. This ratio is 22.06 in 2022.

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 the Corporate Executive Department for Staff and Legal Affairs.

In any case, the wage increases established by collective bargaining for the sector or by law are guaranteed and, where union representation is present, supplementary contracts are negotiated that can include production and/or participation bonuses linked to the trend in company profitability and productivity parameters, such as improved quality and accident prevention.

Furthermore, the Group strives to incentivise **tools that protect the health of employees and their families**, and those that integrate the pension services established by local laws.

Other initiatives to both support and promote equal opportunities have been taken by the Group through corporate **diversity** programmes and work-life balance tools.

(3) The overall salary includes gross annual remuneration plus the variable components. We considered the employees of SOL Spa and all the Italian companies of the Group.

(4) The total compensation of the highest-paid individual was determined by considering the gross annual compensation and the variable components actually accrued in FY 2022. The median compensation of Group employees was calculated by considering the gross annual compensation in addition to the variable components accrued in FY 2022. For foreign companies, the figure updated as of July 2022 was taken into account. The calculation does not include foreign companies acquired after July 2022 and nursing staff paid on an hourly basis for services rendered. Amounts in foreign currencies were converted to euros according to the exchange rate in effect on 12/31/2022.

The Corporate Executive Department for Staff and Legal Affairs directly manages Industrial Relations for all Italian companies in the Group and supports overseas companies, intervening when necessary.

SOL Spa 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.

Where it was possible to negotiate with the trade unions for the agreements relating to **corporate welfare**, agreements were reached to strengthen contractual pension and health promotion instruments, and a regulation was established for Italy for the donation of holidays between colleagues. Moreover, for the Italian companies, collective bargaining and company supplements guarantee all employees, regardless of contractual form or part-time or term employment, pension, health and parental leave coverage. By joining the contractual welfare funds, for which employee contributions are subsidised, additional insurance coverage can be obtained in the event of death or disability.

Initiatives continued in 2022 for strengthening the welfare initiatives dedicated to Group employees; in most of the foreign companies where the presence of an HR figure is guaranteed, initiatives were implemented that go beyond pure contractual obligations, providing benefits which, also considering local legislation, cover certain areas of services aimed at employees in general. The **most popular instruments** include supplementary health coverage plans, voluntary additions by the company to employees' pension plans and life insurance. In most cases, such additional coverage regards the entire company population, regardless of whether permanent or temporary employees or working full-time or part-time. Only some categories of benefits (life insurance, car, fuel card) are intended for different jobs or classifications such as Senior Managers, Managers, sales roles and territory technicians.

The survey also shows that the use of **smart working** in a structural way (and not only to combat the pandemic) as a tool for improving work-life balance is widespread also in foreign companies.

At company level, SOL maintains regular relations with its trade union representatives, which are based on utmost cooperation and transparency through the establishment of company observatories where topics relating to company bargaining, organi-



During 2022, VIVISOL supported **various entities operating in the healthcare sector**: one example is the support to AISL (Italian Association of Amyotrophic Lateral Sclerosis - ALS) and to the Italian Union for the Fight against Muscular Dystrophy, as well as to the Serena Onlus Foundation for support purchasing diagnostic equipment, also for ALS patients, at the NeMO Clinical Centre; and to the Bottega Finzioni Foundation for a narrative project dedicated to patients with respiratory difficulties.

In addition, a number of projects were implemented in 2022 as part of the corporate initiative **'Little Big Innovations'** dedicated entirely to the theme of sustainability, both environmental and social: in the UK, support was given to a project dedicated to reforestation; in Austria, an initiative in favour of disability; and in Italy, people with chronic inflammatory bowel disease. The corpo-

rate initiative will also implement other projects during 2023, to continue that operation of giving back value to the community in which the Group operates.

Many other initiatives were implemented by Group companies, including: support in Germany in projects against domestic violence and in support of the disabled; and projects developed in the healthcare sector in Albania, Spain and France.

Finally, VIVISOL's support of the 'COPD Tour' project dedicated to raising awareness of this chronic respiratory disease continues. This year it also reached the Stelvio Pass: a milestone where Philippe Poncet, the project's main promoter, founder of o2&Cie and a patient with severe COPD, climbed the mountain by bicycle with respiratory assistance provided by VIVISOL.

## LITTLE BIG INNOVATION: the 'Schooling for a better world' project

### SOL Group's educational project in Mozambique.

As part of the corporate Little Big Innovations initiative, 'Schooling for a better world', in 2022 one of the winning projects in the social initiatives area was launched. SOL's experience in the safe use and handling of gases in welding met the need for training on these issues for the students of **Mozambique's only university centre, the Don Bosco Institute (ISDB)** located in Maputo.

The topics covered in the lectures given by SOL employees included safety procedures in handling gas (especially oxygen and acetylene); welding techniques (coated electrode, MIG/MAG and TIG); materials used in the welding process; gases used. The Institute's young men and women were able to follow the lectures remotely, supported on site by five professors who also acted as language mediators, to ensure as much clarity as possible in the transmission of information.

In addition to the online training, an in-person training will also be provided in 2023 at the school's welding stations, with SOL staff on site, and a test will be conducted. Finally, the students will receive a **certificate** attesting to their welding skills, a highly sought-after qualification in the local labour market, which is increasingly looking for qualified personnel.

Lastly, for the best students, SOL Group pledges to fully fund **two scholarships for a university master's degree in Environmental Education and Sustainable Development**.

This initiative will provide certified training for the students who will become the teachers of tomorrow, generating a long-term virtuous circle, in line with SOL Group's corporate values.

## Associations

### INTERNATIONAL INDUSTRY ASSOCIATIONS

SOL Spa and IRISH OXYGEN are members of IOMA (International Oxygen Manufacturers Association), which unites 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, VIVISOL Srl, SOL NEDERLAND, BTG, SOL DEUTSCHLAND, IRISH OXYGEN, TAE HELLAS, VIVISOL AUSTRIA and VIVISOL UK, GTS are members of EIGA (European Industrial Gases Association), which groups all major European players in the industrial and medical gases sector.

To date, SOL Group is present with its representatives on the **Board of EIGA**, in four Councils, 18 Working Groups and 15 Ad Hoc Groups/Task Forces, contributing to the definition of industry standards and best practices.

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

In Italy, SOL is a member of **FEDERCHIMICA and ASSOGASTECNICI**; SOL is present in all the Steering Committees of Assogastecnici SOL.

VIVISOL is a member of **Confindustria Dispositivi Medici**, within which it promoted the creation of the 'Home & Digital Care' association, which brings together leading home care providers and digital health operators.

In Italy, SOL is on the Board of Directors of the **Association H2IT** created to promote the progress of knowledge and the study of disciplines related to technologies and systems for the production and use of hydrogen.

### OTHER ASSOCIATIONS

**FBN-I** -The Family Business Network unites over 3,600 family-run companies, with 16,000 members from 65 countries, with the goal of helping family businesses to develop and prosper over the generations through the exchange of experiences and new ideas.

**AIDAF** - Italian Association of Family Businesses, which brings together Italian family-run companies that share the guiding values of business ethics, meritocracy, social responsibility and a healthy development model of family businesses.

Aspen Institute Italia, 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. The Institute, among other things, is a benchmark for companies and institutions intending to extend their range of action abroad, offering materials and ad hoc meetings.









The main cost categories within the scope of analysis are maintenance costs. The analysis showed that 2.05% of the costs incurred and analysed were eligible and 0.71% were also aligned. The remaining 98% were ineligible. The economic activity with Taxonomy-aligned operating expenditure is Electricity generation from hydropower amounting to € 265,000.

With reference to the disclosure pursuant to Article 8(6) and (7) of Delegated Regulation (EU) 2021/2178, which provides for the use of the templates provided in Annex XII for the disclosure of nuclear and fossil gas activities, it should be noted that all templates have been omitted as they are not representative of the company's activities.

The OpEx KPI is shown in tabular format.

#### PROPORTION OF OPEX FROM PRODUCTS OR SERVICES ASSOCIATED WITH TAXONOMY-ALIGNED ECONOMIC ACTIVITIES - DISCLOSURE COVERING YEAR 2022

Economic activities	Code(s)	Absolute OpEx €/000	Proportion of OpEx %	SUBSTANTIAL CONTRIBUTION CRITERIA						DNSH CRITERIA ('DOES NOT SIGNIFICANTLY HARM')						Minimum safeguards	Taxonomy-aligned proportion of OpEx, year 2022 %	Taxonomy-aligned proportion of OpEx, year 2021 %	Category (enabling activity) E	Category (transitional activity) T
				Climate change mitigation %	Climate change adaptation %	Water and marine resources %	Circular economy %	Pollution %	Biodiversity and ecosystems %	Climate change mitigation Y/N	Climate change adaptation Y/N	Water and marine resources Y/N	Circular economy Y/N	Pollution Y/N	Biodiversity and ecosystems Y/N					
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>																				
<b>A.1 Environmentally sustainable activities (Taxonomy-aligned)</b>																				
Electricity generation from hydropower	4.5	265	0.71%	100%	0.00%					N/A	Y	Y	N/A	N/A	Y	Y	0.71%			
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		265	0.71%	100%	0.00%												0.71%			
<b>A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																				
Manufacture of hydrogen	3.10	189	0.51%																	
Manufacture of organic basic chemicals	3.14	59	0.16%																	
Electricity generation from hydropower	4.5	255	0.68%																	
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		504	1.34%																	
<b>Total (A.1 + A.2)</b>		769	2.05%																	
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>																				
Turnover of Taxonomy-non-eligible activities (B)		36,700	98%																	
<b>Total (A + B)</b>		37,469	100%																	



# MATERIALITY ANALYSIS

## IDENTIFICATION OF PRIORITY STAKEHOLDERS AND MATERIAL TOPICS

SOL Group embraces the concept of a sustainable company as an entity capable of **creating value for all those involved** internally and externally, generating a consequent positive impact on its economic, environmental and social dimension. In order to mitigate its own negative impacts, the Group is engaged in the involvement of its stakeholders for grasping the main indications and expectations capable of determining the Group's behaviours and improvement actions.

The relationship of mutual influence between SOL Group and its stakeholders therefore leads to the establishment of constant communication between the parties.

SOL Group's **relevant stakeholders** are: associations, environmental associations, authorities and public bodies, shareholders, investors and financial institutions, patients and doctors, customers, communities, employees, suppliers and partners.

During 2022, the Group carried out an update of the materiality analysis according to the GRI 3 Material topics 2021, in order to identify the relevant impacts of the organisation (impact materiality) – negative or positive, actual or potential – on the economy, the environment and/or people, inclusive their human rights, caused by activities and investments of the organisation, its products and/

or services or its chain of value, in the short, medium and long term.

In particular, the materiality analysis was carried out through the following steps:

- understanding and assessing the organization's context (business relationship, sustainability context) as well as identification of the relevant stakeholders;
- identification of the actual or potential, positive or negative impacts on the economy, environment, and people, including impacts on their human rights, across the organization's activities and business relationships;
- assessment of the significance of the impacts through the involvement of the top management;
- identification of the relevant impacts and determination of the material topics.

The list of material topics, which in any case remained unchanged from the previous year, was finally shared with the top management and presented to the Board of Directors of the Parent Company (November 10, 2022). In 2023 SOL Group intends to strengthen stakeholder involvement in the process of identifying material topics.

AREA	MATERIAL TOPIC	IMPACT	DETAILS OF THE IMPACT		
			Actual/Potential	P/N	Where the impact occurs
Economic responsibility and governance	Balanced economic development	Economic value generation and related distribution to stakeholders (employees, suppliers, etc.).	Actual	Positive	Caused by the Group
	Compliance with voluntary laws, regulations and standards	Violation of anti-corruption legislation.	Potential	Negative	Caused by the Group and directly connected to
		Violation of antitrust legislation.	Potential	Negative	Caused by the Group and directly connected to
		Loss of customer, supplier and employee data with negative impacts on the Group and stakeholders.	Potential	Negative	Caused by the Group and directly connected to

AREA	MATERIAL TOPIC	IMPACT	DETAILS OF THE IMPACT		
			Actual/Potential	P/N	Where the impact occurs
Economic responsibility and governance	Business ethics and integrity	Contribution to a society and market based on ethical principles.	Actual	Positive	Caused by the Group and directly connected to
		Violation of tax regulations with negative impacts on the Group and stakeholders.	Potential	Negative	Caused by the Group
Product responsibility	Customer and patient centrality	Development of solutions focused on customer and patient needs in compliance with applicable regulations.	Actual	Positive	Caused by the Group
		Incidents of non-conformity in products/services that may lead to impacts on the health and safety of customers.	Potential	Negative	Caused by the Group
	Sustainable solutions for customers	Contribution to the improvement of customer sustainability performance.	Actual	Positive	Caused by the Group
	Traceability of products and services	Inability to trace products in case of product recalls or customer/patient complaints.	Potential	Negative	Caused by the Group
Environmental responsibility	Energy efficiency and climate change	Energy consumption and contribution to resource depletion with negative impacts on the environment and people.	Actual	Negative	Caused by the Group and directly connected to
		Generation of GHG emissions (Scope 1/2) from production facilities with negative impacts on climate change.	Actual	Negative	Caused by the Group and directly connected to
		Generation of emissions along the Group value chain (Scope 3) with negative impacts on climate change.	Actual	Negative	Directly connected to
		Contribution to resource depletion through water abstraction.	Actual	Negative	Caused by the Group
	Waste Management	Environmental impacts related to the generation of hazardous and non-hazardous waste during the production.	Actual	Negative	Caused by the Group
	Efficient use of raw materials	Contribution to resource depletion through consumption of raw materials.	Actual	Negative	Caused by the Group
	Environmental impact of products	Energy consumption and contribution to resource depletion with negative impacts on the environment and people.	Actual	Negative	Caused by the Group and directly connected to
	Environmental impact of transport	Generation of GHG emissions (Scope 1) due to transport activities carried out by Group vehicles with negative impacts on climate change.	Actual	Negative	Caused by the Group and directly connected to
Generation of GHG emissions (Scope 3) due to transport activities carried out by means with negative impacts on climate change.		Actual	Negative	Directly connected to	
Social responsibility and human resources	Ability to attract talent and human resources development	Contribution to the growth of Group employees.	Actual	Positive	Caused by the Group
	Corporate welfare and employee well-being	Contribution to employee well-being in the company.	Actual	Positive	Caused by the Group
	Health and safety of workers	Injuries at work.	Potential	Negative	Caused by the Group
	Sustainable supply chain	Violation of environmental regulations along the value chain.	Potential	Negative	Directly connected to
		Violation of human rights regulations along the value chain.	Potential	Negative	Directly connected to
Respect for human rights and workers' rights	Incidents of discrimination.	Potential	Negative	Caused by the Group	





# PERFORMANCE INDICATORS

## Our people

	2020		2021		2022	
	no.	%	no.	%	no.	%
<b>Employees by gender and role</b>						
Senior Managers	106	100%	122	100%	<b>138</b>	<b>100%</b>
- Men	98	92%	111	91%	121	88%
- Women	8	8%	11	9%	17	12%
Managers	401	100%	506	100%	<b>554</b>	<b>100%</b>
- Men	270	67%	349	69%	383	69%
- Women	131	33%	157	31%	171	31%
White Collar Workers	2,821	100%	3,009	100%	<b>3,649</b>	<b>100%</b>
- Men	1,291	46%	1,370	46%	1,689	46%
- Women	1,530	54%	1,639	54%	1,960	54%
Blue Collar Workers	1,282	100%	1,464	100%	<b>1,410</b>	<b>100%</b>
- Men	1,110	87%	1,258	86%	1,257	89%
- Women	172	13%	206	14%	153	11%
<b>Employees by age group and role</b>						
Senior Managers	106	100%	122	100%	<b>138</b>	<b>100%</b>
- Up to 30 years	0	0%	0	0%	0	0%
- 30-40 years	6	6%	6	5%	10	7%
- 41-50 years	30	28%	41	37%	42	30%
- Over 50 years	70	66%	75	61%	86	62%
Managers	401	100%	506	100%	<b>554</b>	<b>100%</b>
- Up to 30 years	4	1%	11	2%	10	2%
- 30-40 years	101	25%	133	26%	144	26%
- 41-50 years	163	41%	188	37%	210	38%
- Over 50 years	133	33%	174	34%	190	34%

## Our people

	2020		2021		2022	
	no.	%	no.	%	no.	%
<b>Employees by age group and role</b>						
White Collar Workers	2,821	100%	3,009	100%	<b>3,649</b>	<b>100%</b>
- Up to 30 years	448	16%	465	15%	574	16%
- 30-40 years	960	34%	976	32%	1,203	33%
- 41-50 years	812	29%	883	29%	1,053	29%
- Over 50 years	601	21%	685	23%	819	22%
Blue Collar Workers	1,282	100%	1,464	100%	<b>1,410</b>	<b>100%</b>
- Up to 30 years	154	12%	158	11%	183	13%
- 30-40 years	450	35%	473	32%	419	30%
- 41-50 years	355	28%	425	29%	383	27%
- Over 50 years	323	25%	408	28%	425	30%
<b>Rate of absenteeism of employees by gender and region</b>		%		%		%
Italy		3.9%		3.0%		<b>3.3%</b>
- Men		4.2%		2.6%		3.2%
- Women		3.4%		3.8%		3.5%
Other countries		5.7%		6.0%		<b>5.8%</b>
- Men		5.2%		5.2%		4.6%
- Women		6.3%		6.9%		7.7%
<b>Employees by gender and employment contract</b>						
Italy						
Permanent contract	1,190	100%	1,284	100%	<b>1,451</b>	<b>100%</b>
- Men	868	73%	932	73%	1,039	72%
- Women	322	27%	352	27%	412	28%
Fixed-term contract	58	100%	66	100%	<b>48</b>	<b>100%</b>
- Men	38	66%	45	68%	33	69%
- Women	20	34%	21	32%	15	31%
Other countries						
Permanent contract	3,012	100%	3,417	100%	<b>3,938</b>	<b>100%</b>
- Men	1,704	57%	1,965	58%	2,240	57%
- Women	1,308	43%	1,452	42%	1,698	43%
Fixed-term contract	353	100%	334	100%	<b>314</b>	<b>100%</b>
- Men	162	46%	146	44%	138	44%
- Women	191	54%	188	56%	176	56%



### Health and safety

		2020	2021	2022
<b>Other countries</b>				
Technical and medical gases sector and energy production	no.	58	141	<b>80</b>
Home care	no.	22	40	<b>66</b>
<b>Employability</b>				
Medical examinations	no.	1,231	1,648	<b>1,739</b>
Clinical analyses	no.	536	708	<b>679</b>
Additional tests <sup>(1)</sup>	no.	451	421	<b>822</b>

(1) Electrocardiograms, spirometry, audiometry, etc.

### Waste

	Unità di misura	2020	2021	2022
<b>Destination of waste produced</b>				
<b>Landfill</b>				
Non-hazardous	t.	3,093	2,514	<b>2,342</b>
Hazardous	t.	104	156	<b>86</b>
<b>Recovery</b>				
Non-hazardous	t.	886	1,453	<b>5,575</b>
Hazardous	t.	94	180	<b>267</b>
<b>Incineration</b>				
Non-hazardous	t.	199	157	<b>356</b>
Hazardous	t.	11	64	<b>16</b>

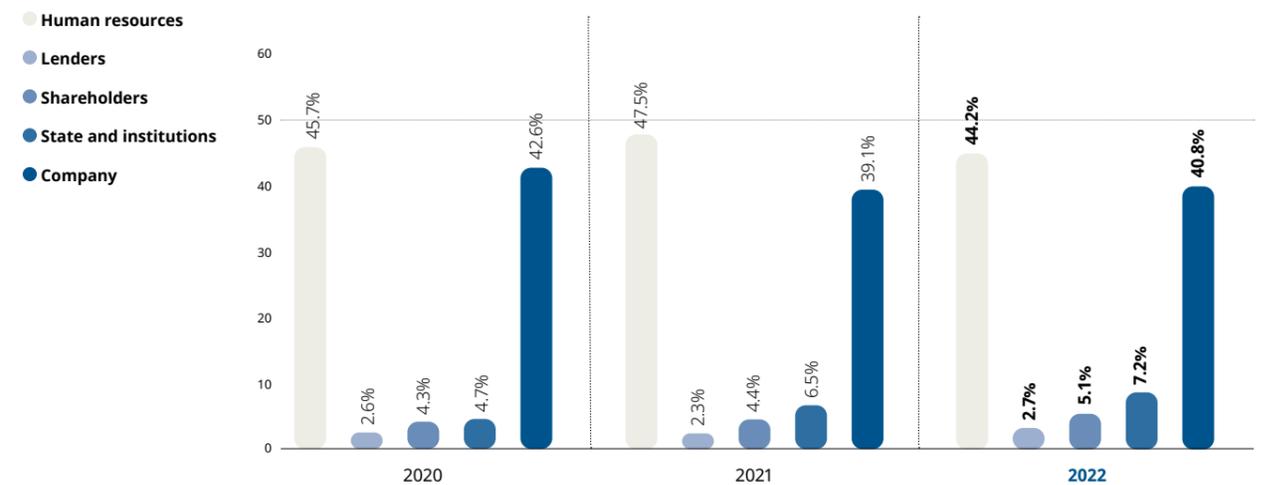
### Value generated and distributed

In 2022, the economic value generated for stakeholders was € 587 million, an increase of € 95 million compared to 2021. This amount 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).

The distribution of the economic value to shareholders for the 2022 fiscal year corresponds to the dividend that the Board of Directors will propose to the Shareholders' Meeting.



### DISTRIBUTION OF ADDED VALUE



## Taxes

Country	Main activities	Company	No. of employees	Revenues from third-party sales (€ Mln)	Revenues from intra-group transactions (€ Mln)	Profit/loss before tax (€ Mln)	Tangible assets other than cash and cash equivalents (€ Mln)	Corporate income tax paid on a cash basis (€ Mln)	Corporate income tax accrued on profit/loss (€ Mln)
<b>Albania</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	G.T.S. Sh.p.K., HYDROENERGY Sh.p.K.	28	13.55	4.41	1.36	19.35	0.55	0.25
<b>Austria</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL T.G. GmbH, VIVISOL Heimbehandlungsgeräte GmbH	149	41.63	1.94	6.99	15.46	3.09	1.75
<b>Belgium</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	B.T.G. Bvba, SOL SpA - Branch Belgio, VIVISOL B Sprl	114	27.82	18.59	0.98	28.03	1.00	1.04
<b>Bosnia-Herzegovina</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	MEL a.d., T.G.P.A.D., T.G.T.A.D.	41	5.87	1.16	2.04	5.77	0.20	0.22
<b>Brazil</b>	Sales, marketing or distribution; provision of services to unrelated parties; Holding of shares or other equity instruments	DN GLOBAL HOMECARE LTDA, GLOBAL CARE LTDA, P PAR LTDA, UNIT CARE LTDA, VIVISOL Brasil Ltda, Portare Ltda	157	17.77	0.43	4.35	0.82	0.47	1.72
<b>Bulgaria</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL Bulgaria E.A.D.	51	9.25	1.13	-1.30	16.91	-	-
<b>China</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	Shanghai Shenwei Medical Gas Co. Ltd, Shanghai Mu Kang Medical Device Distribution Service Co. Ltd, Shanghai Jiawei Medical Gas Co. Ltd	109	5.46	0.20	0.83	0.26	0.84	0.25
<b>Croatia</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL Croatia d.o.o., UTP d.o.o.	57	8.29	2.15	0.85	5.00	-	0.06
<b>Czech Republic</b>	Manufacture or production; Sales, marketing or distribution; Provision of services to unrelated parties; Internal group financing; Holding of shares or other equity instruments	SOL Czechia	5	0.24	-	0.04	0.18	0.02	0.01
<b>France</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	BEHRINGER France Sarl, BTG GTB, France Oxygene Sarl, MBar Assistance Respiratoire S.a.s., SOL France Sas, SOL SpA - Branch Francia, VIVISOL France Sarl.	559	118.64	3.71	21.90	47.24	6.10	6.18
<b>Germany</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	Intensivservice Wanninger GmbH, Kompass GmbH, Medtek Medizintechnik GmbH, Pielmeier Medizintechnik GmbH, SOL Deutschland GmbH, SOL Kohlensaure GmbH & Co. KG, Vivisol Deutschland, SOL Kohlensaure Verwaltungs GmbH, SOL Kohlensaure Werk GmbH & Co. KG, SOL SpA - Branch Francoforte, Vivicare Holding GmbH, KSD, Allerhausen Care, SOL Real Estate, VivicareGmbH	729	141.36	22.97	25.24	62.66	6.03	5.98

## Taxes

Country	Main activities	Company	No. of employees	Revenues from third-party sales (€ Mln)	Revenues from intra-group transactions (€ Mln)	Profit/loss before tax (€ Mln)	Tangible assets other than cash and cash equivalents (€ Mln)	Corporate income tax paid on a cash basis (€ Mln)	Corporate income tax accrued on profit/loss (€ Mln)
<b>Greece</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL Hellas S.A., VIVISOL Hellas S.A., Viicare Hellas, TAE Hellas	141	39.34	1.42	0.71	24.68	-	-0.01
<b>Hungary</b>	Sales, marketing or distribution; provision of services to unrelated parties	SOL Hungary KFT	20	4.81	0.03	-0.22	7.17	0.00	0.01
<b>India</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SICGILSOL GASES PRIVATE LIMITED, SOL India Private Limited	93	8.71	1.21	0.07	7.22	0.01	-
<b>Ireland</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	Direct Medical Limited, Irish Oxygen Company	44	9.19	0.03	3.86	3.71	0.41	0.47
<b>Italy</b>	Manufacture or production; Sales, marketing or distribution; Provision of services to unrelated parties; Internal group financing; Holding of shares or other equity instruments; Research and Development	AIRSOL Srl, BEHRINGER Srl, BiotechSol Srl, C.T.S. Srl, Cryolab Srl, CRYOS Srl, DIATHEVA Srl, I.C.O.A. Srl, Il Point Srl, MEDES Srl, Personal Genomics Srl, REVI Srl, SG - LAB Srl, SOL Gas Primari Srl, SOL Spa Italia, Sterimed Srl, Tesi Srl Tecnologia & Sicurezza Srl, VIVISOL Calabria Srl, VIVISOL Napoli Srl, VIVISOL Silarus Srl, VIVISOL Srl, Isimed S.r.l.	1.350	483.00	116.18	97.08	235.49	11.37	6.22
<b>Kosovo</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL-K Sh.p.K.	2	2.00	-	0.87	0.83	0.07	0.10
<b>Morocco</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	FLOSIT S.A.	48	6.53	-	1.92	2.51	0.47	0.56
<b>Netherlands</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL Nederland B.V., VIVISOL Nederland B.V.	340	58.45	2.29	7.50	21.30	2.05	1.85
<b>North Macedonia</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL Hydropower d.o.o., SOL SEE d.o.o., TGS.A.D.	102	15.09	7.82	4.36	20.64	0.70	0.47
<b>Poland</b>	Sales, marketing or distribution; provision of services to unrelated parties	MEDSEVEN sp.zo.o., PALLMED sp.zo.o.	148	24.98	3.01	4.98	7.79	1.13	0.68
<b>Portugal</b>	Sales, marketing or distribution; provision of services to unrelated parties	VIVISOL Portugal LDA	60	5.73	0.03	1.56	2.18	0.16	0.08
<b>Romania</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	GTH GAZE INDUSTRIALE S.A.	18	2.50	0.06	0.24	5.48	-	-
<b>Serbia</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SOL Srbija d.o.o.	20	4.29	0.02	0.36	3.15	0.05	0.06
<b>Slovak Republic</b>	Sales, marketing or distribution; provision of services to unrelated parties	SOL Slovakia s.r.o.	2	0.93	0.05	-0.35	0.89	-	-
<b>Slovenia</b>	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	Energetika ZJ. d.o.o., SPG - SOL Plin Gorenjska d.o.o., T.PJ. d.o.o., VIVISOL Adria d.o.o.	49	15.74	9.03	4.74	23.40	0.70	0.73
<b>Spain</b>	Sales, marketing or distribution; provision of services to unrelated parties	VIVISOL Iberica S.L.U, SOL France - Sucursal Espana.	122	12.73	0.08	-0.81	8.59	0.00	-

## Taxes

Country	Main activities	Company	No. of employees	Revenues from third-party sales (€ Mln)	Revenues from intra-group transactions (€ Mln)	Profit/loss before tax (€ Mln)	Tangible assets other than cash and cash equivalents (€ Mln)	Corporate income tax paid on a cash basis (€ Mln)	Corporate income tax accrued on profit/loss (€ Mln)
Switzerland	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	SITEX MAD SA, SITEX SA, SOL Spa - Branch Svizzera, SPITEX PERSPECTA.	178	19.44	0.03	1.98	0.64	0.58	0.27
Turkey	Manufacture or production; Sales, marketing or distribution; provision of services to unrelated parties	GEBZE GAZ A.S., RESPITEK A.S., SOL TK A.S.	73	8.63	0.65	0.30	1.17	0.18	0.45
United Kingdom	Manufacture or production; Sales, marketing or distribution; Provision of services to unrelated parties; Internal group financing; Holding of shares or other equity instruments	BTG GASES, Dolby Healthcare Limited, Dolby Medical Home Respiratory Care Limited.	297	32.79	0.30	3.90	25.02	0.00	-0.34
<b>SOL GROUP</b>			<b>5,106</b>	<b>1,144.78</b>	<b>198.92</b>	<b>196.31</b>	<b>603.53</b>	<b>36.21</b>	<b>29.07</b>

The income statement figures are expressed in accordance with the local accounting standards applicable in the individual tax jurisdictions. Regarding any differences between the income tax ac-

crued on profits and the tax due (GRI 207-4-b-x), please refer to the Notes to the Consolidated Financial Statements of SOL Group as at 31 December 2021. Revenues before consolidation adjustments.

### GREENHOUSE GAS EMISSIONS

#### Direct emissions (Scope 1)

#### Indirect emissions according to the market based method (EU Countries)

#### Indirect emissions according to the market based method (Bosnia-Erzegovina, North Macedonia and Morocco)

#### Indirect emissions according to the location based method

#### Indirect emissions (Scope 3) Category n. 1: Purchased Goods and Services

#### Indirect emissions (Scope 3) Category n. 2: Capital Goods

#### Indirect emissions (Scope 3) Category n. 3: Fuel- and Energy-Related Activities

#### Indirect emissions (Scope 3) Category n. 6: Business Travel

#### Indirect emissions (Scope 3) Category n. 7: Employee Commuting

#### Indirect emissions (Scope 3) Category n. 9: Downstream Transportation and Distribution

#### Indirect emissions (Scope 3) Category n. 11: Use of sold products

### SOURCES OF EMISSION FACTORS USED

- UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2022
- EMEP/EEA air pollutant emission inventory guidebook 2019
- CO2MPAS provided by the JRC's Green Driving tool

Association of Issuing Bodies (AIB), AIB - European Residual Mixes 2022 (Ver. 1.0, 2022-05-31)

International Energy Agency (IEA), Emission factor 2018 edition

International Energy Agency (IEA), Emission factor 2018 edition

- Ecoinvent 3.8
- UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2022
- Eurostat accounting tool - June 2017

Eurostat accounting tool - June 2017

- UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2022
- UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2017

UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2022

UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2022

- UK Government GHG Conversion Factors for Company Reporting (DEFRA), Conversion Factors 2022
- EMEP/EEA air pollutant emission inventory guidebook 2019

- IPCC Fifth Assessment Report, 2014 (AR5)
- IEA 2016



# GRI CONTENT INDEX

## Statement of use

SOL Group has reported the informations of the following GRI Content Index for the period 01.01.2022 - 31.12.2022 in accordance with the GRI Standards.

## GRI 1 used

GRI 1: Foundation 2021

## Applicable GRI Sector Standard(s)

Not applicable

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			N. APPLICABLE GRI SECTOR STANDARD(S)
			Requirement (s) omitted	Reason	Explanation	
<b>General disclosures</b>						
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	pages 9, 18, Back cover				
	2-2 Entities included in the organization's sustainability reporting	pages 84-85				
	2-3 Reporting period, frequency and contact point	pages 84-85, 113				
	2-4 Restatements of information	page 52				
	2-5 External assurance	pages 104-108				
	2-6 Activities, value chain and other business relationships	pages 9-10, 35-47				
	2-7 Employees	pages 61, 86-88				
	2-8 Workers who are not employees	page 61				
	2-9 Governance structure and composition	page 23, <a href="https://www.solgroup.com/en/governance/corporate-bodies">https://www.solgroup.com/en/governance/corporate-bodies</a>				
	2-10 Nomination and selection of the highest governance body	pages 23-24				
	2-11 Chair of the highest governance body	The Chairman of the Board of Directors is one of SOL's two CEOs. He has been given significant management powers. In the opinion of the Board of Directors, the coexistence of the two roles (Chairman of the Board of Directors and Chief Executive Officer) in the same person must be viewed positively, as it is motivated by the characteristics of the Director, which suggest and enable the role of Chairman of the Board of Directors and Chief Executive Officer to be effectively summarised. In fact, thanks to more than 30 years of participation in the management of SOL with the exercise of operative proxies, he has been able to develop in-depth knowledge of the company, which allows him to act as a reference for all directors, as well as for shareholders and other relevant stakeholders. The Board of Directors appointed the Lead Independent Director who, among other tasks, coordinates the meetings of the independent directors and represents a point of reference and coordination of the requests and contributions of the non-executive directors and, in particular, the independent directors.				
	2-12 Role of the highest governance body in overseeing the management of impacts	pages 23, 26-27				
	2-13 Delegation of responsibility for managing impacts	pages 23, 26-27				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			N. APPLICABLE GRI SECTOR STANDARD(S)
			Requirement (s) omitted	Reason	Explanation	
<b>GRI 2: General Disclosures 2021</b>	2-14 Role of the highest governance body in sustainability reporting	page 26				
	2-15 Conflicts of interest	On 16 June 2021, the Board of Directors adapted the "Procedures for Transactions with Related Parties" to the amendments introduced by Consob with Resolution 21624 of 10.12.2020 and Regulation 17221 of 12.3.2010 on the subject of transactions with related parties (the 'RPT Regulation'); these amendments came into force on 1 July 2021 (the 'New RPT Procedure'), as expressed in the Corporate Governance Report. The New RPT Procedure, as well as the 'Procedures for Transactions with Related Parties', is published on the company's website <a href="http://www.solgroup.com">www.solgroup.com</a> , in the 'Governance' section, subsection 'Corporate Documents - Procedure for Transactions with Related Parties'.				
	2-16 Communication of critical concerns	page 24				
	2-17 Collective knowledge of the highest governance body	page 23				
	2-18 Evaluation of the performance of the highest governance body	The BoD periodically assesses the effectiveness of its activities through a formalised self-assessment process, which also includes ESG issues, at least every three years. In the event of inadequate evaluations, the Board decides on the most appropriate action to be taken, if any.				
	2-19 Remuneration policies	The remuneration policy adopted by the company is submitted to the Shareholders' Meeting for a vote. The non-executive directors are given a fixed (and not variable) remuneration which is suited to the competence, professionalism and commitment required by the tasks assigned to them within the Board of Directors and Internal Board Committees, and is not linked to economic results or to specific company objectives. They do not have any share-based remuneration plans. Additional remuneration is envisaged only if they take part in the Related Party Transactions and Remuneration Committees. The executive directors are paid a fixed component that guarantees an adequate and certain annual base remuneration set in consideration of the role, the activity performed and the responsibilities assigned; a medium-long term variable component linked to the achievement, at the end of a three-year period, of predefined financial and non-financial company objectives. The General Manager receives a gross annual fixed component established based on the position of the role in the reference market, the levels of responsibility attributed to him, the size of the Group, the complexities managed as well as the professionalism, competence and experience gained; a gross annual variable short-term component (MBO) is awarded with the achievement of predefined company objectives. This component, already present in last years' Policy, has been remodelled to also take into account, as of 2021, non-financial indicators related to ESG issues. No indemnity or other treatment is currently envisaged either in the event of termination of office of the Executive Directors or termination of employment of the General Manager. There are no benefits envisaged upon termination.				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			N. APPLICABLE GRI SECTOR STANDARD(S)
			Requirement (s) omitted	Reason	Explanation	
<b>GRI 2: General Disclosures 2021</b>	2-20 Process to determine remuneration	The shareholders' meeting of the company is called upon, inter alia, to determine the overall remuneration of the Board of Directors for the current financial year. Since SOL spa has recommended that the individual resolution proposals also be brought forward with respect to the determination of the Board of Directors' remuneration, in order to allow all shareholders to know the individual proposals that will be presented at the shareholders' meeting and give their voting instructions to the Designated Representative, GTW (Gas ant Technologies World B.V.), the majority shareholder, anticipates the company's 'Resolution Proposal' published on the institutional website (www.solgroup.com). The Group does not use the support of external consultants in determining the remuneration of the Board of Directors.				
	2-21 Annual total compensation ratio	page 65	b.	Not available/incomplete information	The figure, required by the GRI 2-21 b KPI, is not available. This disclosure is expected to be developed for the 2023 Non Financial Report.	
	2-22 Statement on sustainable development strategy	pages 3-5, 27				
	2-23 Policy commitments	pages 12-14, 27, 32-33				
	2-24 Embedding policy commitments	pages 26-27, 65				
	2-25 Processes to remediate negative impacts	pages 26-27, 32-33				
	2-26 Mechanisms for seeking advice and raising concerns	pages 11, 24				
	2-27 Compliance with laws and regulations	No relevant cases occurred in 2022, in addition to what is reported in the GRI 205-3 KPIs.				
	2-28 Membership associations	page 69				
	2-29 Approach to stakeholder engagement	page 80				
2-30 Collective bargaining agreements	page 64					
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	page 80				
	3-2 List of material topics	pages 80-81				
<b>Economic series</b>						
<b>Economic performance</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 19, 80-81, 71-78				
<b>GRI 201: Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	page 91				
<b>Anti-corruption</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 11, 23-24, SOL Group Ethic Code, 80-81				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			N. APPLICABLE GRI SECTOR STANDARD(S)
			Requirement (s) omitted	Reason	Explanation	
<b>GRI 205: Anti-corruption 2016</b>	205-3 Confirmed incidents of corruption and actions taken	The subsidiary VIVISOL Srl was notified on 21.10.2022 of the provisional measure prohibiting it from contracting with the Public Administration pursuant to ex Article 25, paragraph 2, of Italian Legislative Decree 231/2001 in relation to criminal proceeding 6036/2022 of the General Criminal Records Registry - No. 4500/2022 Preliminary Investigations Magistrate pending before the Court of Palermo, which involves various persons - both natural and legal - including a manager and a former manager of the company under investigation for the offences envisaged and punished by Articles 319 and 321 of the Italian Criminal Code, which were allegedly committed in connection with a tender dating back to 2017 called by the health authority of Palermo and from which, inter alia, no profit was made. The aforesaid precautionary measure was promptly applied for pursuant to ex Article 299 of the Italian Criminal Procedure Code and on 02.11.2022, with the favourable opinion of the Prosecutors assigned to the investigation, the Examining Judge first suspended and then revoked with immediate effect the aforesaid measure, which allowed the company to maintain full operations. As already expressed in the press releases that the company promptly published to give an account of the matter, VIVISOL reiterates, also here, its extra-neousness with respect to what is contested, being certain that this will be confirmed by the judicial investigations underway. That said, as an immediate self-cleaning activity, VIVISOL's Board of Directors promptly suspended the manager involved and revoked all delegated powers and powers of attorney assigned, and the necessary internal audits were initiated. It should also be noted that VIVISOL has had a Code of Ethics and an Organisation, Management and Control Model pursuant to Italian Legislative Decree ex 231/2001 since 2006 that are periodically updated and effectively put into practice through the implementation of ad hoc protocols and procedures.				
<b>Anticompetitive Behavior</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 11, 23-24, SOL Group Ethic Code, 80-81				
<b>GRI 206: Anticompetitive Behavior 2016</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	No relevant cases occurred in 2022. Regarding the antitrust proceedings involving VIVISOL Srl, on 24.3.2023 and on 30.3.2023 were published the rulings of the CDS with which, while upholding the AGCM's appeal, halved the penalties against VIVISOL Srl, which will therefore be entitled to recover the sum of € 5,014,000 plus interest. For the proceedings involving VIVISOL NAPOLI Srl, on the other hand, the cassation considered inadmissible the appeal filed.				
<b>Tax</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 25, 80-81				
<b>GRI 207: Tax 2019</b>	207-1 Approach to tax	page 25				
	207-2 Tax governance, control, and risk management	page 25				
	207-3 Stakeholder engagement and management of concerns related to tax	page 25				
<b>GRI 207: Tax 2019</b>	207-4 Country-by-country reporting	pages 92-94, The income from intra-group transactions includes the income from transactions between companies established in the same tax jurisdiction.				



GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			N. APPLICABLE GRI SECTOR STANDARD(S)
			Requirement (s) omitted	Reason	Explanation	
<b>GRI 403: Occupational Health and Safety 2018</b>	403-9 Work-related injuries	In 2022, 37 employee injuries were recorded. 5 injuries were recorded for third-party companies working on behalf of SOL Group. On 15 December 2022, the Public Prosecutor of the Court of Milan served notice of the conclusion of the investigation into the two fatal accidents which occurred on 28 September 2021 at the University Campus of Humanitas Mirasole Spa to two drivers of the haulage company Pè Giuseppe Srl, who had been entrusted by SOL Spa with the delivery of nitrogen, which included under the investigation the former General Manager and employer of SOL Spa, Mr Giulio Bottes, who is charged with Articles 113 and 589, paragraphs I, II and IV of the Italian Criminal Code, and SOL Spa, which is charged with the administrative offence referred to in Articles 5, 9 and 25 septies of Italian Legislative Decree 231/2001; the motion to dismiss SOL Chairman Mr Aldo Fumagalli Romario and Deputy Chairman Marco Annoni was accepted, who were initially also under investigation. The company, as well as its former employer, are confident that they will be able to prove their innocence in the further proceedings.				
<b>Training and Education</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 62, 80-81				
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	pages 62, 89				
<b>Diversity and Equal Opportunity</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 23, 63, 80-81, SOL Group Ethic Code				
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees	pages 23, 61, 63, 86-87				
<b>Non-discrimination</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 11, 63, 80-81				
<b>GRI 406: Non- discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	During 2022, no events occurred.				
<b>Supplier Social Assessment</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 47, 80-81				
<b>GRI 414: Supplier Social Assessment 2016</b>	414-1 New suppliers that were screened using social criteria	page 47. During 2022, 94% of the new suppliers considered critical were subject to the classification of the level of risk according to the relevant Group Directive (74% of the companies replied to the questionnaire on the implementation of the Group Directives).				
<b>Customer Health and Safety</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 13, 31, 80-81				
<b>GRI 416: Customer Health and Safety 2016</b>	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	In 2022 there were no cases of non-compliance concerning the health and safety impacts of products and services.				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			N. APPLICABLE GRI SECTOR STANDARD(S)
			Requirement (s) omitted	Reason	Explanation	
<b>Marketing and Labeling</b>						
<b>GRI 3 - Temi materiali - versione 2021</b>	3-3 Gestione dei temi materiali	pages 13, 80-81				
<b>GRI 417: Marketing and Labeling 2016</b>	417-1 Requirements for product and service information and labeling	page 31				
<b>Customer Privacy</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 24, 80-81, Information security and business continuity policy of SOL Group companies				
<b>GRI 418: Customer Privacy 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Three data breaches were reported to the Guarantor of national privacy.				
<b>Sustainable solutions for customers</b>						
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	pages 12-14, 35-46, 80-81				



# INDEPENDENT AUDITOR'S REPORT

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INDEPENDENT AUDITOR'S REPORT  
ON THE CONSOLIDATED NON-FINANCIAL STATEMENT PURSUANT TO ARTICLE 3,  
PARAGRAPH 10 OF LEGISLATIVE DECREE No. 254 OF DECEMBER 30, 2016 AND  
ART. 5 OF CONSOB REGULATION N. 20267 OF JANUARY 2018

To the Board of Directors of  
SOL S.p.A.

Pursuant to article 3, paragraph 10, of the Legislative Decree no. 254 of December 30, 2016 (hereinafter "Decree") and to article 5 of the CONSOB Regulation n. 20267/2018, we have carried out a limited assurance engagement on the Consolidated Non-Financial Statement of SOL S.p.A. and its subsidiaries (hereinafter "SOL Group" or "Group") as of December 31, 2022 prepared on the basis of art. 4 of the Decree and approved by the Board of Directors on March 30, 2023 (hereinafter "NFS").

Our limited assurance engagement does not extend to the information required by art. 8 of the European Regulation 2020/852 included in the paragraph "European Taxonomy".

#### Responsibility of the Directors and the Board of Statutory Auditors for the NFS

The Directors are responsible for the preparation of the NFS in accordance with articles 3 and 4 of the Decree and the "Global Reporting Initiative Sustainability Reporting Standards" established by GRI - Global Reporting Initiative (hereinafter "GRI Standards"), which they have identified as reporting framework.

The Directors are also responsible, within the terms established by law, for such internal control as they determine is necessary to enable the preparation of NFS that is free from material misstatement, whether due to fraud or error.

The Directors are moreover responsible for defining the contents of the NFS, within the topics specified in article 3, paragraph 1, of the Decree, taking into account the activities and characteristics of the Group, and to the extent necessary in order to ensure the understanding of the Group's activities, its trends, performance and the related impacts.

Finally, the Directors are responsible for defining the business management model and the organisation of the Group's activities as well as, with reference to the topics detected and reported in the NFS, for the policies pursued by the Group and for identifying and managing the risks generated or undertaken by the Group.

The Board of Statutory Auditors is responsible for overseeing, within the terms established by law, the compliance with the provisions set out in the Decree.

Ancona Bari Bergamo Bologna Brescia Cagliari Firenze Genova Milano Napoli Padova Parma Roma Torino Treviso Udine Verona

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## Deloitte.

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### Conclusion

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of the SOL Group as of December 31, 2022 is not prepared, in all material aspects, in accordance with articles 3 and 4 of the Decree and the GRI Standards.

Our conclusion on the NFS of SOL Group does not extend to the information required by art. 8 of the European Regulation 2020/852 included in the paragraph "European Taxonomy".

DELOITTE & TOUCHE S.p.A.

Signed by  
Riccardo Raffo  
Partner

Milan, Italy  
April 18, 2023

*This report has been translated into the English language solely for the convenience of international readers.*



# GLOSSARY

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

**Air separation:** process of separation, by distillation, of gas components of the air, obtaining liquid and gaseous products.

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

**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.

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

**Dispenser:** container with a vacuum insulated cavity designed to contain highly refrigerated liquefied cryogenic gases characterised by and consisting of interception, measurement and safety instruments.

**EMAS (Eco-Management and Audit Scheme):** it promotes the continuous improvement of the environmental performance of organisations through the establishment and implementation of environmental management systems, the systematic, objective and periodic evaluation of the performance of such systems, the provision of information on environmental performance, an open dialogue with the public and other interested parties, and finally with the active involvement and appropriate training of personnel by the organisations concerned.

**Food safety:** hygienic and sanitary prevention, whereby food undergoes strict controls that ensure correct preparation in line with its use and consumption, assuring its safety for the consumer.

**Frequency index:** ratio between the number of injuries and hours worked multiplied by 1 million. It measures the frequency of injuries.

**Global Reporting Initiative (GRI):** a multi-stakeholder network, established in 1997 and composed of companies, NGOs, associations of accountants, business organisations and other international stakeholders active in Corporate Social Responsibility issues. GRI's mission is to develop, provide and promote global reference guidelines for the preparation of Social Reports that describe the economic, environmental and social impacts that companies or organisations generate through their activities.

**Injury:** undesired event in the workplace that causes 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 area to another.

**ISO 9001:** defines the minimum requirements that an organisation's Quality Management System must prove to satisfy in order to guarantee the level of product and service quality it claims to have with itself and with the market.

**ISO 45001 (ex OHSAS 18001):** describes the elements of the occupational health and safety management system and provides a framework for managing risks and opportunities in order to prevent accidents at work and health problems for workers. Certification takes on even greater importance as a guarantee for management with the entry into force in Italy of Legislative Decree 81/2008, which provides for the adoption of a Management System as a necessary condition to be exempt from the possible application of sanctions provided for in 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):** provides a management framework for the integration of environmental management practices, pursuing environmental protection, pollution prevention, and reduction of energy and resource consumption.

**ISO 22000 (Food Safety Management Systems):** the standard defined for the effective control, improvement and development of food safety management, for organisations that aim to ensure such safety.

**ISO 27001 (Information Security):** 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):** the standard aims at helping organisations improve their energy performance, increasing energy efficiency and reducing climate and environmental impact.

**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.

**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.

**Medical gases:** both gases intended to be administered to the patient (such as medical oxygen, 93% oxygen, medical nitrous oxide, medical air), and gases not intended for administration but used for other purposes, such as air and nitrogen to power surgical instruments.

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

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

**Primary processing units:** units where gases are produced from raw materials.

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

**Quality, Safety and Environment System (SdG/QSA):** the 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.

**Raw materials - primary processing 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.

**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.

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

**Responsible Care:** a voluntary programme 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.

**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.

**Secondary processing units:** units where gases are conditioned and packaged, normally using gases coming from primary processing 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. These units also produce pure and high purity technical and medicinal gas mixtures.

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

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

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

**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.

**Stakeholder:** any entity, 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<sub>2</sub>.

**Sustainability** (see sustainable development)

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

## Acknowledgements

For years, the Sustainability Report has been an essential tool for all stakeholders in order to clearly and efficiently share the performance, initiatives and projects carried out in the field of sustainability.

We extend our sincere gratitude 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 SOL Group people into appropriate behaviour.

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