# SARAS

## SUSTAINABILITY REPORT 2019

*Consolidated Disclosure of Non-Financial information in accordance with the Legislative Decree 254/2016* 

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## LETTER TO STAKEHOLDERS



or three years now, Saras has been publishing the Group's Sustainability Report which, alongside other instruments including the EMAS environmental statement, illustrates in a transparent manner, our sustainability strategy, based on our constant environmental, social and governance commitment.

Our strategy derives from the Purpose that we updated in July 2019: "To be innovative, sustainable and a reference point amongst energy suppliers" is the goal that all Saras' people pursue daily with determination and a sense of responsibility, passion and pride.

The awareness of operating in Sardinia, a land with a precious and delicate ecosystem, and in an industry where it is essential to pay maximum attention to issues of sustainability, means that our daily work is always based on the protection of the health and safety of people – who work on the site and live in the territories – and the protection of the environment and natural resources. Furthermore, since our foundation, we have been engaged in a profound socio-economic integration with our local community, where we are an important driver for the creation of local value.

Our expertise and high professional standards are the foundation of our performance and, together with the adoption of modern digital technologies and innovation processes along the entire supply chain, these have made the Saras Group one of the reference points for the refining industry in the Mediterranean basin.

Our Sustainability Report goes beyond the concept of a simple accounting report and it represents, instead, a precise method of involvement and participatory dialogue with our stakeholders, with whom there is a system of reciprocal commitments and responsibility, which are crucial to our common future development.

Also in 2019, our Report pursuant to Legislative Decree No. 254/2016 on the Disclosure of Non-Financial Information followed the standards of the Global Reporting Initiative. Therefore, once again, the starting point for producing the Report was the process of "engagement", aimed at involving increasingly wider groups of stakeholders, be they external or internal to the company.

Specifically, within the company, in addition to the top management, this year 314 employees and managers of the Group were surveyed in order to gather their ideas. They participated with more than 77% of responses to the online questionnaire on the 17 material topics. This remarkable participation, significantly higher than the 50% achieved in 2018 with a similar number of surveyed employees, demonstrates the increased sensitivity to the ESG issues within the company, as well as the enthusiasm to participate in the setting of the Group's priorities in the area of sustainability.

On the external front, more than 70 people were interviewed between the beginning of 2018 and the end of 2019. Specifically, this year, the Maritime Operators were involved, as they are engaged in the new bunkering activity that Saras launched as of September 2019. We are in fact proud to have launched this important refuelling service for ships, which will also serve to support the relaunching of marine, commercial and passenger activities in the ports of southern Sardinia.

The set of responses obtained from internal and external stakeholders allowed us to prepare the Saras 2019 materiality matrix. Also this year, amongst the confirmed central topics for our sustainability in the medium- to long-term are the minimisation of emissions of pollutants and greenhouse gases, attention to the protection of health and safety, optimal management of effluents and waste, energy efficiency, technological innovation, the creation of local value and employment, in the more general context of the relations with the local community and, lastly, attention to the management, training and development of human resources. This Report has therefore dealt in detail with all these topics, specifying the business objectives pursued, the results obtained so far, and the potential associated risks.

Today, companies operating in the oil sector are being asked on several fronts for a strong commitment to manage the energy transition. Within Saras, responsible growth and sustainable value creation are approached with a medium- to long-term vision. In fact, we have been engaged for years in increasing the energy efficiency of our industrial site in Sarroch. The several investments undertaken have made it possible to reduce consumption and, consequently, CO2 emissions. More precisely, we have calculated that, altogether, from 2016 to 2019, more than 325 thousand tonnes of CO2 emissions were avoided.

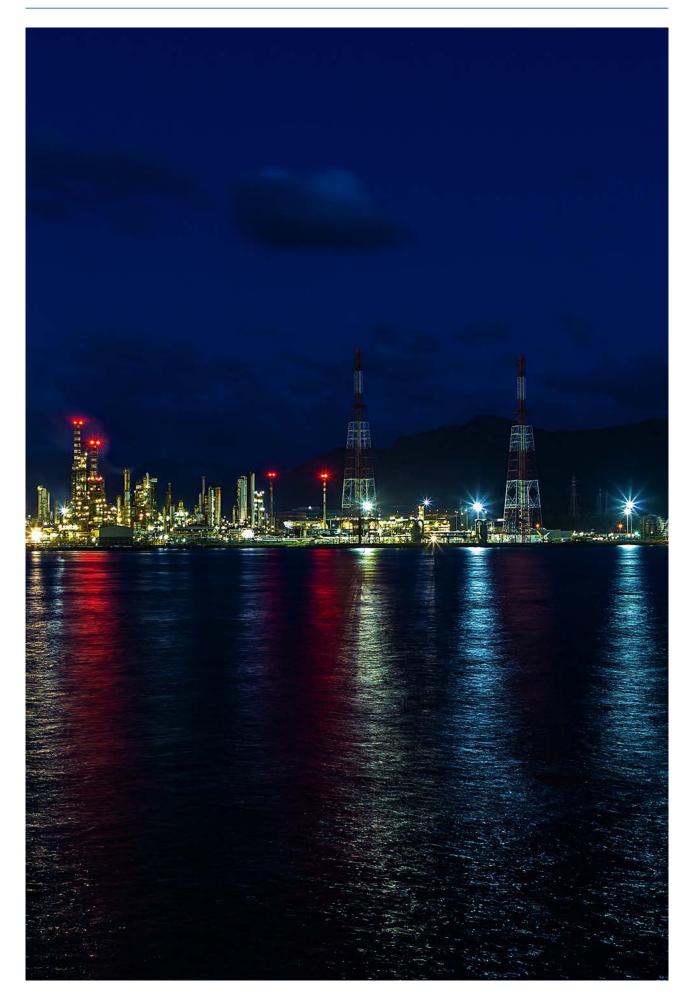
In addition, we are active, through the Sardeolica subsidiary, in the production of electricity from renewable sources. In 2019, the Ulassai wind farm was expanded by installing 9 additional turbines in the Municipalities of Ulassai and Perdasdefogu, thus moving from an installed capacity of 96 MW to the current installed capacity of 126 MW. The works, which began in January, have been completed successfully and on schedule and the new wind generators started operating at the beginning September 2019. Currently underway is the modernisation of the main components and the replacement of the blades, with other larger and new generation blades (the so-called "Reblading"), for the 48 original wind generators. The works, which started at the end of 2019, will be completed during 2020 and, at full capacity, the wind farm will be able to generate approximately 300 GWh/year, compared with 220 GWh generated in 2019. This electricity generation from renewable sources avoids approximately 195 thousand tonnes/year of CO2 emissions, and meets the annual electricity needs of approximately 227,000 people.

Lastly, to address, with even greater determination, the challenge of energy transition, in November 2019, Saras created the new Energy Transition function, which will examine existing and new technologies aimed at decreasing the company's carbon footprint, and assess the opportunities for diversification. The responsibility of the Chief Energy Transition Officer is entrusted to Giovanni Moratti, who has gained relevant experience at the European Commission and has developed an in-depth knowledge on the topics of ecological economics and energy transition, both academically and in numerous collaborations with social and environmental impact start-ups. I therefore hope that this Report will manage to convey the relevance of our activities, showing the spirit that drives all the people of the Saras Group, and their daily commitment for a responsible and sustainable growth.

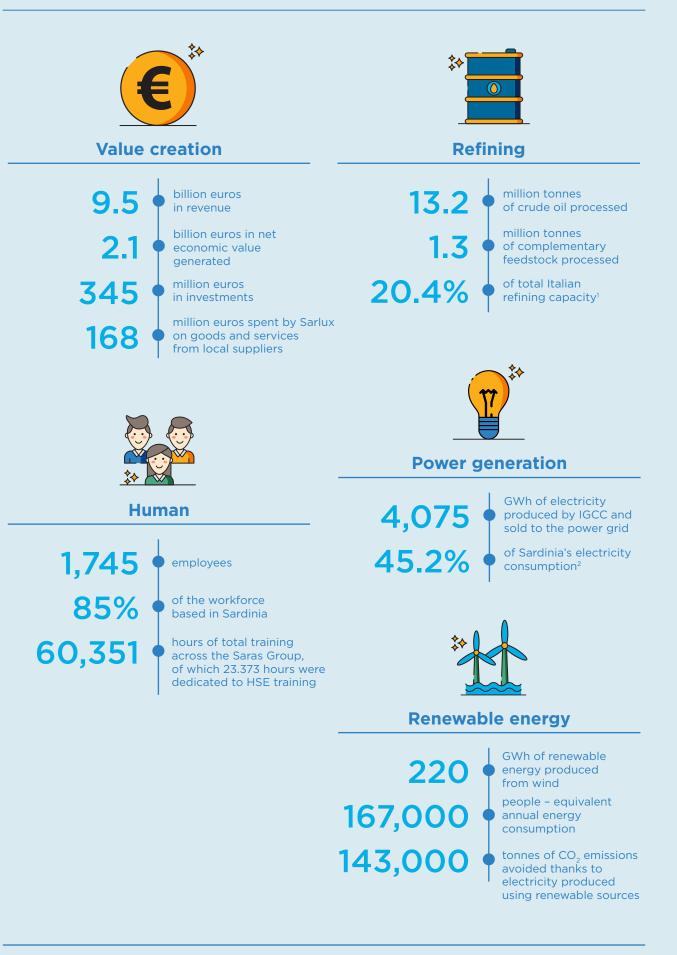
The Chairman Massimo Moratti

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1. Source: UP (Unione Petrolifera) "2019 Preliminary Oil Report" Dec 2019

2. Source: Terna "Monthly Report on the Electricity System" Dec 2019

## SUSTAINABILITY AT SARAS

The Saras Group is one of the main European operators in the oil refining industry, a business that is based on the supply of crude oil, which is then processed into refined products and sold on international markets.

The global dimension of the Group was strengthened by its listing on the Milan Stock Exchange in 2006.

The international nature of the Group's operations is accompanied by the presence of strong local roots. The Sarlux refinery is actually located on the south-western coast of Sardinia, in the Municipality of Sarroch, and it has developed a strong symbiotic relationship with the local community, creating employment, professional skills and large economic benefits, always in full respect of the environment, the health and safety of all the people working at the site and living in neighbouring areas.

The attention paid to social and environmental responsibility is a constant factor in the Group's history and it is immediately confirmed by the large number of investments made over the years, as well as by the many environmental and social certifications obtained. Just mentioning only the main ones, as early as in 1970, more than 5 years before the legislation came into force, Saras started the first biological water treatment. In 1992, the plant for the production of diesel with very low sulphur content (mild-hydrocracking - MHC1) was built; later, in 2000, its capacity doubled with the construction of the MHC2 plant. Between 1994 and 2000, Saras installed various seawater desalination plants, and adopted specific technologies to reduce the use of primary water sources, by recycling and using clarified water derived from treatment, filtration and purification processes. After 2001, operations started for the IGCC plant, which is capable of producing electricity from TAR (heavy hydrocarbon derived from refining) with SO<sub>2</sub> and NOx emissions comparable to those of a natural gas plant. Lastly, in 2009, the construction and start-up of the TGTU plant came to completion. This unit treats the tail gas from Claus cycle sulphur plants, and it allows for the achievement of a further reduction of SO<sub>2</sub> emissions.



## **Group certifications**

Since the early 2000s, Saras S.p.A. has certified the quality of its products using the ISO 9001 management system. The company has promoted the protection of the environment and health and safety at the workplace through tailored investment and a solid system of organisational and management policies applying to the whole Group. These set out the core principles of the Group's sustainably approach and are certified to the highest international standard.

More specifically, an ISO 14001-certified Environmental Management System has been in place at the Sarroch industrial site since 2004. Since 2013, the site has been entirely owned and managed by the subsidiary company Sarlux S.r.l., following the transfer of the "Refinement Sector" to it by parent company Saras S.p.A. In 2007, the industrial site achieved OHSAS 18001 certification for its Safety Management System.

Subsequently, the two systems were integrated with each other and with the management system for the Prevention of Major Accidents (SGS-PIR), provided for by the Seveso Directive (please see Legislative Decree No. 105/2015), synergistically using the common parts and introducing performance measures and the planning of objectives and improvement targets.

The HSE management system is now an integrated system (prevention of major accidents, occupational health and safety and environmental protection) that has come to full maturity over the course of the years. It constitutes the main management tool for achieving continuous improvement of the industrial site; in May 2018, the implementation of the Energy Management System (EMS), certified to ISO 50001, was added to it.

With the aim of keeping the HSE Management System up to date with the development of standards and, therefore, replacing the old OHSAS 18001 standard by 2021, a GAP Analysis was conducted in January 2019 for the introduction of the new ISO 45001 standard for the management of Occupational Health and Safety. In addition to the aforementioned certifications, the Group has voluntarily undertaken, since 2008, the registration of the Sarroch industrial site according to the EMAS protocol ("Eco-Management and Audit Scheme"); in November 2019, the ECO-LABEL-ECOAUDIT committee of Ispra certified the three-year renewal of the EMAS registration (which will now expire on 27th June 2022). In line with the EMAS registration, the Group has published the Environmental Statement each year since 2009, which explains to all stakeholders:

- the activities carried out by Sarlux;
- the environmental aspects, direct and indirect, linked to them;
- the environmental improvement objectives that the company has set for itself.

The document represents one of the main tools of continuous dialogue with the company's internal and external stakeholders. It has the objective of establishing a transparent relationship especially with the population, local authorities and workers, who are the active parties when it comes to proper management of our activities. Following the validation visit, the document is always published on the website of the subsidiary Sarlux, at http://www. sarlux.saras.it/it/emas/.

Furthermore, as early as in 2009, the Sarroch industrial site was the first site in Italy to obtain the Integrated Environmental Authorisation (AIA, Autorizzazione Integrata Ambientale), which integrates all environmental authorisations. Later, the Sarroch plant achieved the AIA renewal with Ministerial Decree 0000263 of 11/10/2017 – Ministry of the Environment and Protection of Land and Sea . More precisely, the activities subject to AIA carried out at the industrial site, fall under Appendix 8 and Appendix 12 of the second part of Legislative Decree No. 152/2006 and subsequent amendments and additions, as follows:

- IPPC category 1.1: Combustion of fuels in a facility with a total nameplate thermal capacity equal to or greater than 50 MW;
- IPPC category 1.2: Oil and gas refining;

<sup>3.</sup> http://aia.minambiente.it/DettaglioProv.aspx?id=6260

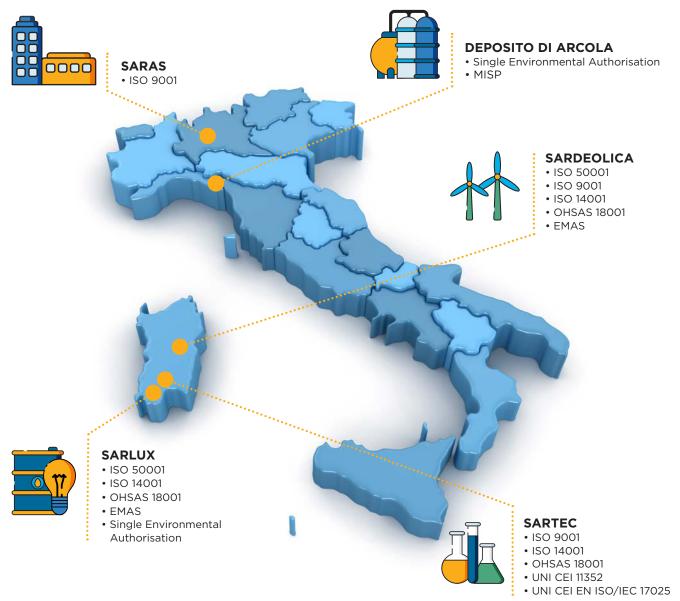
• IPPC category 4.1: Chemical plant for the production of basic organic chemicals.

As regards other subsidiary companies:

- Sardeolica achieved certification of its EMS Environmental Management System, according to the international standard ISO 14001, since 2006. Subsequently, in 2012, it achieved the OHSAS 18001 certification for its Safety Management System and ISO 9001 certification for its Quality Management System. In 2017, it achieved ISO 50001 certification for its Energy Management System and, finally, it obtained EMAS accreditation in 2018.
- Sartec Srl has held ISO 9001 (Quality) certification since 2001, ISO 14001 (Environment) certification since 2011 and OHSAS 18001 (Safety) certification since 2011. It also holds UNI CEI

11352:2014 (ESCO - Energy Service Company) certification and UNI CEI EN ISO/IEC 17025:2018 accreditation for its test laboratory.

In February 2016, Deposito di Arcola Srl obtained Single Environmental Authorisation (AUA, Autorizzazione Unica Ambientale) in accordance with Presidential Decree 59/2013 and Legislative Decree 152/06, for its three different bases (Arcola, Pianazze and San Bartolomeo), covering waste water and atmospheric emissions. In addition, in March 2016, it obtained the Fire Prevention Certificate, issued by the provincial headquarters of the La Spezia Fire Department. Lastly, in September 2016, it obtained MISP certification showing that the industrial site has been made permanently safe, following the construction of an approximately 400m-long physical barrier, and the strengthening of the hydraulic barrier.



## **Industrial Vision**

Saras has always considered holding a highly competitive positioning on an international scale of primary importance, whilst, at the same time, participating in the socio-economic evolution of the environment in which it operates.

The cornerstones of this vision, on which the Group's long-term continuity and sustainability is founded, rest on strategic aspects such as the central position on the oil routes, the size and complexity of the industrial site, the integration with electricity generation and petrochemical products, the attention to the aspects of health, safety and environmental, the commitment to energy evolution and social responsibility topics and the integration with the local context; all these aspects are amplified and supported by the skill and motivation of its people.

More precisely, the geographical position allows for diversification of sources of supply and target markets for product sales, minimising the risk of geopolitical disruptions, typical of the oil business.

The dimension and complexity of the Sarroch site is the result of decades of continuous investment and improvements to the production cycle, particularly as regards the catalytic cracking, mild hydrocracking and gasification and combined cycle plants, which are amongst the best in Europe in terms of capacity and technology. The site was further bolstered at the end of 2014 through the integration of the petrochemical sector, thanks to the acquisition of a business unit of the nearby industrial site owned by Versalis. Subsequently, the upgrading and efficiency increase of the refinery energy system began (with the disposal of the old power plant and the electrification of the main units), as well as the repowering and enhancement of electricity generation from renewable sources (in the Ulassai wind farm).

The fundamental role of people is underlined by the continuity of direction, a sense of belonging and the contribution to socio-economic growth, specific factors that are an inherent part of the company's history, now pursuing an innovative effort of know-how development. This is also proven by the #digitalSaras programme, a technological development and mindset programme launched at the end of 2016, which has already achieved important results. Currently, the programme continues by expanding the digital structuring of business data, the use of specific tools (including Artificial Intelligence) and, above all, the widespread involvement of people.

Also, there have been significant recent initiatives concerning the evolution of the energy system, as well as a growing attention to ESG topics, as a continuation of a long-standing path initiated by the Group in 2008, with EMAS certification. In fact, in addition to the previously mentioned substantial investments in electrification and wind energy, it is worth noting the clearly relevant role of the sustainability strategy in the corporate Purpose, the inclusion of ESG objectives in the 2020 budget, and the creation of a "Energy Transition" department to explore new technological solutions.

These last elements effectively contribute to guide industrial activity towards medium/long term sustainability, which evolves and consolidates in relation to market scenarios, technological opportunities and social needs.



## Strategic approach

In 2019, the Group modified its **"Purpose"**, defined originally in 2009, to consolidate and renew the "one organisation" culture, overcoming geographic boundaries and occupational differences between the various Group companies, and uniting all under a single entity characterised by a common Dream, as shown below:

## SARAS GROUP PURPOSE

## DREAM

To be innovative, sustainable and a reference point among energy providers

## BELIEFS

Safety and environmental protection Create sustainable value Be a part of and a reference point for the community Develop our people's potential by fostering their professional growth The place to be Skills and knowledge are our key assets Develop innovation Strenght is in the Group

### SPIRIT

Energy is our passion

## ATTRIBUTES

Ambitious Achievers Open-minded Connected Proud Passionate Transparent Responsible

#### GIC THE GREATEST IMMAGINABLE CHALLENGE

Undertake a Transformation that fundamentally drives improved value for the business

## FOCUS

Step Higher

"To be innovative, sustainable and a reference point among energy providers" is an ambitious goal, precisely, a Dream, that Saras' people pursue daily with determination and a sense of responsibility, passion and pride. Skills and the highest professional standards are the foundation of a high-performance level that, combined with the innovation of processes throughout the supply chain, makes the Saras Group a benchmark in the refining industry.

The **Beliefs** (or founding values) that drive the people of the Group define the ways in which sustainable benefits are generated for shareholders and employees, as well as for all other stakeholders, such as customers, suppliers and the entire local community in which the company operates.

The Saras people work together, in synergy, according to the **"Step Higher" Focus**, at the root of the Group's sustainability. With this approach, everyday routine activities are conducted on this basis, as are the most complex strategic challenges. We are not satisfied with simple improvement: we are constantly looking upwards, to arrive at higher and more ambitious technical and operational performance levels.

Lastly, **"Energy is our passion"** represents the **Spir**it with which the Group addresses the **Greatest Im**aginable Challenge (GIC), i.e., that of **"Undertak**ing together a Transformation that fundamentally drives improved value for the business": all Saras' activities involve a transformation process, which certainly applies to the raw material, but also to the people themselves. In fact, just as many varieties of raw materials are transformed by Saras into a myriad of finished products, greatly increasing their value, in the same way the Group's activity is a powerful driving force that creates value for internal and external stakeholders, who live and work in neighbouring territories.

As regards the above, the Purpose aligns the Group's Sustainability Strategy with the following "United Nation Sustainable Development Goals":



## **Saras' Priorities**

#### **Dialogue on sustainability in 2019**

As in previous years, in 2019, the Group continued and intensified the dialogue process with stakeholders, both internally (employees and managers) and externally (suppliers, the media, local communities, schools and universities, trade unions, organisations, institutions and representatives of the international financial community). This approach to participatory engagement enabled the further updating of the Group's matrix of materiality.

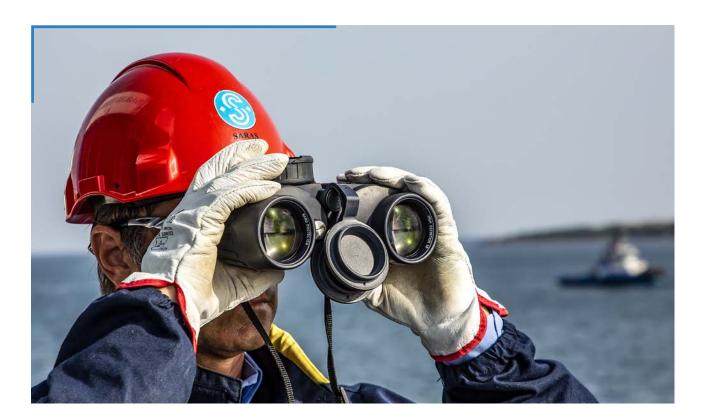
The process of identifying priorities has followed the methods that had been already tested and consolidated in the past. Thus, the usual screening of the local and national press was repeated, as was the comparison with the non-financial statements prepared by leading Italian and international companies. From these analyses, it was possible to confirm, also for financial year 2019, the validity for the Saras Group of the 17 materiality topics identified last year, without the need to make changes and/or additions, as reported in the table below:

## SUSTAINABILITY TOPICS

Biodiversity	F
Energy efficiency	л. Ц
Air pollutants and greenhouse gases emissions	ONMEI
Waste and discharge management	RO
Water resource management	NVIR
Odours	Ш

Training and development of human resources Human resources management Employment and creation of local value Equal opportunities Local community relations Health and safety

Anti-corruption	SS SS СШ
Human rights	NAN
Supplier and procurement management	
Technological innovation	ы В Ш В С
Compliance	0 9 N



#### Stakeholder engagement process

Also this year, the engagement process continued with internal and external stakeholders alike, but the number of people involved has been significantly higher than the previous year.

As regards the Group's **Top Management**, three new representatives who were not present last year sorted the 17 materiality topics by relevance, illustrating their vision, objectives and main initiatives in progress or to be implemented. Their contributions were then merged with those of the other top managers interviewed in past years, and have enriched, with various nuances and perspectives, the Saras sustainability strategy.

Also on the internal front, an online questionnaire on the 17 topics was submitted to a population of 314 people including **managers, middle managers and white collar staff**, obtaining a percentage of responses of more than 77% of those involved. The data thus collected replaced the responses provided to the 2018 questionnaire in their entirety.

It is interesting to note that participation in the 2019 questionnaire was significantly higher than in 2018 (when 322 people were involved with 50% of responses). This indicates the increased sensitivity to ESG issues within the company, as well as the marked enthusiasm to be able to participate in the definition of the Group's sustainability priorities.

Therefore, by combining the top management's indications with the results of the internal questionnaire, we have determined "internal" dimension of the materiality for the Group. Also, in this financial year, there was a substantial alignment on priorities, at all levels of the corporate hierarchy.

In parallel with the internal investigation, once again, this year, a new category of external stakeholders (the so-called **"Maritime Operators"**) became involved to supplement and broaden the contributions collected through the interviews of the previous two-year period, to move towards an even more defined and precise vision of the social, environmental, economic and governance priorities, as expressed by the local community.

More precisely, 20 people were involved (Maritime Agencies, Inspectors, Cooperative Boatmen, Tugs, as well as the Port Authority of Cagliari), identified among the individuals most involved in the new business of maritime bunkering that Saras launched at the beginning of September 2019 to allow for the refuelling of vessels either at the Sarroch harbour, or at the Port of Cagliari and the Porto Canale (see the box dedicated to bunkering operations).

The company maintained the same methodology by presenting the new sample of external stakeholders with the same list of 17 sustainability topics. Through telephone interviews, the new stakeholders were asked to order the topics based on their specific priorities. The opinions gathered were then merged with those related to the interviews conducted in 2017 and 2018 and have overall contributed to the formation of the "external" dimension of the materiality for Saras.

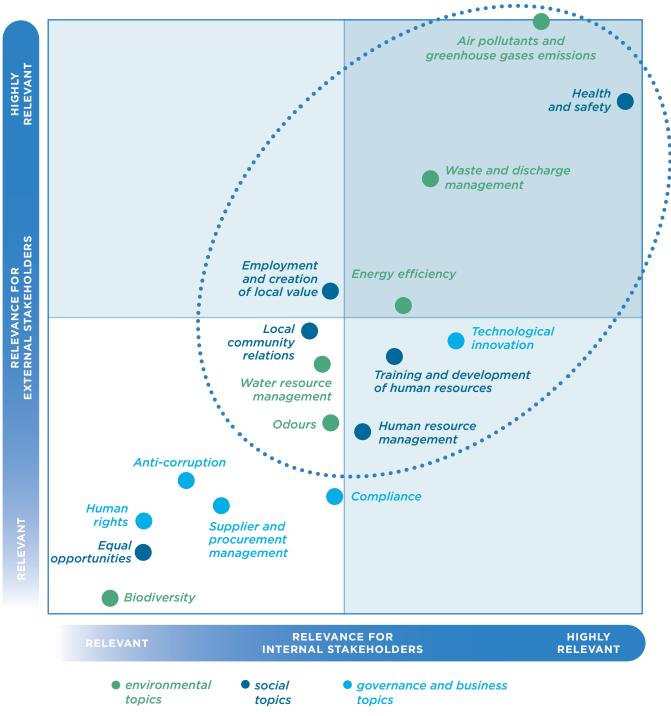


## **OUR STAKEHOLDERS**

With this new engagement activity, it is considered that all the categories that are most relevant to the Group have now been covered (Associations and civic organisations; the Media; Trade Unions; Schools and Universities; Institutions; Suppliers; Financial Analysts, Institutional Investors and, indeed, now also the Maritime Operators); therefore, in future years, there will be further additions of new stakeholders, but they will, nevertheless, fall within the aforementioned categories.

#### **Materiality matrix**

The materiality matrix of the Saras Group was created by merging the views of all the stakeholders involved in the engagement process. The x-axis of the matrix shows the priorities (in ascending order from left to right) assigned to the various topics by internal stakeholders, whilst the y-axis shows the priorities assigned by external stakeholders, in ascending order of relevance from the bottom upwar



## MATERIALITY MATRIX

For the treatment of the aforementioned materiality topics, Saras chose to adopt for the entire Group the reporting framework identified in the "Global Reporting Initiative – Sustainability Reporting Standards" (GRI Standards), provided by the Global Sustainability Standards Board (GSSB).

#### **Priority topics**

A detailed analysis of the matrix shows that, in general, the internal vision is well aligned with the external one, as regards the priority of the 17 sustainability topics. This can be ascertained by noting that most of the topics are positioned close to the diagonal at 45 degrees (this ideal line, in fact, indicates positions characterised by the same weighting, both for the internal and for the external stakeholders).

More specifically, the four topics placed in the upper right quadrant (Air Pollutants and Greenhouse Gases Emissions, Health and Safety, Waste and Discharge Management, Energy Efficiency) are those considered extremely important and therefore material both by the company and the local community.

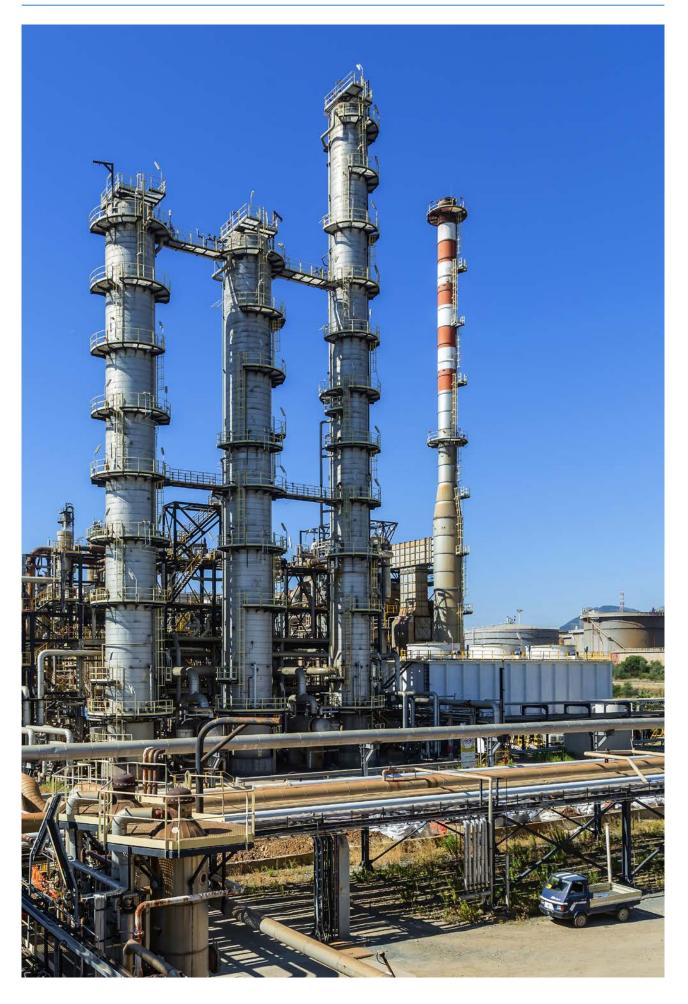
Four other topics, instead, are positioned in quadrants of the matrix characterised by a high importance only for one of the two groups of stakeholders (Employment and Creation of Local Value, Technological Innovation, Training and Development of Human Resources, Human Resources Management). The Group nonetheless believes that for these topics it is important to clearly and precisely communicate its strategies, objectives, results achieved so far and potential associated risks.

Three other topics were very close to the quadrants of high importance (Local Community Relations, Water Resources Management and Odours) and, therefore, the Group decided to consider them equally important, reporting on them with the same modalities mentioned in the previous section.

Lastly, the final six topics in the lower left quadrant (Compliance with Regulations, Supplier and Procurement Management, Anti-Corruption, Human Rights, Equal Opportunities and Biodiversity) are considered non-material and less necessary for in-depth analysis, given that Saras is recognised as having a high degree of commitment and effectiveness in the management of such topics.

These topics are in fact seen as absolutely under control by the Group, that has a Code of Ethics, adheres to the Corporate Governance Code of companies listed on the Milan Stock Exchange and complies with all relevant national and international legislation, including those regarding anti-corruption and the protection of human rights.





## GROUP IDENTITY

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## **The Saras Group**

With a presence in the oil and energy sector since 1962, the Saras Group is now one of the leading independent refining operators in Europe.

The parent company, **Saras SpA**, based in Milan, performs coordination functions and is active in the Italian and international oil market.

The Group's industrial core is managed by the subsidiary **Sarlux Srl**, which owns and operates the Sarroch site, on the south-western coast of Sardinia, which is one of the largest refineries in the Mediterranean in terms of production capacity (approximately 15 million tonnes per year, equal to 300 thousand barrels per day) and one of the most advanced in terms of plant complexity (Nelson Complexity index equal to 11.7).

In the early 2000s, the refining activity was complemented with the production and sale of electricity, by starting operations of an IGCC (Integrated Gasification Combined Cycle) plant, one of the biggest of its kind in the world. Indeed, the Sarroch IGCC has an installed capacity of 575 MW and in 2019 it contributed more than 45% of Sardinia's electricity requirements.

Lastly, in early 2015, Sarlux acquired the neighbouring petrochemical plants, owned by Versalis (ENI Group), expanding its productive offering also to certain categories of aromatics and intermediates for the petrochemical sector.

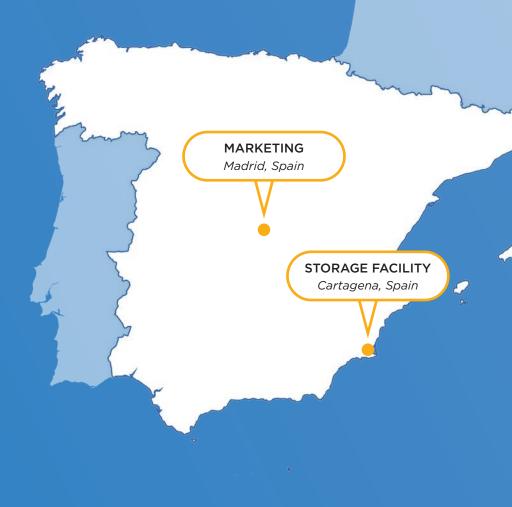
Over the years, the investments aimed at increasing the industrial site's capacity and efficiency have gone hand in hand with the attention to safety and the respect for the environment, significantly involving local communities, both directly and indirectly. More specifically, the Saras Group has traditionally sourced local resources for the skills needed for its development. In addition, also for the procurement of goods and services (for bids with the same financial terms), Saras has attempted, as far as possible, to give priority to firms belonging to the local community, helping them to become competitive also outside of Sardinia and national boundaries.

As regards the business model, the Group has developed a process of integrated management of the refinery's production activities with the planning and commercial activities. In this context, a subsidiary was established, **Saras Trading SA**. The company has operated out of the Geneva headquarters since early 2016, acts under an agency contract on behalf of the parent company and is focused on purchasing crude oil and other raw materials required in refining, selling the finished products from the refinery and – taking advantage of its strategic location – it also undertakes independent trading activities involving oil commodities.

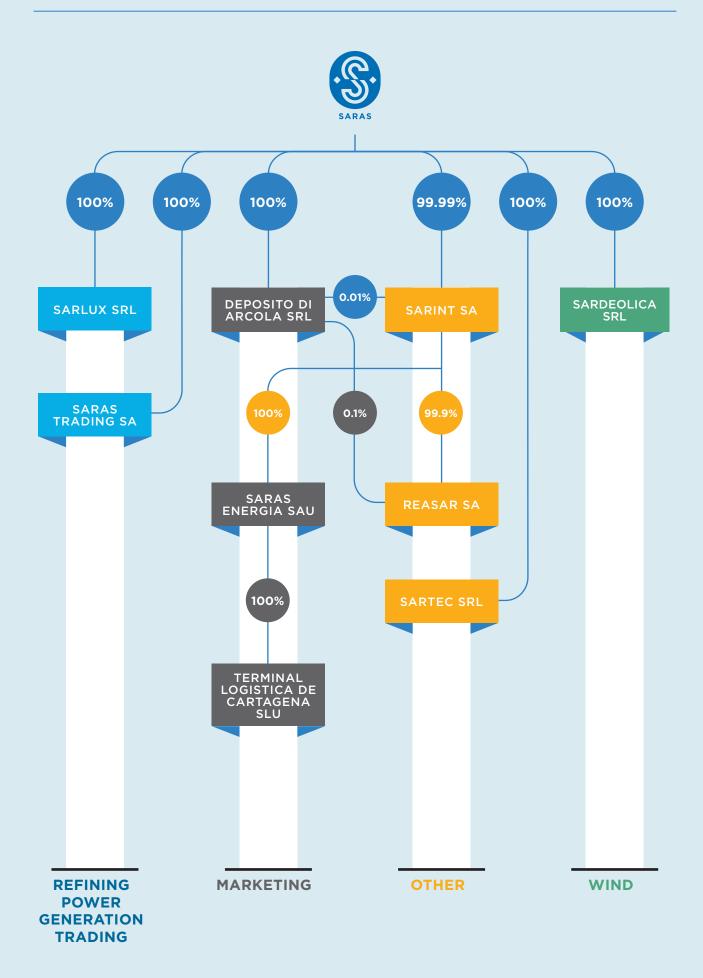
The Group sells and distributes, directly and through its subsidiaries, oil products such as diesel, gasoline, gasoil for heating, liquefied petroleum gas (LPG), virgin naphtha, fuel for aviation and maritime bunkering, mainly on the Italian and Spanish markets, but also in various other European and non-European countries. Specifically, in 2019, approximately 2.16 million tonnes of oil products were sold in Italy on the wholesale market, and a further 1.42 million tonnes were sold on the Spanish market through the subsidiary Saras **Energia SAU**.

Since 2005, Saras has also been active in the production and sale of electricity from renewable sources, through the subsidiary **Sardeolica Srl**, which owns a wind farm in Ulassai (Sardinia). During 2019, this farm was expanded with the installation of 9 new wind turbines and has currently achieved an installed capacity of 126MW. The wind farm maintains the Group's ethos in all respects: since its constitution, local community relations have been driven by transparency, open dialogue and productive collaboration, aimed at mutual development.

Lastly, **Sartec Srl** is the company which, through its offer of industrial and technological services for the oil, energy and environment sectors, develops targeted solutions to ensure energy efficiency and industrial reliability. Furthermore, it also provides solutions for environmental efficiency, through engineering services, monitoring, environmental analysis and measuring systems and analytical services.







### **Key markets**

The Group's key markets are the oil market, international by nature (both with regards to suppliers of raw materials and also to the main customers for the refined products) and the electricity market, in which the Group operates by selling exclusively within the national context.

The following table shows revenues from Group's operations, split by geographical area and net of intercompany eliminations. The revenue changes during the three-year period in question are mainly due to price fluctuations, which occur in the oil markets (raw materials and refined products) and – to a lesser extent – also to the production levels achieved by the Group in the various years (as a function of specific scheduled maintenance cycles).

As can be seen, in 2019, approximately 27% of revenues were generated in Italy, whilst this percentage rises to 48% when considering the European Economic Community (EEC).

REVENUE FROM OPERATIONS (THOUSAND EURO)												
Parameter	2017	2018	2019									
Italy	2,214,026	2,346,980	2,596,126									
Spain	249,742	963,848	811,279									
Other EEC countries	922,056	2,993,022	1,154,799									
Non-EEC countries	3,986,913	3,576,177	4,391,196									
USA	185,664	387,840	536,851									
Total	7,558,401	10,267,867	9,490,251									



## SARAS ENERGIA

Saras Energia was created through the merger of Saroil (founded in 1990) and Continental Oil (founded in 1992). For many years it was active in the sale of petroleum products in the Spanish market, both in the "retail channel" (which are the service stations, selling to final consumers, i.e. the automobile drivers) and also in the "wholesale channel" (which are the sales to wholesale operators, industrial companies, public institutions, truck companies, condominiums, agriculturale and fishing companies, etc.)

However, as of July 2019, Saras Energia sold to Kuwait Petroleum Espana SA its retails business, made of service stations positioned on the Spanish territory, directly owned or operated, the ancillary services and the associated personnel. This sale to a primary operator within the sector will allow those assets to develop over time, and to achieve their full potential.

Conversely, Saras Energia will be able to focus its activities on the wholesale channel, taking advantage of the long-standing Group's expertise and the synergies with the other subsidiaries, and Saras Trading in particular.

Following the sale of the retail channel of business, Saras Energia now employes 56 people, and it is one of the largest Spanish operators, with 1.42 million tons of petroleum products sold in 2019 across the entire Iberian Peninsula.

To conduct its business activities, Saras Energia uses storage facilities owned by third parties, (mainly Decal and CLH), as well as its wholly owned subsidiary Terminal Logistica de Cartagena SLU, which owns a tank farm with 114,000 cubic metres of total capacity, fully used (in part directly for the needs of the Group, and in part leased to third-party operators). It is important to underline that, during the past years, Saras Energia has accomplished a profound diversification of its supply channels, with the aim to reposition itself, finding a new equilibrium between being a pure importer and a customer of the local refineries.

The cornerstones regarding the management and operations of the company are summarised in the Policy on Health, Safety, Environmental Protection and the Prevention of Significant Accidents. This important document sets out the ways in which Saras Energia operates; however, it also applies to the many suppliers of goods and services, clients as well as every other stakeholders interacting with Saras Energia's operational sites.

Compliance with regulations and industry best practices is always considered a fundamental investment, in order to guarantee the future of the company and its most important resources: its people and its company image and reputation in the oil industry and society as a whole.

To this end, Saras Energia has launched training programmes concerning the company's Code of Ethics and the prevention of criminal offences. Furthermore, Saras Energia also runs a range of different initiatives designed to facilitate - as far as possible - a balance between work and family life, as well as offering a range of different benefits to its employees. Among the main initiatives and benefits, it is worth mentioning: Flexible working hours; Complementary health insurance for spouses and children; Life insurance; Meal vouchers; Internal and external training programmes and cooperation with schools; Open days and two-week internships for employees' children; Awards and Grants towards extra-curricular training activities (Master's courses, etc.).

### Membership

The oil and electricity sectors in which the Saras Group is active are influenced by national, European and international standards and regulations. The Group therefore performs continuous monitoring of the new measures adopted, as well as those in the process of discussion and finalisation. The Group also maintains a dialogue with institutions and the main operators in the sector, as well as actively participating in relevant associations (Unione Petrolifera, Fuels Europe, Concawe, ANEV, Elettricità Futura, World Energy Council, etc.), with expert representation in governing bodies, specific commissions and technical workshops.

The main national and international associations and bodies to which the Saras Group belongs are listed below.

ASSOCIATION	DESCRIPTION	MEMBER COMPANY
<i>Italian Electrotechnical and Electronic Association (AEIT)</i>	Association that aims to promote and encour- age the study of electrics, electronics, automa- tion, informatics and telecommunications and the development of related technologies and applications.	SARAS
<i>Associacion Espanola de Operadores de Productos Petroliferos (AOP)</i>	Spanish association that brings together the main companies operating on the Iberian Penin- sula with activities of exploration, extraction and processing of oil, and distribution of refined oil products, with the aim of defending the general interests of the associated companies.	SARAS ENERGIA
Italian Chemical Engineering Association (AIDIC)	Association aiming to disseminate technical and scientific knowledge and the results of tech- nological and engineering development in the following industries: chemical, petrochemical, food, pharmaceutical, biotechnology, materials, safety and the environment.	SARLUX
<i>Italian Association of Energy Economists (AIEE)</i>	Not-for-profit organisation that brings together all those who study, debate and promote energy knowledge in Italy. The association is also an independent contact point for Italian energy policy matters, with regards to national and international bodies.	SARAS
National Wind Energy Association (ANEV)	Association that promotes technological re- search and development aimed at using the wind resource and the sensible use of energy, as well as the dissemination of correct information.	SARDEOLICA
FuelsEurope and Concawe	Divisions of the European Petroleum Refiners Association whose members are all the 41 com- panies which manage the oil refineries operating in the European Union. In particular, Concawe conducts research on environmental and health and safety issues relevant to the oil industry.	SARAS
Elettricità Futura [Future Electricity]	The main Italian association for the electricity industry, with over 700 operators with plants throughout Italy and is one of the most impor- tant associations in the industry at European level.	SARAS
European Fuel Oxygenates Association (EFOA)	EFOA is dedicated to promoting ethers as com- ponents of fuels for a cleaner and more sustain- able future.	SARAS

ASSOCIATION	DESCRIPTION	MEMBER COMPANY
Federchimica [National Federation of the Chemical Industry]	One of the main objectives of the National Fed- eration of the Chemical Industry is the promo- tion of the chemistry development in Italy and the elaboration of the guidelines for economic, industrial and trade union policies, as well as in the fields of ecology and environment, develop- ment and innovation, energy policy.	SARLUX
International Oil Pollution Compensation Fund (IOPC Fund)	International fund set up to provide financial compensation for oil pollution damage occur-ring in Member States.	SARAS
<i>Oil Companies International Marine Forum (OCIMF)</i>	Association of oil companies that aims to be the leading authority in ensuring safe and ecolog- ically responsible management of operations involving oil tankers, terminals and offshore sup- port vessels, promoting ongoing improvements in design and operating standards.	SARLUX
Unione Petrolifera [Italian Oil Industry Union] (UP)	Association that brings together the main Italian companies operating in the context of oil pro- cessing and distribution of oil products.	SARAS
World Energy Council (WEC)	International forum that collects industrial, institutional and academic subjects belonging to the energy sector, and which implements and disseminates the results of studies, re- ports and research in the field of energy.	SARAS



#### **Relations with the Financial Community**

The parent company, Saras SpA, has been listed on the Italian Stock Exchange since 2006, and since then it has been actively engaged in communication with the financial community, comprising national and international analysts, institutional investors and retail investors.

As required by the regulations, as well as by the Corporate Governance Code of the Italian Stock Exchange, Saras promptly and transparently notifies all stakeholders of price-sensitive information, useful for assessing investment opportunities and it also holds a high number of meetings with international analysts and investors to provide information that is critical for the sustainability of the business in the long term, such as, for example, the explanation of the business outlook, multi-year industrial plans and its strategy and vision.

The Investor Relations function, together with the top management, holds telephone conversations and carries out roadshow activities in major international financial centres (London, Paris, Milan, Geneva, New York, etc.) to meet investors. Amongst these, there are also various funds that, in addition to considerations related to yield expectations, incorporate within their investment criteria parameters related to compliance with environmental, social and governance (ESG) criteria. In this regard, this Sustainability Report should also be considered as an important tool of qualified communication on issues related to the Group's ESG responsibility.

Saras regularly communicates with the financial analysts who write their equity research reports, with the financial media and also with small retail investors. For the latter, in particular, Saras communication activities predominantly take place via its website (www.saras.it), where comprehensive informative material, presentations and press releases can be easily found. Such documents are useful to keep up-to-date with the Group's performance and outlook, as well as to assess any investment choice.

As a further step in the development of a corporate communication increasingly targeted at involving stakeholders, and in order to upgrade the Group's positioning and reputation on the basis of its real



and continuous evolution, during 2019, the parent company's website graphics and content have been completely redesigned and updated. The architecture of the new site was focused on the Group's new Purpose. In the homepage there are images associated with the values of the Purpose, which refer to the various sections of the website with the aim of providing substance and concreteness. The menu has been aligned with best practices for listed companies, in order to make all information easily available and usable. The content for investors, reorganised with a view to simplifying navigation, has been enriched, maintaining and expanding the possibility of downloading data in Excel, in order to analyse the main performance indicators. Lastly, a Sustainability section has been created in which the data and information contained in the Sustainability Report are given wide visibility, highlighting the materiality topics.

Lastly, in order to regularly reach all the concerned parties, every quarter Saras directly and publicly broadcasts a webcast and conference call for the presentation of its financial results, and makes the full transcripts of these events and all the detailed presentations, available on its website.

Saras is indeed strongly convinced that the transparency, regularity and completeness of its financial communication, in addition to being a regulatory requirement, is essential to satisfy the information needs of its stakeholders, generate trust and value and ensure long-term business continuity and sustainability.

## Governance

The governance of the Saras Group is structured according to the traditional administration and control model which includes:

- a Board of Directors (BoD) responsible for providing correct business management, within which three committees have been established (a Remuneration and Nomination Committee, a Control and Risk Committee, and a Steering and Strategy Committee);
- a Board of Statutory Auditors called on, amongst other things, monitoring observance of the law and of the Articles of Association, and checking the adequacy of the organisational structure of the company's internal control system and administrative and accounting system;
- the Shareholders' Meeting.

The company adheres to the Corporate Governance Code, drawn up by the Corporate Governance Committee and published by Borsa Italiana SpA in March 2006.

### **Board of Directors**

The Board in office as at 31 December 2019 included 12 directors in total, 2 of whom are executive directors and 10 non-executive directors and, amongst the latter, 6 are independent directors.

During financial year 2019, the Board held 5 meetings, which were duly attended by the various directors as well as members of the Board of Statutory Auditors.

Female members account for 19.4% of the Board of Directors, 53.8% of the Boards of Statutory Auditors of the companies belonging to the Group and 35.0% of the Supervisory Boards. The parent company maintains the percentage of women sitting on all bodies, in line with the legal requirements (a third of members).

The majority of the members of the Group's bodies are over 50 years of age. Said members account for 83.3% of the Board of Directors of the companies belonging to the Group, 85.7% of the Boards of Statutory Auditors of the companies belonging to the Group and 100% of the Supervisory Boards.

	BOARD OF DIRECTOR 2019												
Members Position		Year of birth	List*	Executive/ Non- executive	Inde- pendent	Control and Risk Committee	Remuneration and Nomination Committee	Guidance and Strategy Committee					
Moratti Massimo	Chairman	1945	М	Executive				х					
Scaffardi Dario	CEO	1958	М	Executive				х					
Moratti Angelo	Director	1963	М	Non- executive				Chairman					
Callera Gilberto	Lead Independent Director	1939	М	Non- executive	Х	Chairman	Chairman						
Moratti Angelomario	Director	1973	М	Non- executive				х					
Moratti Gabriele	Director	1978	М	Non- executive				х					
Moratti Giovanni Emanuele	Director	1984	М	Non- executive				Х					
Fidanza Laura	Director	1973	М	Non- executive	Х	Member	Member						
Harvie-Watt Isabelle	Director	1967	М	Non- executive	Х	Member							
Cerretelli Adriana	Director	1948	М	Non- executive	х	Member							
Senni Leonardo	Director	1967	m	Non- executive	х	Member							
Luchi Francesca	Director	1961	М	Non- executive	Х		Member						

\* M = mayor list, m = minority list

PERCENTAGE OF MEMBERS OF GOVERNING BODIES BY GENDER 2019													
	E	loard of	Director	rs	Boarc	l of Stati	utory Au	ditors	Supervisory Board				
	F M Tot %F						Tot	%F	F	М	Tot	%F	
Saras Spa	4	8	12	33%	3	2	5	60%	1	3	4	25%	
Sarlux Srl	1	4	5	20%	1	5	6	17%	0	4	4	0%	
Sartec Srl	0	5	5	0%	0	1	1	0%	1	2	3	33%	
Sardeolica Srl	1	2	3	33%	0	1	1	0%	1	2	3	33%	
Deposito di Arcola Srl	0	3	3	0%	0	1	1	0%	1	2	3	33%	
Saras Energia SAU*	0	4	4	0%	0	0	0	0%	1	1	2	50%	
Saras Trading SA	0	4	4	0%	0	0	0	0%	0	1	1	0%	

\* At Saras Energia, there is the Ethics Committee (equivalent of the Supervisory Board in Italy).

PERCENTAGE OF MEMBERS OF GOVERNING BODIES BY AGE 2019																	
	Board of Directors						Board of Statutory Auditors					Supervisory Board					
	30- 50	>50	Tot	% 30- 50	% >50	30- 50	>50	Tot	% 30- 50	% >50	30- 50	>50	Tot	% 30- 50	% >50		
Saras Spa	4	8	12	33%	67%	0	5	5	0%	100%	0	4	4	0%	100%		
Sarlux Srl	0	6	6	0%	100%	2	4	6	33%	67%	0	4	4	0%	100%		
Sartec Srl	0	4	4	0%	100%	0	1	1	0%	100%	0	3	3	0%	100%		
Sardeolica Srl	0	3	3	0%	100%	0	1	1	0%	100%	0	3	3	0%	100%		
Deposito di Arcola Srl	0	3	3	0%	100%	0	1	1	0%	100%	0	3	3	0%	100%		
Saras Energia SAU	2	2	4	50%	50%	0	0	0	0%	0%	0	2	2	0%	100%		
Saras Trading SA	0	4	4	0%	100%	0	0	0	0%	0%	0	1	1	0%	100%		

\* Saras Trading has a Supervisory manager.

#### **Board Committees**

The tasks of the **Remuneration and Nomination Committee** include consulting and expressing proposals in respect of the Board and has, amongst other things, the task of:

- formulating proposals for defining the remuneration policy;
- periodically assessing the adequacy, overall consistency and the practical application of the remuneration policy.

The **Control and Risk Committee** is responsible for providing advice and making proposals to the Board of Directors. More specifically, the Control and Risk Committee:

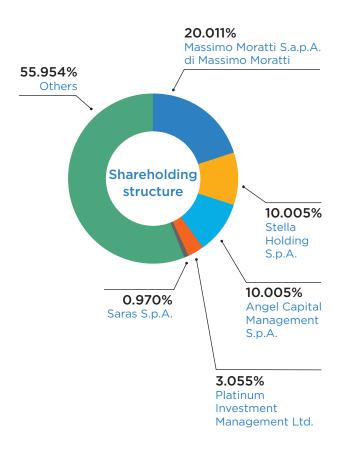
- provides opinions to the Board in relation to:
  - setting out the guidelines of the internal control and risk management system, to ensure that the main risks to which the Group is exposed are correctly identified, measured, managed and monitored;
  - determining the level of compatibility of those risks with a business approach that is coherent with the strategic objectives;
  - assessing the adequacy of the internal control and risk management system with respect to the company's nature and the risk profile assumed, as well as its effectiveness, at least once per year;
  - approving the work plan prepared by the Internal Audit Department manager, at least once per year;
  - assessing, after consulting the Board of Statutory Auditors, the results presented by the independent auditors;
  - assessing the correct use of accounting standards and the consistency of such standards for the purposes of preparing the Consolidated Financial Statements, in conjunction with the designated Executive responsible for drafting company accounting documents and in consultation with the independent auditors and the Board of Statutory Auditors.

Every six months, the Committee shall report to the Board on its activity and on the adequacy of the internal control and risk management system. The **Steering and Strategy Committee**, established at the meeting of the Board of Directors held on 3<sup>rd</sup> May 2018, pursuant to Article 21 of the Articles of Association and Article 4 of the Corporate Governance Code, provides advisory, propositional and support functions to the Board of Directors in the setting of strategic guidelines for business, finance, as well as guidelines on sustainability, and it is chaired by Angelo Moratti.

#### **Shareholding structure**

Saras is a company listed on the FTSE Italia Mid Cap Index of Borsa Italiana.

The company's shareholder structure is mainly composed of the Moratti family (Massimo Moratti S.a.p.a., Angel Capital Management S.p.A. and Stella Holding S.p.A., controlled by Angelo Moratti and Gabriele Moratti respectively). As at 31st December 2019, the family held 40.022% of the total share capital. Furthermore, on the same date, Saras S.p.A. held treasury shares totalling 0.97% of the share capital. Platinum Investment Management LTD held shares totalling 3.055% of the share capital, with the rest of the shares floating on the market.



## **COMPANY BODIES AND BOARD COMMITTEES**





#### **BOARD OF DIRECTORS**

Sets out strategic direction and ensures correct company management through optimum organisation of the system of company governance and the entire group organisational structure. Three committees have been set up within this.



#### **BOARD OF STATUTORY AUDITORS**

Among other things, it monitors observance of the law and of the Articles of Association, and checks the adequacy of the organisational structure of the company's internal control system and administrative and accounting system.



#### **REMUNERATION AND NOMINATIONA COMMITTEE**

Formulates proposals for defining the remuneration policy and periodically evaluates the adequacy, overall coherence and actual application of the remuneration policy.

#### **CONTROL AND RISK COMMITTEE**

Supports the Board of Directors in setting out the general company direction, undertaking an annual evaluation of the internal control and risk management system, in accordance with strategic objectives, and approving and evaluating financial relations.



#### **GUIDANCE AND STRATEGY COMMITTEE**

Supports the Board of Directors in setting the strategic guidelines for business, finance, as well as sustainability

## **Internal Control and Risk Management System**

In all the Group's activities, Saras pays the utmost attention to comply with the laws, to promote ethical and correct conduct and to prevent corruption.

The Board of Directors is responsible for setting the guidelines for the internal control and risk management system and periodically checks operational adequacy and effectiveness. To perform this task, the Board of Directors relies on the support:

- of the director responsible for the establishment and maintaining of an effective internal control and risk management system ("Director responsible for the internal control and risk management system");
- of the Control and Risk Committee, with the aim of supporting, with appropriate preliminary activities, assessments and decisions of the Board concerning the internal control and risk management system;
- of the Internal Audit Department, which is responsible for checking that the internal control and risk management system is adequate and functional.

The internal control and risk management system is formalised within the Group's regulatory system, and it has been further strengthened with the adoption of an **Organisation, Management and Control Model** (the "Model") pursuant to Legislative Decree No. 231/2001. Each company of the Group has in fact adopted its own Model, which aims to prevent the potential risk of committing those crimes to which the company is indeed exposed, indicating management responsibilities as well as the controls in place so that crimes cannot be committed.

In 2019, with a view towards the continuous revision and updating of the Model in order to adapt it to regulatory and organisational changes, an analysis of areas considered "sensitive" (potentially more exposed to the risk of commission of offences) was carried out for the Saras and Sarlux Models, involving various corporate departments to the ex-



tent applicable, and examining the risks and control measures implemented at a process level.

Saras has also represented its values, principles and standards of conduct in the **Group's Code of Ethics**, with which Saras and its subsidiaries and associates shall comply with when conducting their business. The values shown in the Code of Ethics are also the basis of the relations that the Group establishes with its counterparts.

The Code of Ethics and Model, combined with the corporate vision and mission document – the "Purpose" – and the Articles of Association, represent the reference framework in line with which all the governance documents related to the Group's internal regulatory system, the organisational system and the powers system are developed and approved.

## INTERNAL REGULATORY SYSTEM

The internal regulatory system is split into four hierarchical levels, each of which has its own regulatory tool:

#### POLICY

Policies systematically collate the general principles and rules that inspire all of the Group's

activities. Saras uses this regulatory instrument to manage people, operations integrity, operational excellence, relations with stakeholders, information security, global compliance and corporate governance;



GUIDELINE

Guidelines are the tools through which the Group fulfils its role in terms of guiding and coordinating its departments and organisa-

tional units and its subsidiary companies. Saras has produced two types of guidelines: the Governance/Compliance Guidelines and the Process Guidelines;



#### PROCEDURE

Internal Procedures set out the operational methods according to which the Group's activ-

ities must be carried out;



#### **OPERATING INSTRUCTION**

Operating Instructions are detailed documents on the oper-

ating methods described in the Procedures, split and detailed for each specific department, organisational unit, position and professional area involved.

The Procedures and Operating Instructions are regulatory tools specific to the individual companies of the Group, which incorporate in their operating methods the principles, instructions and control mechanisms set out in the relevant Policies and Guidelines.

Activities and initiatives aimed at checking the implementation and improvement of the control and risk management system of the companies in the Group are implemented by the operational departments, within the scope of the management systems of quality, safety and the environment, and also by the Internal Audit Department. They are defined within an annual plan, drafted according to:

- the Corporate Risk Profile, a document that identifies the significant risks for the Group, monitored every six months by the risk owners;
- the instructions from the top management and the supervisory boards of each company in the Group:
- audits carried out during previous years and their results.

In 2019, the Internal Audit Department carried out 50 audits on the internal control and risk management system (SCIGR).

The results of the audits carried out did not reveal specific critical points regarding the adequacy and implementation of the control measures taken by the companies. Also, audits on the implementation status of the Model (49 audits in total) did not detect any significant non-compliance with respect to what is provided in the Model itself. For the areas of improvement identified, corrective actions were determined in agreement with the managers responsible for the departments concerned, in order to improve the effectiveness of the control management and the existing mitigation instruments. Furthermore, adequate action plans have been defined. Implementation by the deadlines defined for the improvement actions is monitored by the Internal Audit Department.

No case was registered of non-compliance with the environmental and socio-economic regulations and laws, or in terms of the impact on the health and safety of customers who purchase the Group's products.

#### Risk Management and Corporate Risk Profile

Saras' risk management policy, the guidelines of which are defined by the Board of Directors and implemented by the Director responsible for the internal control and risk management system, is based on the constant activity of identifying, assessing and managing (reducing, eliminating or accepting) the main risks related to the Group's objectives, with reference to strategic, operational and financial areas.

The top management is responsible for the periodic assessment of the management of the company's significant risks, by identifying the most efficient and effective control system and management programmes for ensuring the correctness of the company's operations, whereas the risk itself is operationally managed by the manager responsible for the related process, based on the instructions of the top management.

The Corporate Risk Profile is the document with which the Company sets out all the significant risks to which it is exposed (operational and compliance risks), and the Risk Officer is responsible for monitoring and updating it, based on the information on risk assessment and management collected from the Group's risk owners. These results of the half-yearly Risk Assessment monitoring and annual update of the Group's Corporate Risk Profile are shared, as applicable, with the senior management and are submitted to the Parent Company's Control and Risk Committee and Board of Directors.

In 2019, the assessments carried out by the risk owners provided a positive picture of the suitability of the risk control and management activities adopted by the Company.

#### **Saras Group risks**

The types of risks that the Saras Group must manage are of a **financial nature** – such as the exchange rate, interest rate, credit and liquidity risks – and of an **operational and compliance nature**. Below are the main risks with repercussions on sustainability issues (environment, social, governance & business) and the main mitigation actions.



Event / Potential risk	Cause	Management methods and mitigating factors
	CLIMA	TE CHANGE
<ul> <li>Scenario changes that can generate business risks related to energy transition (regulatory, technological, market, reputational)</li> </ul>	<ul> <li>Changed market/competitive scenario.</li> <li>Incorrect / delayed reaction to scenario evolutions linked to climate change and energy transition issues</li> </ul>	<ul> <li>Governance: central role of the Board of Directors and identification of specific support Committees, establish- ment of the "Energy Transition" department.</li> <li>Study and development of new technological solutions to reduce the environmental impact of fossil fuels; develop- ment of renewables and green businesses.</li> <li>Participation with institutional bodies in activities on the topic of energy transition to help form rational policies at national and international levels.</li> </ul>
	COUNTRY/	COUNTERPARTY
• Country risk, political instability: unavailabil- ity of the Raw Mate- rial best suited to the characteristics of the establishment. Increase in the prices of other raw materials.	<ul> <li>Political instability of supplier countries. Oil Embargo.</li> </ul>	<ul> <li>Continual search for new markets and different production mixes, establishing relationships with new potential counterparties.</li> <li>Continuous monitoring of the situation. Optimal geographic plant positioning with reference to the European market. Plants with excellent production flexibility that are able to adapt to various raw material mix situations. Specific supply chain optimisation initiatives. Assessment of counterparties.</li> </ul>
	REGULATOR	Y DEVELOPMENTS
<ul> <li>Inadequate monitoring of the risk of legislative developments</li> <li>Incorrect / delayed reaction to adverse developments in the applicable legislation</li> </ul>	• Evolution of legislation at an EU and nation- al level. Continually increasing attention of regulators on Environ- ment Social Govern- ment aspects	<ul> <li>Formalised organised monitoring and an external audit company dedicated to the checking of compliance with legislation. Presence of policies and procedures formalised and defined at the organisational level. Presence of training and communication plans. Monitoring of the channels responsible for reporting changes in legislation. Participation of the Group in industry associations. Review of production structures and planning of necessary investments.</li> <li>Structured monitoring system regarding legislative amendments and developments and on the possible effects and presence of a management and the company leadership reporting system and externally, where required.</li> </ul>
	PRODUCTIO	N INTERRUPTION
<ul> <li>Significant breakdowns or damage to plants during the production process</li> <li>Inadequate manage- ment of maintenance on plants and machin- ery</li> <li>Damage to the Sarroch docks rendering them unusable for a signifi- cant period of time.</li> <li>Natural disaster (tidal wave, inundation, flooding and over- flowing of the streams surrounding the production site) and consequent damage to the site.</li> </ul>	<ul> <li>Inadequate maintenance planning. Incorrect plant maintenance. Inability to assess the failure history of the plant.</li> <li>Severe weather of particular intensity. Incorrect manoeuvring of a ship.</li> <li>Natural event.</li> </ul>	<ul> <li>Integrated Management System, dissemination of a reliability culture, continuous training and information activities, process monitoring (internal/external audits), presence and application of a Sanctioning System and system automatisms (process automation and instrumentation of the process monitoring and control system).</li> <li>Implementation of three categories of maintenance interventions: preventive, predictive and "breakdown maintenance". Preparation of intervention sheets and periodic inspection. Complete revisions of some critical plants with the collaboration of the manufacturer. Existence of a maintenance personnel selection process. Enhanced predictive monitoring.</li> <li>Design and construction characteristics of the dock such as to compensate for its partial unavailability. Port regulation for the approach and unloading of ships. Stipulation of insurance that is limited to specific categories of events. Application of Minimum Safety Criteria and vetting procedures. Organisational choices (appointment of anti-pollution/PFSO manager).</li> <li>Securing of embankments and rainwater discharges; operational procedures for the securing of plants.</li> <li>Stipulation of insurance policies.</li> </ul>

Event / Potential risk	Cause	Management methods and mitigating factors				
	OCCUPATIONAL	HEALTH AND SAFETY				
<ul> <li>Serious or potentially serious accidents to persons during the production process.</li> <li>Serious or potentially serious accidents to persons directly or indirectly involving contractors.</li> </ul>	<ul> <li>Inadequate training on safety issues. Inade- quacy of safety rules. Violation of safety rules and/or proce- dures (e.g.: "forcing" of blocks) and/or opera- tional error.</li> <li>Insufficient monitoring of contractor or on-site personnel. Interference among the personnel of the different com- panies.</li> </ul>	ment system, and obtainment of OHSAS 18001 certifi- cation. Diffusion of a culture of safety through training activities and constant sharing of information. Enhanced operational planning. Activity monitoring (internal/extern audits). Presence and application of a Sanctioning System Safety Management Process and system automatisms (safety and integrity of plants). Use BBS (Behaviour Base Safety). Enhancement of predictive monitoring (e.g., "digit tal" monitoring, definition of analytical monitoring sets).				
	ENVI	RONMENT				
• Exceeding legal emis- sion limits for discharg- es /emissions	<ul> <li>Operational error; accident; violation of operating procedures</li> </ul>	<ul> <li>Adoption of an Environmental Management System conforming to ISO 14001:2015 and the EMAS-Eco-Management and Audit Scheme (that periodically requires an in-depth environmental analysis of the activities carried out on the site and the identification of significant direct and indirect environmental aspects). Diffusion of a culture of environmental sustainability through training activities and constant sharing of information. Enhanced operational planning. Activity monitoring (internal/external audits). Presence and application of a sanctioning system.</li> <li>Preparation of a set of procedures aimed at defining the modalities for the identification and management of risks arising from the production process and operational changes.</li> </ul>				
	PERSONNE	L MANAGEMENT				
<ul> <li>Resistance from personnel to accept changes of strategy, organisational or oper- ating methods.</li> </ul>	<ul> <li>Stiffening of organisa- tional culture. Inability to follow the evolution of the competitive environment</li> </ul>	<ul> <li>Involvement of personnel to optimise management of organisational changes, along with any possible repositioning. Revisiting the procedural system. Structural interventions to improve organisational flexibility. Progress of the #digitalSaras project.</li> <li>More detailed meetings with the trade unions on the organisation of work and the tools that can be used to create greater efficiency and productivity (including needs and opportunities that "welfare" can assist with).</li> </ul>				
<ul> <li>Organisational structure unable to support the outlined strategy.</li> <li>Key managerial positions vacant.</li> <li>Loss of personnel with key skills or specific expertise.</li> </ul>	<ul> <li>Misalignment of roles and responsibili- ties with respect to strategic objectives. Oversized and static organisation.</li> <li>Absence of an ade- quate succession plan.</li> <li>Internal/external conditions that influ- ence the retention of personnel with higher professional content; ageing of the company population.</li> </ul>	<ul> <li>Improvement of processes and programming and control activities for a more efficient use of resources. Review and updating of roles and responsibilities. Recovery of operational capacity.</li> <li>Knowledge and monitoring of the skills of internal personnel (potential substitutes able to fill the position). External mapping of professionalism with particular reference to the oil sector.</li> <li>Continuous monitoring of the evolution of existing scenarios and resources: external (labour market) and internal (recruitment planning, handover, retirement). Personnel turnover management.</li> </ul>				

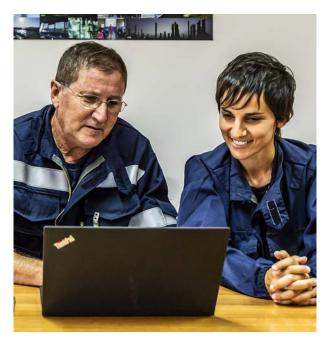
Event / Potential risk	Cause	Management methods and mitigating factors
	CYBEI	RSECURITY
<ul> <li>Cyber-attack that compromises the integrity, availability and/or confidentiality of the information present in the system</li> <li>Insufficient security level of systems</li> </ul>		<ul> <li>Centralised management of Cybersecurity and dedicated support departments on the ICT side as well as on the ICS (Industrial Control System of the refinery plants) side, with the aim of addressing the cybersecurity threats, supporting the business in the choice of the more appropriate remedies, increasing the awareness of the importance of monitoring and control of activities and the spreading of available techniques and technologies to support Information Security.</li> <li>Ongoing Cybersecurity project aimed at improving the positioning of the Saras Group towards the potential risks of cybersecurity attacks (Cybersecurity Posture) in accordance with the Maturity and Security Level objectives defined in the corporate programme.</li> <li>Risk Assessment Activities to identify the main areas of cyber risk, allowing the allocation of resources and the prioritisation of activities on the areas identified as most critical.</li> <li>Training and awareness-raising activities for personnel. Monitoring of legislative developments in this area.</li> </ul>
	Pi	RIVACY
Breach of Privacy leg- islation	<ul> <li>Constant evolution of the reference legis- lation and increased attention of regulators in the area of privacy</li> <li>Inadequate awareness and internal and exter- nal training on privacy management issues</li> </ul>	<ul> <li>Definition of roles and responsibilities of organisational monitoring (Data Protection Officer, Data Processing Managers, appointment of external System Administrators). Preparation and formalisation of DPIA (Data Protection Impact Assessment) with two-year periodicity. Presence of a guideline in the Privacy area in accordance with the provisions of the GDPR (General Regulation on Data Protection), definition of controls over computer systems in the area of Cybersecurity. Constant coordination between Data Protection Officer and Federprivacy.</li> <li>Audit activities for the purposes of ISO 27001 and indicators in the area of breach management.</li> <li>Presence of a six-monthly cybersecurity reporting system towards the corporate leadership and, in case of a data breach, with the Italian Data Protection Authority. Definition of information flows with the Postal Police on relevant aspects.</li> <li>Training and awareness-raising activities for personnel. Monitoring of legislative developments in this area.</li> </ul>

#### Human rights risks

The screening of the risks relating to the respect of Human Rights conducted by Saras did not reveal any critical issues for the Group. Furthermore, the materiality analysis confirmed that respecting Human Rights is not a material topic for the Group.

#### Corruption risks

The Saras Group undertook an analysis of the corruption risks to which the Group may be exposed and identified the departments/areas where this could be a possibility, the responsibilities and the control mechanisms in place to prevent acts of corruption. The company implemented an Organisational Model covering corruption offences as specified in Legislative Decree 231/2001.



## **Corruption prevention**

## Saras condemns corruption in all its forms and engages in promoting business legality and ethics.

The Group has a Code of Ethics and a Regulatory System consistent with it, set on Policies and Guidelines that guide and describe conducts and processes also in relation to the prevention of corruption and fraud.

The purpose of the **Anti-Corruption Compliance Guidelines** is to provide a systematic reference framework in the field of fighting corruption, designed and implemented to prevent corruption phenomena in relations with public or private subjects, besides guaranteeing compliance with the anti-corruption laws in force in the individual countries in which the Group's companies operate. It indicates the rules of conduct and the general control principles, it identifies the main risks, sensitive areas and the specific control principles in these areas.

The **Compliance Guidelines on Fraud Prevention** completes the policy framework for ethical issues, framing the concept of 'fraud' in the business context by providing the general control principles, indicating the prevention, identification and management actions of fraudulent conduct, sensitive areas and specific control principles in these areas.

Also, for these issues, a channel of **communication and management reports** has been activated relating to potential irregularities (alleged breaches of the laws, of the Group's Code of Ethics, of the Organisational Model and of what is provided for in the company's Regulatory System) defined in a specific procedural document.

The audit work carried out in 2019 also covered issues related to the prevention of corruption, especially in areas considered to be most sensitive.

In 2019, no corruption incidents were identified.

#### **Key Risk Indicators (KRIs)**

The Group has undertaken a programme aimed at optimising and strengthening the company's internal control system through a fraud prevention project.

Between 2015 and 2019, analyses were performed on the processes of Procurement, Wholesale marketing activities, Maintenance, Materials Warehouse and oil logistics management. The analyses assessed anti-fraud measures used by the Company in order to identify any points of weakness and define remediation actions.

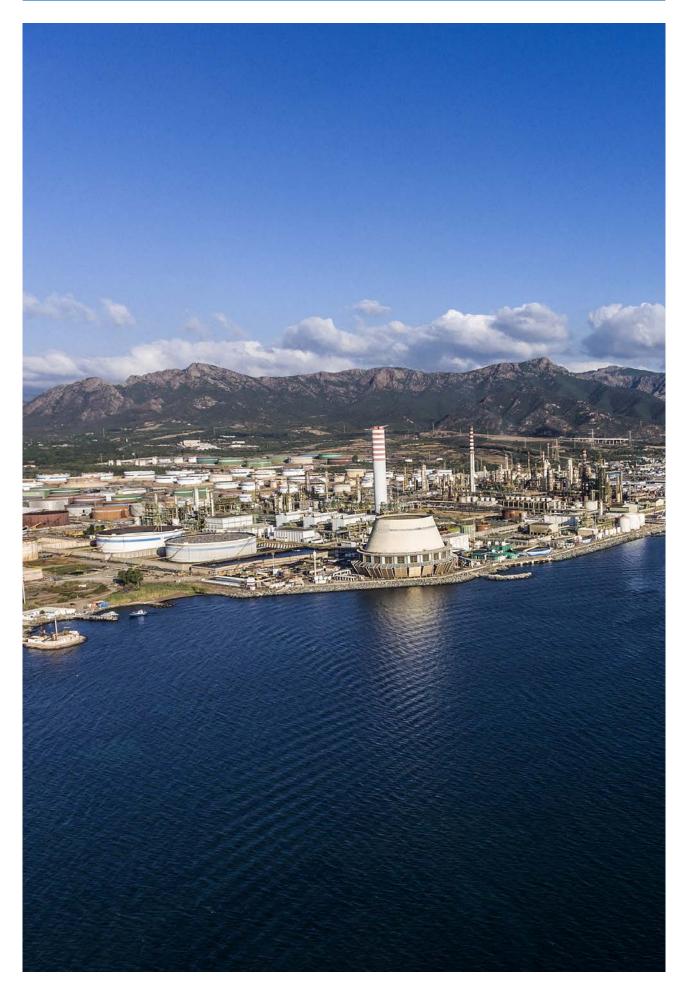
In certain of the processes examined, the implementation of risk indicators (Key Risk Indicators - KRIs) has been suggested. This would serve to ensure continuous and automated monitoring of certain phenomena by department managers to intercept any anomalies or potential cases of fraudulent conduct. The KRIs are monitored by department managers and during audits, by the Internal Audit.

## **Human rights**

Saras operations have always been respectful of human rights. The Group expresses its commitment to respecting human rights within its Code of Ethics and promotes it in all its subsidiaries.

Furthermore, the Group also protects human rights along the supply chain of goods and services necessary for the activities of each of its subsidiaries, through careful assessments of the suitability of suppliers and contractors.

Specifically, in addition to ascertaining the existence of technical and financial capabilities, suppliers and contractors must comply with all the existing regulations in the areas of health, safety and environmental protection; furthermore, they all must sign for acceptance the Saras Code of Ethics, thereby assuming the same commitments as the Group, as regards the protection of human rights.



# OUR PEOPLE



## Health and safety

#### Safety is our energy.

"We want to see ourselves and be seen as an industrial group made up of people who live and promote a culture of safety through our daily actions."

Saras has always been passionately committed to promoting and encouraging a culture of safety at all levels of the company through a raft of initiatives, ongoing training activities and checks designed to ensure optimum performance, compliance with principles, respect for best practices and adherence to the highest national and international standards for safety in the workplace. The Group also cooperates with Confindustria Energia (the General Confederation of Italian Energy industries), INAIL (the National Institute for insurance against injuries at the workplace) and trade unions in order to promote this culture in the local community and amongst people with whom it interacts, particularly suppliers.

With the aim of protecting the health and safety of its employees, contracting firm staff, as well as anyone else who has access to the Sarroch industrial site, the Group prepared and adopted H&S Policies that manage every aspect of health and safety, from the upgrade of the safety requirements of the plants according to regulatory developments, to the regular risk assessments, training, promotion and other awareness-raising activities, both internally and locally.

Specifically, the subsidiary Sarlux, the owner of the operationally relevant site, possesses an HSE Management System for handling aspects related to the Prevention of Major Accidents, the protection of the Health and Safety of Workers and Environmental Protection, in compliance with the Seveso Directive and certified according to international standards: ISO 14001, EMAS Regulation and OHSAS 18001.

#### **Safety Management and Trade Unions**

Legislative Decree No. 81/2008 establishes, amongst other things, that, for some industrial sites<sup>4</sup> a Workers' Representative for Safety and the Environment (RLSA, *Rappresentante dei Lavoratori per la Sicurezza e l'Ambiente*) is appointed for the site, and he/she is responsible – according to the law – for protecting the rights of workers in occupational safety matters. Elected by workers through the intermediation of the company's Trade Union Representatives, this function is also required by the National Collective Labour Agreement for Energy and Oil sectors, which is applied by Saras to its employees.

In the collective agreement adopted by the Group, as a result of the continuous and open dialogue with Trade Unions and Confindustria, a specific section dedicated entirely to HSE-related regulations has been introduced, in order to describe the strategies, objectives, responsibilities, activities and the Labour/Management relations system built to manage HSE topics. Specifically, provision has been made for the establishment of a Joint National Body – comprising Confindustria Energia, workers' and Trade Union representatives – intended to support and monitor any actions related to health, safety and the environment, including training and information activities.

<sup>4.</sup> Identified in Article 49 of the same Decree

#### **Injury frequency indices**

The Saras group promotes, at all levels of the company, the culture of safety through training, sharing and verification of the degree of effectiveness of the activities carried out. In fact, spreading the culture of safety translates into a continuous action of research, training and the creation of working conditions aimed at progressively reducing emergency and injury events for the workers of the Saras Group and of its contracting firms, with the objective of achieving "zero accidents", including through the BBS (Behaviour Based Safety) protocol which is divided into three phases:

- 1. All workers, in rotation:
  - observe the conduct of colleagues whilst performing their duties;
  - record their observations regarding conduct in a dedicated sheet;
  - give feedback to the colleagues observed;
  - note and insert data and comments in the system.

- 2. The HSE Implementation Committee (composed of Operation Managers, Operation Supervisors and HSE Analysts) once a month:
  - analyses the report on the department's events;
  - analyses the graphs on observations and conduct;
  - defines priorities for HSE maintenance activities;
  - defines conduct improvement targets;
  - establishes the outline for the meetings between the Shift Leaders and the Operators.
- After the analysis of the HSE Implementation Committee, a team meeting is convened to communicate the findings of the analysis and define improvement targets.

The table below shows the progress of the project since its launch.

		BEHAVIOR BA	SED SAFETY		
Parameter	2015	2016	2017	2018	2019
Observations carried out [No.]	2,320	6,230	16,940	21,925	24,100
Safe behaviour [%]	97%	98%	98%	98%	98.1%
Plant areas involved	Pilot: Energy, Utilities, Movement, Asset (Observation of contractors)	Addition of refinery and northern sites	Entire industrial site - all operating functions	Entire industrial site – all operating functions	Entire industrial site - all operating functions



	INJURY RATES - SARAS GROUP												
2017						20	)18			20	19		
Company	lnju- ries	IF⁵	IG <sup>6</sup>	Near misses	Inju- ries	IF	IG	Near misses	Inju- ries	IF	IG	Near misses	
Saras Spa	0	0	0	0	0	0	0	0	0	0	0	0	
Sarlux Srl	4	2.10	O.11	41	3	1.60	0.07	31	4	2.05	0.08	46	
Sartec Srl	0	0	0	0	0	0	0	0	0	0	0	2	
Sardeolica Srl	0	0	0	0	0	0	0	0	0	0	0	0	
Deposito di Arcola Srl	0	0	0	0	0	0	0	0	0	0	0	0	
Saras Energia SAU	5	7.89	0.17	0	3	4.76	0.15	0	3	11.14	0.32	4	
Saras Trading SA	0	0	0	0	0	0	0	0	0	0.00	0.00	0	
Totale	9	2.71	0.09	41	6	1.81	0.07	31	7	2.30	0.08	52	

			ΙΝͿ		ATES -	соит	RACT	ORS				
		20	)17			20	)18			20	)19	
Company	lnju- ries	IF <sup>7</sup>	IG <sup>8</sup>	Near misses	Inju- ries	IF	IG	Near misses	Inju- ries	IF	IG	Near misses
Saras Spa	0	0	0	0	0	0	0	0	0	0	0	0
Sarlux Srl	3	0.69	0.07	20	6	1.43	0.08	10	9	1.67	0.05	48
Sartec Srl	0	0	0	0	0	0	0	0	0	0	0	0
Sardeolica Srl	0	0	0	0	0	0	0	0	0	0	0	0
Deposito di Arcola Srl	0	0	0	0	0	0	0	0	0	0	0	0
Saras Energia SAU	0	0	0	0	0	0	0	0	0	0	0	0
Saras Trading SA	0	0	0	0	0	0	0	0	0	0	0	0
Totale	3	0.66	0.06	20	6	1.37	0.07	10	9	1.65	0.05	48

This commitment was rewarded in 2019 with the consolidation of values for injury frequency indices consistently lower than the industry benchmarks (CONCAWE), although slightly higher than last year. Specifically, the Group frequency index stands at 2.30 (vs. 1.81 in 2018), also penalised by the sale of the retail business unit, related to Saras Energia service stations. This event drastically reduced the number of hours worked, which is the denominator of the ratio with which the frequency index is calculated.

As regards the gender division, it is noted that the 4 people injured in the subsidiary Sarlux were all men, as were the 9 people injured amongst the contractors. Conversely, for the subsidiary Saras Energia, in 2019, the 3 injuries occurred to women. Moving on to the analysis of the Group's injury lost day rate, it was 0.08 in 2019, broadly in line with the value of 0.07 recorded in the previous year.

The field supervision activities put in place in 2019 have led to the detection of 52 "near misses" (i.e., events that, by modality and type, could have caused an injury) compared with 31 last year.

- 5. Employees Injury Frequency (IF) Index: (No. injuries x 1,000,000/total No. worked hours).
- Employees Lost Day (LD) rate: (No. days lost due to injury x 1,000/total No. hours scheduled to be worked).
   Days lost due to injuries are counted as calendar days.
- 7. Contractors Injury Frequency (IF) Index: (No. injuries x 1,000,000/total No. worked hours).

Contractors Lost Day (LD) rate: (No. days lost due to injury x 1,000/total No. worked hours).
 This index is calculated using hours worked because only the actual hours worked by contractors are known.
 Days lost due to injuries are counted as calendar days.

#### **Employee health**

For the Saras Group, employees' health management is a highly important topic and is mainly carried out via three activities:

- managing emergencies, via the emergency services;
- mandatory health monitoring;
- the provision of benefits in the form of additional medical services, which are not required by legal obligations.

At the Sarroch site, the mandatory health monitoring activities are carried out by two qualified doctors (please see Article 41 of Legislative Decree No. 81/2008), who are joined by certain specialists who provide additional health services, not required by law. Specifically, cardiologists, ophthalmologists and dentists are available to Sarlux, Sartec and Sardeolica employees.

The health monitoring activities for employees of Saras (Milan headquarters), Deposito di Arcola (La Spezia) and Saras Energia (Spain) are under the care of specialists working at the respective relevant sites.

#### Mandatory health monitoring

Mandatory health monitoring includes medical visits, blood chemistry checks, urinary metabolites check, spirometry tests to check respiratory function, eye exams, audiometry tests and electrocardiograms. More specifically, in 2019, more than 6,000 health services were provided, of which over 85% at the subsidiary company Sarlux, approximately 10% at the subsidiary company Sartec and the remainder divided between Saras and Sardeolica. It must be noted that the fluctuations in the number of activities between one reporting period to the next is due to the legal requirements around mandatory health monitoring. For some positions, monitoring is required every two years, whilst for others it is annual.

In accordance with the regulations in force on the protection of the Health and Safety of Workers, and in particular to paragraph 1, Article 243 of Legislative Decree No. 81/08, workers exposed to carcinogens and mutagens shall be entered in a special register containing, for each of them, the activity carried out, the carcinogenic or mutagenic agent used and, where known, the level of the exposure to that agent. This register, known as the "Register of Exposed Persons", established by the Employer, is periodically updated by the qualified doctor.

#### Additional health services (benefits)

The Group provides to its employees also numerous additional health services free of charge, in addition to those that are legally required. On average, over the last few years, approximately 5,500 additional health benefits have been provided, of which approximately 65% involved dental care, 25% blood chemistry tests, approximately 3% cardiological services and the rest were split between mammograms and flu vaccinations.



## Human resources management

The commitment, professionalism, dedication and honesty of its people are fundamental elements through which the Saras Group ensures the growth and prosperity of its business and of the local community.

Investing in people, including through initiatives that facilitate ongoing learning and the ability to contribute to change, continues, therefore, to be crucial for ensuring the sustainability of our business and "undertaking together a Transformation that fundamentally drives improved value."

To this end, Saras bases relations with people on transparency, integrity and mutual trust, commending the professionalism and merit of its employees, ensuring – without any discrimination – the possibility of professional growth and development, whilst respecting the principle of recognising contributions, through remuneration systems that are fair and suitable for the responsibilities assigned.

The Group is also constantly committed to promoting a work environment that feeds the sense of belonging to an organisation capable of increasing the value perceived by the community it belongs to.

The companies of the Saras Group pay great attention to ensure the development of a professional dimension that suits its production and organisation needs, with a logic of sustainability over time of the "employability" of each employee. This also explains how 99% of the Group's workforce has a permanent employment contract.

Staff are selected based on the profiles of candidates matching the company's needs, in accordance with the principles of transparency, fairness and equal opportunities. In this area also, the reference documents are the **Code of Ethics**, the **Policies** and, in particular, the **"Human Resources Process Guidelines"**: this document, valid for the whole Group, aims to regulate the processes and activities related to the management of human resources, and the organisational system and internal communication. It also aims to identify the roles and responsibilities of the various actors involved in the human resources process.

In 2019, the Group's workforce totalled 1,745 employees, most of whom work in Italy (95% of the total), particularly in Sardinia (85%). As of 2019, following the opening of the Rome commercial office of the parent company Saras, the tables show also the workforce details in the Lazio region. There is also a reduction in the workforce of Saras Energia in Spain, linked to the sale of the retail network of service stations.

Within the Group, the company with the highest number of personnel is Sarlux, which employs 1,184 people (68% of the total), followed by the parent company Saras (15%).

In 2019, the number of women employed stood at 239 (14% of the total), of which 236, or 99%, have a permanent contract (compared with 92% in 2018); amongst men, the share of permanent contracts increased slightly compared with the previous year, and it stood at 99%.

These changes are mainly related to the aforementioned sale of the retail network of service stations of the Spanish subsidiary Saras Energia, given that the service station business is subject to seasonal changes, typically managed with fixed-term staff. Also, from the point of view of the type of employment contract, the Group shows a certain homogeneity: 91% of women and virtually all men have a full-time employment contract. Furthermore, where conditions allow, the Group fulfils requests for part-time employment.

	EMPLOYEES	BY COUNTRY	
Country	2017	2018	2019
Italy:	1,617	1,624	1,653
Lombardy	152	156	145
Sardinia	1,450	1,454	1,482
Liguria	15	14	15
Lazio	-	-	11
Spain	309	297	56
Switzerland	18	25	36
Total	1,944	1,946	1,745

	EMPLOYEES	BY COMPANY	
Company	2017	2018	2019
Saras Spa	262	263	266
Sarlux Srl	1,160	1,163	1,184
Sartec Srl	155	160	158
Sardeolica Srl	25	24	30
Deposito di Arcola Srl	15	14	15
Saras Energia SAU	309	297	56
Saras Trading SA	18	25	36
Total	1,944	1,946	1,745

EMPLOYEES BY TYPE OF CONTRACT AND GENDER											
Parameter	2017				2018		2019				
	F	М	Total	F	М	Total	F	М	Total		
Permanent	347	1,539	1,886	350	1,534	1,884	236	1,490	1,726		
Fixed term	25	33	58	30	32	62	3	16	19		
Total	372	1,572	1,944	380	1,566	1,946	239	1,506	1,745		

	EMPL	OYEES E	ву туре	OF CO	NTRACT	AND RE	GION		
_		2017			2018			2019	
Parameter	Perma- nent	Fixed term	Total	Perma- nent	Fixed term	Total	Perma- nent	Fixed term	Total
Italy:	1,589	28	1,617	1,597	27	1,624	1,636	17	1,653
Lombardy	146	6	152	152	4	156	143	2	145
Sardinia	1,428	22	1,450	1,431	23	1,454	1,467	15	1,482
Liguria	15	0	15	14	0	14	15	0	15
Lazio	-	-	-	-	-	-	11	0	11
Spain	280	29	309	262	35	297	55	1	56
Switzerland	17	1	18	25	0	25	35	1	36
Total	1,886	58	1,944	1,884	62	1,946	1,726	19	1,745

EMPLOYEES BY TYPE OF EMPLOYMENT AND GENDER										
Parameter	2017				2018			2019	2019	
	F	М	Total	F	М	Total	F	М	Total	
Full time	346	1,568	1,914	354	1,565	1,919	217	1,505	1,722	
Part time	26	4	30	26	1	27	22	1	23	
Total	372	1,572	1,944	380	1,566	1,946	239	1,506	1,745	

#### **Diversity and equal opportunities**

The Saras Group respects the principle of equal opportunity and avoids any kind of discrimination. An analysis of the division by category and gender shows that men make up the largest part of the group's workforce (86%), as the Sarroch industrial site employs a high level of blue-collar workers. Women presence is higher among clerical and managerial positions (middle managers, executives and managers) and, even more so, among employees with university degrees, where it can be observed an increasing trend over the last three years. In terms of age, 67% of the Group's employees were between 30 and 50 years old in 2019. Indeed, the largest percentage of employees fall in the 30-50 age group for all employee categories, with the exception of executives and managers, 59% of whom are over 50 years of age. In general, the average age of the Group's employees is equal to 45 years.

No incidents of discrimination were identified in 2019.

#### PERCENTAGE OF EMPLOYEES DIVIDED BY CATEGORY AND GENDER 2019

Parameter	Italy + Switzerland		Sp	ain	То	tal	%	
	F	М	F	М	F	М	F	М
Directors and managers	10	48	1	2	11	50	18%	82%
Middle managers	64	236	6	2	70	238	23%	77%
White collars	132	816	17	2	149	818	15%	85%
Blue collars	2	381	9	17	11	398	3%	97%
Total	208	1,481	33	23	241	1,504	14%	86%
	1,689		56		1,7	45	100%	

PER	PERCENTAGE OF EMPLOYEES DIVIDED BY CATEGORY AND AGE 2019											
	Italy	+ Switze	rland	Spain Total			Total %					
Parameter	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Directors and managers	0	22	36	0	3	0	0	25	36	0%	41%	59%
Middle managers	0	163	137	0	8	0	0	171	137	0%	56%	44%
White collars	33	640	275	2	15	2	35	655	277	4%	68%	29%
Blue collars	54	298	31	3	20	3	57	318	34	14%	78%	8%
Tatal	87	1,123	479	5	46	5	92	1,169	484	5%	67%	28%
Total		1,689		56		1,745			100%			

FEMALES WITH UNIVERSITY DEGREE IN ITALY + SWITZERLAND 2019								
Parameter	2017	2018	2019					
% of females holding Uni. Degree vs. Total employees holding Uni. Degree	27.3%	28.9%	29.7%					

#### Workforce

With the exception of the subsidiary Saras Energia, which underwent an 81% decrease of the workforce due to the sale of the retail network of service stations during the year, the Group's workforce in 2019 increased by 29 persons in Italian companies and by 11 persons in the Swiss company Saras Trading. Overall, net of the Saras Energia personnel decrease, there has been an increase of 2.4% compared with last year. Finally, the Group managed to seize the opportunities, offered by the limited turnover, to improve the skill mix of the workforce.

#### **Turnover**

In 2019, out of 146 new hires (8.3% of the total employees), 47.3% were under 30 years old. From the gender point of view, 66.4% of the new hires were men, and the remaining 33.6% were women.

In 2019, the turnover rate in Italy and Switzerland stood at 3.3%, registering the majority of exits in the over 50 age group.

In Spain, the turnover rate was 16.6%, caused by the already mentioned sale of the service stations, which took place during the year, as well as from the need to replace absences due to illness, paternity and maternity, according to seasonality.

#### NUMBER AND PERCENTAGE OF NEW HIRES BY AGE

Deveneter	2017			2018			2019					
Parameter	< 30	30-50	> 50	Totale	< 30	30-50	> 50	Totale	< 30	30-50	> 50	Totale
Italy + Switzerland	20	14	2	36	22	26	9	57	57	37	3	97
Spain	28	72	13	113	42	78	14	134	12	31	6	49
Total	48	86	15	149	64	104	23	191	69	68	9	146
% vs. total workforce	2.47%	4.42%	0.77%	7.66%	3.29%	5.34%	1.18%	9.82%	3.95%	3.90%	0.52%	8.37%

NUMBER AND PERCENTAGE OF NEW HIRES BY GENDER									
Deveneeter	2017			2018			2019		
Parameter	F	м	Total	F	м	Total	F	м	Totale
Italy + Switzerland	9	27	36	17	40	57	18	79	97
Spain	61	52	113	77	57	134	31	18	49
Total	70	79	149	94	97	191	49	97	146
% vs. total workforce	3.60%	4.06%	7.66%	4.83%	4.98%	9.82%	2.81%	5.56%	8.37%

	TURNOVER BY AGE											
<b>_</b> .	2017					20	018			20	019	
Parameter	< 30	30-50	> 50	Total	< 30	30-50	> 50	Total	< 30	30-50	> 50	Total
Italy + Switzerland	1	7	8	16	5	18	20	43	7	12	38	57
Spain	33	74	12	119	40	88	18	146	20	190	80	290
Total	34	81	20	135	45	106	38	189	27	202	118	347
% total workforce Italy + Switzerland	0.05%	0.36%	0.41%	0.82%	0.26%	0.92%	1.03%	2.21%	0.40%	0.69%	2.18%	3.27%
% total workforce Spain	1.70%	3.81%	0.62%	6.12%	2.06%	4.52%	0.92%	7.50%	1.15%	10.89%	4.58%	16.62%
% total workforce	1.75%	4.17%	1.03%	6.94%	2.31%	5.45%	1.95%	9.71%	1.55%	11.58%	6.76%	19.89%

	TURNOVER BY GENDER									
Demension	2017			2018			2019			
Parameter	F	М	Total	F	М	Total	F	М	Total	
Italy + Switzerland	4	12	16	5	38	43	6	51	57	
Spain	66	53	119	84	62	146	178	112	290	
Total	70	65	135	89	100	189	184	163	347	
% total workforce Italy + Switzerland	0.21%	0.62%	0.82%	0.26%	1.95%	2.21%	0.34%	2.92%	3.27%	
% total workforce Spain	3.40%	2.73%	6.12%	4.32%	3.19%	7.50%	10.20%	6.42%	16.62%	
% total workforce	3.60%	3.34%	6.94%	4.57%	5.14%	9.71%	10.54%	9.34%	19.89%	

## TOTAL AND PERCENTAGE OF NEW HIRES AND DEPARTURES BY REGION 2019

	Hii	res	Departures			
Parameter	n.	% vs. Total workforce	n.	% vs. Total workforce		
Sardinia	72	4.13%	45	2.58%		
Lombardy	10	0.57%	9	0.52%		
Liguria	0	0.00%	0	0.00%		
Lazio	5	0.29%	0	0.00%		
Switzerland	10	0.57%	3	0.17%		
Spain	49	2.81%	290	16.62%		
Total	146	8.37%	347	19.89%		

Specifically, in the operationally significant location<sup>9</sup> for the Group, the percentage of senior management<sup>10</sup> belonging to the identified local community (Sardinia) is equal to 62.5%.

#### Absenteeism

The company's absenteeism rate was calculated as the ratio between days of absence and the total number of theoretical workable days, taking into account the differences in the total number of theoretical workable days amongst daily personnel and shift personnel (250 and 219 respectively). In the calculation, absence were excluded when due to holidays, recovery of unpaid overtime hours, service reasons, business trips, and in general all types of compulsory abstention from work; on the other hand, absence due to any other reason was taken into account in the calculation of the absenteeism rate.

As seen in the following table, in the financial year 2019 absenteeism rates ranging between approximately 3% and 5% were recorded in the various companies of the Saras Group.

	A	BSENTEEISM	RATE BY CC	MPANY - 20	19	
Company	Daily / Shift Workers	Days of Absence	Theoretical Workable days	Average Annual Number of Employees	Absenteeism Rate (%)	Weighted Average by Company (%)
Saras Spa	D	2,058.5	252	232	3.52	
Sarlux Srl	D	6,317.2	252	481	5.21	5.06
Sariux Sri	S	7,400.5	219	683	4.95	5.06
Sartec Srl	D	1,362.0	252	157	3.44	
Sardeolica Srl	D	356.4	252	26	5.44	
Deposito di	D	10.0	252	2	1.98	7.00
Arcola Srl	S	102.4	219	12	3.90	3.62
Saras Energia	D	419.0	224	53	3.53	7 6 6
SAU	S	691.0	223	87	3.56	3.55
Saras Trading SA	D	162.0	252	31	2.07	

<sup>9.</sup> For the Group, the location considered "operationally significant" is the Sarroch industrial site, belonging to the wholly-owned subsidiary Sarlux, which is the heart of all the productive activity with the greatest number of employees located in the same place of work.

<sup>10.</sup> Senior management refers to heads of departments, Managers and Executives within the organisation, who report directly to the Chairman or the CEO.

#### Workforce education level

Concerning the education level of the Saras/Sarlux employees, the data in the table below show that 28% have a qualification equal to or higher than the University degree, 65% have at least a high school diploma and only 7% have a qualification below a diploma. Focusing on university graduates, the table below provides a breakdown by area of study. As it can be easily understood, the data show that most of the graduates have a technical/scientific degree (77%), whilst 18% have a degree in Economics, Law or Politics and 5% have a degree in Humanities.

	EMPLOYEES BY QUALIFICATION 2019								
Company	University degree		High school diploma		Middle school certificate		Primary school certificate		Total
	n.	%	n.	%	n.	%	n.	%	n.
Saras Spa	152	57%	105	39%	9	3%	0	0%	266
Sarlux Srl	179	15%	937	79%	66	6%	2	0.2%	1,184
Sartec Srl	100	63%	54	34%	3	2%	1	1%	158
Sardeolica Srl	7	23%	22	73%	1	3%	0	0%	30
Deposito di Arcola Srl	0	0%	12	80%	3	20%	0	0%	15
Saras Energia SAU	11	20%	10	18%	15	27%	20	36%	56
Saras Trading SA	34	94%	2	6%	0	0%	0	0%	36
Total	483	28%	1,142	65%	97	6%	23	1.3%	1,745

	EMPLOYEES BY TYPE OF UNIVERSITY DEGREE 2019									
Company			Engine Archit	ering/ ecture	Sciences		Humanities		Total	
	n.	%	n.	%	n.	%	n.	%	n.	
Saras Spa + Sarlux Srl	63	19%	196	59%	53	16%	19	6%	331	
Sartec Srl	2	2%	71	71%	26	26%	1	1%	100	
Sardeolica Srl	0	0%	5	71%	2	29%	0	0%	7	
Deposito di Arcola Srl	0	0%	0	0%	0	0%	0	0%	0	
Saras Energia SAU	9	82%	2	18%	0	0%	0	0%	11	
Saras Trading SA	13	38%	15	44%	0	0%	6	18%	34	
Total	87	18%	289	60%	81	17%	26	5.4%	483	

#### **Remuneration systems**

Considering the high level of education, skills and professionalism required of the personnel working in the Oil & Gas sector, the Energy and Oil National Collective Labour Agreement (NCLA) and the subsequent second-level negotiation agreements, also typical of this agreement, places the Group companies' wage levels – to which the NCLA applies – at the high end of the market, at values comparable with those of other national competitors, periodically benchmarked by external companies that specialise in conducting such comparisons. Contractual wage levels are applied uniformly to all staff, strictly following the contractual arrangements, without any form of discrimination. For staff employed in Italy, remuneration at first entry in the Group is higher than a value that ranges from a minimum of 15% to a maximum of 20% as defined by the reference NCLA, as a result of the second-level negotiation with Trade Unions, which takes into account the different factors linked, on one hand, to the Group's overall productivity, including the achievement of particular operational objectives that the organisation intends to pursue and on the other hand, the individual contribution of each employee, connected to the continuity of the service provided and presence at the workplace.

Lastly, there are national rules also for personnel employed in Spain, establishing minimum wage levels, updated annually. Saras Energia adheres to such rules during the identification and application of wage conditions to its personnel.

#### Welfare

The attention to the "welfare" of our people is an element that has always characterised the management of the Group. Gradually, all Group companies are proposing an increasingly rich and structured offering of welfare services.

Due to the second-level negotiations, specifically, there is a structured welfare services plan able to meet key needs of Saras and Sarlux employees and their families. The main areas of such services are:

- health and social assistance through a fund, financed by the company and workers, which makes contributions and reimbursements for medical expenses or specialist visits;
- a contribution to the legitimate heirs or executors in the event of employees' death, even when they are away from the workplace;
- medical and health prevention services additional to mandatory health monitoring (please see the "Health" section);
- social assistance service guaranteed by qualified personnel;

- insurance against workplace and non-workplace injuries;
- subscriptions to public transport systems (consortia in Sardinia, public transport companies in Milan);
- canteen at the Sarroch industrial site with meals provided also on continuous and rotating shifts and meal vouchers/restaurant tickets at other sites;
- merit scholarships, camps and study trips, including abroad, for the children of employees.

An important novelty in 2019 was the introduction of a welfare platform provided by a leading company in the industry, to take advantage of welfare goods and services by all Saras and Sarlux employees who have decided to transform all or part of their Result Bonus in welfare services and by all Sartec employees who receive the welfare quota provided by the NCLA for Metalmechanical workers.

On the occasion of the change of premises for the Milan headquarter and the opening of the new office in Rome, starting in November a flexible work system has been experimentally introduced, based on empowering people and designed to promote a better balance between work and personal life.

Lastly, the corporate welfare system includes a wide range of other services aimed at facilitating the work-life balance of employees, such as the possibility of taking advantage of subsidised loans and agreements with insurance companies and banks and the personal parcel collection service in some locations.

#### **Voluntary Pension**

In all companies of the Saras Group, the most used supplementary pension fund is Fondenergia. In 2019, 1,229 employees of Saras and Sarlux (excluding managers) were enrolled in Fondenergia, equal to 87% of the total population of the two companies. For all those who signed up to Fondenergia after 1st January 2017, 100% of their vested severance indemnity (TFR) is bestowed to the fund.



## NON-WORK ACTIVITIES FOR THE BENEFIT OF EMPLOYEES AND THE LOCAL COMMUNITY

Active since 1974, the Company Staff Recreation Group (CRAL) involves all Saras Group companies, and it aims to promote recreational, cultural, tourist and sports activities for employees and their families, as well as a huge number of social and charitable initiatives.

The initiatives are funded by individual registration fees and company contributions, which are decided each year based on the quality of the initiatives proposed. Public and private donations are also used to fund programmes on occasion.

In 2019, the CRAL had 1,046 registered members, of which almost half of them are supporters of individual specialist sports sections (sailing, canoeing, running, soccer, tennis, cycling, boxing, windsurfing, go-karting) and sections encompassing music, food, travel and tourism, bridge, photography and volunteering. The CRAL organises a wide range of events spanning educational activities (health education and home safety courses, cooking and wine) and entertainment.

There are also many initiatives oriented towards the children of the employees, including holiday camps, study trips, excursions for families, and evenings at the movies.

Thanks to the hard work of the people involved, including many retired employees, numerous volunteering activities are carried out for the benefit of the local community, as well as regular joint purchasing and fundraising campaigns.

In accordance with its traditional activities, the CRAL also provides registered members with a varied range of discounts on goods and services (holiday discounts, discounted tickets and subscriptions to theatre and cinema, etc.).

## **Training and development**

The Saras Group companies firmly believe that development, training and improving the skills and capabilities of their resources is a lever to create value, not only for the individual and for the Group, but more generally for the economic systems and the communities in which they operate.

Strengthened by this belief, the Group proposes training, improvement and development plans for human resources, capable of fostering internal growth in line with the policies, company reference values and the personal and professional characteristics specific to our people. The **Learning & Development** process is described and formalised in the Policy section **"Our people"** and in the **"Human Resources Process Guidelines"**.

The annual development activities of knowledge and skills are represented in the Learning & Development training plan which includes actions and programmes that are available to all people, creating conditions to promote *"learning by doing"* as a powerful tool of preparation and growth.

The main macro-areas of intervention concern:

- development of specialist technical skills: training activities aimed at specific professional figures, to develop specialised technical skills;
- development of "soft skills" and managerial skills: training activities intended to develop cross-disciplinary skills for several company roles, linked to the approaches and conduct that accompany the exercising of managerial skills in line with corporate strategies and values.
- compliance training: training and guidance activities on issues governed by legal requirements/ external bodies (e.g., HSE training, training deriving from certification requirements, etc.).

In 2019, Saras also created the basis for the development of the "Learning Agility", an approach based on the ability to independently undertake learning and development programmes of knowledge and skills, launching an awareness-raising process on the importance of being the architect of one's own development.

Lastly, in December, a new digital learning platform was launched, called "SarasLearning", featuring mandatory training, as well as content related to soft skills and digital skills.

In continuity with last year, in 2019, special attention was paid to the topic of energy consumption of furnaces, with ad hoc training reserved to professionals to maximise performance and energy efficiency. In addition, a digital learning course was disseminated which, aims to propagate and share the skills of expert colleagues in a new and interesting way.

As regards training on Privacy Regulations (following the entry into force of the GDPR) and the Organisation, Management & Control Model pursuant to Legislative Decree No. 231/2001, in 2019, the Group's entire population was reached thanks to the creation of online training "pills" available on the SarasLearning platform.

The aforementioned content is part of the on-boarding programme, provided for all new hires, and is available on the SarasLearning platform.

	TOTAL TRAI	NING HOURS	
Company	2017	2018	2019
Saras Spa	2,420	3,150	2,848
Sarlux Srl	40,500	38,300	44,980
Sartec Srl	4,085	5,204	7,315
Sardeolica Srl	1,937	2,085	3,037
Deposito di Arcola Srl	0	304	970
Saras Energia SAU	4,460	938	615
Saras Trading SA	187	324	586
Total	53,589	50,305	60,351

As part of the initiatives aimed at young colleagues, in 2019, the Induction Programme was launched, aimed at 50 graduates who joined the company during the last 4 years. It involves a 24-month programme with the objective of creating conditions to motivate and retain the resources in the company, stimulate the development of soft skills, keep the group spirit alive, enhance the vision of the business with opportunities for internal and external benchmarking, and promote transversal development and experience in various business areas.

It is also important to emphasise the programme onboarding in Sarlux of approximately 50 young operators, engaged for several weeks in between classroom and plant inspections. After the preparatory training phase, in accordance with decree 81/08, the intense, concept-rich programme has allowed them to explore the entire value chain, production processes, the machinery, the plants, and also the aspects linked to the values and soft skills necessary to grow and contribute within the Refinery production site.

The specialist technical training is continued according to the guidelines of continuous updating dictated by the relevant technical regulations and by the adjustments and technological developments following the introduction of new technologies and plants. More specifically, in the light of the investment programme implemented in 2019 at the Sarroch industrial site, operational personnel received practical training on how to implement new production methods.

With the aim of developing and refining skills related to project management, 130 Asset Management colleagues of the subsidiary Sarlux, Project Managers of the subsidiary Sartec and Project Managers from the ICT department of Saras, have been involved in a Project Management programme, offered in a "blended" manner: four modules in the classroom, alternated by four training clips on the topics of planning, organisation, control and risk. The programmes ended with the development of several work projects that led to the identification and consequent adoption of new tools and methods that met the expectations of their respective companies.

As part of the **#digitalSaras** programme, a range of initiatives were organised with the aim of accompanying the ongoing transformation, with a particular focus on data science, with meetings featuring expert speakers from prestigious universities. An awareness campaign was also launched across the whole company workforce to promote incremental development of digital skills through e-learning tools. Furthermore, some detailed specialist programmes were specifically delivered to personnel involved in the creation of pilot projects and in the subsequent implementation of technological solutions.

The "Finance for Non-Financials" training course was launched with the aim of giving middle managers and company managers a greater understanding of the economic and financial implications of the daily operational decisions they take, within the context of their respective roles. This course was also extended to Sartec. The programme provided clear methodological information about key financial and reporting documents, expanded on how value is created and measured in each part of the business, and raised awareness of how the company is evaluated by external investors, with a particular focus on information and transparency standards required as a result of the company being listed on the Italian Stock Exchange.

Lastly, **in the area of HSE training**, the training hours have remained at high levels during 2019, although down compared with previous years, which were characterised by a major training commitment as a result of the acquisition of the Versalis business unit, and by the expiration of the five-year period of compulsory education pursuant to Legislative Decree No. 81/08. Conversely, in 2019, non-routine training courses did not take place.



From an environmental point of view, the training provided during 2019 concerned:

- environmental protection and safeguarding with particular attention to operating procedures and instructions and to emergency plans;
- specialist technical training with aspects related to environmental topics;
- the new odorous substance detection system.

Lastly, it is important to mention that, in 2019, over 22,000 training hours (induction courses, work permit qualifications, access to confined spaces and shut-downs) were provided to contractors who operate at the Sarlux site. This number is higher than the already significant level achieved in 2018 (approximately 20,000 hours) and confirms the Group's focus on monitoring and improving the awareness of contracting companies operating on its site. This indicator is expected to grow further during 2020, thanks to the courses required for improved preparation of the contractors who will be involved in the two clusters of planned maintenance turnarounds.

HOURS OF HSE TRAINING (SARAS GROUP)								
Parameter	2017	2018	2019					
Environment	4,643	3,946	3,387					
Health and safety	19,717	23,816	19,986					
Total	24,360	27,762	23,373					

AVERAGE HOURS OF TRAINING BY GENDER										
Company	2017			2018			2019			
	F	м	Total	F	м	Total	F	м	Total	
Saras SpA	7	11	9	11	13	12	10	11	11	
Sarlux Srl	31	35	35	26	33	33	26	39	38	
Sartec Srl	34	23	26	39	30	33	51	45	46	
Sardeolica Srl	19	89	77	26	99	87	177	102	115	
Deposito di Arcola Srl	6	23	22	4	23	22	24	71	67	
Saras Energia SAU	14	14	14	2	4	3	4	5	4	
Saras Trading SA	0	11	10	7	16	13	41	7	19	
Total	9	29	25	12	29	26	21	36	33	

AVERAGE HOURS OF TRAINING BY PROFESSIONAL CATEGORY												
Company	2017				2018				2019			
	Direc- tor	Man- ager	White collar	Blue collar	Direc- tor	Man- ager	White collar	Blue collar	Direc- tor	Man- ager	White collar	Blue collar
Saras SpA	13	12	7	-	18	18	7	-	10	14	9	-
Sarlux Srl	25	48	31	37	48	34	30	37	20	20	30	63
Sartec Srl	-	22	28	16	12	23	36	11	98	49	46	28
Sardeolica Srl	-	24	55	101	-	57	43	123	-	72	44	168
Deposito di Arcola Srl	-	-	21	28	-	-	25	10	-	-	49	127
Saras Energia SAU	91	56	7	16	26	29	4	1	8	-	15	-
Saras Trading SA	5	13	-	-	6	27	-	-	13	-	21	-
Total	15	32	24	26	22	28	25	27	14	21	28	55

#### **Employee engagement**

In addition to the training sessions on the technological aspects of digital transformation, in the first months of 2019, the workshop "Engagement in digital transformation programmes" was held, designed together with the professors and researchers of the "Employee Relations and Communication" Observatory of the IULM University. It involved two meetings with corporate figures who have the responsibility of managing a team of people (the so-called "people managers") on the soft topics of change, to stimulate the discussion and increase the awareness of the effects of digitisation on communication and on the relational dynamics within the work team and the company as a whole. In fact, technological change is first of all passed-on through people and, more specifically, people managers, who have the responsibility of experimenting with and implementing practical solutions that, by leveraging the potential digitisation offers, may have a positive influence on employee engagement whilst being conducive to the dynamics of efficient working as regards the aims of the digitisation programme. During 2019, the "My work in our organisation" survey was carried out for the second time. This is an online survey aimed at detecting how people exercise their professional role and their interactions in the work environment. On this occasion the population involved was further expanded with a progressive logical extension to the whole Group. The high participation rate confirmed the willingness of many colleagues to supply their feedback and actively contribute to the change processes. Undoubtedly this is a positive result that can be used for focusing on certain priorities.

The expressed assessments demonstrated an overall satisfaction with respect to the corporate experience, recording a notable improvement compared with 2017 and confirming a strong sense of belonging to the Group, which has always characterised the corporate culture.

Consistently with the feedback, specific programmes to support the people management processes in our organisation have been designed and proposed, attended by leaders belonging to all the companies of the Saras Group.

In the first part of the programme, the *Group Purpose* was defined, with the participation of a large group of colleagues who represented the entire organisation; this work demonstrates the direction of integration towards a "single organisation", defining attributes in which the persons of the Group recognise common corporate Values, that contribute to determing the Spirit with which everyone works to achieve the "dream" (the Purpose) and to overcome, together, the Greatest Imaginable Challenge (GIC).

Amongst the various initiatives developed during the year, the following are expected to have a special impact on people's engagement:

- the *Job Posting* pilot project, which prioritises the experiences and skills present in the Group to respond to organisational needs, offering employees opportunities for development and professional growth;
- the *Performance Management*, a tool that represents the starting point for fair and equitable management of people;
- the *Induction Programme*, for recently hired employees, launched with a two-days training session, in order to provide opportunities to share the corporate values and strategic guidelines of our business and, at the same time, to focus on those soft skills that are useful for addressing future challenges.

People managers were involved in all the programmes. This had a positive impact on the engagement and adoption of the new tools in a homogeneous and widespread way and in terms of collecting further contributions regarding the activities currently being designed.

Employee engagement will continue to be monitored over time by means of the regular implementation of a survey. Survey results will constitute a primary input for initiatives related to people management processes and internal communication activities.

## INTERNAL COMMUNICATION

In 2019, internal communication initiatives were mainly aimed at supporting transformation through open and transparent communication, through the dissemination and sharing of strategies, values, culture and, more generally, information useful for involving employees in the achievement of company objectives. The activities of transversal interest to the Group simultaneously involved the employees of all the Companies, also thanks to the use of technologies that facilitate communication among different locations and permit the overcoming of physical distances, such as, for example, the

broadcasting of events via streaming, and the testing and deployment of interaction and collaboration systems.





During the year, with these methods, programmes were presented in support of people management, the launching of which was

accompanied by specific communication campaigns, developed in parallel through events and meetings and through the intranet, the online company newspaper visBreaking News and communication via e-mail.

Also worth noting is the cycle of meetings held in the second part of the year on the role of European refineries in energy transition: the participants were able to discuss the contribution that the European refining industry can make to the European Climate Strategy.

The revision of the methods of communicating organisational changes has been also aimed at reaching out to all Group employees with information of strategic and general importance, keeping the information of specific interest to a given process or an organisation focused towards the department and colleagues most involved, while making it available to all through the Group intranet.

In line with previous years, various communication initiatives have succeeded in supporting the widespread and proper adoption of new tools and applications for the digitisation of business processes. More specifically, the very process of communication is transformed; to accompany this change, a campaign has therefore been launched to facilitate and disseminate the use of all communication and collabo-



ration technologies available in the company, to make work more flexible and promote integration.

In view of the introduction of the "Welfare" platform, a communication campaign was carried out which distributed a survey that was used to build the best welfare offer, specific meetings were conducted (also broadcast using streaming) and a new page was published in the Group intranet, rich with materials and dedicated links.

Another important communication and involvement opportunity has been the transfer of the Milan office: the persons concerned were involved in the different steps of the project, from the design phase of the work spaces, to the sharing of the new office concept, which responds to the objectives of fostering the integration and the connection between departments and teams, up to the Welcome Day.

The employees were in fact able to experience a special first day, thanks to the tours led by a group of colleagues and the opportunity to experience the fundamental aspects of the on-going change in a collaborative and fun way. All information about the new location, including some important sustainability aspects, was subsequently collected in a booklet.

Finally, in the name of open and transparent communication, the project for the gradual extension of corporate email accounts to all Group employees ended in December, with the allocation of individual accounts to operational colleagues of the Sarroch industrial site. Thanks to this extension of individual accounts, information and communication initiatives can now involve the entire Group population and each employee has access to transversal digital tools and applications, including the SarasLearning platform, the online company newspaper and communities.

## **Trade Union relations**

The Saras Group maintains an open, transparent and continuous dialogue with trade union organisations, to promote a constructive and of mutual responsibility spirit.

The fair management of relations with trade unions is assured by promoting regular information, consultation and negotiation activities in line with the company's policies, the Code of Ethics and the national legislative framework.

In the wider context of Labour/Management relations, the Group constantly strives to maintain an open dialogue with business associations and institutional stakeholders on matters regarding benefits, welfare and employment in the countries in which it operates.

The principles that drive these relations are further specified in the Policies dedicated to the Human Resources chapter, especially in the sections **"Our People"** and **"Our Stakeholders"**. The process of managing Labour/Management relations is described and formalised in the section "Our People" of the Policies and in the "Human Resources Process Guidelines".

Relations with trade unions (both at local and regional level) are developed by the company's departments responsible for ensuring the uniqueness and consistency of messages with business strategies and objectives, not discriminating any stakeholder, so long as they are expressed through processes involving the constitution of democratic representation and in line with the rules in force. Relations that enable mutual interests and positions to be presented in a transparent, thorough and consistent manner, avoiding all forms of collusion.

In **Italy** – in particular, at the industrial site in Sarroch – the trade union negotiations, which have a significant impact on the organisation of work, normally involve discussions with the Unitary Trade Union Representative (RSU) and, when required by the nature of the topic, the involvement of the appropriate mixed trade union and company technical committees.

In the first part of 2019, relations with trade unions focused on welfare issues, ultimately leading to the renewal for the three-year period 2019-2021 of the agreement regarding the financing of camps and study trips and corporate financing to CRAL (recreational and social association).

During the first part of the summer, there was a national strike due to the late renewal of the CCNL (National Collective Labour Agreement). Thanks to the good climate of Labour/Management relations, it was possible to find common sense solutions whilst respecting the interests of all parties. In addition, the corporate supplement and Result Bonus (productivity and profitability) were renewed for the three-year period 2019-2021.

As of September, the digital welfare platform was launched and in the last part of the year, following the negotiation of an organisational/management nature, an agreement was concluded that established the inclusion of shift maintenance assistants for the implementation of the cluster of shut-downs of the Northern Plants. This shared solution is a pilot project for the important maintenance turnarounds that will take place in 2020.

Lastly, also in **Spain**, the chosen model of relations with the trade unions resulted in each significant operational or organisational change falling under *"Modificaciones sustanciales de las condiciones de trabajo"*, as defined by employment legislation. Such model requires, in respect of the times and methods defined, a comparison aimed at assessing the organisational and operational implications of the solutions identified.

## SUSTAINABLE ENERGY

Respecting the environment during our business operations is essential for our productivity, market competitiveness and long-term sustainability.

Today, being a responsible company means combining business development with preservation of the natural environment where the company is located and operates. Since its foundation, the Saras Group pursued this objective on a daily basis, in all its operating areas. The economic results of the Group are pursued taking always into account the preservation of the natural environment in which we operate. Saras works in harmony with the environment and the local community through an industrial development model based on the most modern and effective management standards, inspired by the principles of precaution, prevention, protection and constant improvement.



## **Energy efficiency and consumption**

Energy consumption not only represents a high operating cost, but also an environmental aspect which the Saras Group pays particular attention to, especially with regards to the activity of the industrial site of Sarroch, the "energy footprint" of which almost coincides with that of the entire Group.

The subsidiary company Sarlux, which runs one of the largest integrated industrial sites in the Mediterranean Basin, has for many years followed a precise Energy Policy and, since 2018, it achieved ISO 50001 certification for its Energy Management System.

Using these tools and a meticulous analysis of its activities, the company defines energy objectives and targets, performance and monitoring indicators and action points and plans required to boost efficiency, keep reducing energy consumption and protect environmental resources and the surrounding ecosystem.



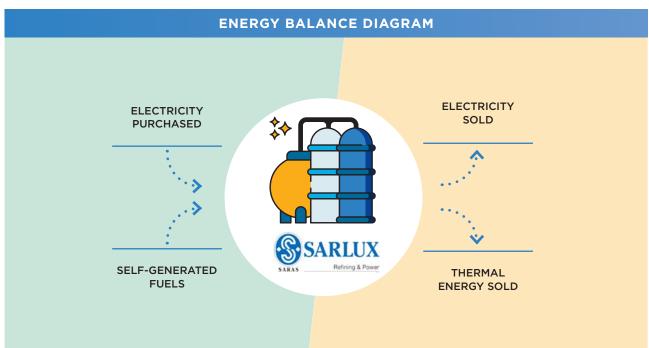
#### Consumption

Energy consumption represents a significant environmental aspect with a considerable economic impact for the Sarlux site, and it's classified into two large categories:

- **Self-generated fuels:** i.e., all fuels generated at the industrial site. This category includes:
  - fuel gas: self-generated gas from the refining cycle and which cannot be sold because of its very difficult condensation;
  - fuel oil with low-sulphur content;
  - coke: carbon residue with a high calorific value, produced and consumed within the FCC (Fluid Catalytic Cracking) plant;
  - syngas: fuel produced from the gasifiers that, after appropriate treatment, is used in the combined cycle turbines, in order to generate electricity, steam and hydrogen;
  - gasoil: used exclusively for starting the gas turbines.
- **Energy purchased externally:** the only form of energy purchased externally is electricity, sourced from the National power grid.

The figure below shows the simplified diagram of the site's energy balance.





The following table presents the data for the threeyear period 2017-2019 on energy input at the Sarlux industrial site in Sarroch, split by self-generated fuels and electricity purchased from the grid.

In addition to finished oil products, there are two other energy carriers which represent the energy output from the Sarlux industrial site:

- Electricity: produced both by IGCC combined cycle plant and by the cogeneration thermoelectric power plant of the Northern Plants, and sent mainly to the national power grid (except for a minimal part which is sold to companies located within the same industrial complex);
- **Thermal energy:** produced by the cogeneration thermoelectric power plant of the Northern Plants and sold to companies located within the same industrial complex.

The energy output values from the Sarlux industrial site, separated into electricity and thermal energy (steam), for the same three-year period previously considered, are shown in the following table.

The Specific Consumption Index (ICS), calculated as the ratio between net energy (i.e., the difference between total energy input and total energy out-



ENERGY INPUT TO SARLUX SITE (GJ)									
Parameter	2017	2018	2019						
Total energy from fuel	71,251,239	72,041,595	66,639,217						
Fuel gas	24,110,657	23,051,903	21,080,543						
Fuel oil	7,426,327	6,029,905	6,166,160						
Coke	8,257,064	8,661,579	8,915,942						
Syngas	31,161,511	34,251,799	30,318,343						
Gasoil	295,680	46,408	158,229						
Electricity from the grid	4,026,418	4,243,797	4,016,422						
Total energy input	75,277,657	76,258,392	70,655,639						

ENERGY OUTPUT FROM SARLUX SITE (GJ)								
Parameter	2017	2018	2019					
Total electricity output	14,959,977	16,065,606	14,997,867					
To the grid	14,869,095	15,950,620	14,861,832					
To companies located in the same industrial complex	90,882	114,986	136,035					
Thermal energy output	51,859	95,478	47,811					
Total energy output	otal energy output 15,011,836		15,045,678					

SPECIFIC CONSUMPTION INDEX "ICS"									
Parameter	Unit of measurement	2017		2019					
Total energy input	GJ	75,277,657	76,285,392	70,655,639					
Total energy output	GJ	15,011,836	16,161,084	15,045,678					
Total energy	GJ	60,265,821	60,124,308	55,609,961					
Crude oil and complementary feedstock processed	Kt	15,351	14,833	14,449					
Specific consumption Index	GJ/t	3.93	4.05	3.85					

put) and the total amount of crude and complementary feedstock processed in the year, is reported in the table below.

### **Energy efficiency**

The high cost of energy and the ever-growing attention towards environmental topics have made energy efficiency increasingly central for Saras.

A further step to improve the company's energy efficiency performance is the achievement of full

knowledge of the industrial site's energy consumption, to better identify all the potential areas of improvement in the short, medium and long term.

For this reason, the Energy Management Dashboard was created. It's a system for monitoring energy consumption which, using data directly from the field and processed according to logics related to the type of plant or to the type of energy carrier, allows the performance of an overall or a detailed energy analysis.

# **ULASSAI WIND FARM**

Since 2005, the Saras Group is also active in generating electricity from renewable sources, through the subsidiary Sardeolica S.r.l., which owns the Ulassai Wind Farm, located in central-eastern Sardinia.

The Group considers this activity important both in terms of business, and from the point of view of the commitment and value creation for the territory and the local communities involved. Indeed, the latter can benefit from the generation of renewable energy, and also from the economic value created through both direct and indirect employment. The mentality with which the Ulassai farm is managed is the same that characterises every activity of the Saras Group. Maximum productivity levels are ensured, and the best industry solutions are adopted, in order to guarantee always the protection of health and safety in the workplace, and of the environment.

In 2006, Sardeolica achieved certification of its Environmental Management System, according to the international standard ISO 14001. In 2012, the Management System certification was extended to cover Safety (OHSAS 18001) and Quality (ISO 9001). In 2017, the company obtained certification for its Energy Management System (ISO 50001), and in 2018 it also achieved EMAS certification.



One of the fundamental elements which characterised the Ulassai wind farm since its design phases is the attention to the territory within which it is located. Every aspect of the design of the farm was devised with a central focus on the interests and needs of local inhabitants and the environment. Indeed, the wind farm itself created new revenue streams for the local community.

Since October 2010, Sardeolica has taken on directly the management and maintenance of the wind farm: to do this, its maintenance technicians and administrative staff have been trained to develop specialist know-how and skills.

Just like with the internalisation of maintenance activities, Sardeolica always tries to favour, wherever possible, local contractors and suppliers for the procurement of goods and services. Moreover, Sardeolica maintains excellent relations also with local authorities and communities.

In addition to the employment and economic return created, Sardeolica forged important links with the Perdasdefogu professional & technical school, where most of the farm's maintenance technicians come from. In particular, from February to July 2019, Sardeolica organized a training course for "Maintenance Technicians", with more than 9,000 hours of training, involving 12 people coming, primarily, from the professional school of Perdasdefogu. Of the 12 participants to the course, 6 have been hired in Sardeolica, and in other 2 subsidiaries of the Group.

Moreover, Sardeolica contributed to the Ulassai "Art Station" Foundation, which collects works by the artist Maria Lai, and is fully part of the local cultural and tourist circuits.

Finally, as for all Group companies, every aspect related to safety is also fundamental to Sardeolica. As such, it is of great importance the achievement of 3,355 days without injuries (from the start of direct management of the farm in October 2010, until 1st of January

2020). This is the result of a culture of safety and training, which saw approx. 2,150 hours of training concerning health and safety in the workplace, delivered in 2019. Daily checks and inspections at regular intervals ensure that this culture of safety is constantly maintained. Furthermore, during 2019 also Sardeolica implemented the safety management system with the BBS (Behaviour Based Safety) protocol which, as already explained in the chapter dedicated to "Health & Safety", allows to monitor and promote safe behavious in the workplace.

# Initiatives for the environment and the local area

In compliance with requirements established during the authorisation procedures, Sardeolica regularly performs targeted monitoring campaigns, to ascertain the status of the main environmental components, with particular focus on vegetation, birdlife, noise and electromagnetic fields.

The main results of the aforementioned inspection activities carried out before the construction process, during the construction of the wind farm, and also afterwards, during the normal course of the operations, confirm the integration of the plant with the surrounding ecosystems. With regards to birdlife, no situations of incompatibility between the wind farm and the species, present or nesting in the area, have been reported. From the monitoring, carried out on sample areas, there are no cases of birds or bats collisions with the wind turbines. Monitoring activities also confirmed the presence of at least one pair of golden eagles nesting in the area.

Also regarding the vegetation, no negative impact was recorded by the University of Cagliari (which follows the monitoring). Moreover, the presence of Sardeolica personnel in the area has also served as a deterrent to forest wildfires.

The monitoring of the noise component allowed to confirm negligible impacts, fully compliant with the Municipal Acoustic Zoning Plan: in particular, the detectable noise at the base of the wind towers is, in conditions of strong winds, comparable with standard office noise.

The monitoring of electromagnetic fields confirmed full compliance with the regulations, with no impact on people or the environment.

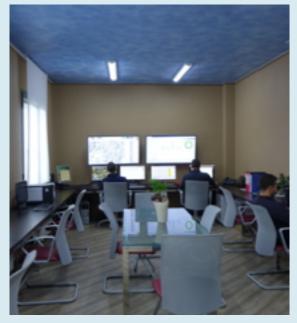
In 2018, a photovoltaic plant with installed capacity of around 60 kW was installed above the office roof. Electricity production from the solar plant in 2019 stood at approx. 120 MWh, and the offices have been powered entirely by solar energy produced from the roof plant.

Visits to the wind farm by tourists, students and occasional visitors continued in 2019, for a total headcount of approx. 300 people. Indeed, the wind farm has become a local attraction, together with the caves of "Su Marmuri" and the "Art Station", and it is often one of the destinations to visit as an example of sustainable industrial facility.



Sculpture named "La cattura delle ali del Vento" (capture of the wings of the wind) from artist Mrs. Maria Lai

### **Digital Projects**



Sardeolica's Control Room

With the aim of optimising predictive maintenance and maximising production, in addition to digitalising existing electrical protections, a new real-time supervision and control system was introduced for the wind turbines and the electrical substation. The system allows to complete an advanced analysis of the facility.

Vestas Power Plus modules were also implemented, replacing the machine processor and installing a second anemometer. The new modules deliver a more efficient power curve and consequently allow a better exploitation of the wind resources.

Finally, also a Condition Monitoring System (CMS) has been installed, which enables the early prediction of failures, thanks to vibration sensors positioned in the rotating equipment. Finally, a pilot project was launched in cooperation with Aspentech, global leader in industrial process control, with the aim to verify the possibility to apply "Big Data" analysis on 5 aerogenerators, selected as test samples, in order to achieve early identification of malfunctioning or failures. The study gave positive results, and the analysis will be extended to the entire wind farm in 2020-21.

### **Project "Maistu" and "Reblading"**

In order to increase renewable energy production, at the end of 2018 Sardeolica obtained authorisation for the "Maistu" project, which consists of the expansion of the Ulassai wind farm through the installation of a further 9 turbines in the municipalities of Ulassai and Perdasdefogu, resulting in an increase in installed capacity of 30 MW. Construction work, which began on 14th January 2019, were completed according to schedule, and the new aerogenerators started operations in September 2019.

Moreover, in July 2019, it has been approved the new project of blade replacement (so called "reblading") for the original 48 aerogenerators, with new generation blades, together with further uograding of the main components. The production increase expected with the reblading is approx. 33GWh/year. Work began at the end of 2019 and they should be completed during 2020. When fully upgraded, the wind farm shall produce approx. 300 GWh/year. Such renewable power production will avoind emission of CO2 for approx. 194,000 tons/year, and it will satisfy the yearly electricity needs of approx. 227,000 people.

The above initiatives are coherent with the current trends towards decarbonisation and energy transition across all industrialised countries, and they aim to achieve a constantly greater industrial sustainability, according also to the National Integrated Plan for Energy and Climate (PNIEC). Indeed, the PNIEC writes: "For the achievement of 2030 renewable targets it will be necessary not only to stimulate the construction of new renewable production plants, but also to preserve the existing ones and, actually, to increase the latters, wherever possible, by means of promoting investments for their revamping and repowering. In particular, supporting the revamping and repowering projects for the existing wind farms, by installing more modern, technologically advanced and efficient aerogenerators, will allow to exploit good wind conditions across well-known and already used locations, and it will also limit further use of public land".



KEY FIGURES AT ULASSAI WIND FARM								
	Standard pre-upgrade + improvements (*) (completed in Sep.2019) (*Reblading" Project (under costruction)			Standard upon completion (from 4 <sup>th</sup> quarter 2020)				
Wind turbines	48 (Vestas V80)	+9 (Vestas V117)	-	<b>→</b>	57			
Installed capacity	96 MW	+ 30 MW	-	<b>→</b>	126 MW			
Power production	approx. 187 GWh/year	+ 80 GWh/year	+ 33 GWh/year	<b>→</b>	300 GWh/year			
Employees	25	+4	-	<b>→</b>	29			
People equivalent annual energy demand <sup>1</sup>	142,000	+ 60,000	+ 25,000	<b>→</b>	227,000			
CO <sub>2</sub> emissions avoided	121,000 t	+ 52,000 t	+ 21,000 t	<b>→</b>	194,000 t			



- (\*) The improvements were achieved during 2019, thanks to higher predictive maintenance, production optimisation and digitalisation.
- Pro-capita energy consumption in Sardinia for domestic use, 2018: 1,317 kWh/person/year (Source: Terna, Statistical Data, Consumption https://download.terna.it/terna/Annuario%20Statistico%202018\_8d7595e944c2546.pdf)
- Source: Sardinia Regional Environmental & Energy Plan. "Verso un'economia condivisa dell'Energia" [Towards a shared energy economy] Adoption of the technical proposal and launch of strategic environmental evaluation procedure, pg. 114 (http://www.regione.sardegna.it/ documenti/1\_274\_20160129120346.pdf)

# Air pollutants and greenhouse gases emissions

Poor air quality is one potential risk factor for health. The development of human activity caused a significant increase, over the years, in air emissions (both pollutants and climate-changing agents), with direct and indirect harmful effects for human beings and for the various environmental media. The rational and efficient use of energy mitigates these effects and contributes to achieving a more sustainable life.

However, it is necessary to distinguish between emissions of pollutants, which have negative effects predominantly at local level, and emissions of climate-changing agents (the so called "greenhouse gases"), the impact of which, on the contrary, can be felt on a global scale.

Specifically, European Union includes amongst pollutant agents the following: sulphur dioxide  $(SO_2)$ , nitrogen oxides (NOx), carbon monoxide (CO), non-methane volatile organic compounds (NMVOCs), ammonia (NH<sub>3</sub>), dust and fine particulates.

By contrast, the main anthropogenic climate-changing agent is carbon dioxide  $(CO_2)$ , resulting from combustion processes. It leads to the so-called "greenhouse" effect, i.e. a global phenomenon that consists of an increase in the capacity of the Earth's atmosphere to retain, under the form of heat, a part of the energy that comes from solar radiations. In turn, the heat retained leads to rising temperatures, with numerous environmental, social and economic implications.

In consideration of the local and global importance of the aforementioned phenomena, the Saras Group believes it is essential to carry out its activities as efficiently as possible, in order to minimise all types of emissions, be they pollutants or greenhouse gases.

Nonetheless, the refining and power generation sectors are amongst those that, due to their specific configuration, have a non-negligible impact in terms of emissions. Therefore, with this awareness, Saras implemented best practice systems and tools for the management, monitoring and continuous improvement of its emissions performance, including the ISO 14001 certified Environmental Management System and voluntary EMAS certification.

Specifically, the quality of the air outside the Sarroch industrial site is controlled in real-time by two monitoring networks of detection units (one owned by Sarlux and the other owned by ARPAS – the regional agency for the environmental protection); as a result of this monitoring system, it is possible to identify changes to significant parameters for air quality and to check that the concentration values of pollutants are always below the legal limits, being also able to intervene immediately, should there be any anomaly.

The regulatory reference for Sarlux industrial site's air emissions is the AIA Decree (*Autorizzazione Integrata Ambientale* – the Integrated Environmental Authorisation), renewed in October 2017, as previously described in the chapter dedicated to "Group Certifications".

### **Stack emissions**

The Group's total emissions come from the operationally significant industrial site in Sarroch and refer to:

- combustion processes that take place in the furnaces, to produce the thermal energy required for the operations;
- combustion processes necessary to generate electricity and steam (thermoelectric power plant of the Northern Plants, of the Southern Plants, and IGCC power plant).

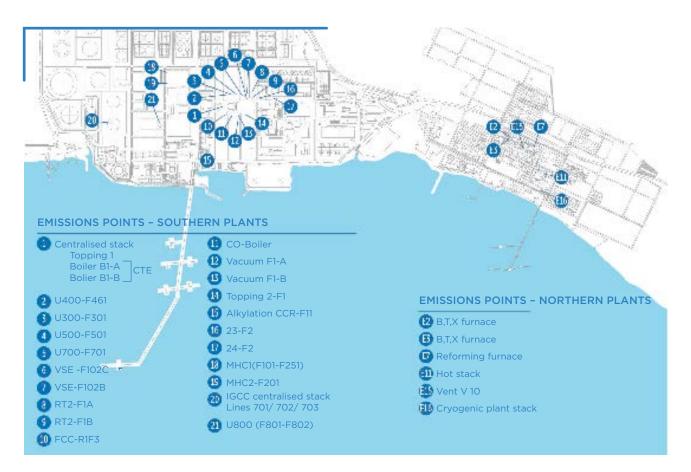
The introduction of the new AIA Decree of October 2017 changed both emissions limits and the ways in which these are managed. More specifically:

- the "Refinery Bubble" concept remains valid (now known as the "Integrated Emissions Management" system), with the introduction of two further emissions point at Reforming North and CTE North;
- the Integrated Emissions Management only sets out limits for SO<sub>2</sub> and NOx which, with the aim of reducing harmful gases in the atmosphere, have

been lowered down to the average monthly values of 400 mg/Nm<sup>3</sup> for SO<sub>2</sub>(previously 600 mg/Nm<sup>3</sup>) and 280 mg/Nm<sup>3</sup> for NOx (previously 300 mg/Nm<sup>3</sup>);

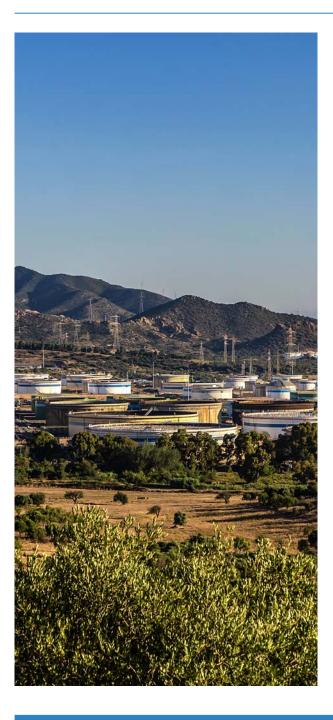
- CO and dust particulates do not fall under the Integrated Emissions Management system but have limits as individual emissions points;
- all limits set by the previous AIA for Large Combustion Plants remain valid;
- the IGCC and BTX plants have their own limits.

The following figure shows the location of the stack emission points for the Southern Plants, the IGCC power plant and the Northern Plants.



The main pollutants present in stack emissions are  $SO_2$ , NOx, CO and dust particulates, whilst the main climate-changing agent is  $CO_2$ .

STACK EMISSIONS (T/YEAR)								
Parameter	2017	2018	2019					
SO <sub>2</sub>	4,310	3,392	3,514					
NOx	3,253	3,372	3,257					
Dust	208	135	131					
со	222	175	225					



The absolute emission values are primarily affected by the variability in the amount of raw materials processed at the industrial site (according to the various maintenance interventions carried out each year on the plant units) and also, to a lesser extent, by the variability in the chemical and physical characteristics of the feedstock (such as for example the sulphur content of the various types of crude processed).

Consequently, in order to express a more qualified commentary on hystorical trends, emissions indexes per unit of material processed should be introduced. They can be calculated by dividing the total amount of pollutant emitted by total annual processing, as shown in the appropriate table.

NOx emissions specifically depend on the combustion technique, as well as other technological factors (such as, for example, the type of burners installed with a low NOx production) which, over the years, have allowed the optimisation of this type of emissions for the Sarroch industrial site.

The reduction of emissions of dust particulates is a direct consequence of specific treatments, including specialised external technology aimed at improving combustion and reducing dust particulates, as shown by the important results achieved since 2017. Furthermore, last year's positive results are supplemented by the optimisations achieved in the effectiveness and reliability of the instrumental monitoring systems.

Lastly, the emission indices of CO and  $SO_2$  are confirmed to be within the stable range recorded in recent years.

STACK EMISSIONS INDEX PER FEEDSTOCK PROCESSED (T POLLUTANT EMITTED/KT RAW MATERIALS PROCESSED IN THE YEAR)								
Parameter	2017	2018	2019					
Crude oil and complementary feedstock processed (kt)	15,351	14,833	14,449					
SO <sub>2</sub> emissions index (t/kt)	0.282	0.229	0.243					
NOx emissions index (t/kt)	0.212	0.227	0.225					
Dust emissions index (t/kt)	0.014	0.009	0.009					
CO emissions index (t/kt)	0.014	0.012	0.016					

#### **GHG Emissions**

All the activities carried out at the Sarroch site fall under the scope of the European Emissions Trading Directive. The latter entered its third phase in 2013 (relating to the period 2013-2020), with a consequent change of the allocation rules.

The Group therefore updated its authorisation to emit greenhouse gases, as well as the "Detection, calculation and control protocol", also taking into consideration the change in the perimeter of application, necessary to include the Northern Plants (acquired from Versalis at the end of 2014). The rational use of energy and the adoption of efficient production systems represent the road chosen by the Group to control and reduce  $CO_2$  emissions, which represent the main component of Saras Group's GHG emissions (other gases are not significant).

In the three-year period under review,  $CO_2$  emissions (whose variability largely depends on the quantity of electricity generated by the IGCC plant and on the total amount of raw materials processed in the refinery) show a decreasing trend, achieved also thanks to the numerous energy recovery investments made at the industrial site.

GHG EMISSIONS (T OF CO <sub>2</sub> /YEAR)							
Parameter	Parameter 2017 2018						
Refinery	2,337,687	2,151,940	2,090,400				
IGCC	3,585,479	3,741,260	3,603,401				
Northern Plants	451,565	455,393	450,336				
Total	6,374,731	6,348,594	6,144,137				

### GHG EMISSIONS INDEX PER FEEDSTOCK PROCESSED (T OF CO, EMITTED/KT RAW MATERIALS PROCESSED IN THE YEAR)

Parameter	2017	2018	2019		
Crude oil and complementary feedstock processed (kt)	15,351	14,833	14,449		
CO <sub>2</sub> emissions index (t/kt)	415	428	425		

# Investment roadmap to increase energy efficiency and consequently reduce emissions

The Saras Group's commitment to cut emissions of greenhouse gases and pollutants is outlined in short- and medium-term investment plans, aimed at improving plants and processes, in order to ensure higher performances, not only in terms of emissions reduction, but also from an economic and energy efficiency perspective.

The main energy-efficiency measures that became operational in 2017 and 2018 are as follows:

- Energy integration between MHC and TAME plants: use of heat from the desulphurised gasoil coming from the MHC1 plant, to heat the feedstock for the TAME plant, thus reducing the use of low-pressure steam in pre-heating exchangers;
- Upgrade of tempered water circuit and heat recovery in seawater desalter: increase in the production capacity of desalinated water from the DAM desalter, with the use of tempered water only (heated by heat recovered from other plants) instead of low-pressure steam;
- Electrification of the Air Compressor of the Catalytic Cracking (FCC) plant: replacement of the two air-blowers of the FCC plant, driven by

steam turbines, with a single electrically-powered blower, in order to reduce the industrial site's high-pressure steam consumption;

- Energy recovery for the compressors MHC2 C-203/C-203S: installation of a new system for continuously adjusting the flow rate, instead of the old system of step adjustments, with the result of eliminating the need to recycle the gas and the amount of gas unnecessarily processed by the compressors, thus reducing electricity consumption;
- Technological improvements of air cooler (1° and 2° step): thanks to the optimisation of the blades/distribution system, a greater overall efficiency has been achieved, thus allowing to make electricity savings under the same load conditions, across many of the refinery's air coolers;
- Use of Low-Pressure (LP) steam instead of Medium-Pressure (MP) steam in the S3C1 - SWS3 column: replacement of the medium-pressure steam previously used on column S3C1 of the SWS3 stripper;
- New advanced control at IGCC plant: the multi-variable controller works in two main ways: firstly, by minimising Blow Down purges between transitory periods of operations, with a consequent fuel saving for gas turbines, and secondly, by optimising steam during the syngas washing process.

Parameter	Year of entry into service	Energy saving (GJ/year)	CO <sub>2</sub> equivalent (t/year)
Energy integration between MHC and TAME units	Nov-17	327,010	25,154
"Upgrade of tempered water circuit and heat recovery in the seawater desalter"	Feb-17	192,347	14,796
Electrification of the Air Compressor of the Catalytic Cracking Unit (FCC)	Aug-17	230,230	17,700
Energy recovery for compressors MHC2 C-203/C-203S	Apr-18	26,438	2,035
Technological improvements to air cooler (MAF) Southern Plants – 1 <sup>st</sup> step	Mar-18	161,161	12,407
Technological improvements to air cooler (MAF) Southern Plants – 2 <sup>nd</sup> step	Nov-18	92,092	7,089
Use of low pressure steam in S3C1 – SWS3 column	Nov-18	16,737	1,288
New advanced control at IGCC Plant	Jul-18	93,015	7,161

### SUMMARY OF ENERGY EFFICIENCY MEASURES IMPLEMENTED IN 2017-2018

In 2019, the following energy efficiency investments were deployed:

- Energy recovery for the compressors C-109A/B: installation of a new system for continuously adjusting the flow rate, instead of the old system of step adjustments, with the result of eliminating the need to recycle the gas and the amount of gas unnecessarily processed by the compressors, thus reducing electricity consumption;
- **K1F3 inverter installation:** insertion of inverters on K1F3 furnace fans. The installation of the inverter reduces electricity consumption.
- **T2 Turbulators installation:** installation of turbulators (helical rotating inserts) inside the piping of the feedstock preheating exchangers, which allow for an improvement of the thermal exchange and therefore less need to burn fuel in the furnace;
- **New DEE advanced control:** this multi-variable controller allows steam optimisation to the Fuel Gas washing section.

The following table reports all interventions with their expected energy savings and the avoided  $\rm CO_2$  equivalent.

### SUMMARY OF ENERGY EFFICIENCY MEASURES IMPLEMENTED IN 2019

Parameter	Year of entry into service	Energy saving (GJ/year)	CO <sub>2</sub> equivalent (t/year)
Energy recovery for compressors C109 A/B	Jul-19	34,881	2,683
Inverter installation for K1F3	Jan-19	7,537	580
Turbolators installation at T2	Mar-19	40,814	3,140
New advanced control at DEE Unit	Sep-19	82,953	6,381



# FUGITIVE EMISSIONS OF VOLATILE ORGANIC COMPOUNDS

Since 2008, the industrial site of Sarroch, in collaboration with the subsidiary Sartec Srl, has implemented a methodological, unitary and integrated approach ("Mixed Smart LDAR" procedure) for the implementation of the fugitive emissions of volatile organic compounds (VOCs) monitoring programme, commonly referred to as the LDAR (Leak Detection and Repair) Protocol. It is aimed at the detection and repair of process components that accidentally release VOCs into the environment.

The Mixed Smart LDAR procedure provides, in summary, for the investigation of all the monitored process components using a special infra-red thermal camera (FLIR series GasFind-IR<sup>™</sup> thermal camera), the quantification of the losses detected by the portable samplers provided for in the in EPA Method 21- "Determination of Volatile Organic Compound Leaks" protocol, the sampling and the subsequent statistical inference of accessible components found not to have leaks during the investigation with the camera, the statistical analysis of the data collected during the monitoring, the estimate of the flow of the total mass of the gases emitted, the recording of all related monitoring data in a dedicated information system and the execution of the repair of process components found to have leaks.

The estimation of the mass flow of the emitted gas is conducted on the basis of the method of correlation equations reported in the EPA-453/R-95-017 protocol – "Protocol for Equipment Leak Emission Estimates" (Nov. 1995) with updated emission factors to February 1999.

The overall result of the Mixed Smart LDAR application at the plants of the Sarlux industrial site in Sarroch indicates that, from 2008 to the present, the percentage reduction of VOC emissions due to fugitive emissions has been of the order of **90%**.

In the new AIA decree of October 2017, the Control Bodies requested the application of the LDAR Protocol not only in the normal operating conditions of the plants, but also in the most severe operating conditions, i.e., during the plant transitory operations (such as plant shut-downs and restarts). This activity, already planned and carried out by Sarlux (as a useful tool for emission prevention), did not highlight significant emission events of VOCs from fugitive emissions during transitory operations in the years 2018 and 2019.



### EFFECT OF THE APPLICATION OF MIXED SMART LDAR PROCEDURE TO SARLUX INDUSTRIAL SITE

# Odours

One of the constant and fundamental commitments of the Group concerns the topic of odours. The refinery's activities can in fact produce unpleasant odours that, although they do not have adverse health implications for people, do however have a negative impact on the perception of the plant by the community.

Odour monitoring activities were communicated to the Ministry of the Environment during the assessments for the Integrated Environmental Authorisation (AIA), since the very first authorisation procedure achieved in 2008-2009 (see box). In the new AIA decree of October 2017, the Ministry of the Environment examined the extension of the monitoring activities of this parameter also for the Northern Plants (formerly Versalis) and has provided for monitoring both under normal plant conditions as well as under transitory conditions (plant shut-downs and restarts). As mentioned above, during the transitory conditions of 2018 and 2019, the odour-emitting events were not significantly more relevant than those occurring during normal plant operations.

## SARLUX PATH FOR ODOUR MONITORING

# 2004

Initial investigation aimed at identifying the sources of odours felt externally, followed by more in-depth investigations and analyses in the subsequent years.

# 2009

Implementation of the AIA's odour monitoring plan and notification to the Ministry of the Environment of this step. Sampling and analysis at the site (sources) and at the sensitive points in Sarroch (receptors).

# 2012, 2013 and 2014

Mapping of odour concentration of air samples collected in proximity to sources of emissions and sensitive receptors. Mapping of chemical compounds present.

# 2016

Extension of odour management activities already in place at Southern Plants to include the Northern Plants (formerly Versalis).

# 2008

Implementation of a monitoring system designed to identify events that generate odours in the local area.

# 2011

Study of atmospheric dispersion of odorous emissions with the aim of setting out adequate monitoring and analysis plans.

# 2015

Monitoring campaigns that achieved the following objectives:

- Identification of any correlations between chemical compounds and odour concentrations;
- Verification of origins of compounds responsible for odours;
- Identification of internal refinery sources principally responsible for odours.

# 2017 - 2019

Continuation of odorous emissions monitoring activities at the site; sensitive receptors identified in 2016 were reconfirmed, as required by the AIA Decree. Moreover, as already mentioned before, from 2018 the monitoring has been extended also to the most challenging operating conditions (plant start-up and shut-down transitions); during these periods, monitoring did not highlight any relevant difference versus standard operating conditions, in terms of emission events. As of the results of the monitoring plan and the campaigns performed, Saras initiated detailed studies, and later planned and implemented targeted investments, aimed at minimising the impacts of odours and the discomfort for the local community.

The main interventions include fitting sealed coverings to the API tanks<sup>13</sup>, fitting a double-seal between the cladding and the roof for all tanks with a floating roof, as well as further activities on tanks, currently under study.

### **Sealing of API tanks**

This activity derived from the "gap analysis" carried out in 2014 on the Sarroch industrial site in comparison with the BAT ("Best Available Techniques"), from which it emerged that it would have been possible to further contain fugitive emissions from these oily water treatment tanks.

The following year, an upgrading study was carried out, with the aim of using floating aluminium panels with double-seal gaskets to cover over 1,200 square metres of the tanks' surface area. This huge investment was then started in 2016 and it was finally completed in 2017.

In order to completely assess the effects of this investment, monitoring was performed before the start of the work, during the execution phase and after installation of the floating panels. The measuring results available to date, confirm a significant reduction of emissions of Volatile Organic Compounds (VOCs), in line with the levels expected as per the project design.



13. API (American Petroleum Institute, the Institute that first established the design standard) tanks are devices for treating oily water, such as refinery discharges.

# **ELECTRONIC NOSE - IOMS SARTEC**

In June 2018, the subsidiary, Sartec Srl, launched the implementation project of the innovative instrument system **IOMSartec** (Instrumental, Odour, Monitoring, Systems), i.e., the so-called new generation "electronic nose", for the continuous monitoring of environmental odours emitted into the air by industrial plants, aiming to control emissions and limit the odorous impact on the surrounding area.

The project is part of a collaboration with Sponge Srl, a spin-off of the University of Salerno, established within the Civil Engineering department, recently recognised as a "department of excellence" by the Italian National Agency for the Evaluation of the University and Research Systems (ANVUR). The development of the Hardware and management Software of **IOMSartec** has been entrusted to the Sardinian company Bithiatec Srl.

**IOMSartec** is equipped with an innovative measurement cell developed by the staff of Salerno's Civil Engineering department; it is protected by a patent registered by Sartec and, after appropriate training, will allow for the continuous determination of the odour class and the odour concentration of a real sample issued from a complex plant.

The Sponge staff's international skills on the scientific aspects concerning the odorous phenomenon, combined with the experience gained by Sartec's staff during years of sampling in the field and olfactometric analysis conducted in Sartec's accredited laboratory, will allow for the creation of an instrument with high sensitivity, reproducibility and reliability for recognition and measurement of environmental odours.

On 12 September 2018, at the NOSE 2018 international conference (6th International Conference on Environmental Odour Monitoring & Control), the members of the Sponge working group demonstrated that the IOMS, in the development phase, will fill some of the weaknesses of the "older generation electronic noses" such as, for example, self-testing of proper operation and continuous calibration.

On 7 September 2019, Sartec participated in the international event "16th International Conference on Environmental Science & Technology (CEST)", presenting the work entitled "Advanced instrumental odour monitoring system for the continuous management and control of environmental odour in complex industrial plants". It demonstrated IOMSartec's state of progress, highlighting the potential applications of the system, its technological innovations and its compliance with what is under discussion by the specific European standard group on the matter of instrumental measurement of odours (WG41 of the CEN/TC264 "Air Quality") and the national one (UNI - GL4 "Air Quality," of the Italian Standards Body).



### Interventions and studies on tanks

Over the years, investments have been made to equip floating roof tanks with double seals, installed between mantle and roof. In addition, the ST99, ST26, ST27 and ST29 tanks were equipped with an odour mitigation/abatement system, by means of a non-automated system, composed of a ring of PEHD mounted in the upper part of the mantle of the tank, equipped with specially dimensioned fogging nozzles, which permit the spraying of a chemical/chelator.

The system made it possible to record the following reductions:

- exceeding 80% for olfactory impact;
- exceeding 95% for hydrogen sulphide;
- exceeding 85% for organic sulphur compounds;
- equal to 95% for volatile organic compounds.

The installation of the mitigation/abatement system on other fixed and floating-roof tanks is currently under study.

Emissions prevention activities (including olfactory emissions) continued throughout 2019, i.e., sealing the guide-tubes and the "legs" of the tanks, according to a multi-year activity plan, which will allow to further mitigate these minor olfactory sources.

The analytical/olphactometric results of studies carried out in 2019 allowed to collect the information necessary to create specific, automated systems capable of reducing odours. As of 2018, monitoring activities were launched using special cameras designed to oversee the maintenance of equipment installed in the tanks in order to reduce odour emissions.

# Waste and spills

The Saras Group constantly monitors and controls its activities with the aim of respecting regulations on environmental matters.

Specifically, with reference to waste management, the subsidiary Sarlux, owner of Sarroch industrial site, is responsible for the production of approximately 99% of the waste (hazardous and not) produced by the entire Group. For this reason, the Group codified and formalised all aspects concerning waste management and monitoring in its operationally relevant site, within the previously mentioned Environmental Management System ISO:14001 certified, and the EMAS certification.

	WASTE GENERATED (T/YEAR)									
		2017			2018			2019		
Company	Hazardous	Non- hazardous	Total	Hazardous	Non- hazardous	Total	Hazardous	Non- hazardous	Total	
Saras Spa	0	0	0	0	0	0	0	1	2	
Sarlux Srl	50,338	28,750	79,088	42,963	21,614	64,577	45,001	27,610	72,611	
Sartec Srl	7	8	14	10	10	19	9	12	21	
Sardeolica Srl	3	135	138	5	112	117	4	104	108	
Deposito di Arcola Srl	1,174	12	1,186	371	4	375	933	9	942	
Saras Energia SAU	82	0	82	179	0	179	64	0	64	
Saras Trading SA	0	0	0	0	0	0	0	0	0	
Total	51,604	28,905	80,508	43,528	21,740	65,268	46,013	27,736	73,749	

It should be noted that the high variability of waste production over the years is related to the performance of the maintenance activities on the various plants and tanks. These activities in fact generate different quantities of waste in relation to the specific kind of plants and tanks involved.

As regards the types of waste produced, 62% of the total in 2019 was classified as "hazardous", since it came almost entirely from industrial processes.

Lastly, when analysing waste by destination, approximately 95% of the total is sent for the relevant forms of treatment and recovery, whilst only a small amount of the waste generated is actually sent to landfill.

Confirming its commitment to optimising waste management, the Group is always looking for improved solutions that reduce the environmental impact linked to the disposal of the generated waste:

- as of 2017, Saras started sending wood packaging to recycling, in order to achieve a better reuse of this resource, as compared with its recovery only for energy production purposes;
- since 2018, a concrete recovery management channel has been activated at an authorised plant in Sardinia, and already in 2019 approximately 95% of all the concrete waste produced has been sent to recovery;
- since 2019, a bitumen recovery management channel has been activated at an authorised plant in Sardinia, and during the year approxi-

mately 35% of all the bitumen waste produced has been sent to recovery;

• lastly, since December 2019, an industrial plastic recovery management channel has been activat-

ed at an authorised plant in Sardinia. In 2020, this channel will further increase the share of waste sent to recovery.

WASTE BY DESTINATION (T/YEAR)												
Damanaahan	2017			2018			2019					
Parameter	н	NH	То	tal	н	NH	Total		н	NH	Total	
Treatment	51,225	24,010	75,235	93%	42,956	18,694	61,650	94%	45,405	24,976	70,381	95%
Landfill	378	4,895	5,273	7%	572	3,046	3,618	6%	608	2,760	3,368	5%
Total	51,603	28,905	80,508		43,528	21,740	65,268		46,013	27,736	73,749	

# H: hazardous

NH: non-hazardous



### WASTE ASSESSMENT & OPTIMISATION PROGRAMME

In the last quarter of 2019, Sarlux, with the support of Sartec, launched a "Waste Assessment & Optimisation" study aimed at assessing the current waste management process and looking for possible improvements.

The Sarlux goal is that of reducing the total production of waste, in particular by seeking to minimise the share of "hazardous" waste, favouring recovery destinations (of material and/ or energy) and avoiding landfill disposal where possible.

The first phase of the Assessment has been completed, which includes:

- Analysis of waste products which, in terms of quantity and quality, have significant management costs
- Analysis of the stages of the production process of waste generation
- Assessment of the methods of analysis and classification
- Analysis of treatment, recovery or disposal methods
- Assessment of the areas of operational and management flexibility with reference to legislation, provisions of the "AIA - Autorizzazione Integrata Ambientale" [i.e. Integrated Environmental Authorisation] and Best Available Techniques (BAT)
- Audits of the main waste recovery/disposal companies used
- Comparison with waste management systems adopted by other refineries (benchmarking)

In parallel, various technological studies have been launched to reduce the volume of waste and to manage it from the perspective of a circular economy:

- New insulating materials for the reduction of waste volumes
- Thermal destruction processes of waste with a view to energy recovery and savings

With the Coordination of the HSE and Technology Departments of Sarlux and the participation of numerous other Group departments, the following studies and actions aimed at reducing the volume of waste produced were undertaken:

- New technological and management approaches for the reduction of the sediment volume of the water treatment system (API, TAS, tanks, etc.) to be sent to treatment in a format which can be handled by shovel, rather than being sent to centrifugation and thermal destruction
- Possibility of new technologies to improve hydrocarbon recovery on API tanks
- New technological approaches to the management "Reactivator" sludge
- Operational assessments of the new TDS plant owned by Ecotec (third party company)
- Definition of an open specification for management of tank remediations, to be proposed to the service companies participating in the tenders for such works, including the principle of "bonus/malus" in relation also to the reduction of the volume of waste produced as a result of the remediation works
- New analytical characterisation of the spent FCC catalyst, with involvement of the catalyst supplier.

## Sarlux: in-depth analysis

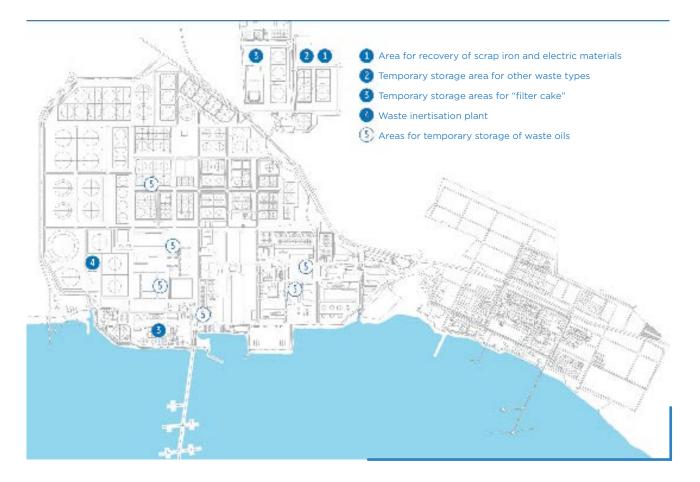
With reference to the figure below, the main waste management operating phases at the Sarlux industrial site, before being sent outside of the site for further disposal or recovery activities, are described below:

- waste generated, properly divided into homogeneous categories, is sent to temporary storage areas (point 2);
- as regards the filter cake from the IGCC plant, it can be stored in the dedicated temporary storage areas (point 3), before being sent outside for the recovery of the metals contained therein;
- in the case of scrap iron, a recovery operation is performed in an appropriate area (point 1), managed by a third-party authorised firm, which performs a selection and reduction of volumes, without, however, any alteration in type and mass quantity of the scrap;
- waste oils are stored in appropriate containers (point 5);
- waste consisting of plastic, glass, aluminium and paper is separately collected and conferred to a dedicated area, which is managed and operated by the Municipality of Sarroch;

 the majority of the waste generated, mainly comprising waste polluted by hydrocarbons, is sent to a plant located inside the Sarlux site (point 4), which separates the solid phase from the liquid phase (oily phase and aqueous phase); afterwards, the liquid phase recovered is conveyed to the wastewater treatment plant (TAS), whilst the solid phase is subject to a subsequent inertisation treatment

The treatments carried out by the inertisation plant significantly reduce the amount of waste in mass and change its type, by mixing it with an inert matrix. The management of the inertisation plant is entrusted to a specially authorised third-party firm.

With the aim of further reducing the quantity of waste exiting the industrial site, in 2019 it has been completed the installation of a thermal dryer (TDS). This new plant, also managed by the authorised third-party firm, began operations in December 2019, and it will treat the largest part of the sludge coming from the wastewater treatment plant (TAS).



Two firms manage the waste collected within the site and they report, in their annual declaration forms, the precise quantities of waste that they send outside, after they carry out the treatments. These firms have been purposely selected and are subject to periodical verifications, by means of specific audit activities.

The solid waste resulting from the filter-presses of the IGCC plant (named *"filter cake"* because of its physical consistency) contains a high percentage of metals such as iron, vanadium and nickel, and it is sent to Germany for their recovery and subsequent use as a raw materials for the steel industry. For this operation, authorisation for cross-border waste movement is annually requested, in accordance with regulation EC/1013/2006. Lastly, Sarlux is authorised to receive and treat other forms of waste, such as bilge waters, slop and ballast waters from ships. This activity is carried out as a completely free service for both ships that berth at Sarroch maritime terminal and also for ships that confer the above mentioned waste types to Sarlux by tanker-truck from other regional ports.

The treatment of these types of liquid waste is performed at the ballast water treatment plant. In the same plant are also treated the groundwaters drained from wells of the hydraulic barrier of the industrial site.

The following table shows the quantities of output/ treated waste at the Sarlux site, split by type.

OUTPUT WASTE/TREATED WASTE AT SARLUX SITE (T/YEAR AND %)									
Parameter	2017		20	)18	2019				
Waste treated at internal inertisation plant	47,220	59.71%	38,139	59.06%	38,985	53.69%			
Groundwaters from hydraulic barrier wells treated at waste water treatment plant	6	O.O1%	4	0.01%	7	0.01%			
Filter cake sent for external recovery	1,914	2.42%	1,619	2.51%	1,802	2.48%			
Other types of waste	29,948	37.87%	24,815	38.43%	31,817	43.82%			
Total	79,088		64,577		72,611				

As can be seen, in 2019, the total waste production of the Sarlux site slightly increased compared with

the previous year, still remaining in line with the average of the last years.

WASTE GENERATED AT SARLUX SITE (T/YEAR AND %)						
Parameter	20	017	20	018	2019	
Non-hazardous waste	28,750	36%	21,614	33%	27,610	38%
Hazardous waste, of which:	50,338	64%	42,963	67%	45,001	62%
Water from remediation activities	6	0.01%	4	0.01%	7	0.01%
Soil from remediation activities	0	0.00%	1154	2.69%	0	0.00%
Hazardous waste from ordinary and extraordinary activities	50,332	99.99%	41,806	97.31%	44,994	99.99%
Total	79,088		64,577		72,611	

In 2019, 29,662 tonnes of waste were sent for recovery or recycling. The overall quantity is greater than the figure recorded for 2018; moreover, when considering the percentage of recovery and recycling

in relation to the total quantity of waste produced, the 2019 figure is better than that of the previous year (40% vs. 35% in 2018).

TOTAL WASTE RECOVERED (INTERNAL AND EXTERNAL TO SITE) (T/YEAR)				
Parameter	2017	2018	2019	
Waste sent to recovery	24,561	21,020	27,860	
Filter cake	1,914	1,619	1,802	
Total waste recovered	26,475	22,639	29,662	

#### Separate waste collection for recycling

Separate waste collection was introduced at the Sarroch industrial site in 2006 (as an indicator to be monitored in order to achieve EMAS certification) and it was later extended to the whole Group. It has the purpose of optimising the collection of assimilable urban waste and of reducing unsorted waste.

At a Group level, a total of almost 377 tonnes of differentiated waste were collected in 2019, 61% of which is paper, 17% is organic waste (compostable), 13% is plastic and the remaining 10% is glass and cans.

96% of the Group's total differentiated waste collection in 2019 was performed at the Sarroch site, confirming the effectiveness of the initiatives implemented in order to drive appropriate conduct of the people working at the site.

Indeed, over the years several initiatives have been launched to raise awareness that, by acting correctly, people can really make a difference: for example, a training module on separate collection was introduced in the induction training for contractors' employees. Finally, an HSE statement was released several years ago setting out the main behavioural rules to be applied at the Sarroch site. Ongoing awareness activities around these issues involving all site workers allowed to achieve, once again in 2019, the excellent results described above.

SEPARATED WASTE COLLECTION - SARAS GROUP (T/YEAR)					
Parameter	2017	2018	2019		
Paper	79	93	230		
Plastic	15	21	48		
Glass and cans	10	19	36		
Decomposable	43	42	63		
Total	147	175	377		

#### **Spills**

Except for the event of 27 December (see dedicated box for more information), in 2019, there was no significant spill, either at sea or on land.

This came as a result of a serious and constant commitment by the Group to ensure the reliability of both its own manufacturing processes, its assets (specifically pipelines and tanks for crude and oil products, for which a multi-year plan is currently in progress to realise pavements and containment basins), as well as the ships used for the transport of oil (which, since many years, are all double-hulled and subject to a strict vetting policy, as detailed in the following chapter).

This approach has been adopted by all Group's subsidiaries. Confirmation of this is provided by a decision taken in 2016 to obtain certification attesting that the Arcola storage facility had been made permanently secure, through the construction of a partial physical barrier around the facility and improvements to the existing hydraulic barrier with the creation of three new wells.

## **EVENT OCCURRED ON DECEMBER 27, 2019**

On the 27th of December 2019, a negligible accidental spill (approx. 0.7 cubic meters) took place with a paraffinic product called "Linpar 18-20", from a pipeline positioned near the Northern Plant's peer of Sarlux industrial site (Sarroch, Sardinia). The spill occurred during the loading operations of a product tanker on the account of SASOL ITALY, owner of the product. As soon as the spill was detected, the site personnel took all necessary steps to inform the Port Authorities and to secure the area. The product "Linpar 18-20", is of paraffinic nature, and it is classified as non hazardous (code IMDG) and it is not a marine pollutant. In the few hours immediately after the spill, Sarlux promptly cleaned up the entire affected area, completely restoring initial conditions, and it also warranted a monitoring service with its personnel, as a precautionary measure, for the following weeks.

#### Sea

As regards transport of crude and oil products by sea, given the high number of ships which perform loading or unloading operations at the Sarroch site (approximately 800-900 ships per year), since 2009, the Group introduced a vetting policy to establish the criteria for selecting and checking the ships allowed to berth, with the aim of preventing accidents and releases into the sea of polluting substances.

Specifically, the procedure requires that all the ships must be fitted with "double-hull", a requirement that is enforced through monitoring both incoming and outgoing oil tankers headed for Sarroch's terminals, and also through regular inspection activities conducted by Saras' staff (also at other ports), according to international criteria, and "Pre-mooring" inspections on a spot basis, carried out in the harbour before mooring.

Ship inspections are carried out according to the "Minimum Safety Criteria" specification document, adopted initially by Saras, and now by Sarlux, in line with the protocols for inspecting ships established by the OCIMF (Oil Companies International Marine Forum), an organisation that promotes the improvement of safety, responsible environmental management in the transport of oil and its derivatives and in the management of maritime terminals.

## Soil and subsoil

As regards the protection of soil at the Sarroch industrial site, the Group continues to carry out a multi-annual programme of prevention activities, to avoid any problem related to accidental spills into the soil and subsoil.

Specifically, numerous impermeable pavements were built in recent years, with more set to be constructed in the future, in the containment basins of storage tanks and in the pipeways, along which the transfer lines of oil products stretch, connecting together the various tanks and the refinery plants. These operations avoid any percolation of oil products in the soil and subsoil (in the case of accidental spills).

Similarly, the fitting of double bottoms in the storage tanks allows to avoid the percolation phenomenon in soil and subsoil, in case any problem would occur to the bottom of the tanks. During the transitory period until all tanks will be fitted with double bottoms, an inspection process continuously takes place with the "acoustic emissions" technique, which allows the early detection of anomalies on the bottom of the tanks.



# ARCOLA STORAGE FACILITY

Activities at the Arcola site began in the 1960s, with the construction of an oil refinery by the Società Petrolifera Italiana (SPI) and the subsequent production of refined products such as gasoline, gasoils and fuel oils.

In 1986, SPI sold the refinery to Arcola Petrolifera, who continued to run it until 1996, when the refining activities were discontinued in favour of developing storage activities. In 2011, the Deposito di Arcola S.r.I. company was established, and it undertook all storage activities.

Currently, the storage facility, which occupies a total surface of about 160,000 m<sup>2</sup> and employes 15 people, is exclusively involved in the storage of oil products (gasoline and diesel) using 26 above-ground atmospheric tanks, with a total nameplate storage capacity of around 181,600 m<sup>3</sup>. The storage activity consists in the receipt of oil products via sea, mainly coming from the Sarlux refinery in Sarroch. The products arrive by sea to the Multi Buoy Mooring (MBM) terminal, located in La Spezia harbour. From there, they are sent to the Arcola storage facility for storage in the destination tanks.

As shown in the illustration below, the storage facility is connected to the MBM terminal by a pipeline stretching around 10 km in total. The pipeline features two booster-pumping stations located one in Battigia and the other in Pianazze. These assets (jetty, pipeline and the Pianazze and Battigia bases) historically belonged to Eni SpA, but were purchased by Deposito di Arcola Srl in 2018. Finally, inland transfer takes place through pumps which convey the oil products to the tanker-trucks loading shelters.





HANDLING OF GASOIL AND GASOLINE (TONNES)					
Parameter	2017	2018	2019		
Deliveries via tanker-trucks	157,484	141,458	132,814		

The Arcola storage facility operates with great attention to Health, Safety and Environmental aspects. As such, it obtained the following certifications:

- Single Environmental Authorisation, in accordance with Presidential Decree 59/2013 and Legislative Decree 152/2006, as regards wastewater and atmospheric emissions, obtained on 17-Feb-2016;
- Fire prevention certificate, issued by La Spezia Provincial Command of the Fire Brigade on 30-Mar-2016;
- MISP certification (showing that the industrial site has been made permanently safe), following the construction of a 400 m physical barrier and the strengthening of the hydraulic barrier, obtained on 26-Sep-2016.

Finally, as part of the efforts to further improve management of Health, Safety and Environment, in 2018 the subsidiary Deposito di Arcola launched a project designed to move the docking point for ships from the "Auriga" jetty to the dock currently used by ENEL. In 2019, the company progressed with the authorisation process with the relevant authorities, and it now expects during 2020 the completion of the works for the construction of the new docking point. The project will result in significant improvements to operational conditions during loading and discharge activities of the vessels.

# Water Footprint

The management of water resources has always been a topic of great attention and commitment for the Saras Group, which carries out its main business activities in Sardinia, a region characterised by little rainfall and frequent droughts.

Indeed, Sarroch industrial site uses water for several purposes, the main one being the production of steam for technological use (thermal energy transportation, stripping with steam and electricity generation). Furthermore, water is used to supply the cooling circuits of the industrial site, the fire protection water network, and also for civilian uses.

Aware of the scarcity of water resource in the local community, the Group has adopted policies at its Sarroch site designed to reduce the use of regional primary water sources. It continues to regularly monitor, manage and optimise the water footprint of the industrial site, thanks to its Environmental Management System and the EMAS Regulation protocol.

More specifically, the site's water use is defined as the amount of water required to guarantee operation of the plants and services linked to production. It is given by the sum of the following factors:

- untreated water from the industrial consortium;
- internal recovery water from sewage treatment plants (water reuse);
- seawater (only for the quantity taken and not sent back into the sea).

In order to reduce usage of primary water, thus leaving a higher amount of untreated water available to the local communities, over the years numerous interventions have been carried out, both in the form of investments and in the form of process improvements, all aiming at gradually reducing the water requirements. In parallel, but for the same purposes, the internal recovery of water, which would otherwise be discharged into the sea, has been maximised; finally, also the installed capacity of desalination systems has been maximised over the years.

Amongst the main measures implemented in the past years to maximise the recovery of internal water (water reuse) the following can be included:

- in 2017, start-up activities began for a 140 m<sup>3</sup>/h plant, capable of recovering process water that is suitable for reuse in the cooling circuits;
- in 2018, a new seawater desalination plant capable of producing 500 m<sup>3</sup>/h of demineralised water for use in the high-pressure boiler systems became operative. The launch was gradual, with production progressively increasing before stabilising at around 360 m<sup>3</sup>/h;
- in 2019, in April, the insertion of all sections of the new seawater desalination plant was completed, up to the maximum capacity of the unit.
   Following achievement of full capacity, as of May, the old desalination units built in the 1990s, which are no longer energy efficient, have been shut down.

The following table summarises water use at the site over the last three years.

ONSITE WATER USE (M <sup>3</sup> )				
Parameter	2017	2018	2019	
Water use onsite	22,015,431	22,440,380	22,148,791	

The following table shows the breakdown of water use by supply source. The column with the percentages represents, year by year, the incidence of each type of supply on total consumption.

ONSITE WATER USE SPLIT BY THREE TYPES OF SUPPLY (MILLION M <sup>3</sup> )						
Parameter	2017		2018		2019	
Parameter	Mm <sup>3</sup>	%	Mm³	%	Mm³	%
Internal recovery water (water reuse)	4.7	21.3	5.1	22.8%	5.7	25.8%
Untreated water from the industrial consortium	9.1	41.3	8.7	38.8%	6.7	30.5%
Seawater	8.2	37.4	8.6	38.4%	9.7	43.7%
Total	22.0		22.4		22.1	

In 2019, the supply of untreated water from the industrial consortium was significantly reduced as a result of the achievement of full capacity for the new desalination plant and a further robust increase in internal recoveries. Furthermore, it is important to specify that the new desalination plant, having a higher yield than the previous plants, permits the production of the same amount of demineralised water with less withdrawal of seawater. The overall water withdrawal of the site is calculated as the sum of untreated water from industrial consortium and seawater. Furthermore, it should also be considered that most of the seawater is returned to the sea with practically the same qualitative characteristics of the water withdrawn, with just minor changes in its temperature and/or salt concentration.

WATER WITHDRAWN BY THE SITE (M <sup>3</sup> )					
Parameter	2017	2018	2019		
Untreated water from the industrial consortium	9,136,330	8,745,684	6,749,917		
Seawater	62,632,467	59,334,145	60,554,562		
Total water withdrawn by site	71,768,797	68,079,829	67,304,479		

#### **Discharges**

The Sarlux industrial site is responsible for almost all discharges of the Group (which are all duly authorised). More specifically, discharges into the sea from the Sarroch site, are divided between those from the process following biological and neutralisation plants, and those coming from desalination and cooling plants.

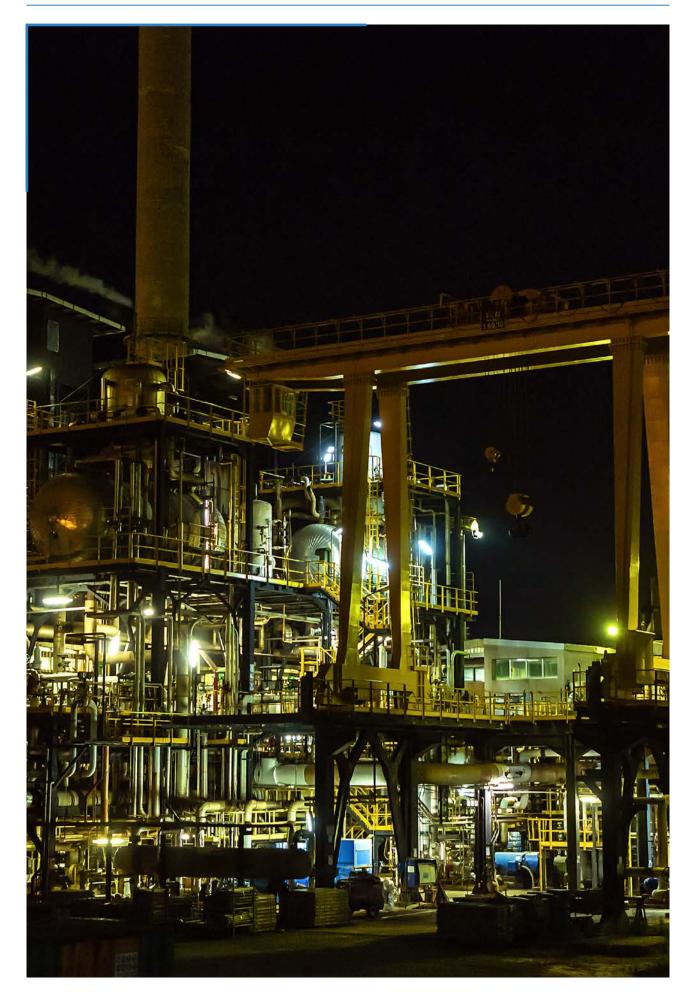
Whilst process discharges are properly connected to the production activities, desalination and cooling discharges are related to production utilities. The effects of the full operation of the new desalination plant were also noticeable on discharges. As the new plant is more efficient, it means that it can withdraw (and thus discharge) less seawater whilst maintaining the same level of desalinated water production.

Lastly, considering also the other Group companies, the below table shows the complete water discharges breakdown by destination.

DISCHARGES INTO THE SEA (M <sup>3</sup> /YEAR)					
Parameter	2017	2018	2019		
Discharges from desalination	18,019,019	16,448,893	17,086,633		
Discharges from process	6,871,892	7,084,804	5,908,502		
Discharges from cooling systems	36,386,783	34,291,504	33,789,110		
Total	61,277,694	57,825,201	56,784,245		

	WATER DISCHARGES BY DESTINATION (M <sup>3</sup> )											
Dementer		20	017			20	018			20	19	
Parameter	Sea	River	Sewer	Total	Sea	River	Sewer	Total	Sea	River	Sewer	Total
Saras Spa	0	0	0	0	0	0	0	0	0	0	0	0
Sarlux Srl	61,277,694	0	0	61,277,694	57,825,201	0	0	57,825,201	56,784,245	0	0	56,784,245
Sartec Srl	0	0	6,294	6,294	0	0	3,317	3,317	0	0	7,093	7,093
Sardeolica Srl	0	0	0	о	о	0	0	0	о	0	0	0
Deposito di Arcola Srl*	0	1,980,800	0	1,980,800	0	1,980,800	0	1,980,800	о	1,980,800	0	1,980,800
Saras Energia SAU	365	0	0	365	540	о	0	540	501	0	0	501
Saras Trading SA	0	0	0	0	0	о	0	0	0	0	0	0
Total	61,278,059	1,980,800	6,294	63,265,153	57,825,741	1,980,800	3,317	59,809,858	56,784,746	1,980,800	7,093	58,772,639

\* Water discharges to rivers are calculated from the flow rates of the suction pumps in the hydraulic barrier wells with the following formula: "pump nameplate flow rate" x "No. of hours in operation"



# **Biodiversity**

The major impacts from the Group's activities, products and services on the biodiversity of the protected areas, or on areas with high level of biodiversity outside the protected areas, relate to Sarlux:indeed, its Sarroch industrial site is located on the coast, in proximity of protected terrestrial areas and it is therefore responsible for preserving marine flora and fauna.

### Land areas

The natural land areas surrounding the Sarroch industrial site are:

- "Gutturu Mannu" Regional Natural Park, located approximately 3 km west of the refinery;
- Cagliari Pond, located approximately 6.7 km east;
- Monte Arcosu Forest, located approximately 11 km west.

Good quality status of the air is the main prerequisite for land biodiversity preservation activity, and it can be monitored, besides using chemical indicators, also with the observation of specific biomarkers (biomonitoring) as, for instance, the abundance or shortage of different species of moss. For several years, the Botanical Science Department of the Mathematical, Physical and Natural Sciences Faculty of the University of Cagliari has been performing, on behalf of Sarlux, in a wide area of the Sarroch hinterland, a vegetation state of health inspection campaign.

The picture that emerges from the analysis with the bioindicators, shows a quality status that fits in an intermediate position within the range of IAP (Index of Atmospheric Purity) index assessment. Indeed, the results of the monitoring carried out at 10 control stations fall primarily into "class 3" and, only in few cases, into "class 4".

In the same area, another monitoring campaign is also carried out periodically on the state of health of the vegetation (visual inspection and check of bioaccumulation of pollutants). From this monitoring, it can be observed that the bioaccumulation of these substances is lower than the annual averages across Italy and Europe.

IAP classes	IAP values	Air quality assessment	Naturalness/alteration
7	IAP = 0	Very poor	Very high alteration
6	1 < IAP < 10	Poor	High alteration
5	11 < IAP < 20	Low	Medium alteration
4	21 < IAP < 30	Mediocre	Low naturalness/ low alteration
3	31 < IAP < 40	Medium	Medium naturalness
2	41 < IAP < 50	Moderate	High naturalness
1	IAP > 50	Good	Very high naturalness

#### Water

For many years now, marine biologists carry out a regular quality status monitoring survey, of the seawaters in front of the Sarlux site area. Monitoring of the Trophic Index (TRIX), an indicator that allows the quality status of seawater to be expressed in summary form, is used for the description of the seawater quality status. In the entire 4-year period 2016-2019, the seawater quality status has been on the high end of the classification range (high-good), thus testifying to the excellent results achieved by the Group, thanks to its commitment to protect the sea. In addition to the Trophic Index, the CAM Index (Seawater Classification) was also introduced several years ago, based on specific algorithms for the Sardinian Sea, which are capable of transforming the measured values into a summary rating of the seawater quality status. In line with the TRIX Index results, in the four years under consideration, the CAM Index also showed a "medium-high" quality for the seawater in all the surveyed areas.

TROPHIC INDEX (TRIX) - WATER QUALITY AND CONDITION				
	Quality level - Surface water	Quality level – Bottom water		
January 2016	high	high		
July 2016	high	high		
January 2017	high	high		
July 2017	high	high		
January 2018	high	high		
July 2018	high	high		
January 2019	high	good		
July 2019	high	high		

CAM INDEX (SPECIFIC FOR THE SARDINIAN SEA)				
	Quality level – Surface water	Quality level – Bottom water		
January 2016	high	high		
July 2016	high	high		
January 2017	high	high		
July 2017	high	high		
January 2018	high	high		
July 2018	high	high		
January 2019	medium	medium		
July 2019	high	high		

# **Technological innovation**

The oil refining and power generation sectors, in which the Group operates, are extremely important for the regional, national and international economic systems. Saras considers technological innovation one of the most important strategic levers to continue playing a leading role in the country's energy market, and to remain competitive also in the international context.

In addition, technological innovation is a crucial element in the search for appropriate solutions designed to increase operational efficiency, reduce consumption and losses and increase the quality of the refined products. As such, Saras carries out industrial development activities aimed at achieving operational excellence and maximising value creation, in the interests of all shareholders and in compliance with the highest safety standards for employees, the community and the region. The Sarroch industrial site managed by Sarlux is one of the most evolved in Europe in the area of integrated refining plants. It has units that are technologically cutting-edge, flexible, versatile and high-conversion. It has been integrated, since 2001, with an Integrated Gasification Combined Cycle (IGCC) plant that produces electricity and provides the refinery with large quantities of hydrogen and steam. Lastly, as of the end of 2014, the Group became the owner of the neighbouring petrochemical plants previously owned by Versalis, achieving a further integration along the value chain.

Finally, there are other interconnected industrial sites such as Sasol, Air Liquide and Liquigas, which developed over the years in symbiosis with the Saras Group and they now represent important components of the Sardinian industrial landscape.



## **Industrial plan**

The Group's Industrial Plan is focused on the development strategies of the Sarroch site, in a medium/long-term perspective. It aims to ensure continuity and sustainability for the business, and it includes the necessary initiatives to adapt to future evolutions in both the reference markets and the regulatory context.

In summary, the Plan identifies the most appropriate improvement and investment activities in the areas of energy efficiency, hydrogen production, long term management of the IGCC cycle, logistics structure, exploitation of the petrochemical units, as well as every other initiative required to optimise the production cycle and ensure the full compliance with all environmental regulations.

The cooperation with the various business functions, in the refinery and the headquarter, for the definition and development of the projects, is key for the successful accomplishment of the established targets.



# **TECHNOLOGICAL IMPROVEMENTS**

1

# MAXIMISATION OF YIELDS AND CONVERSION OF PLANTS

with the implementation of technologies aimed at reducing constraints and limitations, such as for example the revamping of the propylene splitter plant with an increase of approx. 20% of the manufacturing capacity of "polymer-grade" propylene.

2

## ENHANCEMENT OF THE PETROCHEMICAL SECTION

upgrading oil blendstocks into products and intermediates for the petrochemical sector, thanks to interventions aimed at increasing the recovery of specific molecules, such as for example pseudocumene and orthoxylene, through the implementation of a new plant configuration, different from the existing one.



# IMPLEMENTATION OF FURTHER ACTIONS IN THE ENERGY FIELD

that provide for the comple-

tion of the electrification of the FCC plant (in the next maintenance turnaround cycle, which starts in March 2020) with the installation of new electric-powered compressors in the gas section to replace the existing ones, powered by steam turbines. This operation will lead to lower steam requirements, permitting a reduction in the load of the thermal power plants in the site and, consequently, their fuel oil consumption. In addition, the new compressors belong to a newer generation, and therefore will have greater energy efficiency.



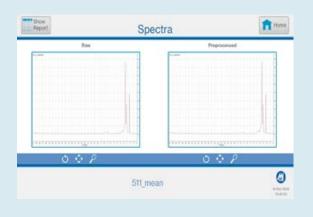
## PRODUCTION OF BIOFUELS through the

through the so-called "co-processing" of raw vege-

table oils, sent to the gasoil desulfurisation plants, exploiting the existing potential of the plants (without the need for technological interventions), the availability of hydrogen and rationalising the logistics.

## NMR CRUDE ANALYZER

As of 2010, in collaboration with the University of Cagliari and Nanalysis Corp. (Calgary, Canada), Sartec began to study the application of the latest low-field nuclear magnetic resonance technologies (Low-field 1H-NMR) and machine learning for petroleum product analysis. The collaboration led to the development of an analytical method for the indirect analysis of crude oil and atmospheric and vacuum residues (European Patent EP3141897) which was subsequently implemented in a prototype laboratory instrument.



The result of the project, which ended in December 2019, is the benchtop analyser "NMR Crude Analyzer" that simultaneously permits the rapid detection of the crude oil distillation curve and the main chemical and physical properties (API, sulphur content, nitrogen, carbon and hydrogen, asphaltenes, metals, viscosity, etc.), providing a rapid and economic alternative to the current laboratory instrumentation.

Made with a man-machine interface that combines ease of use with data reliability, the analyser can be used in a typical refinery laboratory to provide within minutes (approx. 10) the set of crude oil analysis that routinely requires execution times of several man-days and high costs. In the future, the tool can also be adapted for an online application.

In addition to the benefits in terms of efficiency of the laboratory operations, the use of the NMR Crude Analyzer permits a greater and cheaper availability of information from/for

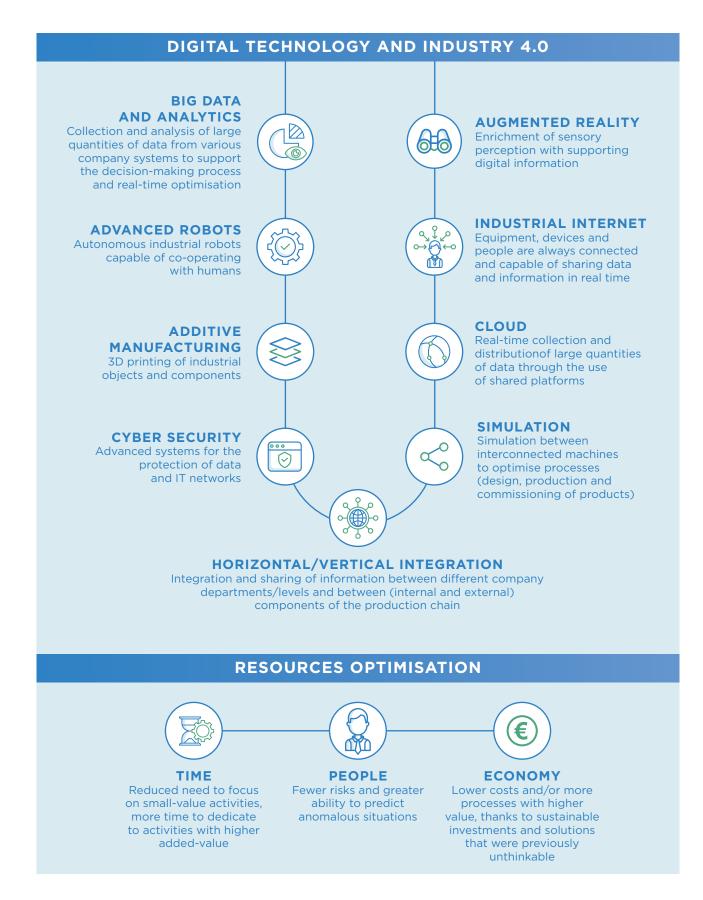
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the process, which can be used for more sustainable plant operations and to minimise risks and margin loss through a closer monitoring of the properties of the crude oil loads entering the refinery and the precise evaluation of the composition of the loads to the distillation columns.



# Digitalisation

Another fronts on which Saras makes increasingly significant progress is are the digitisation and the transition towards "Industry 4.0".



This transformation process makes allows to exploit the progress being made in the fields of electronics, automation, robotics and informatics, leading to the adoption of artificial intelligence technologies, which learn by themselves and will even suggest the best solutions to increase sustainability (environmental, economic and financial), whilst improving processes and using resources in an optimum manner.

Specifically, during 2019, the #digitalSaras programme, launched in December 2016, consolidated the results obtained in prior years; many of the ongoing initiatives have been completed and particular focus has been put to their adoption by personnel, as part of normal daily activities.

Every step in the direction of an overall transformation of the business in key digital areas, in fact, must be accompanied by the utmost attention to the impact on people. The active involvement of end-users in all the phases of the digital initiatives, from design to prototype creation to industrialisation, is certainly one of the factors that is facilitating the introduction of new tools into the organisation. The frequent comparison with other companies in the oil industry has confirmed the high degree of maturity reached by the #digitalSaras programme, in the context of a business that is making great progress in the widespread implementation of the potential offered by digitisation, with the aim of grasping its full benefits.

As for the consolidation of the activities launched in previous years, the numbers describing the extent of the change taking place are significant:

- Over 30 ongoing projects, at various stages of progress, in the areas of reliability improvement, performance optimisation and support for plant operations;
- Over 100 people involved in training on the use of the "Agile" methodology for project development;
- Over 700 people who regularly use mobile devices during "in-plant" activities.



The results obtained, in terms of cultural change and economic benefit, confirm the importance of the contribution that digital technologies bring to corporate performance as a whole.

In 2019, Saras "data scientists" continued to develop applications aimed at addressing specific problems in the management of industrial processes. These were not normally addressed by commercial solutions, but they are of great interest for their impact on the Company. Given the remarkable results obtained and the broad prospects for growth in the number of applications, the team of "data scientists" was therefore expanded.

In addition, to support their activities, the development of the new data platform was continued. The creation of a shared, easily accessible database with robust quality control is not an easy task in a company such as a refinery, where data of different types (e.g., process, asset management, administration, etc.) must be managed. These data are often produced by systems that were not originally designed with future digital developments in mind. The new Saras data platform is therefore constantly growing, in a process that will continue throughout 2020, as new data sources will be linked to the "data lake" in order to generate benefits for business applications that derive from the integration of information.

The new "Digital Predictive Maintenance Centre" (DPCM), which opened at the beginning of 2019 and is managed by a team of engineers with various industrial specialisations, aims to establish a "single source of truth" for decision-making processes relating to asset management, so that such processes are increasingly guided by objective evidence (data), suitably processed and made available to the whole organisation.

The validity of this organisational choice has been confirmed by some notable cases in which the DPCM, supported by advanced predictive maintenance software, has allowed the avoidance of unplanned shut-downs of some of the most important machines operating in the refinery. In a perspective of continuous development of digital transformation, two ambitious innovation programmes were launched in 2019. One concerns the digitisation of the operations of the "Products Movement" and the other the review of the "Production Optimisation" process, with the involvement of various organisational areas of the Company.

As regards the digitisation of the Products Movement activities, the first piece has been implemented; specifically, the operating consoles have been replaced using the most modern "Human-Machine Interface" technologies and relocated to the Plants Control Room.

The next steps will involve the upgrading of the operational management and supervision systems, with the objective of increasing the level of automation and integration between the Control Room and plant operators, leading to the advantage of greater operational precision, with the reduction of product preparation time and, in conclusion, greater customer satisfaction.

The other major project launched in 2019, related to Production Optimisation, turns out to be particularly complex in a company like Saras which, due to its business model, must maintain maximum flexibility both in the choice of raw materials as well as in the formulation of finished products, in order to adapt to the changing needs of a very dynamic market. Specifically, the design phase of the new workflow has been completed, with the collaboration of the world's technological leaders in this field.

The project's considerable complexity and articulation will require approximately 3 years for its completion. As in all other digital initiatives, the key to success will lie in the adoption of state-of-the-art systems, exploited to the best of their potential, to carry out processing that is not only increasingly sophisticated, but also more readily usable by people. Lastly, being able to devote less time to repetitive activities, such as manual data processing, will allow people to better express their potential in the most complex part of the activity, that is, the search for optimal performance.



# Cybersecurity

The rapid digital evolution and the continuous increase of technological devices, in addition to increasing the possibilities of interaction between people and between companies and bringing economic benefits, also brings with them significant security issues. On one side, cyber crime is specialising in the research of new ways to increase the economic return from fraud and ransom demands; and on the other side, pro-governmental groups of various Countries, which previously focused primarily on the activities of espionage and theft of intellectual property, are now developing offensive e-skills to damage the critical infrastructure of their adversaries.

Such a scenario entails the need to carefully guard and continuously improve the defences of the Saras Group. During 2019, the Cyber Security programme saw the development of the main initiatives for the introduction of new protection and monitoring solutions both in the area of Information and Communication Technologies (ICT), as well as for Industrial Control Systems (ICS).

The growth of Cyber Security has involved several fronts at the same time, favouring the establishment of homogeneous and coherent Group level solutions: computer access control systems with special attention to administrative access, protection systems for technological infrastructure including Cloud environments, advanced solutions to defend personal computers of personnel. The prevention and defence from cyber threats affecting Saras' critical IT systems and services has also been strengthened through cooperative relations with Institutions established to combat cyber crimes. In early June, in fact, a collaboration agreement was signed by the Ministry of the Interior, the Public Security Department, the Postal Police Service and Saras SpA.

Amongst the main objectives for 2020 is primarily the continuation of the initiatives undertaken, to bring them to completion and to full operation. This will permit the achievement of the cross-sectional protection level built on the foundation of the adopted reference standards (IEC 62443 and CIS Critical Security Controls). Moreover, it will be brought into operation the service linked to the operations centre, for the collection and continuous monitoring of security events (SOC). This service will be integrated in a single context, including both the ICT as well as the ICS parts, to make the most of the synergies between these two environments. It is an important element that enables overall visibility of what happens at Group level, with an increasing depth in terms of details and above all a continual updating of the collected information. This is an essential aspect for the prevention and anticipation of those threats deemed as most dangerous, for the Group in operational, economic and reputational terms.

# SARTEC

### **Activities**

Sartec S.r.l. is a Saras Group company that provides consultancy and solutions designed to improve industrial performance, with a comprehensive offering targeted at oil, petrochemical and energy companies as well as public administrations and the local community. Sartec S.r.l. is an Energy Service Company (ESCo) which develops energy diagnoses and energy management systems with ISO 50001 certification.

Its main business activities fall into three categories:

- environmental protection (environmental engineering, analysis and measuring systems for the environment, analytical services and environmental monitoring);
- industrial efficiency and energy saving (engineering solutions for facilities and automation, process control, solutions and interventions in the field of energy saving, in its capacity as an ESCo, supply of package systems, analysis systems and its own products and related maintenance services);
- asset management (consulting services aimed at optimising plant reliability and availability, innovative solutions for predictive and prescriptive maintenance and plant digital twin for maintenance management).

As part of its business area, Sartec is involved in technological innovation activities across both products and processes, both directly and through the acquisition of patents, know-how and commercial distribution licences from third parties. In fact, since 2016, Sartec has launched the development of digital solutions, to be applied to its products and services and for the efficiency of internal processes. More specifically, Business Intelligence, Artificial Intelligence and Machine Learning, connectivity and IoT [Internet of Things], Cybersecurity OT [Operational Technology] and virtual reality skills have been developed. Many study and innovation initiatives have been oriented to environmental issues (for example, the previously cited activities for the monitoring and management of odorous and fugitive emissions, the construction of an optical pyrometer for monitoring "torch" temperatures, waste management, and the contaminated soils and groundwater remediation processes with in situ techniques, etc.).

Sartec also has an accredited chemical and olfactometric laboratory and, in the last year, has added to its set of accredited analyses also those related to the monitoring of conveyed emissions and QAL2 [Quality Assurance Level 2], as well as waste water.

The strong research and innovation orientation is constantly fuelled by the relationship with universities and research bodies, with particular reference to the University of Cagliari, the Polytechnic University of Milan and the University of Salerno.





# Human Resources

Sartec employs over 160 people, around 60% of which hold university degrees. Some of Sar-

tec's employees have had significant training experiences abroad. Sartec maintains ongoing training activities in collaboration with the University of Cagliari through a Memorandum of Understanding including initiatives such as apprenticeships, placements, Master's, etc.

Sartec also runs a number of initiatives locally, with a particular focus on young people and takes part in several events organised by relevant bodies and associations in order to share its efforts in this field.

# **#DigitalSartec and Asset Management**

Running alongside current company activities, and in line with the Group's plans, Sartec operates a team focused on the development of innovation and projects related to the technological areas linked to Industry 4.0. The Innovation Team, transversal to the organisation, supports the various Business lines in the expansion of the "Value Proposition", developing innovative projects along Industry 4.0 themes.

The coherent development of the entire innovative process also affects the implementation of initiatives designed to bolster the internal structure with state-of-the-art technological solutions (shared platforms for overseeing internal practices, knowledge management, etc.).

Sartec's primary objective in this is to harness emerging technology and the skills it has acquired within the industry to develop and offer innovative, customised solutions designed to improve process performance and optimise management of the life cycle of industrial assets. In terms of Asset 4.0, for example, mention can be made of projects and initiatives such as predictive maintenance based on MTELL technology, monitoring and "Fault Detection" for critical pumps, control of the "Operating Window" and corrosion, as well as dynamic optimization of maintenance policies.

As regards process optimisation, the following have been developed: an automatic sampling system (Digital Sampling System), an NMR system for crude oil analysis (see the special box dedicated to the "NMR Raw Analyzer"), a system for the optimised monitoring and management of advanced multi-variable controls (ASSO), and an optimised system for managing the load changes to the distillation columns (Crude Switch). Moving on to the environmental field, mention can be made of the project for the realisation of an electronic nose (see the box dedicated to the "IOMS Sartec") and the development of the "Predictive Emission Monitoring" (PEM) system.

In addition, in order to further foster innovation, three new laboratories have been launched to explore and develop solutions in the areas of IoT [Internet of Things] and Connectivity, Cybersecurity OT [Operational Technology] and Artificial Intelligence.

Lastly, in the field of Asset Management, the Sartec proposal, based on the skills available within the Group, consolidates and further expands its offer on both the captive and non-captive markets. The activities are mainly centred around consultancy and the supply of methodological and engineering support for the sustainable planning of Asset management activities and the optimisation of plant reliability and availability. For all these areas, the Sartec offer can be considered, in all respects, as a start-up compared to the traditional operating context.



# IMPACT ON THE LOCAL COMMUNITY

# Local community relations

All companies are born and grown in a clearly identifiable local community, and it is the relationship established with that community that characterises the future development not only of the company, but of the community itself.

Currently a solid international enterprise, Saras was set up and developed in Sardinia, an island with a strong and proud identity, always deeply respected by the Group.

For this reason, for almost 60 years, Saras has been engaged in various initiatives and projects that are useful to support the social fabric, history and local traditions, always paying great attention to the needs of the community and, in particular, of the young people.

In recent years, Saras has adopted a policy called **"Our Stakeholders"**, which sets out the Group's management approach for relations with local communities and recognises local groups and communities as stakeholders of primary importance.

Saras promotes social projects capable of generating value for the community. After an initial assessment of all the projects according to both the economic aspects and the degree of alignment with the guidelines provided by the corporate Purpose, the choice of which projects will be sponsored, falls on those of greater impact and value for the local communities.

The Group, particularly in recent years, established precise guidelines in relation to the areas of intervention based upon two main directives: the social context, i.e., the people deserving to be supported – especially young people, the elderly and the less well-off – and the physical territory, i.e., the extension of the geographical reach that the Group wants to achieve.

One of the goals Saras focuses on with strong commitment is spreading the company's culture and making people understand that it is still possible to "do business" in Sardinia. To achieve this, Saras promotes training activities for young people in schools, and it maintains continuous relations with universities, aimed at promoting social development, embracing topics such as work, sustainability and economic growth, in a region weakened by emigration, especially of the younger generations.

# Saras for schools

Saras, through the Group's various companies, is involved in many programmes designed to satisfy requests from schools and to contribute towards a more effective and innovative learning approach. Between 2013 and 2019, over 600 secondary school pupils visited the Sarroch industrial site for a firsthand experience of work life within a large company. In addition, in the last 5 years, approximately 1,000 students have participated in a programme called "school/work placement" (now renamed "Programme for Transversal Skills and Vocational Guidance") providing them with a tangible experience of the world of work, observing the complex system of skills and technological innovation that develops in a large industrial Group.

Specific lessons were organised for each programme, during which technicians and managers from the company addressed industrial topics such as safety, the environment, manufacturing processes, ICT, company organisation and various others. Simulations were often used to illustrate the way in which Saras works, and to provide useful tips for entering the world of work. As part of this, in-depth sessions were organised on how to prepare a CV and how to conduct a job interview.

Several young people visited laboratories and plant control rooms belonging to the Group, giving them on-the-ground practical experience and allowing them to attend sessions on Industry 4.0 and how innovation can be implemented in the refining sector (within Sarlux subsidiary, at Sarroch) and in the sector of renewable electricity production (at the Group's wind farm at Ulassai). Some students also had the opportunity to build on this experience, through an internship at the company.

The competition "Street Art 4.0 #diamociunaMoS-Sa" on the topic of sustainable mobility, designed in collaboration with the Regional School Office of Sardinia and the ANPAL Servizi SpA (an Italian public company which operates in the field of work and employment policies), is dedicated to the ability to cope with change and new technologies. It has involved more than 50 high school students in the design of an ideal model of transportation system, capable of reducing to a minimum the environmental impact, whilst maximising the efficiency, intelligence and speed of movement.

To develop the project, the students could resort to a wealth of knowledge and expertise provided by the Saras Group on issues related to environment, safety, energy efficiency and the Industry 4.0 programme (connected to the introduction of new digital technologies). The best project saw the implementation of the idea, consisting in a full painting and decoration of the shuttle-buses, used for the transport of the Group's personnel, inside the Sarlux industrial site.

This project, of high social and cultural value, provided not just an opportunity for learning and interaction between students and manufacturing organisations; it was also capable of increasing value, improving people's habits, and supporting more sustainable behavioural and technological mobility.

At the primary school level, Saras continued to offer support to the cultural development of students in the Sarroch state school, as it has done for over 20 years. As well as providing the children with text books, which – in accordance with the culture of sustainability – are then passed on to other schools where they are still relevant to the educational programmes in place, Saras also donates tablets and IT rooms to ensure young people are ready for the digital future.

# Saras for universities

Within the framework of the Memorandum of Understanding signed with the University of Cagliari, technical seminars are regularly organised. Such initiatives supplement the training of future engineers, and the projects in collaboration with various faculties, aimed at the development of scientific and technological innovation.

In 2019, the Saras Group hosted 18 trainees, from various disciplines, in the various Group companies. Furthermore, Saras also contributed to scholarships for the best Engineering graduates, as part of an initiative designed by the Italian Association of Chemical Engineering.

# Saras for the community and sport

Saras supports the local community through several sponsorships awarded to sport associations, both amateurs and professionals. Clubs such as the "Sarroch Polisportiva Volley", the "Gioventù Sarroch" football team and the rugby team "Amatori Capoterra" are typical expressions of the local community, and the Group is proud to help them grow, to continue to represent genuine training centres for young sportsmen and sportswomen.

Furthermore, Saras is one of the partners of the "Cagliari Football Academy". The latter was setup with the aim of becoming a reference point for young Sardinian footballers, and guide them in their technical and personal growth, on a virtuous journey that allows sport to accelerate individual learning.





# **Creation of local value**

For a firm such as Saras, with a "glocal" vocation that simultaneously identifies with the global dimension of the oil markets and the local dimension of its reference community, it is of paramount importance to fully understand the economic benefits that characterise its activities, both as regards the national dimension and in terms of closer stakeholders, which are those located in Sardinia. Indeed, these are the stakeholders with the greatest influence on the Group, and which in turn are the most affected and influenced by the Group's activities.

In previous years, Saras commissioned sector studies aimed at analysing the economic impact of Group's activity on the local community and the ways in which it influences its growth, from the cognitive, direct and indirect economic, social and environmental point of view. The studies were commissioned in 2017 from the "Smart Lab" company (a spin-off of the University of Cagliari that operates in the area of Business Intelligence) and in 2018 from the "The European House-Ambrosetti" company (a management consulting company and think-tank, specialising in the analysis and forecasting of scenarios of socio-economic, scientific and technological developments and their effects on the future of institutions, enterprises and - more generally - civil society).

Overall, "Smart Lab" classified and quantified the Group's impacts in terms of:

- remuneration to employees (direct impact, i.e., salaries paid by the Group companies - Saras, Sardeolica, Sarlux and Sartec - to their employees who work and reside in Sardinia; and indirect impact, i.e., the multiplicative effect produced by the subsequent spent and consumption made by the employees in the local community);
- tax revenue (direct impact, i.e., the amount of tax revenue and payments towards local authorities made by the Group; and indirect impact, i.e., also in this case, the multiplicative effect produced by the expenditure of the Region and local authorities on the local community);
- productive activities (direct impact, i.e., through the expenditures and investments made by Group companies to the providers of goods and services located in Sardinia; and indirect impact, i.e., the multiplicative effect produced by the expenditures and by the investments that suppliers, in their turn, carry out along the value chain of the production system).

ECOI	ECONOMIC IMPACT OF SARAS GROUP'S ACTIVITIES IN SARDINIA (MILLION EURO)							
Parameter	2014	2015	2016	Avg. 2014-16	2017	2018	2019	Avg. 2017-19
Remuneration to Group's employees	40.8	46.6	49.4	46	48	50	50	49
Tax Revenue generated in Sardinia by the Group	448.7	488.2	428.1	455	456	442	375	424
Productive Activities (Goods & Services purchased from local suppliers)	88.9	95.1	118.0	101	143	146	168	152
Total of direct impact	578	630	596	601	647	638	594	626
Indirect impact of Remuneration	93.4	113.5	122.4	110	97	99	100	99
Indirect impact of Tax Revenue	371.4	405.9	356.9	378	373	362	307	347
Indirect impact of Productive Activities	87.3	95.5	117.8	100	143	146	168	152
Total indirect impact	552	615	597	588	612	607	576	598
Impact of Remuneration (direct + indirect)	134	160	172	155	145	149	151	148
Impact Tax Revenue (direct + indirect)	820	894	785	833	829	804	683	772
Impact Productive Activities (direct + indirect)	176	191	236	201	286	293	336	305

On average, in the three-year period 2014-16, the impact of employee remuneration amounted to approximately  $\leq$ 150 million per year (one-third direct, and two-thirds indirect impact), the impact of tax revenue amounted to approximately  $\leq$ 830 million per year (approximately 55% direct and 45% indirect impact), and the impact of productive activities amounted to approximately  $\leq$ 200 million per year (equally divided between direct and indirect impact),

For the three-year period 2017-19, the Group performed internally the same analysis carried out by "Smart Lab" for the previous three-year period, quantifying an impact of employee remuneration on average equal to approximately €150 million per year (one-third direct, and two-thirds indirect impact), the impact of tax revenue on average amounted to approximately €770 million per year (approximately 55% direct and 45% indirect impact) and the impact of productive activities on average amounted to approximately €300 million per year (equally divided between direct and indirect impact).

It is the Group's intention to validate the economic impacts for the three-year period 2017-19, commissioning a new study during the year 2020 to an appropriate independent third-party company.

# MARITIME BUNKERING ACTIVITIES AT SARROCH AND CAGLIARI



As of 1 September 2019, Saras' operations for the direct marketing of naval fuels (the socalled marine "bunkering") have begun near certain specific areas, specifically identified by the harbour master's office and the Port Authority, in the Sarroch Harbour, in Porto Canale and in the Port of Cagliari.

The Group offers, in addition to diesel fuel for marine engines called MGO (Marine Gasoil), the new fuel oil called VLSFO (Very Low Sulphur Fuel Oil, with sulphur content of 0.5% by weight, as required by the IMO 2020 specifications), which it manufactures locally at the Sarlux refinery of Sarroch.

The service has been set up to satisfy the needs of ships arriving and departing from the above indicated ports and to offer additional refuelling options to the numerous ships that transit along the Straits of Sicily and the Tyrrhenian Sea. The refuelling is carried out with a modern ship, the "M/T Atlantic", equipped with the most advanced safety equipment and a crew specially trained to ensure operation in full compliance with environmental, health and safety laws.

In terms of environmental impact, the new VLSFO fuel oil is able to produce a significant reduction in sulphur dioxide and other sulphur oxides (SOx) emissions from marine engines;

in fact, it has a sulphur content of less than 85% compared to the bunker that was previously in use, called HSFO (High Sulphur Fuel Oil with sulphur content of 3.5% by weight). It is estimated that, with planned sales of VLS-FO of about 50 thousand tonnes per month, Saras will help its customers reduce the SOx emissions of their marine engines by about 36 thousand tonnes/year. This great result once again confirms the Group's commitment to the production of high-quality fuels with a low environmental impact, for an increasingly sustainable future.

Finally, to have launched this important commercial activity near the Port of Cagliari, that until today did not have a bunkering service with a barge, represents a further confirmation of the Group's commitment to the economic development of Sardinia. In fact, the ships that choose to use this service must use maritime agents, independent inspectors to measure the quantity and quality of the refuelled bunker, support pilots, fire guard support for ships at berth, cooperative boatmen, waste collection services, in addition to paying port dues to the Harbour Master's Office. There are therefore obvious direct and indirect economic benefits for the many actors involved in this activity.



# **Supplier and procurement management**

In the growth of the Saras Group, suppliers were always a fundamental partner with which to cultivate a relationship based on respect, loyalty, impartiality, equal opportunities, and the achievement of the maximum competitive advantage.

To meet this commitment "Procurement Process Guidelines" were issued, codifying for all the companies of the Group, the various phases and activities of the procurement process for both goods & materials, and for contracts, services & consultancies. The Guidelines also codify the qualification process of the suppliers, and their regular monitoring. Furthermore, the guidelines also provide precise rules and identify the roles and responsibilities of the main parties involved in the procurement process.

In compliance with the above guidelines, the Group issued also the "Qualification Procedure", with the aim of formalising the criteria and procedures for qualifying suppliers, and the "operating instructions", that describe in detail each operating steps relating to the qualification process of goods and services suppliers. The Group regularly distributes its Code of Ethics to all its suppliers, business partners and external collaborators, and calls for its compliance when carrying out supply activities.

The Saras supply chain comprises two types of procurement:

- raw materials (mainly crude oil and also other complementary feedstock or semi-finished products);
- goods and services needed to conduct, in complete safety and regularity, all the activities of the various business segments in which the Group operates.

# **Raw materials**

The raw materials entering the production cycle mainly comprise crude oil purchased across more than 30 countries around the world, including primarily the Middle East, the Caspian Sea and the former Soviet Union, North Africa and West Africa; but also, to a lesser extent, North Sea countries, Latin America and North America. Of course, when buying the raw materials, the Group respects all national and international laws concerning oil trades.

RAW MATERIALS PROCESSED BY ORIGIN (KT/YEAR)						
Parameter	2017	2018	2019			
North Africa	19%	26%	25%			
North Sea	3%	4%	6%			
Middle East	39%	34%	29%			
Russia and the Caspian Sea	24%	23%	26%			
West Africa	14%	13%	14%			
Other	1%	0%	0%			
Total	100%	100%	100%			

From an operational point of view, the Group continuously performs a fundamental scouting activity of the market, looking for those raw materials which, from time to time, have the most favourable economic terms. To increase its effectiveness in this respect, in 2016 the Group established in Geneva (Switzerland) the company called Saras Trading SA, a wholly owned subsidiary that deals with purchases of raw materials and sale of refined products from Sarroch refinery. Thanks to its positioning in one of the main hubs for oil commodities trading, Saras Trading develops intense commercial relations with numerous counterparts, and successfully manages to seize the opportunities offered by the market.

In 2019, the Sarroch refinery processed a quantity of crude oil of approximately 13.17 million tonnes (Mt), divided into approximately 25 grades, which differ in their chemical and physical composition, thus confirming the great flexibility of its plants. In addition to crude oil, approximately 1.28 Mt of complementary feedstock were also processed.

RAW MATERIALS PROCESSED (KT/YEAR)					
Parameter	2017	2018	2019		
Crude oil	14,060	13,512	13,172		
Complementary feedstock (semi-finished products)	1,291	1,321	1,277		
Total refinery runs	15,351	14,833	14,449		



### **Goods and Services**

Plant maintenance activities and those relating to new constructions are the main items that contribute, every year, to the Group's expenditure on goods and services.

The activities carried out by contractors range from the simplest maintenance operations on parts of the plant, maintenance on large machines (such as compressors and turbines), on continuous analysis tools and on process control systems.

As regards the construction activities of new plants or parts of the existing plants, these consist in the commissioning of metal and/or reinforced concrete structures, and in the prefabrication and installation of large mechanical, electrical, instrumental equipment, etc.

In all of the above cases, the skills offered by the contractors cover all specialities needed by large industrial oil and petrochemical plants, ranging from civil and metal framing, to mechanical, electrical and instrumental specialities.

Contracting firms started-up their operations in the local community of Sarroch, and worked along with the site, whilst it progressively grew in size and complexity; most of them have been under contract with the Group since when the refinery was built, in the early 1960s. Over the years, some have grown considerably, specialised and acquired skills and know-how which allowed them to expand their activities, first to other industrial sites in Sardinia, and then also nationally and internationally.

As it can be seen from the table, the vast majority of the Group's procurement refers to the subsidiary Sarlux, which manages the industrial site of Sarroch and that, right from the outset, assigned contracts to third-party companies for almost all plant maintenance and new construction activities.

In 2019, the number of suppliers of goods and services for Sarlux amounted to 351 suppliers of goods and 316 suppliers of services, for total procurement expenditure of  $\notin$ 456 million. More specifically, the percentage of local procurement, i.e., from companies with registered offices in Sardinia, is greater for service suppliers (43% of the total) than materials suppliers (17% of the total).

In Spain, the local procurement expenditure of the subsidiary Saras Energia rises to 96% of the total. Specifically, more than 54% of the expenses to suppliers are incurred in the provinces of Madrid ( $\in$ 5.8 million) where the company's registered office is located, and Murcia (over  $\in$ 1.2 million) which is the location of the hydrocarbon storage facility of Terminal Logistics de Cartagena SLU, a wholly owned subsidiary of Saras Energia.

SUPPLIERS OF GOODS AND SERVICES						
6	2017		2018		2019	
Company	No.	€M	No.	€M	No.	€M
Saras Spa	123	17	110	19	108	21
Sarlux Srl	625	418	615	414	667	456
Sartec Srl	362	9	380	9	334	8
Sardeolica Srl	84	3	109	28	139	21
Deposito di Arcola Srl	102	3	112	3	99	3
Saras Energia SAU	444	15	399	17	430	13
Saras Trading SA	-	-	85	2	85	2

SARLUX LOCAL SUPPLIERS 2019						
Deveneter	Materials					
Parameter	No.	€ M	%**	No.	€M	%**
Local suppliers*	43	19	17%	108	149	43%
Other	308	92	83%	208	196	57%
Total	351	111	-	316	345	-

\* Local refers to firms with registered offices in Sardinia.

\*\* Percentage calculated on the total amount purchased, expressed in million Euro.

# **Suppliers assessment**

The assessment that the Group performs on current and potential suppliers takes many factors into account, the main ones being the quality of products, respect for the applicable regulations, and the sustainability aspects (environmental protection and compliance with Occupational Health and Safety regulations).

Sarlux implemented adequate procedures to formalize the relations with the third parties which interact with the industrial site's activities, in order to ensure that the staff working for the third-party companies complies with the Group's policies in the field of health, safety and environment.

Specifically, Sarlux highly values the commitment of third-party companies in the achievement and maintaining of quality, environment and safety management system certifications. In 2019, 67% of suppliers were ISO 9001 certified, 26.5% ISO 14001 certified, and 25.6% OHSAS 18001 certified. These percentages have increased over the three-year period in question.

Each supplier during the required qualification procedure in order to be admitted to the Group's "vendors' list", is analysed and assessed for the typical activities of its category; moreover, the suppliers shall demonstrate that they satisfy the basic legislative requirements regarding administrative, contributory and insurance regularity, and that they operate in a manner which guarantees protection of health and safety and respect for the environment, both inside and outside of the Sarroch industrial site.

Suppliers are constantly monitored, even during the stages of renewal and maintenance of their supply contract and, even more so, when approaching the expiry date of the documents and certifications which they provided to Saras.

CERTIFIED SUPPLIERS (%)					
Parameter	2017	2018	2019		
ISO 9001 certified suppliers	65.8	66.5	67		
ISO 14001 certified suppliers	24.5	26	26.5		
OHSAS 18001 certified suppliers	23.7	26.2	25.6		

Before entering the industrial site, the personnel of third-party companies, in addition to operating in compliance with their own company's safety plan, receive further basic information on interferential risks regarding the areas of the industrial site in which they shall carry out their activities.

Lastly, the Group also performs continuous monitoring of the contributory regularity of its contractors ("DURC, *Documento Unico di Regolarità Contributiva*", i.e. the Single Insurance Contribution Payment Certificate). This periodic activity, looking for "signs of weakness" that normally come before company defaults and identifying actions to be taken each time to minimise the impact of these possible critical issues, has the ultimate goal of keeping high, both the economic competitiveness of the local community and the level of local economic development.

# **Economic value generated and distributed**

The Saras Group has an international dimension, deriving both from operations on global oil markets and from its shareholders being spread over a broad international scale. However, it also has a strong local dimension, as it constitutes a fundamental driving force for the Sardinian economy, generating and distributing economic value to the various categories of stakeholders.

More specifically, in order to obtain the net economic value generated by the Group, it must be looked initially at total revenues generated plus the Excise duties collected on behalf of the Public Administration; from that, it must be deducted the cost of raw materials, the changes in value of the inventory, the cost for services and use of third-party goods, other operating expenses and the net value of financial charges/income.

The large majority of the value generated is paid to the Public Administration in the form of Excise duties and taxes. Between 10% and 15% of value generated is retained by the company (of which most of it goes to depreciation and amortisation), and the remaining part is distributed to personnel, shareholders, capital providers, and the community.

As can be seen in the table, revenues decreased in 2019, compared with the previous year, mainly due to the fall in oil prices that determine the sales prices of refined products. Furthermore, for the same reason, the cost of purchasing oil raw materials (crude oil and complementary feedstock) also decreased. The costs for services and use of third party assets and other operating expenses also decreased, primarily due to lower expenditures for the purchase of electricity and other utilities, reduced costs for administrative services, banking, brokerages, commissions, and greater capitalisation of the costs of turnaround maintenance, which together more than offset the increase registered for oil and industrial services.

The net value of financial income and charges has drastically reduced (also due to the effect of a change of accounting policy), whilst the amount of the Excise tax, both collected as well as paid, remained substantially in line with the previous year (because it is dependent on the quantities of petroleum products released for consumption in the Italian market).

Proceeding with the analysis, there is a decrease in the company's Retained Economic Value, mainly due to the fact that the profit for the 2019 financial year is less than the dividends distributed to shareholders in May 2019 (the amount of which was determined as a function of the result of the 2018 financial year); on the other hand, deferred tax assets and liabilities remained substantially stable compared with the previous year, whilst depreciation went up by approximately €20 million in 2019.

Lastly, from the analysis of the various items that comprise the Economic Value Distributed, it can be observed that in the year 2019:

- 86.8% (€1,660.1 million) was paid to the Public Administration, in the form of Excise duties;
- 0.5% (€9.4 million) was paid to the Public Administration in the form of direct and indirect taxes and income taxes;
- 7.8% (€148.7 million) was distributed to Personnel in the form of salaries, social security contributions, severance payment provisions and other personnel costs. This amount translates directly into the spending power of the families, thus contributing to generating additional value for the local community;
- 3.9% (€75.3 million) was allocated to Shareholder remuneration in the form of dividends;
- 1.0% (€18.2 million) went to Capital Providers, to remunerate interest on loans received;
- Lastly, approximately €1.8 million was allocated to the Community in the form of donations, sponsorships, contributions and membership fees.

ECONOMIC VALUE (THOUSANDS OF EURO)						
		2017	2018	2019		
Total revenue		7,687,102	10,396,912	9,638,854		
Costs for raw materials and inventory changes		-6,401,154	-9,093,028	-8,532,443		
Costs for services and use of third-party goods		-591,840	-746,650	-684,607		
Other operating expenses		-35,557	-71,985	-14,716		
Net financial charges/income		25,934	68,388	-541		
Excise duties collected		1,723,100	1,655,855	1,664,290		
Net economic value generated	А	2,407,585	2,209,492	2,070,838		
Economic value retained	В	340,487	215,200	157,249		
of which depreciation and amortisation		178,431	178,839	198,698		
Economic value distributed	C=(A-B)	2,067,098	1,994,293	1,913,589		
of which to PA for Excise duties paid		1,718,947	1,651,271	1,660,116		
of which to PA for taxes		85,321	44,645	9,435		
of which to Personnel		147,067	156,613	148,653		
of which to Shareholders		93,601	112,321	75,310		
of which to Capital Providers		20,354	27,665	18,237		
of which to the Community		1,808	1,779	1,839		

# METHODOLOGICAL NOTE

Saras' Sustainability Report for financial year 2019 constitutes the Consolidated Disclosure of Non-financial Information for 2019 (NFI) in accordance with the Legislative Decree No. 254/2016, and represents the third document reporting the Group's non-financial impacts. More precisely:

- it has been drafted in accordance with the "Global Reporting Initiative Sustainability Reporting Standards" (in short GRI Standards), provided by the Global Sustainability Standards Board (GSSB), according to the option "In accordance – Core";
- its purpose is to describe, as regards economic, social and environmental aspects, the activities carried out by the Group, the goals pursued, the performance achieved, and the related risks.

# **Reporting process and scope**

The topics addressed within this document are the result of various analysis and stakeholder engagement activities carried out by the Group (please see the section "Saras' Priorities").

The Sustainability Report will continue to be published annually and it will be distributed via the communication tools regularly used by the company. The publication timing is the same as the one adopted for the Financial Statements of Saras SpA and the Group's Consolidated Financial Statements. Furthermore:

- all data, initiatives and projects refer to the period between 01/01/2019 and 31/12/2019 and to the companies that are fully consolidated in the Group's Consolidated Financial Statements, as required by Legislative Decree 254, except where otherwise indicated below or in the text. Where possible, corresponding data for the previous two reporting periods is shown for comparison with 2019, in order to give greater detail and highlight the main trends and changes that have occurred;
- the economic data come from the Financial Statements of Saras SpA and from the Group's Consolidated Financial Statements and therefore include the Group's seven main companies (Saras, Sarlux, Sartec, Sardeolica, Deposito di Arcola, Saras Energia and Saras Trading);
- the social data include the seven main companies of the Group consolidated in the Consolidated Financial Statements;
- the percentage of the Group's local suppliers, calculated on the total amount of procurement expenditures, is provided only for the subsid-

iary Sarlux (which represent the most important company in Sardinia) and for the subsidiary Saras Energia;

- the environmental data, except where explicitly stated, refer to Sarlux because its environmental footprint almost entirely matches the footprint of the Group;
- The calculation of CO2 emissions from the Sarroch site is performed based on a suitable Monitoring Plan, defined in accordance with the specific European and Italian guidelines, which is based on the evaluation, by means of instrumentation that is constantly subject to checks and calibrations, of fuel consumption and on the application of specific emission factors for each type of fuel. The Monitoring Plan was approved by the Ministry of the Environment with Decision No. 47/2016-DEC ETS-REG with protocol No. 0000051 CLE dated 22/12/2016. The laboratory within Sarlux is one of the leading Italian laboratories operating in a refinery and the third in Italy to obtain the required accreditation which is necessary to carry out checks on certain fuels used.
- The data of the suppliers of Sarlux and Saras take into account that some companies are suppliers of both materials and services.
- As regards the calculation of the economic value generated and distributed by the Saras Group in 2019, the following two changes occurred compared with previous years: 1.) Restatement of the item "Total Revenues", following the change of the Group's "Accounting Policy", which now includes all derivatives on oil commodities, used to hedge physical oil cargoes purchased and sold by the Group. This restatement also affects the item "Net financial income/charges", which in 2019 is lower than in previous years, as it no longer includes the effect of the aforementioned derivatives; 2.) Restatement of the item "Costs for services and use of third-party goods", due to the effect of the entry into force of the accounting standard IFRS 16 during the year.

The Sustainability Report, being the Consolidated Disclosure of Non-financial Information, is subjected to limited assurance by the independent company EY. The audit report describing the details of the principles adopted, the activities carried out and their conclusions is shown in the Appendix. Lastly, this document (NFI) was approved by the Board of Directors of Saras SpA on 02/03/2020.

# Scope

MATERIAL TOPICS	GRI STANDARD TOPICS	PERIMETER		
		Internal	External	
Health and safety	Occupational health and safety	Group	Supply chain	
Air pollutants and greenhouse gases emissions	Emissions	Sarlux	Supply chain	
Waste and discharge management	Effluents and waste	Sarlux	Supply chain	
Energy efficiency	Energy Emissions	Sarlux	Supply chain	
Employment and creation of local value	Employment Labor/management relations Market presence	Group		
Technological innovation		Group		
Local community relations	Local communities Indirect economic impacts	Group		
Training and development of human resources	Training and education	Group		
Water resource management	Water	Sarlux	Supply chain	
Human resources management	Employment Management relations	Group		
Odours	Local communities	Group	Supply chain	

Below are other topics that, whilst not material according to the analysis undertaken, are nonetheless deemed relevant by Saras and therefore appear in this Sustainability Report, also in order to fully comply with the requirements of Legislative Decree No. 254.

OTHER RELEVANT TOPICS	GRI STANDARD TOPICS PER		IETER
		Internal	External
Compliance with regulations	Environmental compliance Socio-economic compliance Customer health and safety	Group	Supply chain
Supplier and procurement management	Suppy Chain Procurement practices Raw Materials	Group	
Anti-corruption	Anti-corruption	Group	
Human rights	Anti-discrimination	Group	Supply chain
Equal opportunities	Diversity and equal opportunities	Group	
Biodiversity	Biodiversity	Sarlux Sardeolica	

# Note:

With the exception of the topic linked to Occupational Health and Safety, reporting is not extended to the supply chain. Furthermore, please be aware that all GRI indicators included in the Content Index refer to the GRI Standards published in 2016.

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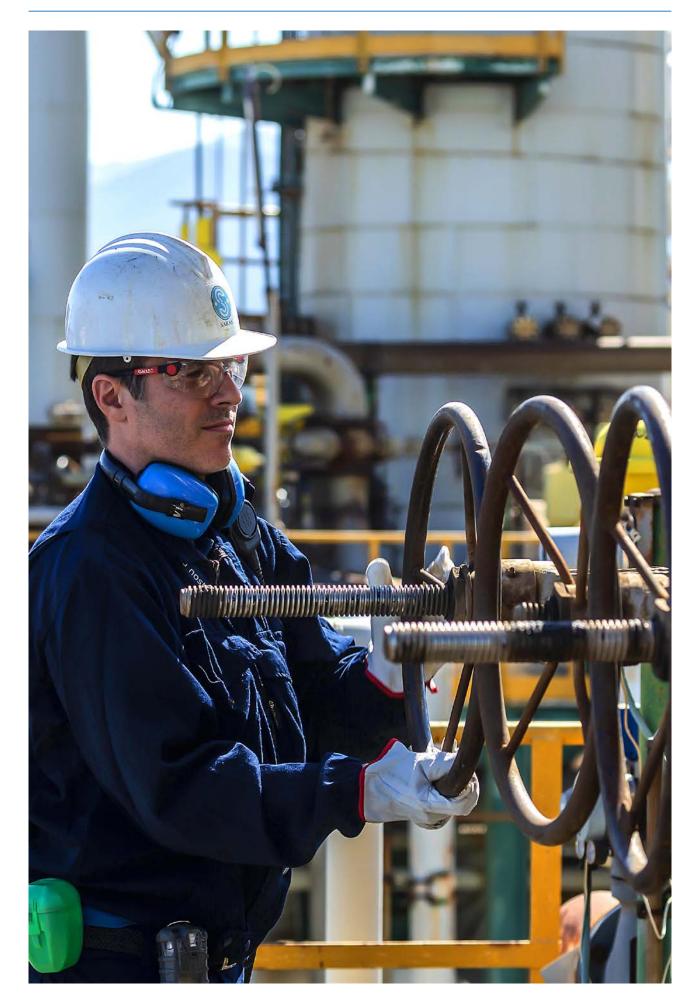
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CUSTOMERS HEALTH AND SAFETY								
103-1 103-2 103-3	Management approach	Saras priorities Group identity – The internal control and risk management system	20, 36-37	None				
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Group identity – The internal control and risk management system	37	None				
SOCIO-EC	CONOMIC COMPLIANCE							
103-1 103-2 103-3	Management approach	Saras priorities Group identity – The internal control and risk management system	20, 36-37	None				
419-1	Non-compliance with laws and regulations in the social and economic area	Group identity - The internal control and risk management system	37	None				



# REPORT BY THE INDEPENDENT AUDIT FIRM ON THE SUSTAINABILITY REPORT



EY S.p.A. Via Meravigli, 12 20123 Milano Tel: +39 02 722121 Fax: +39 02 722122037 ey.com

Independent auditors' report on the consolidated disclosure of nonfinancial information in accordance with Article 3, par. 10, of Legislative Decree 254/2016 and with Article 5 of CONSOB Regulation adopted with Resolution n. 20267 of January 18, 2018

(Translation from the original Italian text)

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

We have been appointed to perform a limited assurance engagement pursuant to Article 3, paragraph 10, of Legislative Decree 30 December 2016, n. 254 (hereinafter "Decree") and article 5 of CONSOB Regulation adopted with Resolution 20267/2018, on the consolidated disclosure of non-financial information of Saras S.p.A. and its subsidiaries (hereinafter the "Group") for the year ended on December 31, 2019 in accordance with article 4 of the Decree and approved by the Board of Directors on March 2, 2020 (hereinafter "DNF").

### Responsibilities of Directors and Board of Statutory Auditors for the DNF

The Directors are responsible for the preparation of the DNF in accordance with the requirements of articles 3 and 4 of the Decree and the "Global Reporting Initiative Sustainability Reporting Standards" defined in 2016 by GRI - Global Reporting Initiative (hereinafter "GRI Standards"), identified by them as a reporting standard.

The Directors are also responsible, within the terms provided by law, for that part of internal control that they consider necessary in order to allow the preparation of the DNF that is free from material misstatements caused by fraud or not intentional behaviors or events.

The Directors are also responsible for identifying the contents of the DNF within the matters mentioned in article 3, par. 1, of the Decree, considering the business and the characteristics of the Group and to the extent deemed necessary to ensure the understanding of the Group's business, its performance, its results and its impact.

The Directors are also responsible for defining the Group's management and organization business model, as well as with reference to the matters identified and reported in the DNF, for the policies applied by the Group and for identifying and managing the risks generated or incurred by the Group.

The Board of Statutory Auditors is responsible, within the terms provided by the law, for overseeing the compliance with the requirements of the Decree.

### Auditors' independence and quality control

We are independent in accordance with the ethics and independence principles of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, based on fundamental principles of integrity, objectivity, professional competence and diligence, confidentiality and professional behavior. Our audit firm applies the International Standard on Quality Control 1 (ISQC Italia 1) and, as a result, maintains a quality control system that includes documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable laws and regulations.

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#### Auditors' responsibility

It is our responsibility to express, on the basis of the procedures performed, a conclusion about the compliance of the DNF with the requirements of the Decree and of the GRI Standards. Our work has been performed in accordance with the principle of "International Standard on Assurance Engagements ISAE 3000 (Revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (hereinafter "ISAE 3000 Revised"), issued by the International Auditing and Assurance Standards Board (IAASB) for limited assurance engagements. This principle requires the planning and execution of work in order to obtain a limited assurance that the DNF is free from material misstatements. Therefore, the extent of work performed in our examination was lower than that required for a full examination according to the ISAE 3000 Revised ("*reasonable assurance engagement*") and, hence, it does not provide assurance that we have become aware of all significant matters and events that would be identified during a reasonable assurance engagement.

The procedures performed on the DNF were based on our professional judgment and included inquiries, primarily with company's personnel responsible for the preparation of the information included in the DNF, documents analysis, recalculations and other procedures in order to obtain evidences considered appropriate.

In particular, we have performed the following procedures:

- analysis of the relevant matters in relation to the activities and characteristics of the Group reported in the DNF, in order to assess the reasonableness of the selection process applied in accordance with the provisions of article 3 of the Decree and considering the reporting standard applied;
- 2. analysis and evaluation of the criteria for identifying the consolidation area, in order to evaluate its compliance with the provisions of the Decree;
- 3. comparison of the economic and financial data and information included in the DNF with those included in Saras Group's consolidated financial statements;
- 4. understanding of the following aspects:
  - Group's management and organization business model, with reference to the management of the matters indicated in the article 3 of the Decree;
  - policies adopted by the Group related to the matters indicated in the article 3 of the Decree, results achieved and related key performance indicators;
  - main risks, generated or suffered related to the matters indicated in the article 3 of the Decree.

With regard to these aspects, we obtained the documentation supporting the information contained in the DNF and performed the procedures described in item 5. a) below

5. understanding of the processes that lead to the generation, detection and management of significant qualitative and quantitative information included in the DNF. In particular, we have conducted interviews and discussions with the management of Saras S.p.A. and with the personnel of Sarlux S.r.I. and Sartec S.r.I. and we have performed limited documentary evidence procedures, in order to collect information about the processes and procedures that support the collection, aggregation, processing and transmission of non-financial data and information to the management responsible for the preparation of the DNF.

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Furthermore, for significant information, considering the Group activities and characteristics:

- at Group level
  - a) with reference to the qualitative information included in the DNF, and in particular to the business model, policies implemented and main risks, we carried out inquiries and acquired supporting documentation to verify its consistency with the available evidence;
  - b) with reference to quantitative information, we have performed both analytical procedures and limited assurance procedures to ascertain on a sample basis the correct aggregation of data.
- for Sarroch refinery of the subsidiary Sarlux S.r.I. and for Macchiareddu laboratories of the subsidiary Sartec S.r.I., that we have selected based on their activities, relevance to the consolidated performance indicators and location, we have carried out site visits during which we have had discussions with management and have obtained evidence about the appropriate application of the procedures and the calculation methods used to determine the indicators.

#### Conclusions

Based on the procedures performed, nothing has come to our attention that causes us to believe that the DNF of the Saras Group for the year ended on December 31, 2019 has not been prepared, in all material aspects, in accordance with the requirements of articles 3 and 4 of the Decree and the GRI Standards.

Milan, March 18, 2020

EY S.p.A. Signed by: Alberto Romeo (Auditor)

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



# SARAS S.P.A.

### Registered office:

S.S. Sulcitana 195 - Km. 19 I-09018, Sarroch (Cagliari) - Italy Tel +39 070 90911 Fax +39 070 900209

# General Management

and Administrative headquarters: Galleria Passarella, 2 I-20121, Milano – Italy Tel +39 02 77371 Fax +39 02 76020640

Created by: Chief Oil & Energy Officer Tel +39 02 77371 www.saras.it

### Consultancy:

Lundquist srl Via Privata Maria Teresa, 8 I-20123, Milano – Italy *www.lundquist.it* 

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We would like to thank all the colleagues of the Saras Group who have contributed to the production of this Report.



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