

SARAS

SUSTAINABILITY REPORT 2018

CONSOLIDATED DISCLOSURE OF NON-FINANCIAL
INFORMATION IN ACCORDANCE WITH
THE LEGISLATIVE DECREE 254/2016



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TABLE OF CONTENTS

	LETTER TO STAKEHOLDERS	...4
	SARAS IN FIGURES	...6
	SUSTAINABILITY AT SARAS	...8
	Group certifications	...10
	Industrial Vision	...12
	Strategic approach	...13
	Saras priorities	...14
	GROUP IDENTITY	...20
	The Saras Group	...21
	Governance	...30
	Internal Control and Risk Management System	...34
	Corruption prevention	...40
	Human rights	...41
	OUR PEOPLE	...42
	Health and safety	...43
	Human resources management	...48
	Training and development	...60
	Relations with social partners	...66
	SUSTAINABLE ENERGY	...68
	Energy efficiency and consumption	...70
	Greenhouse gases and pollution in the atmosphere	...78
	Odours	...84
	Waste and spills	...86
	Management of Water	...96
	Biodiversity	...100
	Technological innovation	...102
	IMPACT ON THE LOCAL COMMUNITY	...108
	Local community relations	...109
	Employment and creation of local value	...112
	Supplier and procurement management	...114
	Economic value generated and distributed	...118
	METHODOLOGICAL NOTE	...120
	GRI CONTENT INDEX	...124

LETTER TO STAKEHOLDERS



For Saras, 2018 marks the first year since the passing of Gian Marco. It is hard to try to fill the void left by the charismatic figure who led our company for decades, always with great determination and inspired strategic decisions.

Gian Marco was a role model for all and - with his good nature and personable way - he was able to convey his commitment to his work to all of us, not to mention his passion for contributing to the growth of our company in harmony with the local community, generating shared value for the community, stakeholders and shareholders alike.

Our second Sustainability Report represents an opportunity to examine and illustrate - with maximum transparency - the many decisions made and initiatives undertaken during the 2018 financial year, in accordance with our corporate "Purpose". Being a "reference point as a provider of sustainable energy that fuels people's lives" is about following a strategy inspired by sustainable development, with a business model that integrates the social and environmental dimensions into the core business of the company.

For the purposes of reporting, in accordance with Legislative Decree 254/2016 on the Declaration of Non-Financial Information and Diversity, we have once again decided to adopt the Global Reporting Initiative (GRI) Sustainability Reporting Standards. During 2018, we undertook a far-reaching process of dialogue and engagement with over 50 stakeholders, sharing common interests with our company. We spoke to people from all the main sectors, including civil society and associations, the media, trade unions, education, institutions, suppliers of goods and services, financial analysts and institutional investors. Parallel to this, we gauged the thoughts and opinions of our internal workforce through a questionnaire sent to over 320 employees and managers in the Group. Overall, this process has enabled us to further finetune Saras materiality matrix, while confirming the core pillars of our sustainability strategy.

First and foremost is **protecting the health and safety** of all people who work on our premises every day, including both employees and contractors. Saras works hard every day to achieve its objective of "zero accidental events", promoting a culture of safety through the BBS protocol, which concerns the monitoring and adoption of safe behaviours. Every year, the company provides over 20,000 hours of "health and safety training" for its workforce, in addition to an equivalent number of "information" hours for third-party companies (refinery access courses, work permit certification, access to confined spaces, etc.). Furthermore, Saras has invested over €100 million in health, safety & environment (HSE) in the last three years, in order to protect the environment and improve the safety standards at the workplace. Thanks to this significant commitment, 2018 saw us register record lows in terms of injury frequency, in addition to reductions in near misses.

The second material topic for Saras is the **protection of the environment**, which we promote through a large range of initiatives and investments designed to minimise the need to use primary water resources (through the construction of an additional seawater desalination facility, one of the largest of its kind), ensure effective waste and discharge management and reduce air emissions. More specifically, in order to reduce greenhouse gas emissions we are currently engaged in a multi-year investment programme designed to further boost the energy efficiency of our plants and processes. Furthermore, as regards emissions of pollutants, which are always

far below legal limits, we have adopted specialist technology across the Sarroch site, in addition to only using fuels with ultra-low

sulphur contents in our refinery furnaces. We also intend to increase our renewable energy production. As such, we have initiated works to expand the installed capacity of our wind farm in Ulassai, Sardinia, by 30 MW.

Sustainability for Saras also means **investing in people**, constantly developing their skills, recognising hard work and creating a strong sense of belonging to the organisation. We believe that our people are the most precious resource we have - and that the know-how we've acquired over nearly 60 years of operation, together with the daily commitment of our workforce, are the distinguishing features that allow us to effectively tackle the challenges posed by the global market.

Indeed, to further develop skills and promote long-term sustainability, since a few years, we have undertaken a process of **technological innovation and digital transformation** at the Sarroch site. In 2018, we rolled out on the industrial level a number of pilot projects, such as, for example, the digital checklists that are now used by over 450 plant operators. We've also launched two "Digital Units": two plants that integrate traditional refinery processes with new Industry 4.0 technology, with the aim of profoundly changing the way we manage operations, improving performance by using process simulation models, and increasing reliability and availability.

Finally, our Group is extremely **focused on the community and society**, promoting initiatives designed to consolidate employment and boost value creation in the local area. We believe in a business model that grows hand in hand with the local communities. Indeed, around our Sarroch site we have seen the creation of an ecosystem of small and medium-sized companies which grow and create value in synergy with our company, developing skills that can benefit other areas and industrial sectors as well. Moreover, around 1,450 people in our Group (75% of the total workforce) live and work in Sardinia. Their spending and consumption create significant indirect benefits for the local economy.

Our presence in the local area manifests itself through the promotion of social projects, training events involving schools and universities, and also sponsorships of amateur and professional sports associations. To this end, Saras invested €1.8 million in donations, sponsorships, contributions and association fees in 2018.

To conclude, this Report proudly sets out Saras' social responsibilities and actions, as well as our sustainable development strategies that we will always follow in order to create shared value while safeguarding health, safety and the environment.

The Chairman
Massimo Moratti

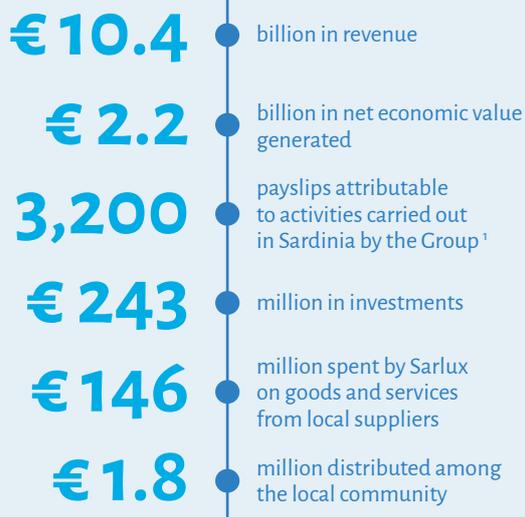



SARAS IN FIGURES

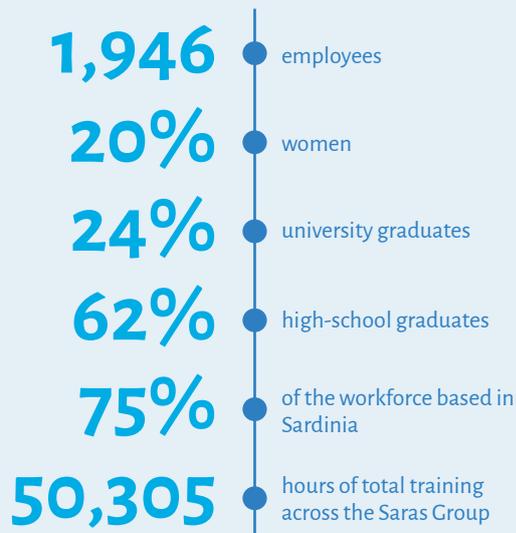




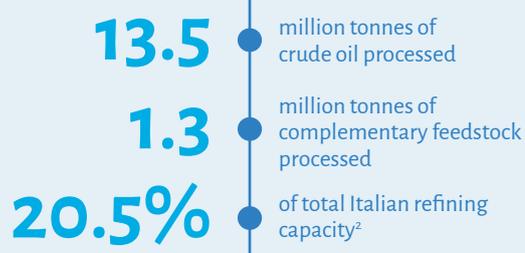
Value creation



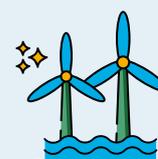
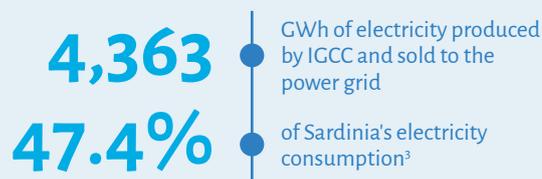
Human



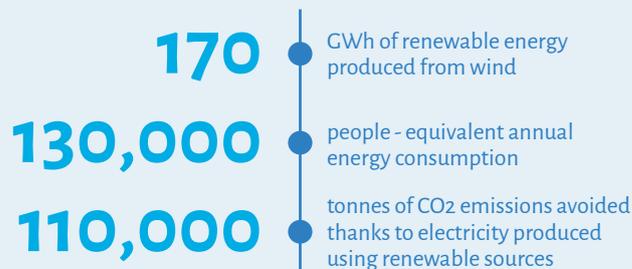
Refining



Power generation



Renewable energy



1. Source: The European House – Ambrosetti “Il valore di Saras per la crescita del territorio” [Saras' role in the development of the local area] Nov 2018

2. Source: UP (Unione Petrolifera) “2018 Preliminary Oil Report” Dec 2018

3. Source: Terna “Monthly Report on the Electricity System” Dec 2018

SUSTAINABILITY AT SARAS



Saras Group is one of the main Mediterranean 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 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 the main ones alone, already in 1970, more than 5 years before the legislation came into force, Saras started the first biological water treatment. In 1992, the unit 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 unit MHC2. 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 SO₂ and NO_x emissions comparable to those of a natural gas plant. Finally, 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 to achieve a further reduction of SO₂ 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 since 2004 at the Sarroch site (entirely owned and managed by the subsidiary Sarlux S.r.l. since 2013, following the transfer of the "Refining" Segment to it by parent company Saras S.p.A.). In 2007, the site achieved OHSAS 18001 certification for its Safety Management System. The two systems were later combined and integrated with the Management System for the Prevention of Major Accidents, as set out by the Seveso Directive (Legislative Decree 105/2015). This allowed common features to be used across the board and introduced a system of performance measurement and planning for objectives and improvement targets. At Sarlux S.r.l., this led to an Integrated Management System, which now - after the implementation of the ISO 50001-certified Energy Management System in May 2018 - represents the main management tool designed to ensure the constant improvement of the site. Moreover, by way of illustration of the company's determination to boost internal standards and ensure compliance with the latest regulations, a GAP Analysis was carried out in January 2019 on the introduction of the new ISO 45001 standard, regarding the Management System for Health and Safety at the Workplace.

In addition to the aforementioned certifications, in 2008 the Group took the voluntary step to register the Sarroch site according to the Eco-Management and Audit Scheme (EMAS), and since then, it has published an annual Environmental Report, which is one of the main tools to support an ongoing dialogue with the local communities.

Moreover, as early as 2009, the Sarroch plant was the first one 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 Sea¹. More precisely, the activities subject to AIA carried out at the plant, fall under the Annex 8 and Annex 12 of the second part of Legislative Decree 152/2006 and subsequent amendments and additions, as follows:

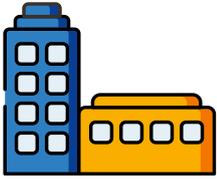
- IPPC category 1.1: Combustion of fuels in a facility with a total nameplate thermal capacity equal to or greater than 50 MW;
- IPPC category 1.2: Oil and gas refining;
- IPPC category 4.1: Chemical plant for the production of basic organic chemicals.

As regards other subsidiary companies:

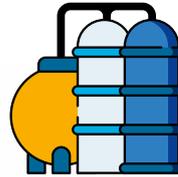
- Sardeolica S.r.l. achieved certification of its Environmental Management System according to the international standard ISO 14001, since 2006. In 2012, it achieved OHSAS 18001 certification for its Safety Management System and ISO 9001 certification for its Quality Management System. In 2017, it achieved ISO 50001 certification for its Energy Management System and, finally, it obtained also EMAS registration 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 has also held UNI CEI 11352:2014 (ESCO – Energy Service Company) certification since 2013 and UNI CEI EN ISO/IEC 17025:2005 accreditation for its test laboratory since 2015.
- In February 2016, Deposito di Arcola S.r.l. 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), as regards waste water and atmospheric emissions. Finally, in September 2016 it obtained MISP certification showing that the industrial site has been made permanently safe, following the construction of a physical barrier 400m long, and the strengthening of the hydraulic barrier

1. <http://aia.minambiente.it/DetailProv.aspx?id=6260>

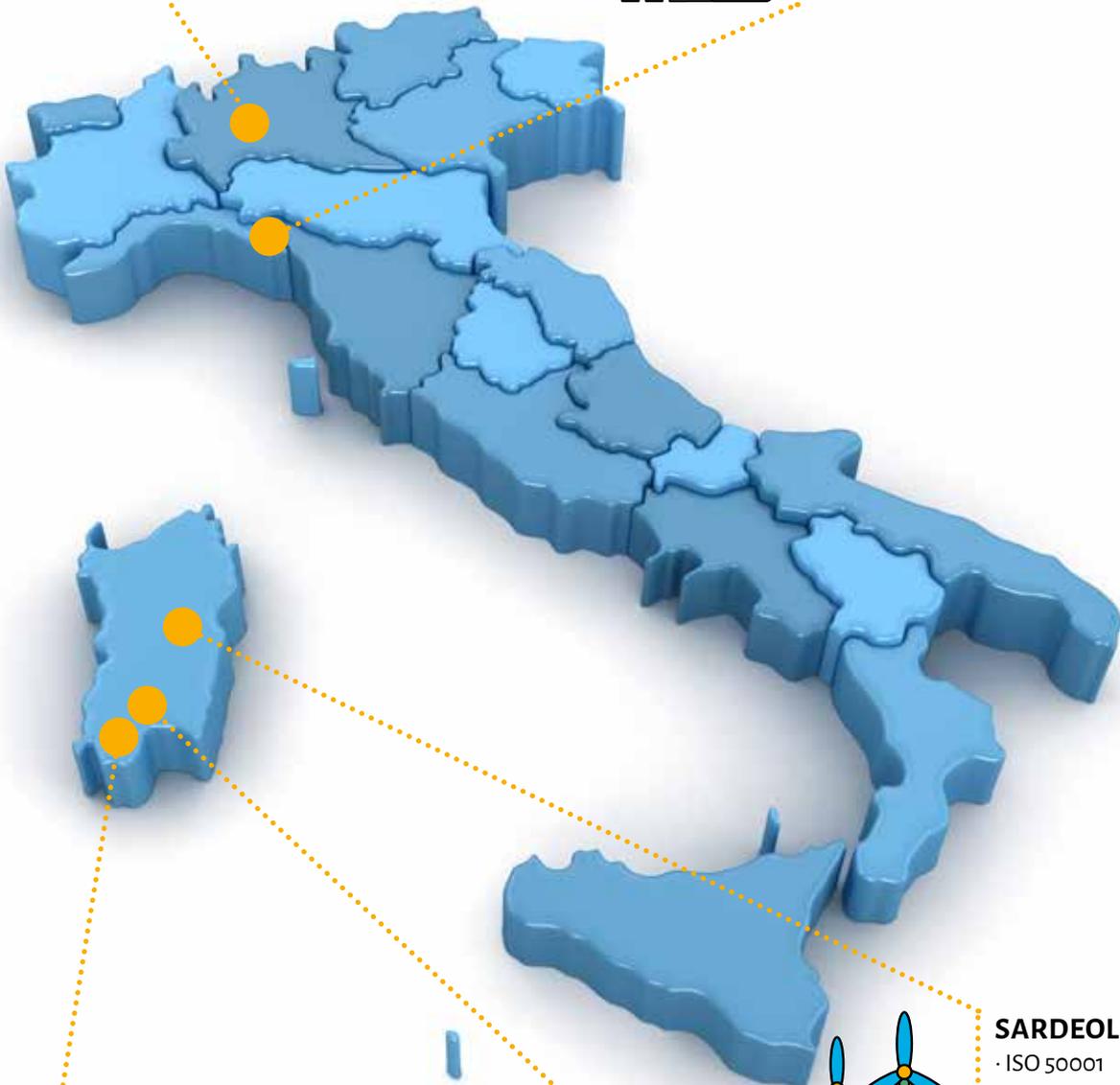
CERTIFICATIONS



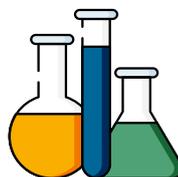
SARAS
· ISO 9001



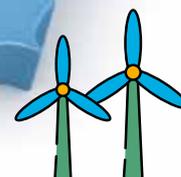
DEPOSITO DI ARCOLA
· Single Environmental Authorisation
· MISP



SARLUX
· ISO 50001
· ISO 14001
· OHSAS 18001
· EMAS
· Single Environmental Authorisation



SARTEC
· ISO 9001
· ISO 14001
· OHSAS 18001
· UNI CEI 11352
· UNI CEI EN ISO/IEC 17025



SARDEOLICA
· ISO 50001
· ISO 9001
· ISO 14001
· OHSAS 18001
· EMAS

Industrial Vision

Saras has always considered of primary importance to hold a highly competitive positioning in the Mediterranean refining sector, as a requirement to ensure long term continuity and sustainability of its business. The cornerstones of this vision are based on strategic choices, starting from the central position on oil routes, the size and complexity of the industrial site, the integration with electricity generation and petrochemical products, the attention to health, safety and environmental aspects, and the integration with the local context, all based on the motivation and competence 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 among the best in Europe in terms of capacity and technology. The site was further bolstered at the end of 2014 through the integration of petrochemical units, thanks to the acquisition of a business branch from the nearby facility owned by Versalis.

The fundamental role of people is underlined by the continuity of direction, by a sense of belonging and the contribution to socio-economic growth, specific and inherent factors to the company's history that is now continuing in an innovative effort of know-how development, as proven by the #digitalSaras programme, a technological development and mindset programme launched at the end of 2016 and currently underway.

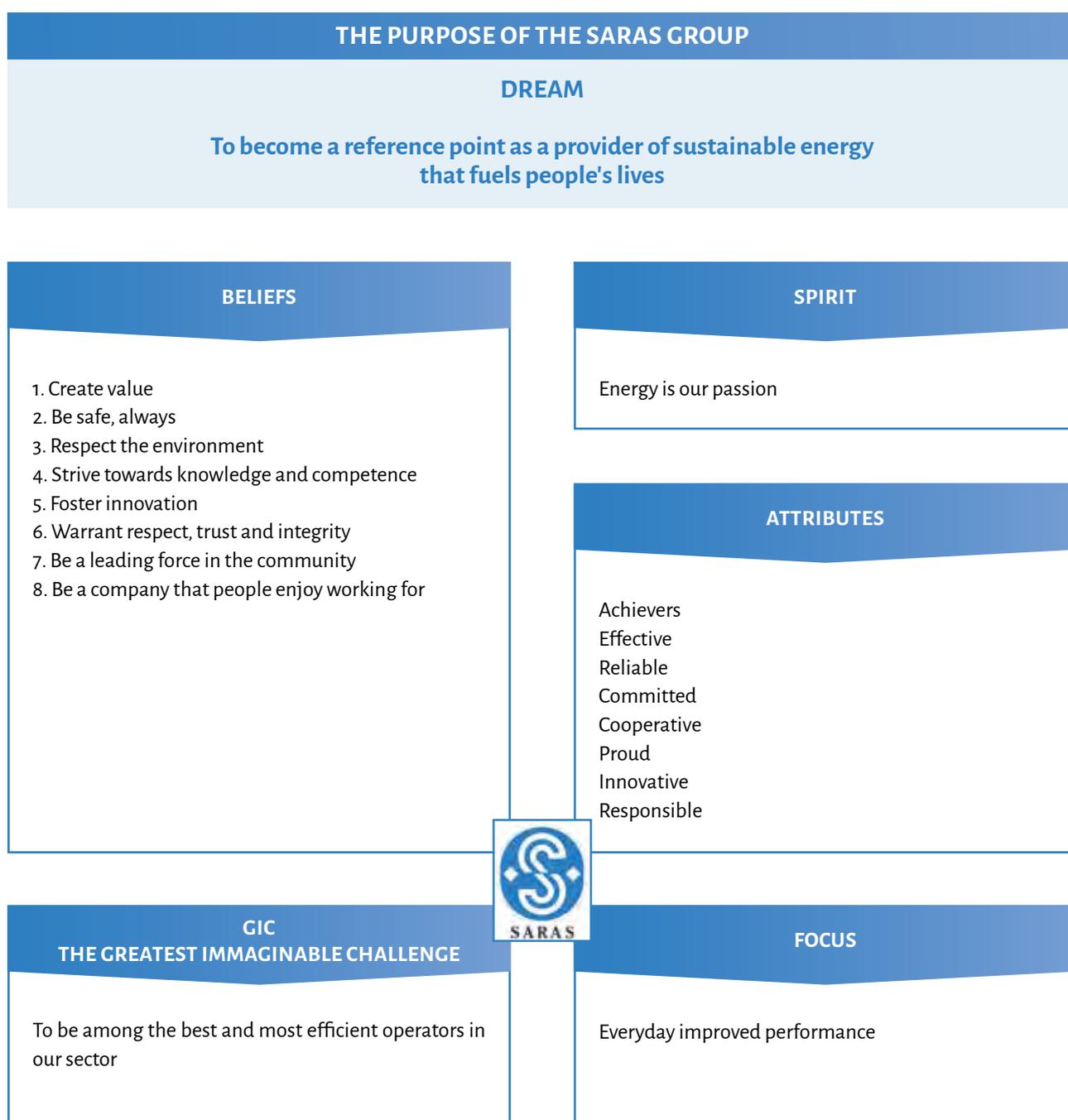
All of these features guide the industrial activity to medium-long term sustainability, which evolves and grows in relation to market scenarios and technological opportunities.



Strategic Approach

In 2009, the Group set out its **"PURPOSE"**, as illustrated below.

This ambitious goal is set out in the Focus that underpins the Group's commitment to sustainability, **"Everyday improved performance"**, the spirit that guides the daily efforts of our people, **"Energy is our passion"**, and the attributes and values we use to tackle our Greatest Imaginable Challenge (GIC), namely **"to be among the best and most efficient operators in our sector"**.



Saras priorities

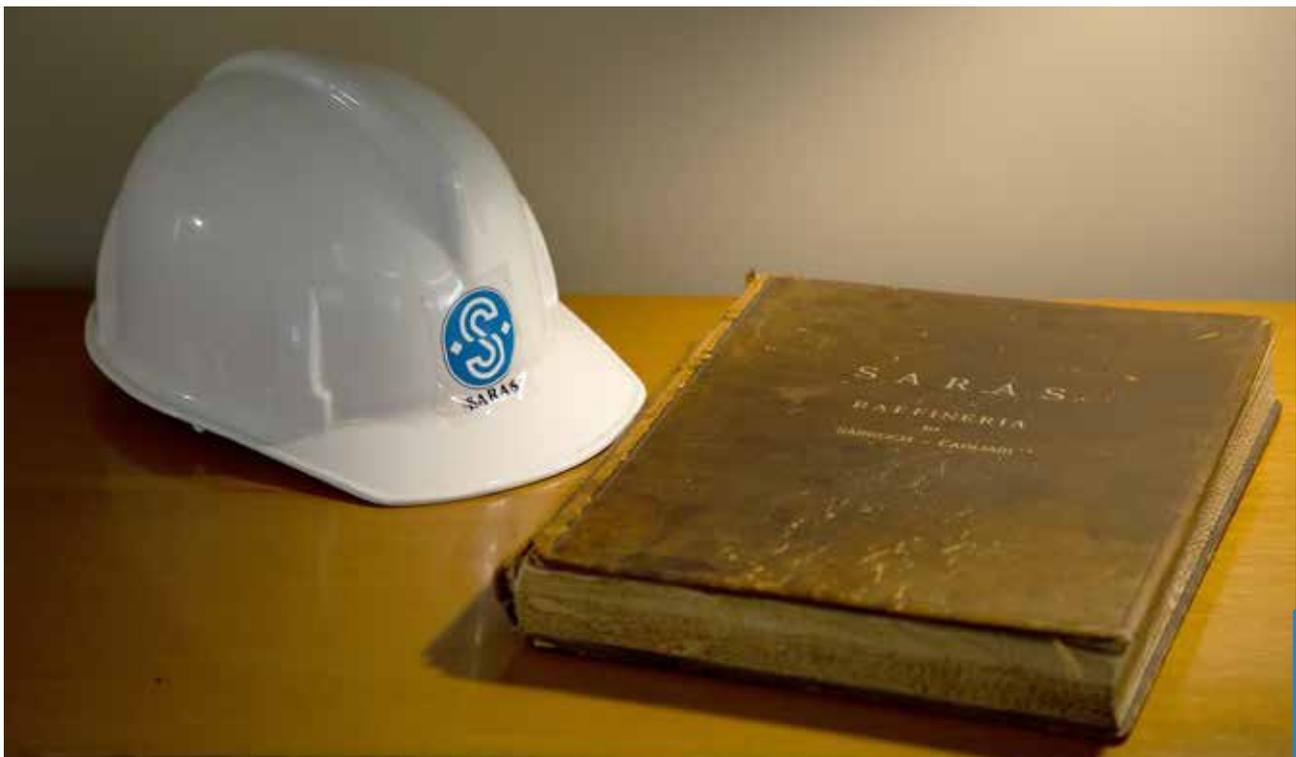
Dialogue on sustainability in 2018

In the second half of 2018, the Group continued and intensified the process of active dialogue with stakeholders both internally (employees and managers) and externally (suppliers, the media, local communities and representatives of the international financial community). This approach - which reflects the Group's traditional communicative transparency - has enabled us to update the materiality matrix we identified last year.

More specifically, an initial screening of the local and national press reviews was carried out, in addition to a comparative analysis with the information provided by leading companies in Italy and around the world. This exercise showed that the 17 sustainability topics identified last year have remained valid for the 2018 financial year (and potentially material), with no need for changes and/or integrations. However, it was deemed necessary to replace the English term “compliance”, used in the 2017 Sustainability Report, with the Italian equivalent “rispetto delle norme” in order to avoid any doubt and misunderstanding, following feedback from external stakeholders.

The list of 17 relevant topics regarding Saras’ approach to sustainability was therefore confirmed, as shown in the table to the right.

SUSTAINABILITY TOPICS	
<ul style="list-style-type: none"> Biodiversity Energy efficiency Air and greenhouse gas emissions Waste and discharge management Water resource management Odours 	ENVIRONMENT
<ul style="list-style-type: none"> Training and development of human resources Human resources management Employment and creation of local value Equal opportunities Local community relations Health and safety 	SOCIAL
<ul style="list-style-type: none"> Anti-corruption Human rights Supplier and procurement management Technological innovation Compliance 	GOVERNANCE AND BUSINESS



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**, the main figures were again involved this year, providing their ranking of the 17 topics in order of relevance. Moreover, for each topic, the top managers set out their strategic vision, objectives and main initiatives already under way. It is worth pointing out that the group of interviewees in 2018 also included four top managers who were not present last year. This helped to further enrich the explanation of Saras sustainability strategy.

The internal survey was also extended to a significantly larger group of people than the approx. 60 managers and senior personnel involved in December 2017. This year, an online questionnaire on the 17 sustainability topics was opened up to a group of 322 people encompassing **directors, managers and "new recruits"** (i.e. people who have been with the company for less than two years). The response rate was near to 50%.

The data collected replaced the responses provided to the 2017 questionnaire in full. The responses of the "new recruits" sample was set aside for internal analysis purposes. Indeed, the company believes that this group holds different points of view to the predominant company culture and can therefore help the company understand and potentially adopt new cultural trends.

The results collected as previously illustrated, were then used to determine the internal "materiality" for the Group, and also this year they showed a good level of priority alignment across all levels of the company hierarchy.

Alongside the internal survey, the company once again engaged with new external stakeholders in order to supplement the feedback gathered through interviews in December 2017. At that time, over 20 external stakeholders were chosen from the most significant categories for the Group (**civil society and associations, the media, trade unions, schools and universities, institutions and suppliers**). These contributions had been very valuable last year in representing the economic, societal and environmental perspective of the local community; therefore, they have been included again this year, in the determination of 2018 "external" materiality.

However, this year the company decided to expand the process of external engagement by interacting with a greater number of suppliers (approx. 20 companies) and adding also two new categories of stakeholders: **financial analysts and institutional investors** (a further group of 20 individuals).

Obviously, Saras 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 new opinions gathered as above, were added to the previous external engagement of December 2017, and all together they concurred to define the "external" dimension of Saras materiality.

OUR STAKEHOLDERS



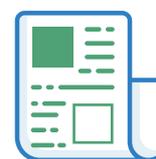
INSTITUTIONS



SUPPLIERS



CIVIL SOCIETY

SCHOOLS AND
UNIVERSITIES

MEDIA



TRADE UNIONS



FINANCIAL ANALYSTS



SHAREHOLDERS



EMPLOYEES

ENVIRONMENTAL
ASSOCIATIONS

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, while the y-axis shows the priorities assigned by external stakeholders, in ascending order of relevance from the bottom upwards.

According to this representation, the 4 topics positioned in the top-right quadrant are those considered extremely relevant and therefore material both by the company and the community.

A further 5 topics were positioned in quadrants in the matrix characterised by high relevance for just one of the dimensions. The Group nonetheless believes that it is important, also for these topics, to communicate clearly and precisely its strategies, objectives, results achieved so far and potential associated risks.

Finally, the 8 topics in the bottom-left quadrant are seen as under control by the Group, particularly given that the company 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.

To provide its non-financial disclosure, Saras chose to adopt for the entire Group the reporting framework identified in the “Global Reporting Initiative – Sustainability Reporting Standards” (GRI Standards), made available by the Global Sustainability Standards Board (GSSB).



MATERIALITY MATRIX



- environmental topics
- social topics
- governance and business topics

Priority topics

A detailed analysis of the matrix shows that, in general, the internal vision is well aligned with the external one, with regard to the priority of the 17 sustainability topics.

More specifically, topics relating to protecting “Health and safety”, reducing “Air and greenhouse gas emissions”, “Waste and discharge management” and “Energy efficiency” are of primary importance for both dimensions.

Moreover, external stakeholders believe that Saras has a relevant role and responsibility in terms of “Employment and creation of local value” and as regards the maintenance of good “Local community relations”. This is reflected in the opinion of internal stakeholders, who assign these topics medium to high relevance.

At the same time, internal stakeholders attribute great importance to the “Training and development of human resources”, “Compliance” with regulations and “Technological innovation”. The latter is considered a key enabler, together with opportunities deriving from Industry 4.0, in terms of preserving the Group’s positioning in an increasingly competitive international environment. The external dimension agrees with this opinion, albeit to a lesser extent.

Finally, the other 8 topics are considered less relevant and they do not need detailed disclosure, also because it is widely recognised Saras’ high level of control, commitment and effective management, and there is no evidence of critical situations.





GROUP IDENTITY



The Saras Group

A presence in the oil and energy sector since 1962, the Saras Group is now one of the leading independent refinement operators in the Mediterranean Basin.

The heart of the Group is represented by the industrial site of Sarroch, managed by the subsidiary **Sarlux**, on the south-west coast of Sardinia. Within the site lies one of the largest refineries in the Mediterranean by production capacity (approximately 15 million tonnes per year, equal to 300,000 barrels a day), and one of the most advanced in terms of the complexity of the units.

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 it contributes to more than 47% of Sardinia's electricity requirements.

Finally, in early 2014, 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 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 supply of goods and services (for bids with the same financial terms), Saras tried to give priority to local firms, helping them to become competitive also outside of Sardinia and national boundaries.

As regards the business model, the Group recently developed an innovative process focused on the tight integration of refining production activities with planning and commercial activities. A new subsidiary company named **Saras Trading** was founded, and it has been operating out of the Geneva headquarters since early 2016, focusing on purchasing crude oil and other raw materials required in refining, selling the finished products and - taking advantage of its strategic location - undertaking independent trading activities involving oil commodities.

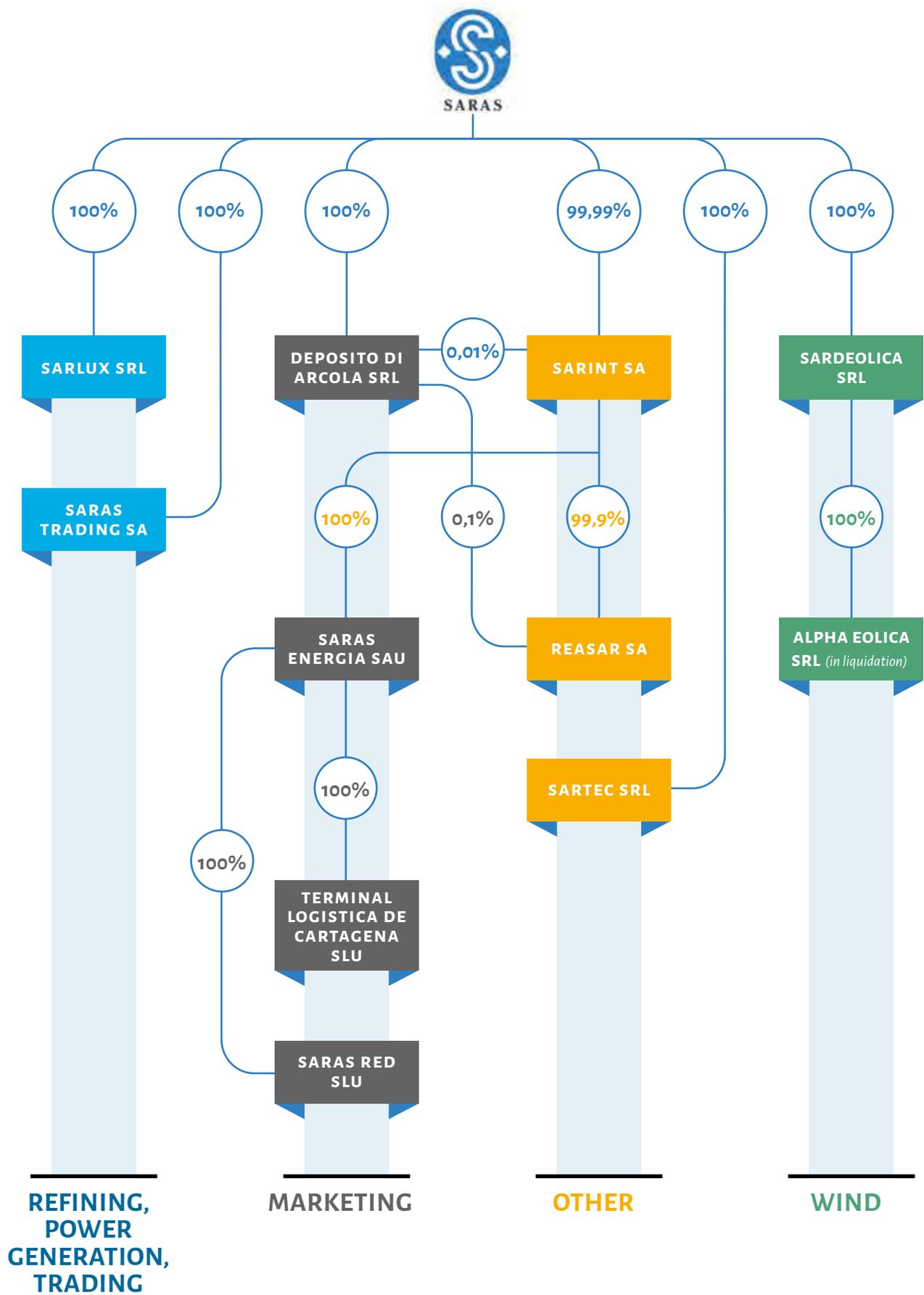
The Group sells and distributes, directly and through its subsidiaries, oil products such as diesel, petrol, heating gasoil, liquefied petroleum gas (LPG), virgin naphtha and aviation fuel, mainly on the Italian and Spanish markets, but also in various other European and non-European countries. In particular, in 2018 approximately 2.12 million tonnes of oil products were sold in Italy on the wholesale market, and a further 1.56 million tonnes were sold on the Spanish market through the subsidiary **Saras Energia**, active both on the wholesale and retail markets.

In 2005, Saras boosted its offer with the production and sale of electricity from renewable sources. The subsidiary **Sardeolica**, which is based in Ulassai (Sardinia), manages a wind farm comprising 48 wind turbines with a total installed capacity of 96 MW. The wind farm maintains the Group's ethos throughout: since its constitution, local community relations have been dictated by transparency, open dialogue and productive collaboration, aimed at mutual development. In November 2018, an expansion plan for the wind farm was approved. This will see an increase in power equal to 30 MW by the second half of 2019.

Finally, **Sartec** 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. Moreover, it also provides solutions for environmental efficiency, through engineering services, monitoring, environmental analysis and measuring systems and analytical services.









Reference markets

The Group's reference markets are the oil market, international by nature (both with regards to suppliers of raw materials and also to the main customers), 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 2018, about 23% of revenues were generated in Italy, while this percentage rises to 61% when considering the European Economic Community (EEC).

REVENUE FROM OPERATIONS (THOUSAND EURO)			
Parameter	2016	2017	2018
Italy	1,861,344	2,214,026	2,346,980
Spain	974,889	249,742	963,848
Other EEC countries	1,297,485	922,056	2,993,022
Non-EEC countries	2,586,610	3,986,913	3,576,177
USA	41,634	185,664	387,840
Total	6,761,962	7,558,401	10,267,867



SARAS ENERGIA

Created through the merger of Saroil (founded in 1990) and Continental Oil (founded in 1992), Saras Energia sells oil products on the Spanish market through retail and wholesale channels.

KEY NUMBERS

In total, Saras Energia provides around 300 jobs across operational personnel and staff, with a significant preponderance of female staff (64% of total employees).

RETAIL (SARAS RED SLU):

- 90 service stations, mainly distributed across Cataluña, Valencia and Andalucía;
- 80 stations with CO-CO “Company Owned – Company Operated” management (with various contractual variations), and a further 10 stations with DODO “Dealer Owned – Dealer Operated” management;
- approximately 140,000 cubic metres of oil products sold from the entire network of service stations;
- active marketing policies, customer focus and loyalty programmes, with around 40,000 cards in use across professional and private customers.

WHOLESALE:

- 1.56 million tonnes of oil products sold in wholesale channels by Saras Energia, which confirms its position as one of the leading operators in Spain, with sales all over the country (using its own bases, as well as storage facilities owned by third parties, mainly Decal and CLH);
- profound supply diversification in recent years, because Saras Energia has chosen to reposition itself, finding a new balance between being a pure importer and a customer of the local refineries.

TERMINAL LOGISTICA DE CARTAGENA SLU:

- 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.

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 never seen as a cost, but rather as an investment that will 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. Main initiatives and benefits include:

- Flexible working hours
- Free 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 industry, as well as active participation in relevant associations (Unione Petrolifera – the Italian Oil Industry Union, Fuels Europe, Concawe, ANEV, Elettricità Futura, World Energy Council, etc.), with expert representation in governing bodies, specific committees and technical workshops.

The table on the next page lists the main national and international associations and bodies to which the Saras Group belongs.

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 explain operating performance and financial results, multiannual industrial plans, and also the strategy and industrial vision, which are fundamental to illustrate the sustainability of the business in the long term.

The Investor Relations Department, 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. These also include various "ethical" funds (i.e. funds that base their investment decisions on the respect of social and environmental criteria, as well as on the classic considerations linked to returns and yield expectations). In this regard, this Sustainability Report should also be considered as an important instrument of qualified communication on the issues relating to the Group's social responsibility.



Moreover, Saras also regularly communicates with the financial analysts who write their equity research notes, 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.

Finally, 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.

ASSOCIATIONS	DESCRIPTION	MEMBER COMPANY
<i>Italian Electrotechnical and Electronic Association (AEIT)</i>	Association that aims to promote and encourage the study of electrics, electronics, automation, informatics and telecommunications and the development of related technologies and applications.	SARAS
<i>Asociacion Espanola de Operadores de Productos Petroliferos (AOP)</i>	Spanish association that brings together the main companies operating on the Iberian Peninsula 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
<i>Italian Chemical Engineering Association (AIDIC)</i>	Association aiming to disseminate technical and scientific knowledge and the results of technological 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
<i>National Wind Energy Association (ANEV)</i>	Association that promotes technological research and development aimed at using the wind resource and the sensible use of energy, as well as the dissemination of correct information.	SARDEOLICA
<i>FuelsEurope and Concawe</i>	Divisions of the European Petroleum Refiners Association whose members are all the 41 companies 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
<i>Elettricità Futura [Future Electricity]</i>	The main Italian association for the electricity industry, with over 700 operators with plants throughout Italy and is one of the most important associations in the industry at European level.	SARAS
<i>European Fuel Oxygenates Association (EFOA)</i>	EFOA is dedicated to promoting ethers as components of fuels for a cleaner and more sustainable future.	SARAS
<i>Federchimica [National Federation of the Chemical Industry]</i>	One of the main objectives of the National Federation of the Chemical Industry is the promotion 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, development and innovation, energy policy.	SARLUX
<i>International Oil Pollution Compensation Fund (IOPC Fund)</i>	International fund set up to provide financial compensation for oil pollution damage occurring 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 ecologically responsible management of operations involving oil tankers, terminals and offshore support vessels, promoting ongoing improvements in design and operating standards.	SARLUX
<i>Unione Petrolifera [Italian Oil Industry Union] (UP)</i>	Association that brings together the main Italian companies operating in the context of oil processing and distribution of oil products.	SARAS
<i>World Energy Council (WEC)</i>	International forum that collects industrial, institutional and academic subjects belonging to the energy sector, and which implements and disseminates the results of studies, reports and research in the field of energy.	SARAS

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 two committees have been established (a Remuneration and Nomination Committee and a Control and Risk Committee);
- a **Board of Statutory Auditors** called on, among 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 of 31st December 2018 included 12 directors in total, 2 of whom are executive directors and 10 non-executive directors and, among the latter, 6 are independent directors.

During the 2018 financial year, the Board held 7 meetings, which were regularly attended by the various directors as well as members of the Board of Statutory Auditors.

Female members account for 16.6% of the Board of Directors, 28.6% of the Boards of Statutory Auditors of the companies belonging to the Group and 25% of the Supervisory Bodies. The parent company maintains a women quota in line with the legal requirements (a third of members).

The majority of the members of the Group's bodies are over 50 years old. More precisely, for all the companies belonging to the Group, members over 50 years old account for 83% of the composition of the Boards of Directors, 93% of the composition of the Boards of Statutory Auditors, and 100% of the composition of the Supervisory Boards.

BOARD OF DIRECTORS 2018							
Members	Position	Year of birth	List*	Executive/ Non-executive	Independent	Control and Risk Committee	Remuneration and Nomination Committee
<i>Moratti Massimo</i>	Chairman	1945	M	Executive			
<i>Scaffardi Dario</i>	CEO	1958	M	Executive			
<i>Moratti Angelo</i>	Director	1963	M	Non-executive			
<i>Callera Gilberto</i>	Lead Independent Director	1939	M	Non-executive	X	Chairman	Chairman
<i>Moratti Angelomario</i>	Director	1973	M	Non-executive			
<i>Moratti Gabriele</i>	Director	1978	M	Non-executive			
<i>Moratti Giovanni Emanuele</i>	Director	1984	M	Non-executive			
<i>Fidanza Laura</i>	Director	1973	M	Non-executive	X	Member	Member
<i>Harvie-Watt Isabelle</i>	Director	1967	M	Non-executive	X	Member	
<i>Cerretelli Adriana</i>	Director	1948	M	Non-executive	X	Member	
<i>Senni Leonardo</i>	Director	1967	m	Non-executive	X	Member	
<i>Luchi Francesca</i>	Director	1961	M	Non-executive	X		Member

* M = majority list, m = minority list

PERCENTAGE OF MEMBERS OF GOVERNING BODIES BY GENDER 2018

	Board of Directors				Board of Statutory Auditors				Supervisory Board			
	F	M	Tot	%F	F	M	Tot	%F	F	M	Tot	%F
<i>Saras Spa</i>	4	8	12	33%	3	2	5	60%	1	3	4	25%
<i>Sarlux Srl</i>	1	4	5	20%	1	5	6	17%	0	4	4	0%
<i>Sartec Srl</i>	0	5	5	0%	0	1	1	0%	1	2	3	33%
<i>Sardeolica Srl</i>	1	2	3	33%	0	1	1	0%	1	2	3	33%
<i>Deposito di Arcola Srl</i>	0	3	3	0%	0	1	1	0%	1	2	3	33%
<i>Saras Energia SAU*</i>	0	4	4	0%	0	0	0	0%	1	1	2	50%
<i>Saras Trading SA</i>	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 2018

	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
<i>Saras Spa</i>	4	8	12	33%	67%	0	5	5	0%	100%	0	4	4	0%	100%
<i>Sarlux Srl</i>	0	5	5	0%	100%	1	5	6	17%	83%	0	4	4	0%	100%
<i>Sartec Srl</i>	0	5	5	0%	100%	0	1	1	0%	100%	0	3	3	0%	100%
<i>Sardeolica Srl</i>	0	3	3	0%	100%	0	1	1	0%	100%	0	3	3	0%	100%
<i>Deposito di Arcola Srl</i>	0	3	3	0%	100%	0	1	1	0%	100%	0	3	3	0%	100%
<i>Saras Energia SAU</i>	2	2	4	50%	50%	0	0	0	0%	0%	0	2	2	0%	100%
<i>Saras Trading SA*</i>	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, among 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:

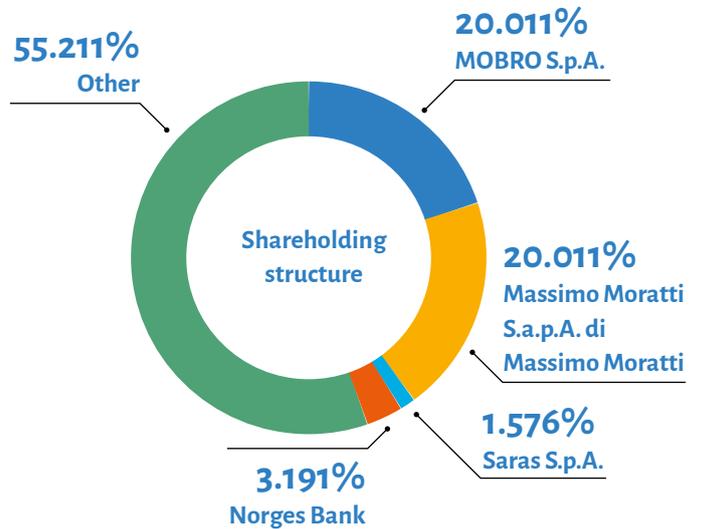
- provides opinions to the Board in relation to:
 1. setting out the direction of the internal control and risk management system, to ensure that the main risks to which the Group is exposed are correctly identified, measured, managed and monitored;
 2. determining the level of compatibility of those risks with a business approach that tallies with the strategic objectives;
 3. evaluating 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;
 4. approving the work plan prepared by the Internal Audit Department manager, at least once per year;
- assess, after consulting the Board of Statutory Auditors, the results presented by the independent auditors;
- assess 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.

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.

Shareholding structure

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

The company's shareholding structure is mainly composed of the Moratti family (Massimo Moratti S.a.p.a. and Mobro S.p.A., which is run by Angelo and Gabriele Moratti). As of 31st December 2018, the family jointly held 40.022% of the total share capital. Moreover, on the same date, Saras S.p.A. held own shares totalling 1.576% of the share capital. Norges Bank held shares totalling 3.191% of the share capital, with the rest of the shares free-floating on the market.



COMPANY BODIES AND BOARD COMMITTEES



SHAREHOLDERS' MEETING



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. Two 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 NOMINATION 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.

Internal Control and Risk Management System

In all the Group's activities, Saras pays the utmost attention to comply with the laws, promote ethical and correct behaviour and 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 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, stating management responsibilities as well as the controls in place so that crimes cannot be committed.

In 2018, the Group ran a training initiative for management and representatives of its various companies on the Model and on Legislative Decree 231/2001. As part of the training sessions, in addition to exploring general themes, a specific focus was placed on sensitive areas where there could be the risk of crimes being committed (e.g. administrative, accounting, commercial, HSE, relations with the Public Administration and procurement). The sessions explored the risks involved and looked at the control mechanisms in place at process level.

Saras has also represented its values, principles and standards of conduct in the **Group's Code of Ethics**, to which Saras and its subsidiaries 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 Model and the Code of Ethics, combined with the company's 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 organisational 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 activities must be carried out;

OPERATING INSTRUCTION

Operating Instructions are detailed documents on the operating 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 defined by the Internal Audit Department within an annual plan which is drafted starting from:

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

In 2018, 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, controls on the implementation status of the Model (46 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, nor in terms of impact on the health and safety of customers that purchase the Group's products.

Risk Management and Corporate Risk Profile

Saras' risk management policy, whose guidelines 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 and assessing and possibly reducing or eliminating the main risks related to the Group's objectives, with reference to strategic, operational and financial areas.

The top management is responsible for the periodical assessment of the management of the company's significant risks, by identifying the most efficient and effective control system and management programmes to ensure the correctness of the company's operations. Risk is managed from an operational perspective by the person responsible for the relative process, based on instructions from top management.

The Corporate Risk Profile is the document within which the Company identifies the complete picture of the significant risks to which it is exposed, 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. The results of the six-monthly risk assessment monitoring and annual update of the Corporate Risk Profile are shared, for that which falls under their competence, with the Senior Management of each company and are submitted to the Control and Risk Committee and the Board of Directors.

In 2018, the assessments carried out by the risk owners highlighted 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 Saras Group must manage are of **financial nature** – such as exchange rate, interest rate, credit and liquidity risk – as well as of **operational nature** – such as price fluctuations, procurement of raw materials, production breakdown, regulatory and cyber-security risk. There are also risks related to **staff management, supply chain management, and environmental legislation compliance**.

ENVIRONMENTAL RISK

Due to the nature of its business, Saras is subject to numerous European Union, national, regional and local authority laws and regulations on environmental matters. Saras takes it as an absolute priority to conduct its activities in full compliance with what is required by each relevant legislation.

The obtainment of EMAS certification for the Sarroch refinery, associated with the most significant environmental risks within the Group, requires a periodic in-depth environmental analysis of activities conducted at the site and the identification of significant direct and indirect environmental aspects (see Tables 1 and 2).

Furthermore, Sarlux has prepared its own set of procedures aimed at defining the detailed rules for the identification and management of risks arising from the production process and operational changes, and in particular:

- the "Determination and assessment of environmental aspects" procedure identifies environmental risks arising from the life cycle of Sarlux products;
- the "Risk assessment and analysis for health, safety and major accidents" procedure defines the operating methods of performing/updating the analysis of the hazards and risks for health and safety in the workplace, and the prevention of major accidents;
- the "Managing plant process changes" procedure identifies the implementation procedures for process changes to plants located within the industrial site in Sarroch, owned by Sarlux.

TAB. 1: SIGNIFICANT DIRECT ENVIRONMENTAL ASPECTS	ENVIRONMENTAL IMPACTS
Raw Materials	
Consumption	Consumption of a non-renewable resource
Storage, handling and use	Risk of accidents (fires, explosions, releases into soil and at sea)
Energy Consumption	
Self-generated fuels	Emissions into the atmosphere from the site and consequential impacts
Electricity purchased	Indirect impacts in external sites for electricity generation
Water Consumption	
Seawater desalinated internally	Energy consumption and consequent impacts
Water from industrial aqueduct	Consumption of local natural resource
Emissions into the atmosphere	
Pollutants	Influence on air quality on a local scale
Greenhouse gases	Contributions to effects on a vast scale (greenhouse effect, acid rain)
Waste	
On-site storage and treatment	Risk of release into soil
Treatment away from site	Indirect impacts on external sites of disposal and recovery
Emissions into water	
	Influence on the quality of marine waters
Releases into soil and subsoil	
Past activities	Contamination of the soil and subsoil and groundwater at the site
Prevention activities	Reducing the risk of contamination of the soil and subsoil and groundwater
Noise	
	Influence on the noise climate outside of the site (Sarroch zone)
Odours	
	Disturbance perceived outside of the site (Sarroch zone)
Visual impact	
	Visibility of the site from the outside

TAB. 2: SIGNIFICANT INDIRECT ENVIRONMENTAL ASPECTS		ENVIRONMENTAL IMPACTS
Product design		
		Indirect Impact on air quality (fuel combustion)
Overland transport of products, ancillary materials, staff		
		Emissions into the atmosphere
		Road traffic, risk of road accidents
Sea transport of raw materials and products		
		Emissions into the atmosphere
		Risks of accidents and contamination of marine waters
Environmental behaviour of third-party companies		
Internal waste management		Risk of accidents and soil and subsoil contamination
Road transport of people, materials, tools		Road traffic, risk of road accidents

Social risks and related to staff management

In the context of business processes related to human resources management, significant risks at Group level, their causes, possible consequences, the owner, mitigating factors and the consequent residual risk have been identified.

These risks, which are included in the Corporate Risk Profile (see Table 3), are managed as follows:

- involvement of personnel to optimise management of organisational changes, along with any possible repositioning. Structural interventions to improve organisational flexibility;
- knowledge and oversight of skills of internal personnel

and mapping of external resources, with skills specifically focused on the oil sector;

- constant monitoring of evolution of scenarios and resources, focus on welfare tools;
- open, transparent and continuous dialogue with trade union organisations, in order to promote a constructive climate;
- adoption of a Health and Safety in the Workplace management system, and obtainment of OHSAS 18001 certification. Diffusion of a culture of safety through constant training activities for Group personnel and information activities. Security protocols to be followed during operations. Disciplinary and sanction system. Activity monitoring (internal/external audits).

The management of these tools as regards the company

TAB 3: SOCIAL ASPECTS	IMPACT
Conflict and/or resistance from staff to accept changes of strategy, organisational or operating methods.	Lack of coherence between structure and strategy. Difficulties to adapt to new competitive scenarios with consequent loss of competitiveness and exclusion from the market.
Organisational structure unable to support the strategy outlined.	Loss of competitiveness in favour of competitors, linked to partial or non-achievement of strategic objectives.
Key managerial positions vacant.	Partial or full inability to cover the position. Failure to achieve the objectives of the department and/or business.
Employee strikes and protests from unions and social groups.	Slow-downs, delays and blockages in production.
Loss of personnel with key skills or specific expertise.	Loss of specific skills or company know-how, difficulties in replacing key skills.
Serious, or potentially lethal, accidents to people on site.	Consequences on people's health, based on the seriousness of the accident. Proceedings against the company, damage to reputations, impacts on production and potential site closure.

is expanded on in the paragraphs on human resource management, relations with unions and social groups, and prevention tools for health and safety at the workplace.

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. Moreover, also 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 it 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.

Cyber-security risks

The digital evolution of our society has facilitated and increased interactions between individuals, companies and institutions for social, economic and financial reasons. However, at the same time, it has opened the door to new criminal activities of various types, as well as bringing new structural and organisational models to the world of criminality. On the one hand, completely new criminal activities have sprung up, such as online financial fraud and abuse of credentials, while on the other hand traditional criminal activities can now be perpetrated using new, pervasive tools.

Based on the above, it is clear that developing new skills and tools to improve the cyber-security of the Saras Group is of fundamental importance. Saras has already begun investing in order to improve its cyber-security in accordance with the "Maturity and Security Level" objectives set out in the company programme, developing Cyber Security Incident management capabilities, facilitating

the integration of cyber-security in the field of Information and Communication Technology (ICT) and Information and Communication Solutions (ICS) within the context of Information Technology-Operational Technology (IT-OT) Convergence decision-making.

In 2018, around 100 Business Impact Analyses were carried out, generating a corresponding number of Risk Assessments for ICT and ICS domains. In accordance with Saras' cloud and digital strategies, these activities identified the most relevant networks and applications for the business. The company then created a Cyber Security programme designed to ensure an adequate level of security and risk for our business area (refining and power) and the geopolitical context in which Saras operates.

One of the main objectives for 2019 is to raise security standards for industrial networks and systems by adopting the international IEC 62443 standard. The same kind of activity will be undertaken also for ICT applications and infrastructures, following the SANS CIS international standard.

Finally, the current global scenario, characterised by the proliferation of sophisticated threats and IT security attacks, makes it increasingly necessary to establish and consolidate cooperative relations with specific functions within national institutions, and those companies identified as part of the country's critical infrastructure. In accordance with such approach, the Ministry of the Interior, the Postal Police Department of Public Security and Saras have launched a collaboration to prevent and combat IT crimes, focusing on Saras' critical IT systems and services as a whole.



Corruption prevention

Saras condemns corruption in all its forms and promotes a business conduct based on legal and ethical behaviours.

The Group has a Code of Ethics and a Regulatory System consistent with it, set on Policies and Guidelines that guide and describe behaviours 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 an appropriate procedural document.

The audit work carried out in 2018 also covered issues related to the prevention of corruption, especially in areas considered to be most sensitive. In September/October 2018, a training activity was carried out on the Organisational, Management and Control Model, involving representatives of all companies belonging to the Group. The training initiatives placed particular focus on topics around corruption prevention. This initiative was part of the training process around the Code of Ethics, conflicts of interest and fraud prevention, which has been ongoing for some years.

In 2018, no corruption incidents were identified.

Key Risk Indicators (KRIs)

The Group has embarked on a path aimed at optimising and strengthening the company's internal control system by implementing Key Risk Indicators (KRIs) aimed at intercepting anomalies or potential cases of fraudulent conduct. The KRIs are monitored by department managers and, during audits, by the Internal Audit.

Between 2015 and 2018, analysis were performed on the processes of Procurement, Wholesale marketing activities, Maintenance, Materials Warehouse and oil logistics management. The analysis assessed anti-fraud measures used by the company, in order to identify any points of weakness and define remediation actions.

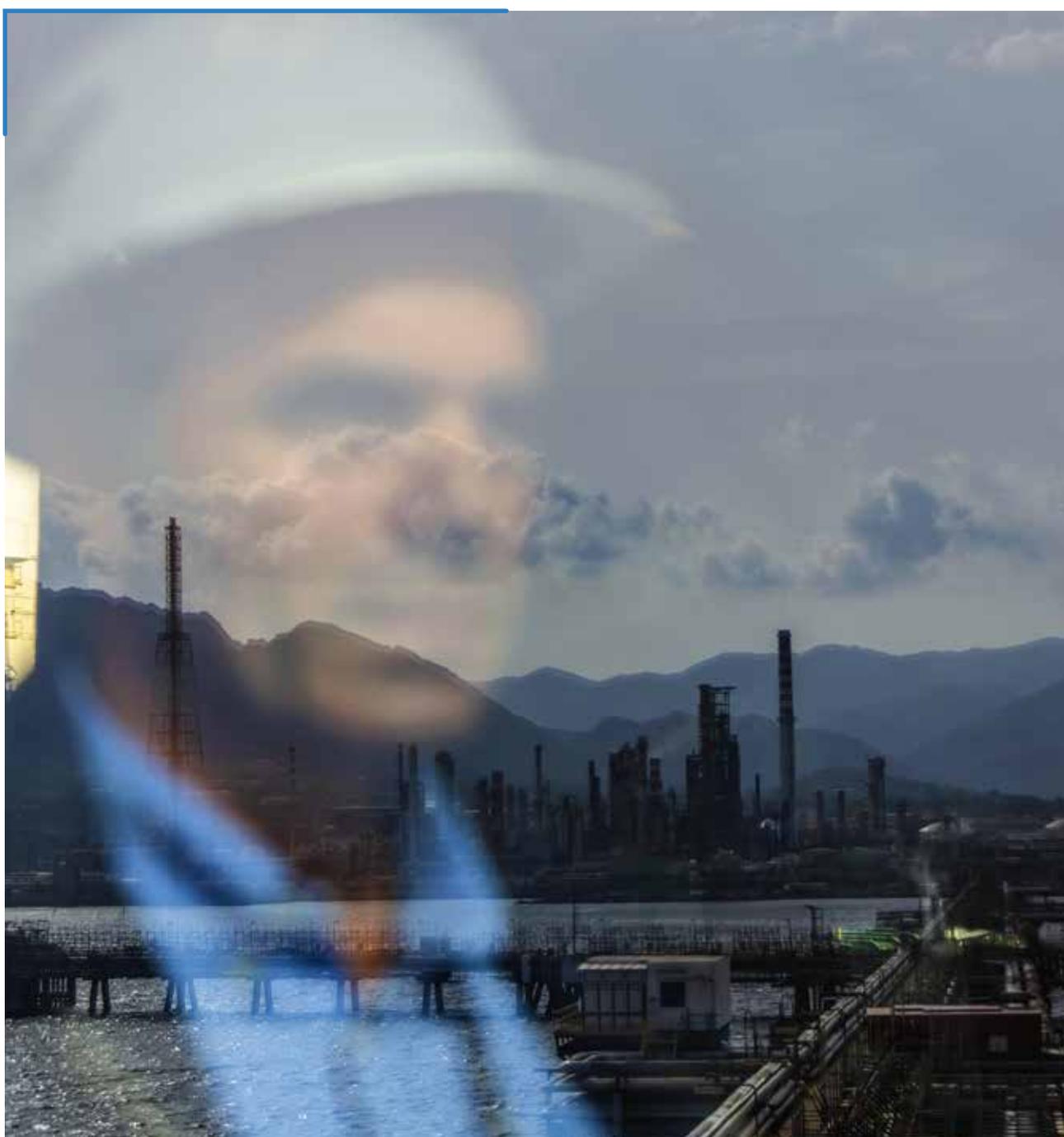
The implementation of KRIs was suggested for some of the processes examined. More specifically, between 2016 and 2018, the company identified and implemented risk indicators designed to ensure ongoing, automatic monitoring of phenomena relating to purchases of goods and services, invoice and payment management, and processes relating to maintenance and materials warehouse management.

Human rights

Saras operations have always been respectful of the human rights. The Group expresses its commitment to respecting human rights within its Code of Ethics and its Policies, and it promotes their respect 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.

In particular, 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, with regards to 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 area and among people with whom it interacts, particularly suppliers.

With the aim of protecting health and safety of its employees, staff of contracting firms, as well as anyone else who has access to the Sarroch industrial site, the Group issued 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.

In particular, Sarlux, the subsidiary that owns the operationally relevant site, has an Integrated Management System, which, as regards the protection of the health and safety of workers, includes the Plan for the Prevention of Major Accidents compliant with the Seveso Directive, the Safety Report, the Risk Assessment (including those concerning interference), and also the OHSAS 18001 Safety Management System.

Safety management and Trade Unions

Legislative Decree No. 81/2008 establishes, among other things, that for some industrial sites¹ a Workers' Representative for Safety (RLS, Rappresentante dei Lavoratori per la Sicurezza) is appointed for the site, and she is responsible – according to the law – for protecting the rights of workers in occupational safety matters. This function is elected by workers through the intermediation of the company's Trade Union representatives, and it is also a required position according to the CCNL – the National Collective Labour Agreement for Energy and Oil sectors, applied by Saras to its employees. Actually, the CCNL requires also the inclusion of environmental protection within the responsibilities of this figure (RLSA, Rappresentante dei Lavoratori per la Sicurezza e l'Ambiente).

In the collective agreement adopted by the Group, result of the continuous and open dialogue with Trade Unions and Confindustria, a specific section dedicated entirely to HSE related regulations has been planned, which describes the strategies, objectives, responsibilities, activities and the industrial relations system built to manage HSE issues. In particular, provision has been made for the establishment of a Joint National Body – comprising Confindustria Energia, workers' and Trade Unions representatives – intended to support and monitor any actions related to health, safety and the environment, including training and information activities.



1. Identified in Art. 49 of the same Decree

Injury rates

In 2018, in a context of continuous improvement, the promotion of a culture of safety continued. Over the course of the year, the Behaviour Based Safety (BBS) protocol was consolidated across all operational functions and areas at the Sarroch site. The result is a single management tool capable of monitoring safety performance and promoting safe behaviour, with the objective of achieving “zero accidental events”.

The BBS protocol is divided into three phases:

1. All workers, in rotation:
 - observe the behaviour of colleagues while performing their duties;
 - record their observations about the behaviour 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 behaviour;
- defines priorities for HSE maintenance activities;
- defines behaviour improvement targets;
- establishes the outline for the meetings between the Head of Shift and the Operators.

3. After the analysis of the HSE Implementation Committee, a team meeting is convened to communicate the findings of the analysis and define improvement targets.



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



As a result of the activities carried out and the efforts devoted to the continuous improvement of the behaviour of workers, in 2018, Saras Group achieved the best performance ever in terms of the Injury Frequency Index (IF), achieving a total value of 1.81 (against 2.71 in 2017), together with a decrease in the injury Lost Day Rate (indicating the severity of the injury), which stood at 0.07 (against 0.09 in 2017).

Near misses (i.e. events that due to their specific characteristics have the potential to cause an accident) also decreased to 31 against 41 in the previous year, thanks to improved behaviour as a result of the large number of observations carried out as part of the BBS protocol.

INJURY RATES - SARAS GROUP												
Company	2016				2017				2018			
	Injuries	FI ¹	LD ²	Near misses	Injuries	FI	LD	Near misses	Injuries	FI	LD	Near misses
Saras Spa	0	0	0	0	0	0	0	0	0	0	0	0
Sarlux Srl	4	2.34	0.06	35	4	2.10	0.11	41	3	1.60	0.07	31
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	1	37.31	1.99	0	0	0	0	0	0	0	0	0
Saras Energia SAU	6	9	0.21	0	5	7.89	0.17	0	3	4.76	0.15	0
Saras Trading SA	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	3.55	0.09	35	9	2.71	0.09	41	6	1.81	0.07	31

INJURY RATES - CONTRACTORS												
Company	2016				2017				2018			
	Injuries	FI ³	LD ⁴	Near misses	Injuries	FI	LD	Near misses	Injuries	FI	LD	Near misses
Saras Spa	0	0	0	0	0	0	0	0	0	0	0	0
Sarlux Srl	2	0.47	0.09	59	3	0.69	0.07	20	6	1.43	0.08	10
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
Total	2	0.45	0.08	59	3	0.66	0.06	20	6	1.37	0.07	10

1. Employees Injury Frequency (IF) Index: (No. injuries x 1,000,000/total No. worked hours)
2. 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.
3. Contractors Injury Frequency (IF) Index: (No. injuries x 1,000,000/total No. worked hours)
4. 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

The Saras Group treats the health of its employees with the utmost importance. Employee health is protected using three main activities:

- managing emergencies, via the first aid 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, mandatory health monitoring activities are carried out by two doctors (ref. Art. 41 of Legislative Decree 81/2008), who are supported by specialists who provide additional healthcare on top of legally required services. In particular, cardiologists, ophthalmologists and dentists are available to Sarlux and Sartec employees. Furthermore, as of 2019, Sardeolica employees will also be able to benefit from an agreement with a dental practice in Ulassai, based on the same conditions enjoyed by the employees of the other subsidiaries of the Group.

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

In 2018, no occupational diseases were reported among the Group's employees.

Mandatory health monitoring

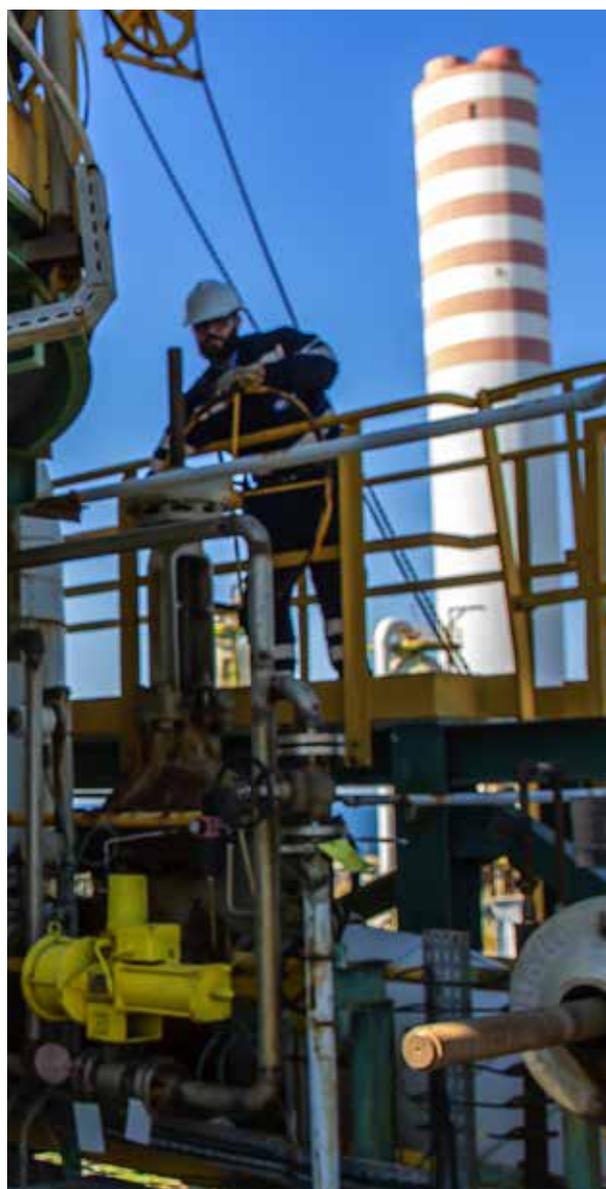
Mandatory health monitoring includes medical visits, blood chemistry checks, urinary metabolites check, spirometries to check lung function, and finally eye and audiometry tests.

More specifically, in 2018 around 6,400 mandatory health monitoring activities were carried out, of which over 85% at the subsidiary company Sarlux, around 10% at the subsidiary company Sartec and the rest at the other companies in the Group. 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, while for others it is annual.

The competent doctor also manages the "Exposed persons Register", which collects all information about employees most at risk in terms of exposure to hazardous substances. Every 3 years, the working environment is monitored by the site's HSE manager to update the aforementioned Register and, finally, workers undertake biohumoral checks every 6 months.

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

Commitment, professionalism, dedication and the honesty of its people are fundamental elements for the Saras Group to ensure the growth and prosperity of its business and of the local community.

To this end, Saras bases relations with people on integrity and mutual trust, commending the professionalism and merit of its employees, ensuring – without any discrimination – the possibility of professional growth and development, while 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 97% of the Group's workforce has a permanent employment contract.

Staff is selected based on the profiles of candidates matching the company's needs, in accordance with the principles of transparency, fairness and equal opportunities.

Also for this topic, 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 activities and processes related to the management of human resources, the organisational system and the internal communication. It also aims to identify the roles and responsibilities of the various actors involved in the human resources process.

In 2018, the Group employed a total of 1,946 employees, in line with the previous financial year. As regards geographical location, the majority of the workforce was based in Italy (83% of the total) and, more specifically, in Sardinia (75%).

EMPLOYEES BY COUNTRY

Country	2016	2017	2018
Italy:	1,601	1,617	1,624
<i>Lombardy</i>	150	152	156
<i>Sardinia</i>	1,436	1,450	1,454
<i>Liguria</i>	15	15	14
Spain	309	309	297
Switzerland	14	18	25
Total	1,924	1,944	1,946

The Group's company with the greatest concentration of staff is Sarlux, which employs 1,163 people (60% of the total); followed by Saras Energia in Spain (15%), the parent company Saras (14%) and Sartec (8%). The other subsidiary companies have considerably smaller workforces.

Female employees stand at 380 (around 20% of the total), a slight increase from the previous year (+8 employees). In terms of contract type, 350 women at the company (92%) have permanent contracts (against 347 in 2017); among men, 98% of employees are on permanent contracts.

EMPLOYEES BY COMPANY			
Company	2016	2017	2018
<i>Saras Spa</i>	253	262	263
<i>Sarlux Srl</i>	1,165	1,160	1,163
<i>Sartec Srl</i>	143	155	160
<i>Sardeolica Srl</i>	25	25	24
<i>Deposito di Arcola Srl</i>	15	15	14
<i>Saras Energia SAU</i>	309	309	297
<i>Saras Trading SA</i>	14	18	25
Total	1,924	1,944	1,946

EMPLOYEES BY TYPE OF CONTRACT AND GENDER									
Parameter	2016			2017			2018		
	F	M	Total	F	M	Total	F	M	Total
<i>Permanent</i>	346	1,535	1,881	347	1,539	1,886	350	1,534	1,884
<i>Fixed term</i>	31	12	43	25	33	58	30	32	62
Total	377	1,547	1,924	372	1,572	1,944	380	1,566	1,946

The highest proportion of fixed-term contracts (12%) is found in the Spanish subsidiary of the Group, Saras Energia, because service station management is subject to high seasonal variations.

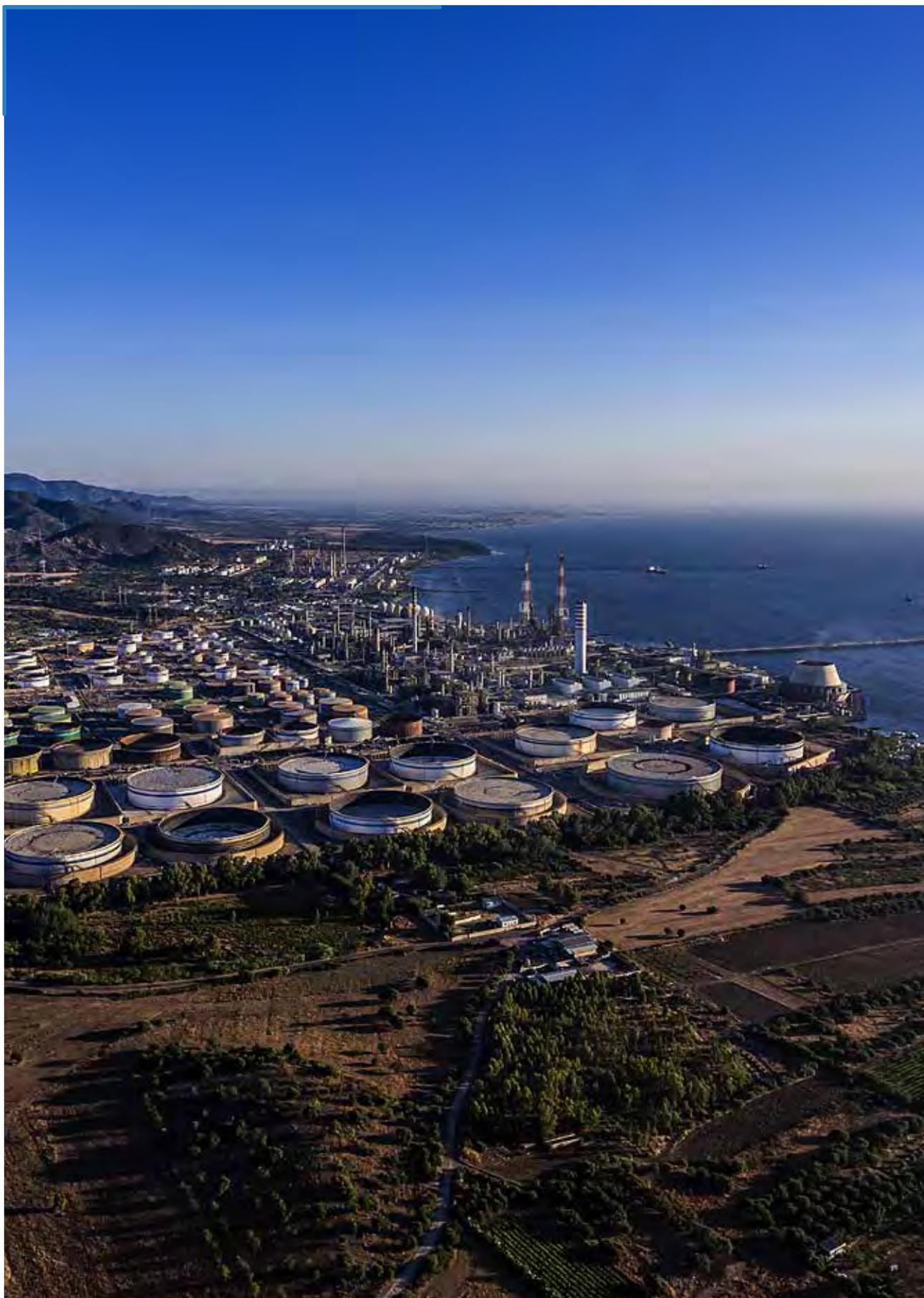
Also, from the point of view of the type of employment contract, the Group shows a certain homogeneity: 93% of women and virtually all men have a full-time working contract. Nonetheless, when organisational conditions allow for it, there are no preclusions in accepting requests of part-time working contracts.

EMPLOYEES BY TYPE OF CONTRACT AND REGION

Parameter	2016			2017			2018		
	Perma- nent	Fixed term	Total	Perma- nent	Fixed term	Total	Perma- nent	Fixed term	Total
<i>Italy</i>	1,589	12	1,601	1,589	28	1,617	1,597	27	1,624
<i>Lombardy</i>	147	3	150	146	6	152	152	4	156
<i>Sardinia</i>	1,427	9	1,436	1,428	22	1,450	1,431	23	1,454
<i>Liguria</i>	15	0	15	15	0	15	14	0	14
<i>Spain</i>	279	30	309	280	29	309	262	35	297
<i>Switzerland</i>	13	1	14	17	1	18	25	0	25
Total	1,881	43	1,924	1,886	58	1,944	1,884	62	1,946

EMPLOYEES BY TYPE OF EMPLOYMENT AND GENDER

Parameter	2016			2017			2018		
	F	M	Total	F	M	Total	F	M	Total
<i>Full time</i>	326	1,542	1,868	346	1,568	1,914	354	1,565	1,919
<i>Part time</i>	51	5	56	26	4	30	26	1	27
Total	377	1,547	1,924	372	1,572	1,944	380	1,566	1,946



Diversity and equal opportunities

The Saras Group respects the principle of equal opportunities, without any discrimination. From an analysis of the breakdown by category and gender, the most numerous component of the Group's workforce is made up by men (80%).

From the point of view of the age, employees between 30 and 50 years old again represented the biggest category of the Group (68% of the total) in 2018. 58% of directors and managers are over the age of 50. In all other categories, the majority of employees fall into the 30-50 age bracket.

In general, the average age of the Group is 45 years old.

No incidents of discrimination were registered in 2018.

Workforce

The trends seen over the last three years were confirmed in 2018, as the Saras Group workforce remained generally stable when considering the total number of employees; nonetheless, the Group still managed to take the opportunities offered by the limited turnover, to make some improvements in the mix of skills of its employees.

PERCENTAGE OF EMPLOYEES DIVIDED BY CATEGORY AND GENDER - 2018

Parameter	Italy + Switzerland		Spain		Total		%	
	F	M	F	M	F	M	F	M
Directors and managers	11	52	1	2	12	54	18%	82%
Middle managers	61	240	6	2	67	242	22%	78%
White collars	123	803	62	46	185	849	18%	82%
Blue collars	1	358	115	63	116	421	22%	78%
Total	196	1,453	184	113	380	1,566	20%	80%
	1,649		297		1,946		100%	

PERCENTAGE OF EMPLOYEES DIVIDED BY CATEGORY AND AGE - 2018

Parameter	Italy + Switzerland			Spain			Total			Total %		
	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50	<30	30-50	>50
Directors and managers	0	25	38	0	3	0	0	28	38	0%	42%	58%
Middle managers	0	175	126	0	7	1	0	182	127	0%	59%	41%
White collars	39	627	260	6	76	26	45	703	286	4%	68%	28%
Blue collars	27	298	34	15	120	43	42	418	77	8%	78%	14%
Total	66	1,125	458	21	206	70	87	1,331	528	4.5%	68.4%	27.1%
	1,649			297			1,946			100%		

NUMBER AND PERCENTAGE OF NEW HIRES BY AGE

Parameter	2016				2017				2018			
	< 30	30-50	> 50	Total	< 30	30-50	> 50	Total	< 30	30-50	> 50	Total
<i>Italy + Switzerland</i>	5	13	4	22	20	14	2	36	22	26	9	57
<i>Spain</i>	40	79	9	128	28	72	13	113	42	78	14	134
Totale	45	92	13	150	48	86	15	149	64	104	23	191
% vs. Total workforce	2.34%	4.78%	0.68%	7.80%	2.47%	4.42%	0.77%	7.66%	3.29%	5.34%	1.18%	9.82%

NUMBER AND PERCENTAGE OF NEW HIRES BY GENDER

Parameter	2016			2017			2018		
	F	M	Total	F	M	Total	F	M	Total
<i>Italy + Switzerland</i>	4	18	22	9	27	36	17	40	57
<i>Spain</i>	82	46	128	61	52	113	77	57	134
Total	86	64	150	70	79	149	94	97	191
% vs. total workforce	4.47%	3.33%	7.80%	3.60%	4.06%	7.66%	4.83%	4.98%	9.82%

Turnover

In 2018, out of 191 new hires (9.8% of the total employees), the vast majority (54%) were between 30 and 50 years old. In terms of gender, 51% of the new hires were men, and the remaining 49% were women.

In 2018, the turnover rate stood at 9.71%, with the highest number of employees leaving the company belonging to the 30-50 age group, just like in the previous year.

The phenomenon continues to be particularly noticeable in Spain, with a turnover rate of 7.5%, linked to the need to cover service stations workforce, as well as absences due to illness, paternity and maternity leaves, in addition to the need to adapt the workforce according to seasonal requirements.

Finally, in the two operationally significant locations¹ for the Group, the percentages of senior management² belonging to the local communities were:

- Sardinia (Sarlux): 50%
- Spain (Saras Energia): 100%

1. For the Group, locations considered "operationally significant" are the industrial site of Sarroch, belonging to the wholly-owned subsidiary Sarlux, which is the core of all the productive activity with the greatest number of employees located in the same workplace, and the Spanish subsidiary Saras Energia, which employs the second largest number of workers.
2. Senior management refers to heads of functions, managers and executives within the organisation, who report directly to the Chairman or the CEO.

TURNOVER BY AGE

Parameter	2016				2017				2018			
	<30	30-50	>50	Total	<30	30-50	>50	Total	<30	30-50	>50	Total
<i>Italy + Switzerland</i>	0	3	6	9	1	7	8	16	5	18	20	43
<i>Spain</i>	37	83	11	131	33	74	12	119	40	88	18	146
Total	37	86	17	140	34	81	20	135	45	106	38	189
% vs. Total workforce	1.92%	4.47%	0.88%	7.28%	1.75%	4.17%	1.03%	6.94%	2.31%	5.45%	1.95%	9.71%

TURNOVER BY GENDER

Parameter	2016			2017			2018		
	F	M	Total	F	M	Total	F	M	Total
<i>Italy + Switzerland</i>	2	7	9	4	12	16	5	38	43
<i>Spain</i>	76	55	131	66	53	119	84	62	146
Total	78	62	140	70	65	135	89	100	189
% vs. Total workforce	4.05%	3.22%	7.28%	3.60%	3.34%	6.94%	4.57%	5.14%	9.71%

TOTAL AND PERCENTAGE OF NEW HIRES AND DEPARTURES BY REGION - 2018

Parameter	Hires		Departures	
	n.	% vs. Total workforce	n.	% vs. Total workforce
<i>Sardinia</i>	32	1.64%	27	1.39%
<i>Lombardy</i>	15	0.77%	11	0.57%
<i>Liguria</i>	0	0.00%	1	0.05%
<i>Switzerland</i>	10	0.51%	4	0.21%
<i>Spain</i>	134	6.89%	146	7.50%
Total	191	9.82%	189	9.71%

Absenteeism

Concerning the company's absenteeism rate, it was calculated as the ratio between days of absence and the total number of theoretical workable days, also taking into account the differences in the total number of theoretical workable days among daily staff and shift staff (252 and 219 respectively in Italy, 253 for day staff in Switzerland and 219 in Spain).

In the calculation, absences 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, absences due to any other reason were taken into account in the calculation of the absenteeism rate.

As seen in the following table, with regards to the financial year 2018, absenteeism rates ranging between 2% and 6% were recorded in the various companies of the Saras Group.

ABSENTEEISM RATE BY COMPANY - 2018						
Company	Daily / Shift Workers	Days of Absence	Theoretical Workable days	Average Annual Number of Employees	Absenteeism Rate (%)	Weighted Average by Company (%)
Saras SpA	D	2,410.1	252	225	4.25	
Sarlux Srl	D	6,224.8	252	466	5.30	5.29
	S	7,835.5	219	677	5.28	
Sartec Srl	D	1,754.3	252	158	4.41	
Sardeolica Srl	D	298.6	252	24	4.94	
Deposito di Arcola Srl	D	2.0	252	2	0.40	2.42
	S	72.4	219	12	2.75	
Saras Energia SAU	D	392.0	219	51	3.51	6.43
	S	3,782.7	220	245	7.02	
Saras Trading SA	D	29.0	253	23	0.50	



Workforce education level

Concerning the education level of the Group's employees, the data in the table below show that 24% have a qualification equal to or higher than the University degree, 62% have at least a High School diploma and only 14% have a qualification below a diploma.

Focusing on University graduates, the table below provides a breakdown by area of study. The data shows that the majority of University graduates have a technical/scientific degree (77%), while 18% have a degree in Economics, Law or Politics, with only 5% holding a degree in Humanities.

EMPLOYEES BY QUALIFICATION - 2018									
Company	University degree		High school diploma		Middle school certificate		Primary school certificate		Total
	No.	%	No.	%	No.	%	No.	%	
<i>Saras Spa</i>	141	54%	113	43%	9	3%	0	0%	263
<i>Sarlux Srl</i>	177	15%	904	78%	79	7%	3	0.3%	1,163
<i>Sartec Srl</i>	99	62%	57	36%	3	2%	1	1%	160
<i>Sardeolica Srl</i>	5	21%	15	63%	4	17%	0	0%	24
<i>Deposito di Arcola Srl</i>	0	0%	10	71%	4	29%	0	0%	14
<i>Saras Energia SAU</i>	14	5%	107	36%	176	59%	0	0%	297
<i>Saras Trading SA</i>	24	96%	1	4%	0	0%	0	0%	25
Total	460	24%	1,207	62%	275	14%	4	0.2%	1,946

EMPLOYEES BY TYPE OF UNIVERSITY DEGREE - 2018									
Company	Law/Politics/ Economics		Engineering/ Architecture		Sciences		Humanities		Total
	No.	%	No.	%	No.	%	No.	%	
<i>Saras Spa + Sarlux Srl</i>	61	19%	194	61%	45	14%	18	6%	318
<i>Sartec Srl</i>	3	3%	67	68%	28	28%	1	1%	99
<i>Sardeolica Srl</i>	0	0%	3	60%	2	40%	0	0%	5
<i>Deposito di Arcola Srl</i>	0	0%	0	0%	0	0%	0	0%	0
<i>Saras Energia SAU</i>	10	71%	3	21%	1	7%	0	0%	14
<i>Saras Trading SA</i>	9	38%	10	42%	1	4%	4	17%	24
Total	83	18%	277	60%	77	17%	23	5.0%	460



Remuneration systems

Considering the high level of education, skills and professionalism required to the staff working in the Oil & Gas sector, the Energy and Oil National Collective Labour Agreement and the subsequent second-level negotiation agreements, also common in this sector, places the Group's wage levels at the high end of the market, at values comparable with those of other national competitors, periodically checked through benchmarks made by external companies specialised in such kind of comparisons. Contractual wage levels are applied indifferently 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 the reference National Collective Labour Agreement, by a value that ranges from a minimum of 14% to a maximum of 18%. This is due to the second-level negotiation with Trade Unions, which takes into account the different factors linked to the Group's overall productivity, including the achievement of particular operational objectives that the organisation intends to pursue, and the individual contribution of each employee, linked to the continuity of the service provided and presence at the workplace.

Finally, there are national rules also for staff 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 staff.



Welfare

Attention to the welfare of its employees is an element that has always characterised staff relations. Indeed, over the years, in almost all the Group's companies, welfare instruments offering tax benefits for the company and the employee, have been widespread, independently of developments related to recent regulations.

Because of the second-level negotiations, in particular, 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 the employee's death, even when they are away from their place of work;
- medical assistance and health prevention services additional to mandatory health monitoring (see section "Health and Safety");
- social assistance service guaranteed by qualified personnel;
- insurance against workplace and non-workplace accidents;
- subscriptions to public transport systems (consortium in Sardinia, public transport companies in Milan);
- canteen at the Sarroch plant with meals provided also on continuous and rotating shifts and meal vouchers/ restaurant tickets at other sites;
- initiatives for employees and their families organised by the company's CRAL – the Company Staff Recreation Group (see the related box below).

An important new development in 2018 was the introduction of a bonus-based company welfare scheme, open to all employees. As of the 2019 financial year, employees will be able to opt for their bonuses to be fully or partly channelled into welfare services.

Voluntary Social Security

In all companies of the Saras Group the most used supplementary pension fund is Fondenergia. In 2018, 1,189 employees of Saras and Sarlux (excluding directors) were enrolled in Fondenergia, equal to 86% of the total population of the two companies. From 1 January 2017, all new members of Fondenergia are granted 100% of the maturing severance pay.

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

Active since 1974, the Company Staff Recreation Group (CRAL) sits across all companies in the Saras Group and aims to promote recreational, cultural, tourist and sports activities involving 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.

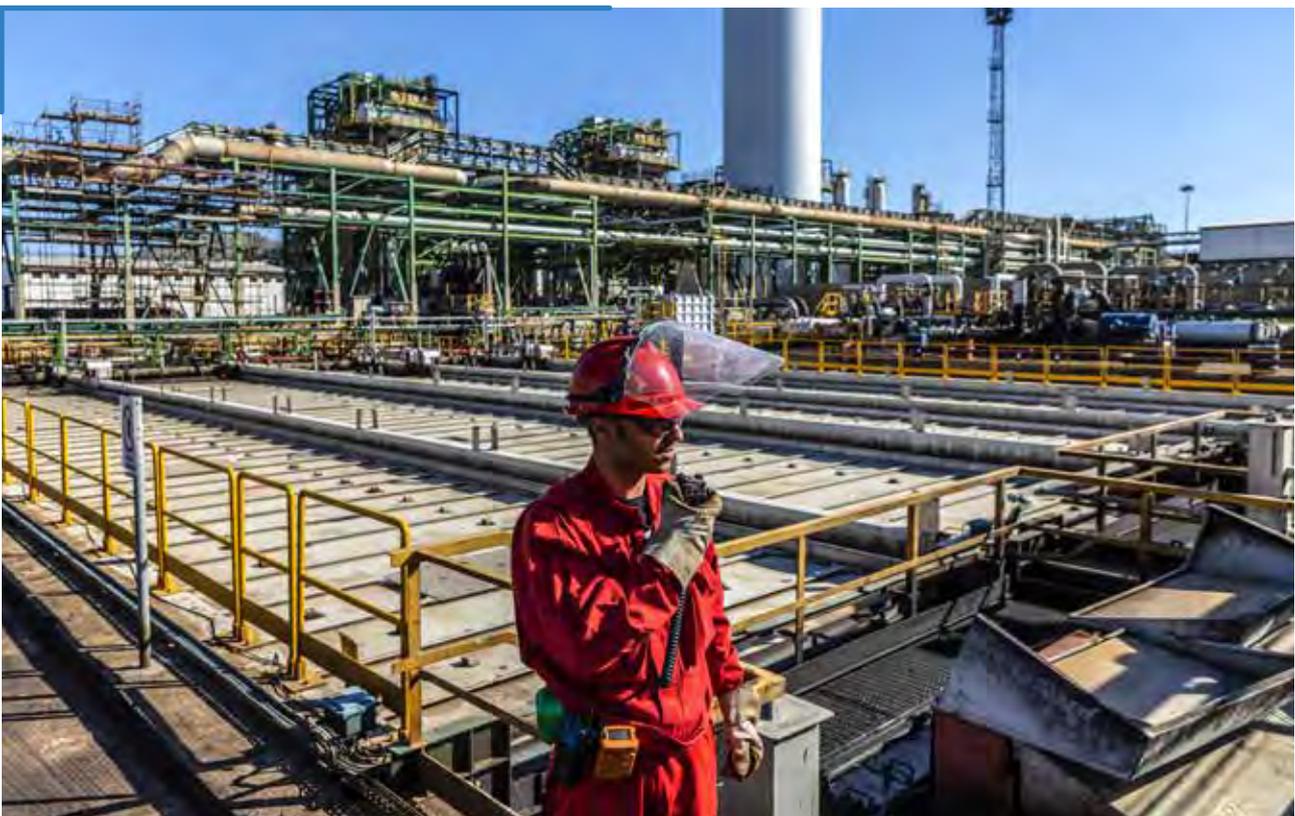
In 2018, the CRAL had 1,060 registered members, including 520 supporters of individual specialist sports sections (sailing, canoeing, running, soccer, tennis, cycling, boxing, windsurfing, go-karting) and sections encompassing music, food, travel and tourism, bridge, photography and volunteering.

The company 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 young people and in particular students (children of employees), including merit-based scholarships, holiday camps, study trips in Italy and abroad, local excursions for families, other entertainment/educational activities for children.

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 (car/bank insurance, 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 its employees 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 created and started 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 each employee. The entire process of managing the training and development of human resources is described and formalised in the Policy “Our people” and in the “Human Resources Process Guidelines”.

Saras identifies, promotes and spreads know-how critical to achieve the firm's objectives, encouraging the integration of common knowledge to the various businesses, also by means of training on-the-job and retraining projects.

Training activities can be broken down into three categories:

- **Compliance training:** training and coaching activities on topics regulated by legislation and/or external bodies (e.g. HSE training, training deriving from biofuels sustainability certification requirements, etc.);

- **Technical training:** training activities aimed specifically at particular professionals to develop specialist technical skills;
- **Cross-disciplinary training:** training activities intended to develop cross-disciplinary skills for several company roles, linked to the approaches and behaviour that accompany the exercising of technical and/or managerial skills in line with corporate strategies and values. The topics are identified on a case by case basis by the HR Department.

In addition to routine and compliance topics, the training and development plan for 2018 also focused on the constant development of hard and soft skills necessary to support the business goals identified for the year.

More specifically, **HSE training** continued to expand the BBS (Behaviour-Based Safety) Protocol to all personnel not already involved, with the objective of strengthening safe behaviour during operations in the workplace and empower the role of Safety Leaders. Moreover, a training programme focused on the creation of an internal team of trainers was completed, with the aim of ensuring continuity in the process of staff training and implementing the BBS Protocol across the site.

TOTAL TRAINING HOURS			
Company	2016	2017	2018
Saras Spa	2,389	2,420	3,150
Sarlux Srl	36,011	40,500	38,300
Sartec Srl	2,390	4,085	5,204
Sardeolica Srl	950	1,937	2,085
Deposito di Arcola Srl	0	0	304
Saras Energia SAU	5,322	4,460	938
Saras Trading SA	0	187	324
Total	47,062	53,589	50,305

Moving to environmental topics, the training provided concerned:

- protection and safeguarding of the environment with particular attention in 2018 on operating procedures and instructions;
- specialist technical training with aspects related to environmental topics.

Overall, in 2018 HSE training hours continued to increase after the high numbers recorded in the 2015-17 period (when extensive training activities took place following the acquisition of the Versalis business, and the end of the five-year period for mandatory training in accordance with Legislative Decree 81/08).

It is also important to mention that in 2018 around 20,000 hours of HSE information support were provided to employees of third-party companies (courses to access refinery premises, work permit abilitations, access to confined spaces, turnaround training) who operate at the Sarlux site. This number is higher than the already significant level achieved in 2017 (around 19,500 hours), and it confirms the Group's focus on monitoring and improving the awareness of contracting companies operating on its site. Furthermore, as of January 2019 the trend continues to be on the rise, with over 9,000 hours of training already provided, as part of efforts to better inform contracting companies involved in the important scheduled maintenance cycle.

Staying on the topic of compliance, following Sarlux's decision to adopt an Energy Management System in accordance with UNI EN ISO 50001:2011, all employees working at the Sarroch industrial site have undertaken training on consumption, losses and ways of optimising energy efficiency at the site. Particular attention was placed on energy consumption of the furnaces, with special training provided to the operators working in this area, with the aim to optimise energy efficiency.

Training was also provided to Saras and Sarlux personnel at various levels, including management, in relation to new legislative developments in the area of Privacy, following the introduction of the GDPR (General Data Protection Regulation) and the Organisation, Management and Control Model pursuant to Legislative Decree 231/2001. More specifically, in 2018 six sessions were carried out (three in Sarroch and three in Milan) with the directors reporting to the CEO and their first-line reports: 27 people were involved at the subsidiary Sarlux and 63 at the parent company Saras, for a total of 169 hours. There was a special focus placed on sensitive areas where there could be the risk of crimes being committed: administrative-accounting, commercial, HSE, relations with Public Administration, corruption prevention and the procurement process. Finally, all new recruits completed the online courses available on the Group's information portal.

Specialist, technical training continued according to ongoing development guidelines, which were set based on relevant technical regulations. The training was expanded to look at all areas in which new forms of technology are being introduced. More specifically, in the light of the significant investment programme currently underway at the Sarroch industrial site, operational personnel received practical training around how to implement new production methods, with 370 involved in approx. 1000 hours of training.

In terms of the refinery Asset Management department, at the start of 2018 a multi-year action plan was agreed with the objective of boosting technical and management expertise, with a particular focus on methods and tools for contract management, overseeing issues around quality, programming and reviewing works. During 2018, the first quality control modules were developed.

HOURS OF HSE TRAINING (SARAS GROUP)			
Parameter	2016	2017	2018
<i>Environment</i>	5,466	4,643	3,946
<i>Health and safety</i>	22,536	19,717	23,816
Total	28,002	24,360	27,762



As part of **#digitalSaras** (a programme of digital transformation according to the principles of Industry 4.0), a range of initiatives were organised with the aim of accompanying the transformation underway. Particular focus concerned data science topics, with meetings featuring expert speakers from prestigious universities. An awareness campaign was also launched across the whole company workforce, with e-learning tools used to promote incremental development of digital skills. More specialist programmes were dedicated to personnel involved in the creation of pilot projects and the subsequent implementation of technological solutions.

As regards **cross-disciplinary training**, some of the initiatives launched last year were continued, including training for middle management (shift leaders, supervisors, operations heads) at the production site. The focus of the project was to develop and hone management skills (delegation, feedback, decision-making, etc.), partly by ensuring greater understanding of the outlook in the relevant markets, as well as changes deriving from the **#digitalSaras** programme. The role of middle management is particularly important because of their large number of direct reports, and also because of the information and guidance they transmit while exercising their role.

More generally, all managerial figures responsible for managing other workers were involved in a programme designed to improve their skills of evaluation and giving feedback to their teams, using the same methods used for shift leaders. The aim of this training is to ensure awareness and focus of the managers in evaluating their staff.

During the year, activities aimed at developing a pool of young people with high potential continued. The programme, which is mainly focused on the need to ensure adequate generational change, saw the creation of a series of leadership workshops developed alongside individual coaching courses designed for each of the participants.

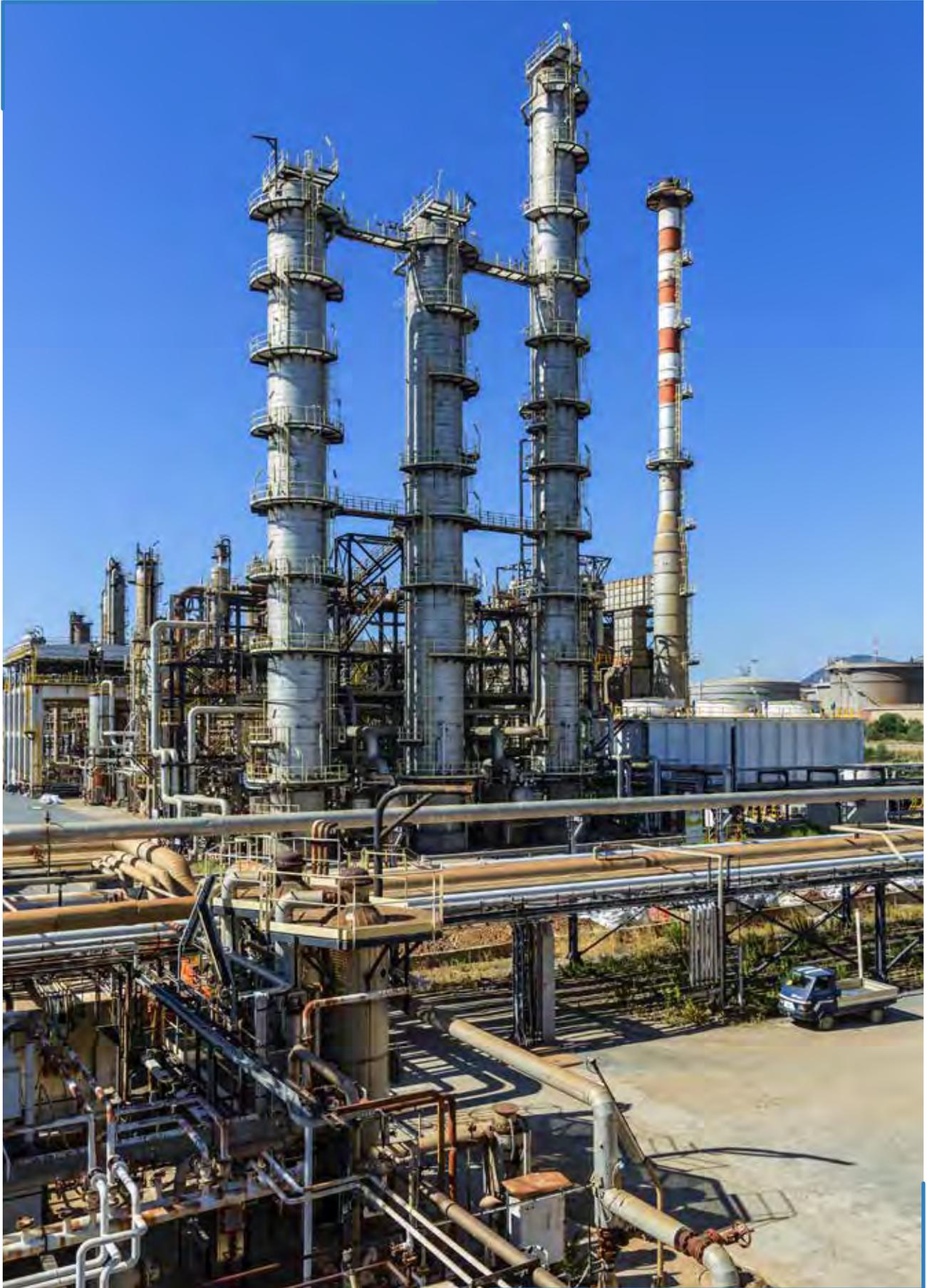
The “Finance for Non-Financial employees” training course was launched with the aim of giving managers and directors a greater understanding of the economic and financial implications of daily operational decisions they take within the context of their respective roles. The course provided clear methodological 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 Stock Exchange.

AVERAGE HOURS OF TRAINING BY GENDER

Company	2016			2017			2018		
	F	M	Total	F	M	Total	F	M	Total
<i>Saras SpA</i>	11	9	9	7	11	9	11	13	12
<i>Sarlux Srl</i>	17	31	31	31	35	35	26	33	33
<i>Sartec Srl</i>	16	17	17	34	23	26	39	30	33
<i>Sardeolica Srl</i>	0	0	0	19	89	77	26	99	87
<i>Deposito di Arcola Srl</i>	0	0	0	6	23	22	4	23	22
<i>Saras Energia SAU</i>	16	20	17	14	14	14	2	4	3
<i>Saras Trading SA</i>	0	0	0	0	11	10	7	16	13
Total	14	26	24	9	29	25	12	29	26

AVERAGE HOURS OF TRAINING BY PROFESSIONAL CATEGORY

Company	2016				2017				2018			
	Director	Manager	White collar	Blue collar	Director	Manager	White collar	Blue collar	Director	Manager	White collar	Blue collar
<i>Saras SpA</i>	11	13	7	0	13	12	7	0	18	18	7	0
<i>Sarlux Srl</i>	20	22	29	38	25	48	31	37	48	34	30	37
<i>Sartec Srl</i>	0	0	0	0	0	22	28	16	12	23	36	11
<i>Sardeolica Srl</i>	0	0	0	0	0	24	55	101	0	57	43	123
<i>Deposito di Arcola Srl</i>	0	0	0	0	0	0	21	28	0	0	25	10
<i>Saras Energia SAU</i>	48	77	8	19	91	56	7	16	26	29	4	1
<i>Saras Trading SA</i>	0	0	0	0	5	13	0	0	6	27	0	0
Total	79	113	43	57	15	32	24	26	22	28	25	27



INTERNAL COMMUNICATION & CHANGE MANAGEMENT

During 2018, internal communication activities continued in support of change management and the sharing of strategies, culture and - more generally - useful information in order to get employees' involvement into striving for company objectives and boost engagement levels.

As part of the process of planning the various initiatives, the results of the "Employee Engagement Survey" were analysed. The survey - carried out at the end of 2017 in order to gauge the opinions of employees across all levels of the organisation - highlights on how employees feel about their professional role and workplace interaction, with a particular focus on the topics related to internal sharing of the information.

As well as the frequent use of recent digital channels, such as the online version of the "visBreaking News" magazine and the company online communities, the internal communication strategy continued in parallel on the more traditional channels, with informative meetings and seminars, the company magazine, emails, the intranet and the network of monitors spread across the industrial site.

During the year, a range of activities and information campaigns were carried out across the main strategic areas, particularly with regards to the Industrial Plan, the associated investment plan and the #digitalSaras programme.

As regards the "visBreaking News" magazine, which regularly covers the topics around health, safety and the environment, particular focus was placed on the positive results of the renewal of Sarlux's Integrated Environmental Authorisation (AIA) and on the aspects of waste management and recycling.

In November, the results of the study called "Il valore di Saras per la crescita del territorio" [Saras' role in the development of the local area], made by The European House - Ambrosetti, were presented at an event attended by a large number of employees belonging to all companies of Saras Group. During the event, the CEO and top management introduced the main strategies identified by the Group in order to tackle the future with the vision and flexibility needed to seize opportunities for further development.

One of the initiatives designed to support this change was the first step in the cyber-security awareness programme, which aims to raise employee awareness and vigilance about IT security aspects, as well as sharing best practices concerning passwords management and safe-keeping of company data.

There were several change management initiatives carried out as a result of new legislation, including the EU General Data Protection Regulation (GDPR) and the company's guidelines and procedures around this. Initiatives were also launched to address changes to organisational processes and structures and the introduction of innovative services and new IT and digital tools, in order to align employee behaviour with the organisation's needs and expectations as quickly as possible.

Relations with Trade Unions

Saras Group maintains an open, transparent and continuous dialogue with trade union organisations, in order to promote a constructive climate and one of mutual responsibility.

The correct 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 reference legislative framework.

In the wider context of industrial 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 where it is present.

The principles that drive these relations are further specified in the Policies concerning Human Resources, and more precisely in the sections "Our people" and "Our stakeholders". The process of managing industrial relations is described and formalised in the section "Our people" of the Policies and in the "Human Resources Process Guideline".

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 Sarroch industrial site – the trade union negotiations, which have a significant impact on the organisation of work, normally involve discussions with the workplace Union Representation (RSU) and, when required by the nature of the topic, the activation of the appropriate mixed trade union and company technical committees.

The joint investment made in recent years by the company and by trade unions should be highlighted. Indeed, both parties, with the support of external contributions, committed a significant amount of dedicated resources, in order to learn useful techniques and models, and to establish relations capable of promoting, as far as possible, the expected contribution from people in support of the changes required by the specific competitive scenario.

In the last three years, Saras, together with the Southern Sardinia's chapter of Confindustria and the trade union organisations, have also developed a governance model for the local system of various categories of companies that operate as contractors within the refining sector. This "Governance pact", based on the work plans outlined by the client (i.e. Saras), establishes how to manage the relationship between the trade unions, in order to seize the opportunities offered by the investment and development dynamics of the Sarroch site, through targeted actions to support the expected quality of work, the effective use of the professional skills available, and the implementation of actions which are useful in order to support the competitiveness of companies operating in the region.

The notice period depends on the applicable collective bargaining agreement (CCNL), which in our case is the Energy and Oil agreement, on the professional category of the employee and on his length of service.

For instance, the period ranges from a minimum of two weeks for employees belonging to "Category 6" with up to two years' service, up to a maximum of eight months for employees belonging to "Categories 1, 2 and 3" with over 15 years' service.

Also in Spain, the chosen model of relations established 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 while conducting our business operations is essential for our productivity and competitiveness on the global markets.

Today being a responsible company means combining business development with preservation of the natural environment in which 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 can never be pursued without taking into account the preservation of the natural environment in which we operate. Saras works in harmony with the environment and the local area 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 it is also an environmental aspect to which Saras pays particular attention, especially with regards to the activities at Sarroch industrial site, whose “energy footprint” matches almost entirely the Group's one.

The subsidiary company Sarlux, which runs one of the largest integrated industrial sites in the Mediterranean Basin, has followed for many years a precise Energy Policy and, since 2018, it also obtained 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, as well as action points and plans required to boost efficiency, keep reducing energy consumption and protect environmental resources and the surrounding eco-system.



Consumption

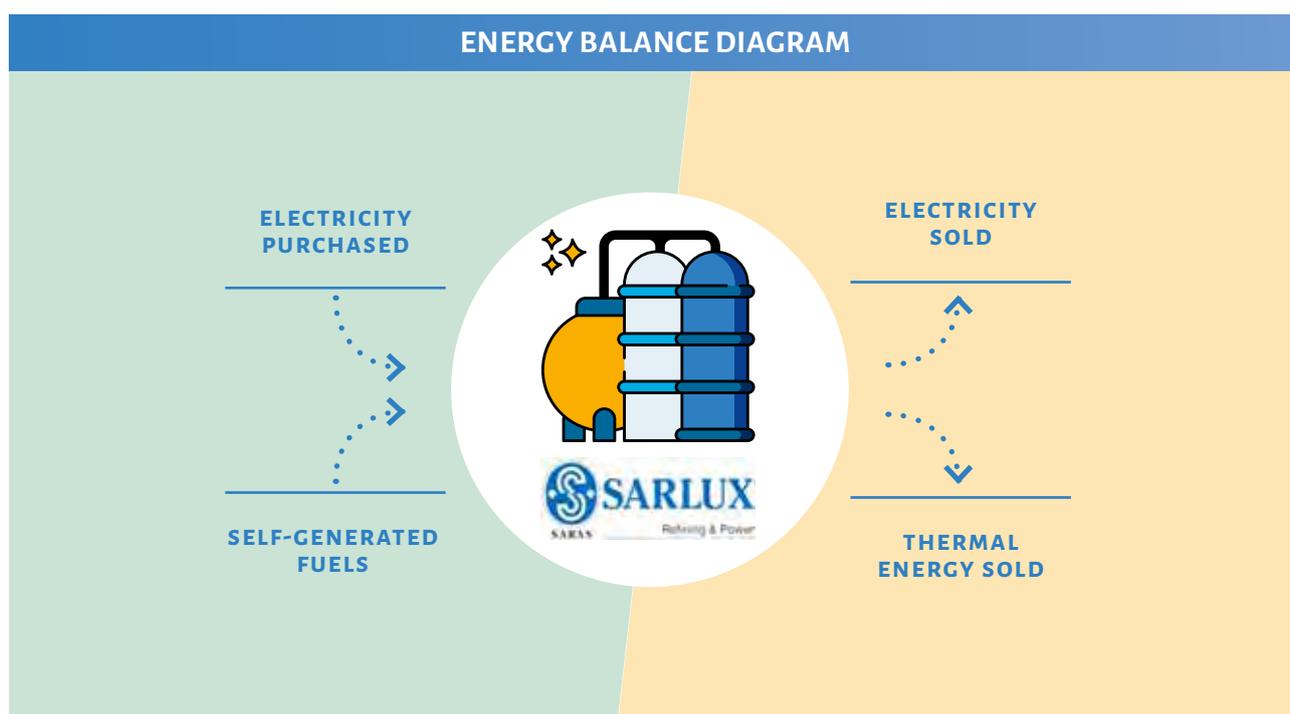
Energy consumption represents a significant environmental aspect with a considerable economic impact for the Sarlux site. Consumption is classified into two large categories:

- **Self-generated fuels:** i.e. all fuels generated inside the industrial site. This category includes:
 - **fuel gas** produced as part of the refining cycle;
 - **fuel oil** with low-sulphur content;
 - **coke** (carbon residue with a high calorific value), produced and consumed within the FCC (Fluid Catalytic Cracking) unit;
 - **syngas** produced by 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 the start-up of 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.



ENERGY BALANCE DIAGRAM



The first table (at the bottom of this page) presents the data for the three-year period 2016-2018 concerning the energy input at the Sarlux 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 site:

- **Electricity:** produced both by IGCC combined cycle plant and by the cogeneration thermo-electric power plant of the Northern Plants, and sent mainly to the National power grid (except for a minimal part sold to companies located within the same industrial complex which, together with Sarlux, form a so called "RIU" – i.e. an Internal User Network);
- **Thermal energy:** produced by the cogeneration thermo-electric power plant of the Northern Plants and sold to companies located within the same industrial complex.

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

The Specific Consumption Index (ICS), calculated as the ratio between net energy (i.e. the difference between total energy input and total energy output) and the total amount of crude oil and complementary feedstock processed in the year, is shown in the last table on the next page.

ENERGY INPUT TO SARLUX SITE (GJ)			
Parameter	2016	2017	2018
<i>Total energy from fuels</i>	72,569,763	71,251,239	72,041,595
<i>Fuel Gas</i>	22,931,205	24,110,657	23,051,903
<i>Fuel oil</i>	6,630,894	7,426,327	6,029,905
<i>Coke</i>	8,527,316	8,257,064	8,661,579
<i>Syngas</i>	34,414,863	31,161,511	34,251,799
<i>Gasoil</i>	65,485	295,680	46,408
<i>Electricity from the grid</i>	3,621,165	4,026,418	4,243,797
Total energy input	76,190,927	75,277,657	76,258,392

ENERGY OUTPUT FROM SARLUX SITE (GJ)			
Parameter	2016	2017	2018
Total electricity output	16,733,159	14,959,977	16,065,606
To the grid	16,583,335	14,869,095	15,950,620
To companies located in the same industrial complex	149,804	90,882	114,986
Thermal energy output	81,419	51,859	95,478
Total energy output	16,814,578	15,011,836	16,161,084

SPECIFIC CONSUMPTION INDEX (ICS)				
Parameter	Unit of measurement	2016	2017	2018
Total energy input	GJ	76,190,927	75,277,657	76,285,392
Total energy output	GJ	16,814,578	15,011,836	16,161,084
Total net energy	GJ	59,376,350	60,265,821	60,124,308
Crude oil and complementary feedstock processed	Kt	14,560	15,351	14,833
Specific Consumption Index	GJ/t	4.08	3.93	4.05

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 full knowledge and understanding of the plant's energy consumption, in order 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. This system monitors energy consumption, using field data processed according to logics related to the type of plant or to the type of energy carrier, and it allows to perform both detailed and overall energy analysis.

ULASSAI WIND FARM

Since 2005, the Saras Group is active in generating electricity also 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, always guaranteeing 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.

The existing road network has been exploited in the best way, thereby reducing the construction of new roads to just 1.5 km; moreover, the electricity line has been buried near the edge of the road, minimising interference from electromagnetic fields and preventing any visual impact on the landscape. Finally, thanks to the proximity of the site to the main power grid, it was necessary to build a connection of only 250 metres.

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 maintenance internalisation, 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. It contributed to the Ulassai "Art Station" Foundation which collects works by 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 **3,000 days without injuries (from the start of direct management of the farm in October 2010, until 10th of January 2019)**. This is the result of a culture of safety and training, which saw 1000 hours of health and safety in the workplace training delivered in 2018. Daily checks and inspections at regular intervals ensure that this culture of safety is constantly maintained.

Initiatives for the environment and the local area

In compliance with requirements established during the authorisation procedures, Sardeolica performed – between 2004 and 2014 – targeted monitoring campaigns to ascertain the status of the main environmental components, with particular reference to 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 later 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 until 2014 on sample areas, there were no cases of birds or bats collisions with the wind turbines. Monitoring activities were also able to confirm 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 followed up the monitoring). Moreover, the presence of Sardeolica personnel in the area has also served as a deterrent to forest fires.

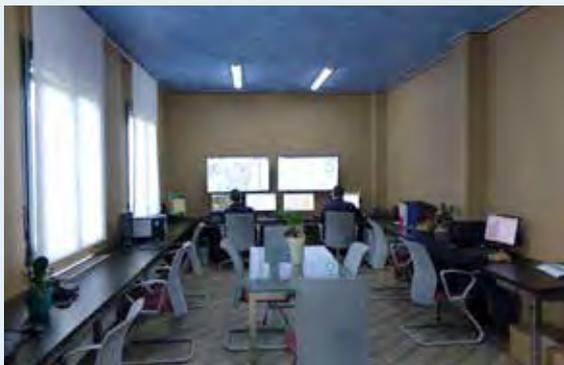
The monitoring of the noise component allowed to confirm negligible impacts, fully compliant with the Municipal Acoustic Zoning Plan: in particular, the detectable noise at the base of the wind towers is, in conditions of strong winds, comparable with standard office noise.

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. Annual electricity production from the solar plant is estimated at approx. 90 MWh, meaning that the offices will be entirely powered by solar energy.

Visits to the plant by tourists, students and occasional visitors continued, for a total headcount of approx. 260 people. The wind farm has in fact 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.

La cattura delle ali del Vento [The capture of the wing of the wind] - Maria Lai



Digital projects

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 will make it possible to complete an advanced analysis of the facility. The control room has also been restructured.

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, it is currently being installed a Condition Monitoring System (CMS), which will enable the early prediction of failures, thanks to vibration sensors positioned in the rotating equipment.

Comparison between the old control room (top) and the new control room (bottom).

“Maistu” project

In order to increase renewable energy production, at the end of 2018 Sardeolica sought and obtained authorisation for the “Maistu” project, which consists of the expansion of the Ulassai wind farm through the installation of a further nine turbines in the municipalities of Ulassai and Perdasdefogu, resulting in an increase in installed capacity of 30 MW. Construction work began on 14 January 2019, aiming for the new turbines to start operations in the fourth quarter of 2019.

The initiative reflects current trends in all industrialised countries around decarbonisation and transition towards renewable energy sources. The aim of the project is to achieve increased industrial sustainability, as set out in the National Integrated Energy and Climate Plan, which states: “In order to achieve the renewables objectives for 2030, it will be necessary to stimulate new production as well as preserving existing production and - where possible - increase this by promoting revamping and repowering of the existing plants. In particular, promoting investment in revamping and repowering of existing wind farms, introducing more efficient and technologically advanced machines, and exploiting good levels of wind at sites already known and in use, will allow to reduce ground occupation.”

KEY FIGURES AT ULASSAI WIND FARM

	Existing wind farm (as of 31 st Dec 2018)	“Maistu” expansion project (under construction)	Future fully developed wind farm (from Q4 2019)
Wind turbines	48 (Vestas V80)	+9 (Vestas V117)	57
Installed capacity	96 MW	+ 30 MW	126 MW
Power Production	approx. 170 GWh/year	+ 80 GWh/year	250 GWh/year
Employees	25	+4	29
People equivalent annual energy demand ¹	130,000	+60,000	190,000
CO2 emissions avoided ²	110,000 t/year	+52,000 t/year	162,000 t/year

1. Pro-capita energy consumption in Sardinia for domestic use, 2017: 1.307kWh/person/year (Source: Terna, Statistical Data, Consumption <http://download.terna.it/terna/0000/1089/69.PDF>)

2. 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)

Greenhouse gases and air pollutant emissions

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”), whose impact, on the contrary, can be felt on a global scale.

In particular, European Union includes among pollutant agents the following: sulphur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), non-methane volatile organic compounds (NMVOCs), ammonia (NH₃), dust and fine particulates.

By contrast, the main anthropogenic climate-changing agent is carbon dioxide (CO₂), 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.

Moreover, the refining and power generation sectors are among 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 registration.

In concrete terms, the quality of the air outside the Sarroch 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 site emissions into the atmosphere is the AIA Decree (Autorizzazione Integrata Ambientale – the Integrated Environmental Authorisation), renewed in October 2017, as already illustrated in the chapter dedicated to “Group certifications”.

Stack emissions

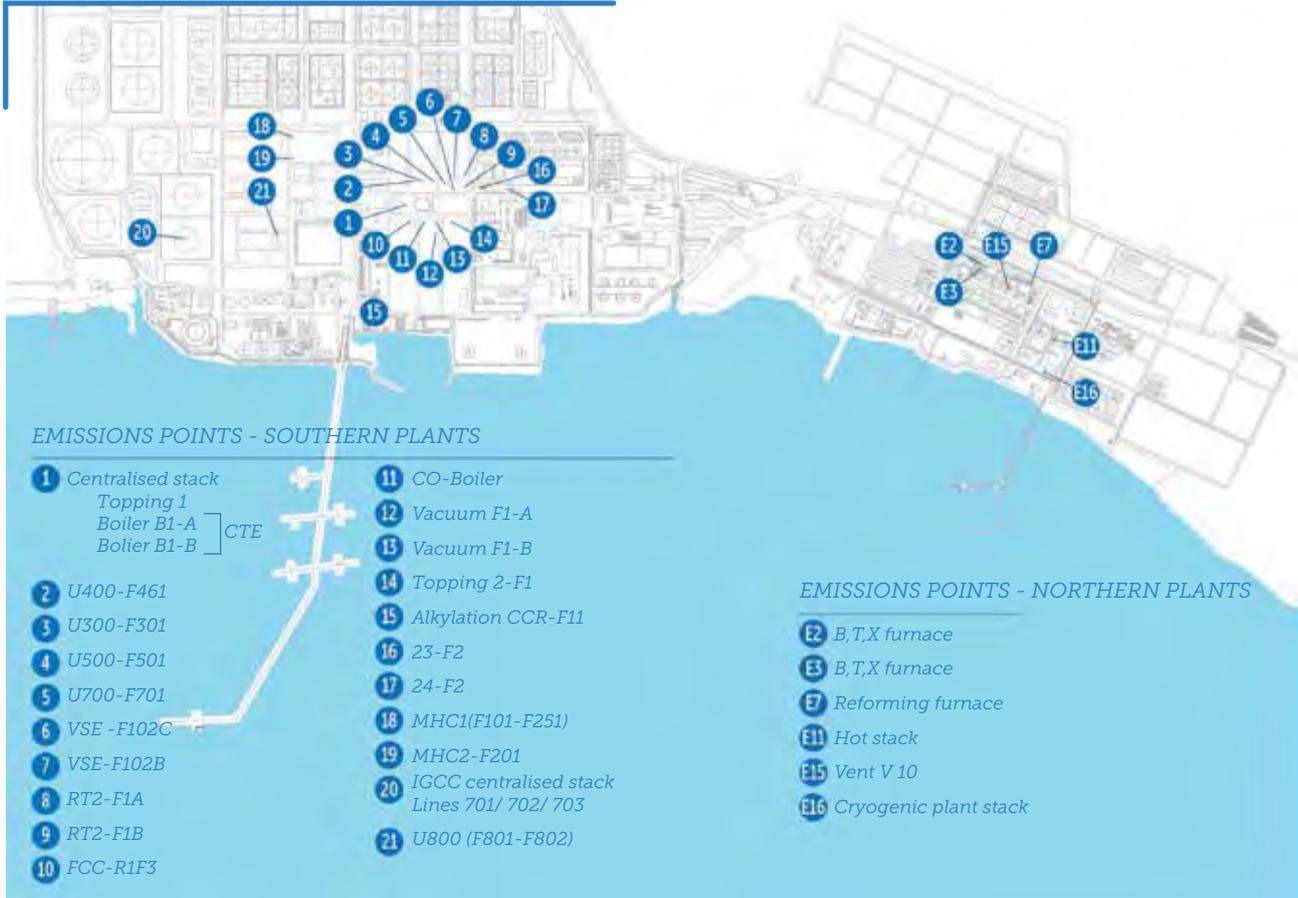
The Group’s total emissions come from the operationally significant industrial site in Sarroch, and refer to:

- 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” concept), with the introduction of two further emissions point at Reforming North and CTE North;
- Integrated Emissions Management only sets out limits for SO₂ and NO_x which, with the aim of reducing harmful gases in the atmosphere, have been lowered down to the average monthly values of 400 mg/Nm³ for SO₂ (previously was 600 mg/Nm³) and 280 mg/Nm³ for NO_x (previously was 300 mg/Nm³);
- CO and dust particulate do not fall under Integrated Emissions Management 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 the stack emissions are SO₂, NO_x, CO and dust, while the main climate-changing agent is CO₂.

The absolute emission values are primarily affected by the variability in the amount of raw materials processed at the plant (according to the various maintenance activities carried out each year on the plant units) and also, to a lesser extent, by the variability in the chemical & 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 recent trends, emissions indexes per unit of raw materials processed should be introduced. These can be calculated by dividing the total amount of pollutant emitted by the total quantity of raw materials processed during the year.

As shown in the table, all of the indexes improved, except the **NO_x emissions index**, which is slightly against trend, albeit always remaining widely inside the limits set out by relevant regulations. This depends largely on the combustion technique, as well as on other technological factors (i.e. the type of burners used). Conversely, a particularly positive note should be taken for the **SO₂ emissions index**, which saw a significant reduction in 2018 in comparison with previous years (down 20% on the 2017 figure). The reduction of dust emissions is a direct consequence of specific treatments, including specialised external technology aimed at improving combustion and reducing particulate, as shown by the important results achieved also in 2017. Furthermore, last year's positive results are supplemented by the optimisations achieved in the effectiveness and reliability of the instrumental monitoring systems. Finally, also the **CO emission index**, always below the regulatory limits, confirms its decreasing trend over time.

STACK EMISSIONS (T/YEAR)			
Parameter	2016	2017	2018
SO ₂	3,789	4,310	3,392
NO _x	3,064	3,253	3,372
Dust	240	208	135
CO	275	222	175

STACK EMISSIONS INDEX PER FEEDSTOCK PROCESSED (T POLLUTANT EMITTED/KT RAW MATERIALS PROCESSED IN THE YEAR)			
Parameter	2016	2017	2018
Crude oil and complementary feedstock processed (kt)	14,560	15,351	14,833
SO ₂ emissions index (t/kt)	0.260	0.282	0.229
NO _x emissions index (t/kt)	0.210	0.212	0.227
Dust emissions index (t/kt)	0.016	0.014	0.009
SO emissions index (t/kt)	0.019	0.014	0.012

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 CO₂ emissions, which represent the main component of Saras' GHG emissions (other gases are not significant).

In the three-year period under review, CO₂ 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 declining trend achieved thanks to the numerous energy recovery investments made at the site.

GHG EMISSIONS (T OF CO ₂ /YEAR)			
Parameter	2016	2017*	2018
Refinery	2,288,280	2,337,687	2,151,940
IGCC	3,838,644	3,585,479	3,741,260
Northern Plants	380,015	451,565	455,393
Total	6,506,939	6,374,731	6,348,594

GHG EMISSIONS INDEX PER FEEDSTOCK PROCESSED (T OF CO ₂ EMITTED/KT RAW MATERIALS PROCESSED IN THE YEAR)			
Parameter	2016	2017*	2018
Crude oil and complementary feedstock processed (kt)	14,560	15,351	14,833
CO ₂ emissions index (t/kt)	447	415	428

*The provisional 2017 figure published in last year's Sustainability Report was rectified following the certification process required by Directive 2003/87/EC.

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 a short and medium term investment plan, aimed at improving units 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 2016 and 2017 are as follows:

- **Thermal recovery of the furnace fumes T1-F101:** preheating of combustion air by recovering heat from combustion fumes (which were previously discharged directly into the atmosphere), with consequent fuel savings;
- **Energy integration between MHC and TAME units:** use of heat from the desulphurised gas coming from the MHC1 unit, to heat the feedstock for the TAME unit, thus reducing the use of low-pressure steam in preheating exchangers;
- **Energy recovery for the compressors MHC1 C-103/C-103S:** 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;
- **Upgrade of tempered water circuit and heat recovery in seawater desalter (DAM):** 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 units) instead of low-pressure steam;
- **Use of Low-Pressure (LP) steam instead of Medium-Pressure (MP) steam in column RT2-T1 and in the lateral strippers:** replacement with low-pressure steam of the medium-pressure steam previously used on the main fractionator's column (RT2-T1) of the topping RT2 and on the lateral strippers;
- **Fitting of Turbulators on T1-E107A+H, RT2-E8 A/D and T2 EN8:** fitting of turbulators (helical rotating inserts) inside the piping of the feedstock preheating exchangers, which allow an improvement of the thermal exchange and therefore less need to burn fuel in the furnace;
- **Electrification of the Air Compressor of the Catalytic Cracking (FCC) unit:** replacement of the two air-blowers of the FCC unit, driven by steam turbines, with a single electrically-powered machine, in order to reduce the unit's high-pressure steam consumption;
- **Fitting of an inverter on the fans of the Power Plant (CTE) in the Northern Plants:** insertion of an inverter on the fans of the CTE in the Northern Plants. The installation of the inverter reduces electricity consumption.

SUMMARY OF ENERGY EFFICIENCY MEASURES IMPLEMENTED IN 2016-2017

Parameter	Year of entry into service	Energy saving (G)/year	CO2 equivalent (t)/year
Thermal recovery of furnace fumes T1-F101	Mar 2016	238,016	18,328
Energy integration between MHC and TAME units	Nov 2017	327,010	25,154
Energy recovery for compressors MHC C-103/C-103S	Nov 2016	15,656	1,205
Upgrade of tempered water circuit and heat recovery in the seawater desalter	Feb 2017	192,347	14,796
Use of LP steam instead of MP in RT2-T1 column and lateral strippers	Aug 2016	10,172	782
Installation of turbulators	Mar 2016	153,877	11,850
Electrification of the Air Compressor of the FCC unit	Aug 2017	230,230	17,700
Fitting of inverter on Northern CTE fans	Dec 2016	46,967	3,613

In 2018, the following energy efficiency investments became operational (bottom table):

- **Energy recovery for the compressors MHC2 C-203/C-203S:** same action taken as for MHC1 C-103/C-103S, enabling reductions in electricity consumption of compressors;
- **Technological improvements to air cooler:** the optimisation of the blades and distribution system, delivers greater efficiency across many of the refinery's air coolers, with electricity savings while operating at the same load;

- **Use of Low-Pressure (LP) steam at SWS3:** the use of low-pressure steam, instead of medium-pressure steam, enables energy saving;
- **New advanced control at IGCC:** the variable multi-controller works in two ways: by minimising Blow Down purges during transitory periods between operations, with a consequent fuel saving for gas turbines, and the optimisation of steam used in the syngas washing process.

SUMMARY OF ENERGY EFFICIENCY MEASURES IMPLEMENTED IN 2018

Parameter	Year of entry into service	Energy saving (G)/year	CO ₂ equivalent (t)/year
<i>Energy recovery for compressors MHC2 C-203/C-203S</i>	Apr 2018	26,438	2,035
<i>Technological improvements to air cooler (First step)</i>	Mar 2018	161,161	12,407
<i>Technological improvements to air cooler (Second step)</i>	Nov 2018	92,092	7,089
<i>Use of low pressure steam in S3C1 - SWS3 column</i>	Nov 2018	16,732	1,288
<i>New advanced control at IGCC</i>	July 2018	93,015	7,161

OPTICAL SPECTROSCOPIC PYROMETER (POS)

In 2010, Sartec - in collaboration with the Large Tools Centre at the University of Cagliari - invented the Optical Spectroscopic Pyrometer (POS). The first prototype of this innovative tool was installed by Saras in 2013. Further POSs were installed in all refinery flaring systems in subsequent years.

The POS makes it possible to gauge the combustion temperature of the flame on top of the flaring tower, which must not be lower than 800° C in order to avoid polluting emissions into the atmosphere.

The image of the flame on top of the flaring tower is captured by a telephoto lens, which is connected via optical fibre cable to the spectroscopic pyrometer; the data provided by the pyrometer are then processed and stored on a PC.

This is a particularly innovative methodology and it offers undeniable advantages when compared with more traditional methodologies. More specifically, it allows continuous availability of multiple reliable measurements, quick response times (enabling quick corrective actions to prevent the emission of potentially harmful gases into the atmosphere), reduced maintenance, no critical problems associated with shut-down periods and storage/availability of data on the commonly used platforms.



Odours

One of the constant and fundamental commitments of the Group concerns the management 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 its new AIA Decree of October 2017, the Ministry of the

Environment also analysed the expansion of monitoring activities of this parameter for the Northern Plants (formerly Versalis).

Starting from 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 discomfort for the local community.

The main interventions include fitting sealed covering to the API¹ tanks, 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.

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.

2008

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

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).

2011

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

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.

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.

2016

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

2017 and 2018

Continuation of odorous emissions monitoring activities at the site; sensitive receptors identified in 2016 were re-confirmed, as required by the AIA Decree.

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

Sealing of API tanks

This activity derived from the “gap analysis” carried out in 2014 on the Sarroch 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 first measuring results, available to date, confirm a significant reduction of emissions of Volatile Organic Compounds (VOCs), as planned in the design.

ELECTRONIC NOSE - IOMS SARTEC

In collaboration with the Department of Civil Engineering at the University of Salerno, the subsidiary Sartec Srl has begun developing a so-called hi-tech “electronic nose” (IOMS Sartec) in order to continuously monitor the concentration of odorous emissions, with the aim of allowing advanced checks on the possible odour impacts caused by industrial plants and other odorous sources of various types.

The IOMS Sartec tool is particularly innovative and - compared with the early electronic noses - is characterised by high sensitivity, reproducibility and reliability in terms of identifying and measuring environmental odours, capacity for operating in hostile environments, capability for continuous

self-verification and calibration, and modularity as regards the creation of complex, intelligent monitoring networks.

In December 2018, Sartec organised the “Technological innovation: legislative developments and characterisation around environmental topics” workshop, with the participation of Universities, Control Bodies and local industries. The workshop highlighted, among other aspects, the role of IOMS Sartec in developing the Saras Group’s odour monitoring activities.

Interventions and studies on tanks

Over the years, investments have been made to fit double-seals between the cladding and the roof to all the tanks with a floating roof. Emissions prevention activities (including olfactory emissions) continued throughout 2018, 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/olfactometric results of studies carried out in 2018 made it possible to collect the information necessary to create specific, automated systems capable of reducing odours. Finally, 2018 also saw the launch of monitoring activities 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 all environmental regulations.

In particular, with reference to waste management, the subsidiary Sarlux, owner of Sarroch industrial site, is

responsible for the production of more than 99% of the total 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 already mentioned Environmental Management System ISO:14001 certified, and the EMAS scheme.

WASTE GENERATED (T/YEAR)									
Company	2016			2017			2018		
	Hazardous	Non-hazardous	Total	Hazardous	Non-hazardous	Total	Hazardous	Non-hazardous	Total
Saras Spa	0	0	0	0	0	0	0	0	0
Sarlux Srl	56,790	22,970	79,760	50,338	28,750	79,088	42,963	21,614	64,577
Sartec Srl	6	2	7	7	8	14	10	10	19
Sardeolica Srl	4	152	156	3	135	138	5	112	117
Deposito di Arcola Srl	537	245	782	1174	12	1186	371	4	375
Saras Energia SAU	60	0	60	82	0	82	179	0	179
Saras Trading SA	0	0	0	0	0	0	0	0	0
Total*	57,397	23,369	80,765	51,604	28,905	80,508	43,528	21,740	65,268

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

As regards the types of waste produced, 67% of the total in 2018 was classified as "hazardous", since it came almost entirely from industrial processes.

Finally, when analysing waste by destination, 94% of the total is sent for the relevant forms of treatment and recovery, while only a small amount is sent to landfill.

The company's commitment to waste management can also be demonstrated when considering that, as of 2017 all wood packaging has been sent for recycling, in order to achieve a better use of the resource, rather than simply using it for energy production. Finally, 2018 saw the launch of a recovery programme for concrete blocks, carried out at an authorised facility in Sardinia, with the overall amount sent for recovery equal to 18% of the total amount of concrete waste produced.

WASTE BY DESTINATION (T/YEAR)												
Parameter	2016				2017				2018			
	Hazardous	Non-hazardous	Total		Hazardous	Non-hazardous	Total		Hazardous	Non-hazardous	Total	
Treatment	56,577	19,196	75,772	94%	51,225	24,010	75,235	93%	42,956	18,694	61,650	94%
Landfill	820	4,173	4,993	6%	378	4,895	5,273	7%	572	3,046	3,618	6%
Total*	57,397	23,369	80,766		51,603	28,905	80,508		43,528	21,740	65,268	

* Due to rounding, the totals may differ from the sum of the individual numbers.



Sarlux: in-depth analysis

With reference to the figure in the following page, the main waste management operations undertaken at the Sarlux plant, before waste is 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);
- with regards to the filter cake from the IGCC unit, 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 quantity of the scrap;
- waste oils are stored in appropriate containers (point 5);
- plastic, glass, aluminium and paper waste are separately collected and conferred to a dedicated area, managed and operated by the Municipality of Sarroch;
- the majority of the waste generated is contaminated by hydrocarbons; it is therefore sent to a treatment plant located inside the Sarlux site (point 4), which separates the solid phase from the liquid phase (oily and aqueous phases); afterwards, the liquid phase recovered is conveyed to the wastewater treatment plant (TAS), while the solid phase is subject to a subsequent inertisation treatment.

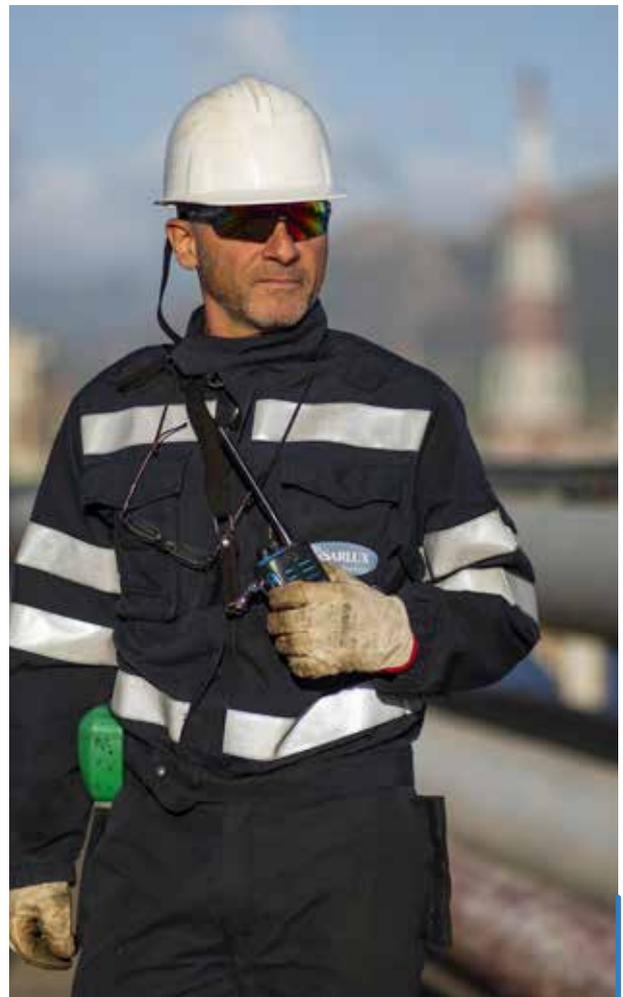
The treatments carried out by the inertisation plant significantly reduce the amount of waste in mass and change its type, by mixing it with an inert matrix. The management of the inertisation plant is entrusted to an authorised third-party firm.

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 the treatments carried out. These firms have been carefully selected, and they are subject to periodical verifications, by means of specific audit activities.

With regards to the solid waste resulting from the filter-presses of the IGCC plant (named “filter cake” because of its physical consistency), it 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.

Finally, Sarlux is authorised to receive and treat waste comprising bilge waters, slop and ballast waters from ships. This activity is carried out for both ships that berth at Sarroch maritime terminal and also for ships that confer the above mentioned types of waste to Sarlux, using tank lorries coming 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 waste and treated waste at the Sarlux site, split by type.

As it can be seen, in 2018 the total waste produced at the Sarlux site was significantly lower than in previous years.

In 2018, 22,639 tonnes of waste were sent for recovery or recycling. The overall quantity is lower than the 2017 figure; however, when taking into account the percentage of recovery and recycling in relation to the total quantity of waste produced, the 2018 figure is better than the previous year (35% vs. 33% in 2017).

OUTPUT WASTE / TREATED WASTE AT SARLUX SITE (T/YEAR AND %)

Parameter	2016		2017		2018	
	T/Year	%	T/Year	%	T/Year	%
Waste treated at internal inertisation plant	52,753	66.14%	47,220	59.71%	38,139	59.06%
Groundwaters from hydraulic barrier wells treated at waste water treatment plant	5	0.01%	6	0.01%	4	0.01%
Filter cake sent for external recovery	1,641	2.06%	1,914	2.42%	1,619	2.51%
Other types of waste	25,361	31.79%	29,948	37.87%	24,815	38.43%
Total	79,760		79,088		64,577	

WASTE GENERATED AT SARLUX SITE (T/YEAR AND %)

Parameter	2016		2017		2018	
	T/Year	%	T/Year	%	T/Year	%
Non-hazardous waste	22,970	16%	28,750	36%	21,614	33%
Hazardous waste, of which:	56,790	84%	50,338	64%	42,963	67%
Water from remediation activities	5	0.01%	6	0.01%	4	0.01%
Soil from remediation activities	367	0.65%	0	0.00%	1154	2.69%
Hazardous waste from ordinary and extraordinary activities	56,418	99.34%	50,332	99.99%	41,806	97.31%
Total	79,760		79,088		64,577	

TOTAL WASTE RECOVERED (INTERNAL AND EXTERNAL TO SITE) (T/YEAR)

Parameter	2016	2017	2018
Waste sent to recovery	20,581	24,561	21,020
Filter cake	1,641	1,914	1,619
Total waste recovered	22,222	26,475	22,639

Separate waste collection for recycling

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

In 2018, approx. 170 tonnes of waste, sorted by type, was collected in total; of that, 53% was paper and 24% was decomposable.

96% of the Group's total separate waste collection in 2018 was performed at the Sarroch site, confirming the effectiveness of the initiatives implemented in order to drive appropriate behaviour 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 waste collection was added in the induction training for contractors' employees. Moreover, an HSE statement was released several years ago, setting out the main behavioural rules to be applied at the Sarroch site. Finally, thanks to ongoing activities aimed at raising awareness of all site workers on these topics, the positive results previously described were achieved again in 2018.

SEPARATE WASTE COLLECTION – SARAS GROUP (T/YEAR)

Parameter	2016	2017	2018
Paper	91	79	93
Plastic	11	15	21
Glass and cans	8	10	19
Decomposable	52	43	42
Total	162	147	175



Spills

In 2018, there were no significant spills deriving from equipment failures, neither at sea nor on the ground.

This came as a result of a serious and constant commitment by the Group to ensure the reliability of its operational processes, its assets (in particular pipelines and tanks for crude and oil products, for which a multi-year plan is currently underway to build pavements and containment basins), as well as the ships used for the transport of oil (which, since many years, are all equipped with double-hull and subject to a strict vetting policy, as detailed in the chapter below).

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

However, it should be noted that the event occurred on 19th September - which was of truly exceptional nature (see dedicated box) - required the opening of the emergency spillway of the refinery's primary wastewater treatment facility. This manoeuvre, permitted by the AIA Decree, caused the overflow into the surrounding areas of the process water and rainwater of the API tanks.

EVENT OCCURRED ON 19 SEPTEMBER 2018

Starting on 18th September, the entire south-west coast around Cagliari, including the Sarroch area where the Sarlux site is located, was subjected to intense thunder and lightning storms, prompting the authorities to issue an "Adverse Weather Warning".

Late on the evening of 18th September, due to worsening weather conditions, Sarlux implemented the authorised protocol for "Torrential Rain Management", which requires the full involvement of all operational functions within the industrial site.

During the night between 18th and 19th September, lightning caused the outbreak of a fire affecting the API tanks and some of the surrounding areas. A General Emergency was immediately declared and all security systems in place to protect the affected areas were activated, with the assistance of HSE, operations and support staff.

The speed of intervention, coupled with the skill and professionalism of the staff who took part in the protection activities, avoided further spreading of the fire, notwithstanding the ongoing adverse weather conditions. Subsequently, the fire was extinguished without harm to people and minimising the impacts on the environment and on the integrity of the affected assets.

Immediately after the event, all operational and communication protocols were activated as regards external bodies, including the Harbour Master and the Cagliari Fire Service. On their arrival at the site, the Fire Service confirmed that the event had been managed effectively and autonomously by Sarlux personnel.

Over the subsequent 48 hours, Sarlux was able to resume safe operations at its industrial site.

Sea

As regards transport by sea, given the high number of ships which perform loading or unloading operations at Sarroch site (about 800-900 ships per year), the Group introduced, since 2009, 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.

In particular, the procedure requires that all the ships must have “double-hull” fittings, a requirement that is enforced through monitoring both incoming and outgoing oil tankers headed for Sarroch’s terminals. It also requires that regular inspection activities are conducted by Saras staff (also at other ports), according to international criteria, as well as spot “Pre-mooring Inspection” to be carried out in the harbour before mooring.

Ship inspections are carried out according to the “Minimum Safety Criteria” specification document, adopted by Saras first, 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

With regards to the protection of soil at the Sarroch industrial site, the Group put in place prevention initiatives according to a multi-year planning schedule, in order to avoid any problems related to accidental spills into soil and subsoil.

In particular, 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 units. These pavements 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 above-mentioned percolation phenomenon in soil and subsoil, in case any problem would occur to the bottom of the tanks. During the transition period to double bottoms fitting, an inspection process for integrity check was carried out with ultrasonic techniques, thus allowing early detection of failures.



ARCOLA STORAGE FACILITY

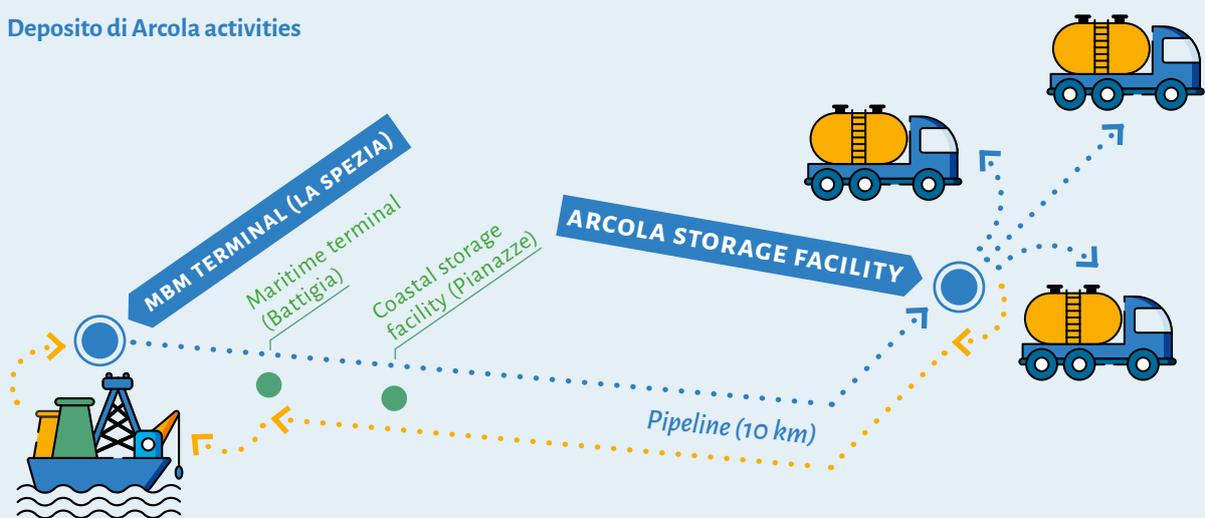
Activities at the Arcola site began in the 1960s, with the construction of an oil refinery by the Società Petrolifera Italiana (SPI) and the subsequent production of refined products such as gasoline, gasoils and fuel oils.

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.l. company was established, encompassing all storage activities.

Currently, the storage facility, which occupies a total surface of about 160,000 m² and employs 15 people, is exclusively involved in the storage of oil products (gasoline and diesel) using 26 above-ground atmospheric tanks, with a total storage capacity of around 181,600 m³.

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.

Deposito di Arcola activities



HANDLING OF GASOIL AND GASOLINE (TONNES)

Parameter	2016	2017	2018
<i>Deliveries via tanker-trucks</i>	206,666	157,484	141,458

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

- Single Environmental Authorisation, in accordance with Presidential Decree 59/2013 and Legislative Decree 152/2006, as regards waste water and atmospheric emissions, obtained on 17-Feb-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. Works associated with preparing the new docking point are expected to be completed in 2019. The project will result in significant improvements to operational conditions during loading and discharge activities of the vessels.



Management of Water

Managing 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). Water is also used to supply the fire protection water network, to reintegrate losses from the cooling cycle, and also for other civilian uses.

Aware of the scarcity of water resources in the local area, 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 registration protocol. More specifically, the site's water consumption is defined as the amount of water required to guarantee operation of the plant and services linked to production. It is given by the sum of the following addends:

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

In order to reduce usage of primary water and leave a higher amount of it available to the local communities, over the years Saras made numerous interventions (investments and process improvements), all aiming at gradually reducing its primary water requirements. In parallel, but with the same goal, 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.

The main steps taken in recent years include efforts to maximise water reuse and seawater use, as follows:

- in 2017, start-up activities began for a 140 m³/h unit, capable of recovering water suitable for reuse in the cooling circuits, starting from process waters;
- in 2018, a new seawater desalination plant capable of producing 500 m³/h of demineralised water for use in the high-pressure boiler systems begun operations. The ramp-up was gradual, with production progressively increasing before stabilising at around 360 m³/h;
- in 2019, all sections will be gradually activated, and maximum capacity for the unit will be reached. At that point, it will substitute the old desalination units build in the 1990s, which are no longer energy efficient.

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

ONSITE WATER USE (M ³)			
Parameter	2016	2017	2018
Water use onsite	22,310,065	22,015,431	22,440,380

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

In 2018, the supply of untreated water from the industrial consortium decreased, as a result of the launch of the new desalination plant and increased recovery of internal water (reuse). Moreover, the new desalination plant allows to produce the same amount of demineralised water while using less seawater, thanks to its higher efficiency vs. the older plants.

ONSITE WATER USE SPLIT BY THREE TYPES OF SUPPLY (MILLION M³)

Parameter	2016		2017		2018	
	Mm ³	%	Mm ³	%	Mm ³	%
Internal recovery water (water reuse)	4.9	21.9	4.7	21.3	5.1	22.8%
Untreated water from the industrial consortium	9.2	41.4	9.1	41.3	8.7	38.8%
Seawater	8.2	36.7	8.2	37.4	8.6	38.4%
Total	22.3		22.0		22.4	

The overall water withdrawal of the site is calculated as the sum of untreated water from industrial consortium and seawater. To this point, it should be noted that most of the

seawater withdrawn is returned to the sea with practically the same qualitative characteristics, and with only minor changes in its temperature and/or salt concentration.

WATER WITHDRAWN BY THE SITE (M³)

Parameter	2016	2017	2018
Untreated water from the industrial consortium	9,174,341	9,136,330	8,745,684
Seawater	62,008,985	62,632,467	59,334,145
Total water withdrawn by site	71,183,326	71,768,797	68,079,829



Discharges

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

While process discharges are properly connected to the production activities, desalination and cooling discharges are related to production utilities.

The effects of the launch 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 while maintaining the same level of desalinated water production.

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

DISCHARGES INTO THE SEA (M ³ /YEAR)			
Parameter	2016	2017	2018
Discharges from desalination	18,342,653	18,019,019	16,448,893
Discharges from process	6,646,157	6,871,892	7,084,804
Discharges from cooling systems	35,397,129	36,386,783	34,291,504
Total	60,385,939	61,277,694	57,825,201

WATER DISCHARGES BY DESTINATION (M ³)												
Parameter	2016				2017				2018			
	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	60,385,939	0	0	60,385,939	61,277,694	0	0	61,277,694	57,825,201	0	0	57,825,201
Sartec Srl	0	0	4,000	4,000	0	0	6,294	6,294	0	0	3,317	3,317
Sardeolica Srl	0	0	0	0	0	0	0	0	0	0	0	0
Deposito di Arcola Srl*	0	1,980,800	0	1,980,800	0	1,980,800	0	1,980,800	0	1,980,800	0	1,980,800
Saras Energia SAU	714	0	0	714	365	0	0	365	540	0	0	540
Saras Trading SA	0	0	0	0	0	0	0	0	0	0	0	0
Total	60,386,653	1,980,800	4,000	62,371,453	61,278,059	1,980,800	6,294	63,265,153	57,825,741	1,980,800	3,317	59,809,858

* 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, whose 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:

- "Cutturu 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.

Since several years, the Botanical Science Department of the Mathematical, Physical and Natural Sciences Faculty of the University of Cagliari performs, 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 the assessment IAP (Index of Atmospheric Purity) index. 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

A regular seawater quality status monitoring survey is carried out now since many years, by marine biologists, in the sea 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 period 2015-2018, the seawater quality status has been on the high end of the classification range (high), as a witnessing proof of the excellent results achieved by the Group's with its commitment to protect the sea.

In addition to the Trophic Index, also the CAM Index (Seawater Classification) was introduced several years ago, based on specific algorithms for the Sardinia Sea, which are capable of transforming the measured values into a summary rating of the sea quality status. In line with the TRIX Index results, in the four years under consideration, the CAM Index also showed a "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 2015	high	high
July 2015	high	high
January 2016	high	high
July 2016	high	high
January 2017	high	high
July 2017	high	high
January 2018	high	high
July 2018	high	high

CAM INDEX (SPECIFIC TO SARDINIAN SEAS)

	Quality level - Surface water	Quality level - Bottom water
January 2015	high	high
July 2015	high	high
January 2016	high	high
July 2016	high	high
January 2017	high	high
July 2017	high	high
January 2018	high	high
July 2018	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 at European level, with regards to integrated refining plants. It has technologically cutting-edge, flexible, versatile and high-conversion units. It's 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. And finally, since the end of 2014, the Group became the owner of the petrochemical plants previously owned by Versalis, achieving a further integration along the value chain.

There are also a number of interconnected industrial sites, such as Air Liquide, Sasol and Versalis, as well as ENI and Liquigas sites for storage and sales of GPL, which have developed over the years in synergy with the Saras Group, and today they represent important organisations in the Sardinian industrial context.



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.

In line with the above, the following technological improvements have been identified to optimise the production cycles:

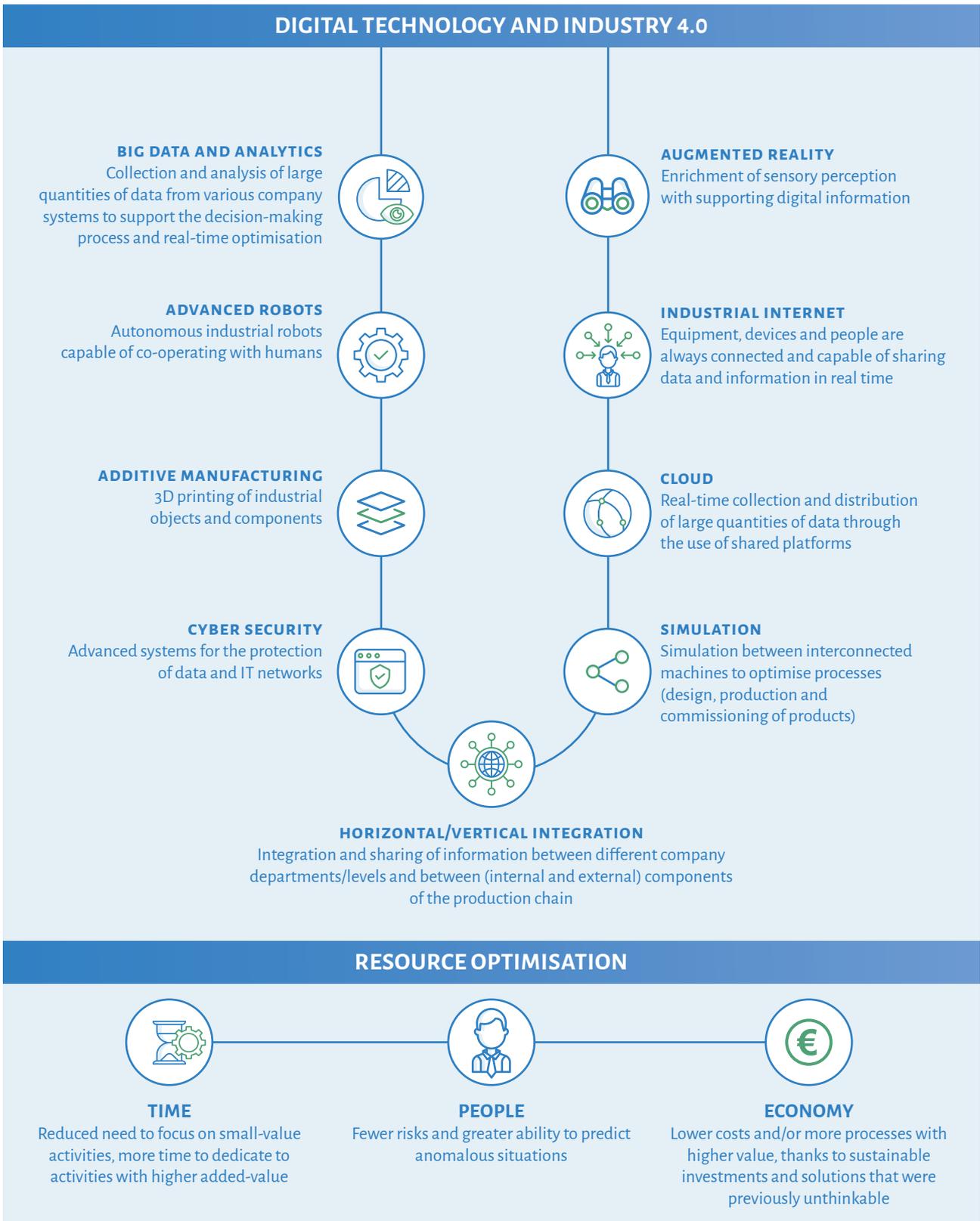
- **Maximisation of yields and conversion of the units** with the implementation of technologies aimed at reducing constraints and limitations; for example, the extension of the oxygen network to the FCC unit, to allow the processing of heavier feedstock, and the optimisation of the hydrogen network, with its recovery from the fuel gas, to increase yields of the hydrocracking units
- **Full exploitation of the petrochemical section**, with the production of intermediates for the petrochemical sector, thanks to interventions aimed at increasing the recovery of specific components (such as pseudocumene and orthoxylene)
- **Implementation of additional actions in the energy-saving field**, like for example the electrification of the FCC unit. This investment will deliver a significant reduction of steam consumption, thus allowing to reduce its production from the refinery's thermoelectric power plant, and improving the overall energy balance of the entire industrial site
- **Action designed to minimise the impact on local water resources** by introducing new osmosis facilities for water treatment and seawater desalination to satisfy industrial needs. This will also result in optimisation of the site's entire water network.

The above result derives from the collaboration of refinery and headquarter departments, with a continuous sharing of goals and work criteria.



Digitalisation

Another front on which Saras is making important progress is digitalisation and the move towards Industry 4.0.



This change will take companies beyond the current developments in the fields of electronics, automation, robotics and informatics, and it will bring to the adoption of self-learning technologies, which will even suggest the best solutions to increase sustainability (environmental, economic and financial), while improving processes and using resources in an optimum manner.

Launched in December 2016, the #digitalSaras programme saw almost all pilots launched in the initial phase rolled out up to industrial scale across the business during 2018, with significant progress being achieved across the various projects.

Proof of the efficacy of Saras' digital innovation programme came from the numerous visits to the refinery made by oil companies from all over the world, who came to share experiences, approaches and results in the field.

The digital team has maintained a central role in the management of the programme, both in terms of supporting ongoing projects and keeping a constant focus on technological developments and potential applications available on the market. Saras was one of the first refineries in the world to adopt systems recently made available by global tech leaders such as Honeywell and AspenTech, proving once again the innovation-oriented approach adhered to by the company.

One of the main projects in 2018 was the beginning of activities aimed at implementing the first "Digital Units": two plants chosen as part of a pilot programme around the integration of new technologies and processes, with the aim of bringing about a profound transformation in company operations. The activities focused on improving the performance of these plants, particularly through the development of process simulation models and increasing reliability and availability. Initiatives included the production of 3D models of entire plants to optimise planning and execution of maintenance shut-downs, as well as the development of specific operational support systems to quickly identify anomalies in the functioning of the plant. A new work group was also set up with the aim of setting out a plan of action designed to further improve the overall management of the plant. To this end, it is worth highlighting the imminent completion of the Reliability Control Centre, which will have optimised logistics and ICT facilities, in order to centralise the management of existing and future digital tools. The aim is to create a central hub of specialist skills to assist with all Asset Management activities.

Running parallel to technical development, change management activities have played a vital role in supporting initiatives affecting large swathes of the company population. The most important of these was the adoption of mobile devices by operators, to fill-out digital checklists - over 450 users were affected by this change, with tens of thousands of pieces of data gathered by the devices every day across the refinery. The protection of the environment is another important scope of application for new technology. Thanks to the widespread use of mobile devices in the facility, it was possible to develop an app through which operators can - during their routine activities - help to create a real-time map of odour sources, in order to allow quick identification of anomalies and, in the medium term, plan structural action to mitigate these, where necessary.

2018 was also the year in which the foundations were laid for a review of the entire company data management system. A new ICT system infrastructure was introduced, with the aim of improving the quality of the data itself and making it easier to use them for business intelligence and advanced analytics purposes. As part of this, Saras created two new roles: "data architects" and "data stewards". Within this context, the initial activities based on the use of big data produced the expected results, particularly as regards predictive maintenance and analysing particularly complex process phenomena.



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 two 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 industrial 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 proprietary products).

Within its business area, Sartec develops 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. The company's strong focus on research and innovation is fuelled by ongoing links with universities and research bodies.

HUMAN RESOURCES

Sartec employs over 160 people, and approx. 60% of them hold university degrees. Furthermore, some of Sartec'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, internships, Master's, etc.

Sartec also runs a number of initiatives in the local community, with a particular focus on young people, such as the "school/work placement" programme. Sartec takes also part in several events organised by relevant bodies and associations in order to provide its professional contributions.

SOCIAL COMMITMENT

In 2018, Sartec continued to show its social commitment by supporting a humanitarian project organised by a charity to help a village in Burkina Faso.

Sartec also helped to fund a project supporting the education of foreign children and young people at the Sant'Antonino Church in Faenza (RA).

Finally, as mentioned above, Sartec also ran a "school/work placement" programme in 2016, 2017 and 2018, in collaboration with:

- Istituto Superiore Michele Giua (Cagliari)
 - 400 hours across 3 years (133 hours per year);
 - 39 young people (visits to labs and facilities, experience on the ground and practical activities, lessons on specific company topics at the school);
 - 5 internships;
- Istituto Magistrale Eleonora d'Arborea (Cagliari)
 - 200 hours across 3 years (67 hours per year);
 - 1 internship.



HACKASARTEC2018

In January 2018, Sartec organised Hackasartec2018 in Cagliari: it was the first hackathon on Precision Agriculture in Italy and lasted two days. The hackathon was a competition of ideas which, using innovation and cross-disciplinary collaboration, aimed to generate software and hardware solutions designed to meet technical requirements for industrial applications.

Hackasartec2018 saw involvement from over 100 participants from all over Italy, including engineers, developers, agronomists, students and university researchers. Over the course of the event, the participants worked with Sartec staff to create tech solutions to current challenges using precision agriculture techniques.

The event was supported and sponsored by the University of Cagliari, the Università Cattolica del Sacro Cuore, the University of Salerno, the University of Sassari, Boston Consulting Group and Techegde SpA.

#DIGITALSARTEC AND ASSET MANAGEMENT

Running alongside all other company activities, and in line with the Group's plans, Sartec set up a team focused on development of innovation and projects regarding Industry 4.0, with the aim of generating additional revenue in these fields.

The innovation team focuses on different projects, drawing on the various skills in different areas of the business and coordinating all initiatives associated with innovation and the development of Industry 4.0 technology such as: IoT, big data, cyber-security, OT/IT interactions, etc.

The team also ensures the innovation process runs coherently, implementing initiatives designed to bolster the internal structure with state-of-the-art tech solutions (shared platforms for overseeing internal practices, knowledge management, etc.).



Innovation has always been at the core of Sartec's activities: each individual line of business has the task of implementing innovative initiatives to bring about vertical development, alongside the cross-disciplinary activities overseen by the innovation team.

Sartec's primary objective in this is to harness emerging technology and the skills it has acquired within the process industry to develop and offer innovative, customised solutions designed to improve performance and optimise management of the life cycle of industrial assets. Just a few examples are the automated system for calculating the refinery material balance statements; the monitoring system for the electricity network; the company's internal smart grid; and various other solutions in the field of digital asset management.

More specifically, with reference to the latter, Sartec's offering is more on par with that of a start-up rather than traditional companies in the field. Nonetheless, in just over a year, Sartec's asset management offering (which is based on the skills already available within the Group) was able to establish itself not only in the captive market, but also in Italy and abroad.

The activities are similar to consulting services and they provide methodological and engineering support for the sustainable planning of maintenance activities. The method used is based on Risk-Based Inspection (RBI) and Reliability Centred Maintenance (RCM) standards, which optimise maintenance resources by maximising assets' availability and reliability.

IMPACT ON THE LOCAL COMMUNITY



Local community relations

Every company is born and it grows in a clearly identifiable region, and it is the relationship established with that region that characterises the future development not only of the company, but of the region itself.

Today 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, since more than 50 years Saras is 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 young people and the community.

Saras recently issued the policy **“Our Stakeholders”**, which sets out the Group’s management approach for relations with local communities and recognises the reference territories and local communities among its stakeholders of primary importance.

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

The Group, particularly in recent years, established precise guidance in relation to the areas of intervention based upon two main directives: 1. the social context, i.e. the people deserving to be supported – especially young people, the elderly and the less well-off – and 2. the physical territory, i.e. the geographical reach that the Group wants to have. 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 that cannot ignore topics such as work, sustainability and economic growth, in a region weakened by emigration, especially of the younger people.

Saras for schools

Saras, through its subsidiaries, is involved in a number of programmes designed to satisfy requests from schools and contribute to more innovative and effective learning. Between 2013 and 2018, over 550 secondary school students visited the Sarroch industrial site on various programmes (the most commonly used was the “school/work placement”), designed to give them a first-hand experience of how working activities are conducted within a large company.

Special lessons were organised for each programme, during which technicians and managers from the company addressed industrial topics such as safety, the environment, production processes, ICT and company organisation. Simulations were often used to illustrate Saras way of working and, in general, to provide useful tips for entering the employment world. 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 the Group laboratories and control rooms, receiving on-the-ground experience and attending sessions on Industry 4.0 and how innovation can be implemented in the refining industry. Some students also had the opportunity to build on this experience, through an internship at the company.

The “RAIn – Raccontami l’Avvenire e l’Innovazione” (i.e. Tell Me About the Future and Innovation) competition, focused on the ability to face changes and new technologies, gave students the opportunity to use their videocameras and phones to film short movies concerning innovation.

At 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 are useful to supplement the training of the future engineers. Moreover, in 2018 Saras contributed to award scholarships for the best Engineering graduates, as part of an initiative designed by the Italian Association of Chemical Engineering.

Finally, in June 2018, a group of students in Chemical and Mechanical Engineering participated in a #digitalSaras presentation day organised as part of a site visit to the Sarroch industrial site.

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 region, 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 “Dinamo Banco di Sardegna” basketball team and of the “Cagliari Football Academy”. The latter was set-up with the aim of becoming a point of reference for young Sardinian footballers and guide them in their technical and personal growth, on a virtuous journey that allows sport to accelerate individual learning.





Employment and local value creation

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.

Therefore, in 2018 a study was commissioned to The European House – Ambrosetti (TEH-A) with the aim of measuring the Saras Group's local value creation across the various ways it interacts with the local area, looking beyond purely economic results.

The choice of TEH-A as a way of highlighting these topics is linked to its impartiality and depth of analysis, as well as the clarity of their proprietary “4 Capitals” analytical model (cognitive, economic, social and environmental) that TEH-A has developed and applied to other organisations, and which fits perfectly with the Saras Group's approach to business.

THE EUROPEAN HOUSE – AMBROSETTI AND THE “4 CAPITALS” MODEL

The European House - Ambrosetti is one of the leading management consultancy groups in Italy, known for the organization of its annual Forum in Cernobbio (Como), which brings together notable figures from worlds of business and politics to share and compare trends, strategies and guidelines for the economy and society in general.

In their research project called “Saras’ role in the development of the local area” TEH-A applied its “4 Capitals” analytical model, which was successfully applied to other industrial and service organisations during several previous studies. The model is based on a multi-dimensional qualitative and quantitative approach that measures the overall impact of a company on the local area. It gauges overall added value generated in the local areas, seen as the sum of economic, social and cultural, cognitive and environmental capitals.

Below are the main findings of the study:

- In the general surveys relating to the 2017 financial year, Saras is the 12th-biggest company in Italy in terms of revenue, the third in the Oil&Gas sector and the largest company in Sardinia (second in terms of number of employees).
- Despite being an international group that exports around 70% of refined products and competes on the global oil markets, Saras has solid roots in the local area and its business is deeply interconnected with the Sardinian economy. In fact, according to the TEH-A analysis, all alternative scenarios to the refinery business operated by the company - which currently provides employment to 1,946 people, of which 83% in Italy (and of the latter, 90% in Sardinia) - would result in significant impoverishment for Sardinia.
- During the most difficult period for European refineries (the 2009-14 period, which saw many permanent refinery closures in Italy and other EU and non-EU countries), Saras showed great resilience and vision, investing to maintain its leading role in the refining industry.
- In a national context of falling public and private investment, the company has distinguished itself by making a significant contribution to the growth of the local and national economy: over €2 billion in 12 years, with over €800 million scheduled for the 2019-2022 period for investment in the sustainability of the company over the coming decade, with significant commitments in the fields of safety, the environment and process digitalisation.

- Saras is one of the main economic driving forces in Sardinia and contributes to the development of an ecosystem of small and medium-sized businesses around the Sarroch industrial site. These businesses in turn create value and grow thanks to close synergies with Sarlux, providing auxiliary and maintenance services and developing skills which are beneficial for other industrial organisations.
- The Group's focus on environmental responsibility can be seen in the extensive investment made in recent years and the many certifications obtained. Sarlux was the first refinery in Italy to obtain the AIA – “Autorizzazione Integrata Ambientale” (i.e. the single authorisation needed to operate the industrial site), which requires the respect of many stringent environmental and safety control parameters.

The study was not simply an analysis document but also a chance to exchange ideas and engage in dialogue at two key events. The first was the “Transform to remain successful” conference, held in Cagliari on 21st November, which was attended by representatives from local institutions, many of the Group's industrial and commercial partners and the local and national media. The second was an event during which the results of the research project were presented to a large delegation of Group employees. This was a chance to focus on the values that have enabled Saras to achieve success in the past, as well as the key strategies set-out for the future.

This initiative is the first step in an approach designed to couple industry studies and economic performance analyses with a focus on the way Saras contributes in developing the local area. It will also trigger a change process in Saras communication approach, and it will also change the way Saras is perceived, further developing stakeholder engagement.



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. Moreover, 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.

Materie prime

Le materie prime in ingresso al ciclo produttivo sono costituite principalmente dal petrolio grezzo acquistato in più di 30 Paesi del mondo, tra cui principalmente paesi del Medio Oriente, Nord Africa e Africa Occidentale, Mar Caspio ed ex Unione Sovietica; ma anche, in misura minore, paesi del Mare del Nord, America Latina e Nord America. Naturalmente, nel processo di acquisto di tali materie prime, il Gruppo rispetta tutte le leggi nazionali ed internazionali sul commercio di prodotti petroliferi.

RAW MATERIALS PROCESSED BY ORIGIN (KT/YEAR)

Parameter	2016	2017	2018
North Africa	9%	19%	26%
North Sea	2%	3%	4%
Middle East	34%	39%	34%
Russia and the Caspian Sea	26%	24%	23%
West Africa	21%	14%	13%
Other	8%	1%	0%
Total	100%	100%	100%

From an operational point of view, the Group continuously performs a fundamental scouting activity of the market, looking for raw materials which, from time to time, have the most favourable economic terms. To increase its effectiveness in this respect, the Group founded in Geneva (Switzerland) in 2016 the company Saras Trading SA, a wholly-owned subsidiary that deals with purchases of raw materials and sale of refined products from the 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 2018, the Sarroch refinery processed a quantity of crude oil of approx. 13.51 million tonnes (Mton), split into about 30 grades, which differ in their chemical and physical composition, thus confirming its great flexibility. In addition to crude oil, approx. 1.32 Mton of complementary feedstock were also processed.

RAW MATERIALS PROCESSED (KT/YEAR)

Parameter	2016	2017	2018
Crude oil	12,962	14,060	13,512
Complementary feedstock (semi-finished products)	1,598	1,291	1,321
Total refinery runs	14,560	15,351	14,833



Goods and Services

Plant maintenance activities and those relating to new constructions are the main items that contribute 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 units or part of the existing units, 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 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 Sarroch, and worked along with the site, while 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.

SUPPLIERS OF GOODS AND SERVICES						
Company	2016		2017		2018	
	No.	€M	No.	€M	No.	€M
<i>Saras Spa</i>	100	17	131	17	117	19
<i>Sarlux</i>	720	340	731	418	705	414
<i>Sartec</i>	337	9	362	9	380	9
<i>Sardeolica</i>	79	2	84	3	109	28
<i>Deposito di Arcola</i>	106	3	102	3	112	3
<i>Saras Energia</i>	496	17	444	15	399	17
<i>Saras Trading</i>	-	-	-	-	85	2

SARLUX LOCAL SUPPLIERS - 2018						
Parameter	Materials			Services		
	No.	€M	%**	No.	€M	%**
<i>Local suppliers*</i>	48	20	14%	114	126	46%
<i>Other</i>	337	122	86%	206	146	54%
Total	385	142		320	272	

* Local refers to firms with registered offices in Sardinia.

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

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 first table in the previous page, 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 building activities.

In 2018, the number of suppliers of goods and services for Sarlux amounted to 385 suppliers of goods and 320 suppliers of services, for total procurement expenditure of €414 million. More specifically, the percentage of local procurement, i.e. with registered offices in Sardinia, is greater for service suppliers (46% of the total) than materials suppliers (14% of the total).

In Spain, the local procurement expenditure of the subsidiary Saras Energia rises to 94% of the total. In particular, more than half of the expenses to suppliers are incurred in the provinces of Madrid (€7.4 million) where the company's registered office is located, and Barcelona (over €2.6 million).

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

In particular, Sarlux highly values the commitment of third-party companies in the achievement and maintaining of quality, environment and safety management system certifications. In 2018, 66.5% of suppliers were ISO 9001 certified, 26% ISO 14001 certified, and 26.2% OHSAS 18001 certified. These percentages have constantly increased over the three-year period under observation.

Each supplier during the qualification procedure requested in order to be admitted to the Group's "vendors' list", is analysed and assessed for the typical activities of its category, and they 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.

Before gaining access to the industrial site, the staff 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 site in which they shall carry out their activities.

Finally, 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 criticalities, has the ultimate goal of keeping high, both the economic competitiveness of the region and the level of local economic development.

CERTIFIED SUPPLIERS (%)			
Parameter	2016	2017	2018
ISO 9001 certified suppliers	65.5	65.8	66.5
ISO 14001 certified suppliers	24.9	24.5	26
OHSAS 18001 certified suppliers	23.1	23.7	26.2

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, but 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, one would have to start from total revenues plus the Excise duties collected on behalf of the Public Administration, and deduct the cost of raw materials, the changes in value of the inventory, the cost for services and use of third-party goods, other operating costs, 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 grew in the year 2018 with respect to the previous year, mainly due to the rise in oil prices, which determine the sale prices of refined products. However, for the same reason, the purchase cost of oil-based raw materials also rose (crude and complementary feedstock).

ECONOMIC VALUE (THOUSANDS OF EURO)				
		2016	2017	2018
Total revenue		6,869,807	7,687,102	10,396,912
Costs for raw materials and inventory changes		-5,504,814	-6,401,154	-9,093,028
Costs for services and use of third-party goods		-534,498	-591,840	-746,650
Other operating expenses		-37,470	-35,557	-71,985
Net financial charges/income		-47,855	25,934	68,388
Excise duties collected		1,800,020	1,723,100	1,655,855
Net economic value generated	A	2,545,190	2,407,585	2,209,492
Economic value retained	B	291,559	340,487	215,200
of which depreciation and amortisation		246,739	178,431	178,839
Economic value distributed	C=(A-B)	2,253,631	2,067,098	1,994,293
of which to PA for Excise duties paid		1,796,070	1,718,947	1,651,271
of which to PA for taxes		112,469	85,321	44,645
of which to Personnel		148,060	147,067	156,613
of which to Shareholders		159,122	93,601	112,321
of which to Capital Providers		35,129	20,354	27,665
of which to the Community		2,781	1,808	1,779

Costs relating to services and use of third-party goods also rose, as did other operating expenses, mainly as a result of increased expenses associated with the purchase of electricity, maintenance services, technical services and consultancy and the purchase of CO₂ quotas (the unit price of which increased from an average of €5.8/tonne in 2017 up to €15.8/tonne in 2018). It should be noted that a significant part of the above expenses are paid each year to local suppliers, as detailed in the previous chapter.

The net value of financial charges/income, which includes the effect of derivatives on commodities, interest and exchange rates, made a positive contribution to value generation in 2018, significantly higher than the already positive contribution made in the previous financial year. Furthermore, in 2018 there was a slight reduction in Excise duties collected and paid, due to the reduced quantity of oil-products introduced for consumption in the Italian market. Moving on with the analysis, it can be seen that the Economic Value Retained by the company fell, mainly due to the reduction in net income (after dividends payment), while amortisations and deferred tax were broadly in line with the previous financial year.

Finally, from the analysis of the various items that comprise the Economic Value Distributed, it can be observed that in the year 2018:

- 82.8% (€1,651.3 million) was paid to the Public Administration, in the form of Excise duties;
- 2.2% (€44.6 million) was paid to the Public Administration in the form of direct and indirect taxes, and income taxes;
- 7.9% (€156.6 million) was distributed to Personnel in the form of salaries, social security contributions, severance payment provisions and other staff costs. This amount translates directly into the spending power of families, thus contributing to generating additional value for the region;
- 5.6% (€112.3 million) was allocated to Shareholders' remuneration in the form of dividends;
- 1.4% (€27.7 million) went to Capital Providers, to remunerate loans;
- finally, about €1.8 million was allocated to the Community in the form of donations, sponsorships, contributions and membership fees.



METHODOLOGICAL NOTE



Saras' Sustainability Report for the financial year 2018 is the Consolidated Disclosure of Non-financial Information 2018 (NFI), in accordance with the Legislative Decree No. 254/2016, and represents the second 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), made available 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 different types of analysis and stakeholder engagement activities carried out by the Group (see section "Saras priorities").

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

- all data, initiatives and projects refer to the period between 1/1/2018 and 31/12/2018 and refer to the companies fully consolidated within the Group's Consolidated Financial Statements, as required by Legislative Decree 254, except as otherwise indicated below or in the various sections of the document. Wherever possible, the same data for the previous two reporting periods are shown for comparison, 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 seven main companies of the Group (Saras, Sarlux, Deposito di Arcola, Sartec, Saras Energia, Sardeolica and Saras Trading);
- the social data include the seven main companies of the Group consolidated in the Consolidated Financial Statements;

- the percentage of local suppliers of the Group, calculated on the total amount of procurement expenditures, is only provided for the subsidiaries Sarlux and Saras Energia, as they represent the most significant entities;
- the environmental data, except where explicitly stated, refer to Sarlux because its environmental footprint almost entirely matches that 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 accreditation necessary to carry out checks on certain fuels used.
- 2017 CO₂ emissions figure published in last year's Sustainability Report was provisional, and it has been rectified as a result of the certification process required by Directive 2003/87/EC.

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. Finally, this document (NFI) was approved by the Board of Directors of Saras S.p.A. on the 4th of March, 2019.

Scope

MATERIAL TOPICS	GRI STANDARD TOPICS	PERIMETER	
		Internal	External
<i>Health and safety</i>	Occupational health and safety	Group	Supply chain
<i>Air and greenhouse gas emissions</i>	Emissions	Sarlux	Supply chain
<i>Energy efficiency</i>	Energy Emissions	Sarlux	Supply chain
<i>Technological innovation</i>		Group	
<i>Compliance with regulations</i>	Environmental compliance Socio-economic compliance Customer health and safety	Group	Supply chain
<i>Waste and discharge management</i>	Effluents and waste	Sarlux	Supply chain
<i>Training and development of human resources</i>	Training and education	Group	
<i>Employment and creation of local value</i>	Employment Labor/management relations Market presence	Group	
<i>Local community relations</i>	Local communities Indirect economic impacts	Sarlux	

Below are other topics that - while 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 254.

Note: with the exception of the topic linked to occupational health and safety, for which contractors are included, reporting is not extended to the supply chain.

Moreover, please be aware that all GRI indicators included in the Content Index refer to the GRI Standard published in 2016.

OTHER RELEVANT TOPICS	GRI STANDARD TOPICS	PERIMETER	
		Interno	Esterno
<i>Anti-corruption</i>	Anti-corruption	Group	
<i>Water resource management</i>	Water	Sarlux	Supply chain
<i>Supplier and procurement management</i>	Procurement practices Materials	Group	
<i>Odours</i>	Local communities	Group	
<i>Human resources management</i>	Employment	Group	
<i>Equal opportunities</i>	Diversity and equal opportunities	Group	
<i>Human rights</i>	Anti-discrimination	Group	Supply chain
<i>Biodiversity</i>	Biodiversity	Sarlux	

GRI CONTENT INDEX



GENERAL STANDARD DISCLOSURES			
Standard Disclosure		Section	Page number
PROFILO ORGANIZZATIVO			
102-1	Name of organisation	Group identity - the Saras Group	21
102-2	Activities, brands, products and services	Group identity - the Saras Group	21-24
102-3	Location of headquarters	<i>The Saras Group has registered offices in Sarroch (CA)</i>	
102-4	Location of operation	Group identity - the Saras Group	21-24
102-5	Ownership and legal form	Group identity - Governance	32
102-6	Markets served	Group identity - the Saras Group	26
102-7	Scale of the organization	Group identity - the Saras Group	7, 21, 26, 32, 115
102-8	Information on employees and other workers	Saras personnel - Human resources management	48-50
102-9	Supply chain	Impact on the local community - Supplier and procurement management	114-117
102-10	Significant changes to the organisation and supply chain	Methodological note	121-123
102-11	Precautionary Principle or approach	Group identity - The internal control and risk management system	36
102-12	External initiatives	Group identity - The internal control and risk management system	28-29
102-13	Membership of associations	The Saras Group	28-29
STRATEGY			
102-14	Statement from senior decision-maker	Letter to stakeholders	5
ETHICS AND INTEGRITY			
102-16	Values, principles, standards, and norms of behavior	Sustainability at Saras - Strategic approach Group identity - The internal control and risk management system	13, 34-35
GOVERNANCE			
102-18	Governance structure	Group identity - Governance	30-33
STAKEHOLDER ENGAGEMENT			
102-40	List of stakeholders groups	Sustainability at Saras - Saras priorities	15
102-41	Collective bargaining agreements	Saras personnel - Relations with social partners	66
102-42	Identifying and selecting stakeholders	Sustainability at Saras - Saras priorities	15
102-43	Approach to stakeholder engagement	Sustainability at Saras - Saras priorities	15
102-44	Key topics and concerns raised	Sustainability at Saras - Saras priorities	16-18

GENERAL STANDARD DISCLOSURES			
Standard Disclosure		Section	Page number
REPORTING PRACTICE			
102-45	Entities included in the Consolidated Financial Statement	Methodological note	121-123
102-46	Defining report content and topic Boundaries	Sustainability at Saras - Saras priorities - Methodological note	15-18, 122-123
102-47	List of material aspects	Sustainability at Saras - Saras priorities	16-18
102-48	Restatements of information	Methodological note	121-123
102-49	Changes in reporting	Methodological note	121-123
102-50	Reporting period	Methodological note	121-123
102-51	Date of most recent report	Methodological note	121-123
102-52	Reporting cycle	Methodological note	121-123
102-53	Contact point for questions regarding the report	<i>Back cover</i>	
102-54	Claims of reporting in accordance with the GRI Standards	Methodological note	121-123
102-55	GRI Content Index	GRI Content Index	125-130
102-56	External assurance	Methodological note	121, 132- 134

SPECIFIC STANDARD DISCLOSURE – MATERIAL ASPECTS				
DMAs and performance indicators		Section	Page number	Omissions
ECONOMY				
MARKET PRESENCE				
103-1 103-2 103-3	Management approach	Our people - Human resources management	48, 58	None
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Our people - Human resources management	58	None
INDIRECT ECONOMIC IMPACTS				
103-1 103-2 103-3	Management approach	Impact on the local community - Local community relations	109	None
203-2	Significant indirect economic impacts	Impact on the local community - Employment and creation of local value	112-113	None
ENVIRONMENT				
ENERGY				
103-1 103-2 103-3	Management approach	Sustainable energy Sustainable energy - Energy consumption and efficiency	10, 69-70	None
302-1	Energy consumption within the organisation	Sustainable energy Sustainable energy - Energy consumption and efficiency	71-73	None
302-3	Energy intensity	Sustainable energy Sustainable energy - Energy consumption and efficiency	72-73	None
EMISSIONS				
103-1 103-2 103-3	Management approach	Sustainable energy - Greenhouse gases and air pollutant emissions	69, 78	None
305-1	Direct (Scope 1) GHG emissions	Sustainable energy - Greenhouse gases and air pollutant emissions	78, 81	None
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Sustainable energy - Greenhouse gases and air pollutant emissions	78, 80	None
EFFLUENTS AND WASTE				
103-1 103-2 103-3	Management approach	Sustainable energy Sustainable energy - Waste and spills	69, 86-88	None
306-1	Water discharge by quality and destination	Sustainable energy - management of water	98	None
306-2	Waste by type and disposal method	Sustainable energy - Waste and spills	86, 88, 90, 91	None
306-3	Significant spills	Sustainable energy - Waste and spills	92, 93	None
306-4	Transport of hazardous waste	Sustainable energy - Waste and spills	88, 90	None

SPECIFIC STANDARD DISCLOSURE – MATERIAL ASPECTS

DMAs and performance indicators	Section	Page number	Omissions	
ENVIRONMENT				
ENVIRONMENTAL COMPLIANCE				
103-1 103-2 103-3	Management approach	Group identity - The internal control and risk management system	34-35	None
307-1	Non-compliance with environmental laws and regulations	Group identity - The internal control and risk management system	35	None
SOCIAL				
EMPLOYMENT				
103-1 103-2 103-3	Management approach	Our people - Human resources management	48	None
401-1	New employee hires and employee turnover	Our people - Human resources management	53-54	None
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Our people - Health and safety, Human resources management	47, 58-59	None
LABOR/MANAGEMENT RELATIONS				
103-1 103-2 103-3	Management approach	Our people - Human resources management	48	None
402-1	Minimum notice period regarding operational changes	Our people - Relations with social partners	66	None
SALUTE E SICUREZZA SUL LAVORO				
103-1 103-2 103-3	Management approach	Our people - Health and safety	43	None
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Our people - Health and safety	44-47, 55	None
403-3	Workers with high incidence or high risk of diseases related to their occupation	Our people - Health and safety	47	None
403-4	Health and safety topics covered in formal agreements with trade unions	Our people - Health and safety	43	None
TRAINING AND EDUCATION				
103-1 103-2 103-3	Management approach	Our people - Training and development	60	None
404-1	Average hours of training per year per employee	Our people - Training and development	60-63	None

SPECIFIC STANDARD DISCLOSURE – MATERIAL ASPECTS				
DMA e indicatori di performance		Section	Page number	Omissions
SOCIAL				
LOCAL COMMUNITIES				
103-1 103-2 103-3	Management approach	Impact on the local community - Local community relations	109	None
413-1	Operations with local community engagement, impact assessments and development programmes	Impact on the local community - Local community relations	109-113	None
CUSTOMER HEALTH AND SAFETY				
103-1 103-2 103-3	Management approach	Group identity - The internal control and risk management system	36	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	35	None
SOCIO-ECONOMIC COMPLIANCE				
103-1 103-2 103-3	Management approach	Group identity - The internal control and risk management system	34	None
419-1	Non-compliance with with laws and regulations in the social and economic area	Group identity - The internal control and risk management system	35	None
TECHNOLOGICAL INNOVATION				
103-1 103-2 103-3	Management approach	Sustainable energy - Technological innovation	102-105	None
SPECIFIC STANDARD DISCLOSURE – OTHER RELEVANT ASPECTS				
DMA e indicatori di performance		Section	Page number	Omissions
ECONOMY				
ANTI-CORRUPTION				
103-1 103-2 103-3	Management approach	Group identity - Corruption prevention	40	None
205-3	Confirmed incidents of corruption and action taken	Group identity - Corruption prevention	40	None
PROCUREMENT PRACTICES				
103-1 103-2 103-3	Management approach	Impact on the local community - Supplier and procurement management	114	None
204-1	Percentage of spending on local suppliers	Impact on the local community - Supplier and procurement management	116	None

SPECIFIC STANDARD DISCLOSURE – OTHER RELEVANT ASPECTS				
DMA e indicatori di performance		Section	Page number	Omissions
ENVIRONMENT				
MATERIALS				
103-1 103-2 103-3	Management approach	Impact on the local community - Supplier and procurement management	114	None
301-1	Materials used by weight or volume	Impact on the local community - Supplier and procurement management	114-115	None
WATER				
103-1 103-2 103-3	Management approach	Sustainable energy	69, 96	None
303-1	Water withdrawal by source	Sustainable energy - Management of water	96-97	None
303-3	Water recycled and reused	Sustainable energy - Management of water	96-97	None
BIODIVERSITY				
103-1 103-2 103-3	Management approach	Sustainable energy	69, 100	None
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside of protected areas	Sustainable energy - Biodiversity	100-101	None
SOCIAL				
DIVERSITY AND EQUAL OPPORTUNITIES				
103-1 103-2 103-3	Management approach	Our people - Human resources management	48	None
405-1	Diversity of governance bodies and employees	Group identity - Governance Saras personnel - Human resources management	30-31, 52	None
NON DISCRIMINATION				
103-1 103-2 103-3	Management approach	Our people - Human resources management	48	None
406-1	Incidents of discrimination and corrective action taken	Our people - Human resources management	52	None



REPORT BY THE INDEPENDENT AUDIT FIRM ON THE SUSTAINABILITY REPORT





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:

1. 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:
 - o Group's management and organization business model, with reference to the management of the matters indicated in the article 3 of the Decree;
 - o policies adopted by the Group related to the matters indicated in the article 3 of the Decree, results achieved and related key performance indicators;
 - o 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.l. and Sardeolica S.r.l. 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.

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.l. and for Ulassai wind farm of the subsidiary Sardeolica S.r.l. that we have selected based on their activity, 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.

Conclusion

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, 2018 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.

Other Information

The comparative information presented in the DNF for the year ended on December 31, 2016 has not been examined.

Milan, March 22, 2019

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

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

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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.*

In order to protect and respect the environment, this report has been printed on paper from sustainably managed forests in accordance to the FSC® (Forest Stewardship Council®) criteria.

