2019

CLIMATE: FROM STRATEGY TO ACTION

SAIPEM

2019

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Saipem is committed to providing effective disclosure to its stakeholders on all the issues that could affect decisions regarding the Company and to demonstrating how it is equipped to run its business in the long-term.

This document, in addition to other engagement actions such as participation in the Carbon Disclosure Project (CDP), aims to demonstrate Saipem's transparent approach and provides supplemental climate-related information that is both readily and easily accessible to investors and other users.

This report is based on the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) a set of voluntary, consistent disclosure recommendations for use by companies in providing information to investors, lenders and insurance underwriters about the company overall strategy and governance, their climate-related financial risks and opportunities, and relevant metrics and targets.

This document is published in December 2019, data and information are taken from Saipem's accounting system, mainly referring to the full year 2018.

CONTENTS

"The energy industry is facing unprecedented pressure to prove its business model is compatible with the goals of the Paris climate agreement.
Several forces are interacting globally, with different speeds and directions, paces and geographies, and in some cases even conflicting.

The world population is growing and this strongly correlates to an increase in energy consumption; the centre of gravity of the energy demand is shifting to Asia; the recent discovery of new reserves is redrawing energy geographies and a new awareness of climate change is spreading globally and profoundly questioning the way many industries operate. We are heading towards a future where competitiveness and sustainability will be inseparable and will re-purpose company business models.

New energy landscapes will be a mosaic of many forces that today is too complex to predict. Surely, the pace of innovation and technology will be a fundamental variable of this equation to develop disruptive technologies and making conventional developments more sustainable in the transition to a green scenario.
Saipem engineering capabilities and ingenuity can play a key role in leading this transition process.

The Board of Directors is actively involved in the strategic discussion on climate-related issues and their implications in defining business strategy and future plans".

Francesco Caio,
Chairman

"Volatility of oil prices coped with energy transition, opened for a new paradigm characterized by a profound transformation process and a fundamental challenge: balance the need to meet rising energy demand while at the same time reducing carbon emissions.

Technology and innovation will drive this process: making more sustainable the use of fossil fuel, with gas having fundamental role as bridging fuel to allow renewable energies to become increasingly dominant.

Context is surely challenging. Operators are required to be flexible, able to adapt to contexts characterised by constant changes and disruptions, but still, along with challenges come opportunities and there is a lot at stake for future generations.
Saipem new business model comes from a strategic transformation process, a new awareness of the evolving market scenario and of distinctive characteristics in terms of human capital, technical skills, technologies, deep rooted innovation culture and problem-solving attitude.

Saipem is committed to ride the energy transition, to unlock new opportunities designing new proposals for the world of tomorrow, innovating and being able to modernize its organization and mentality to manage and encourage changes on a more sustainable path".

Stefano Cao,
CEO

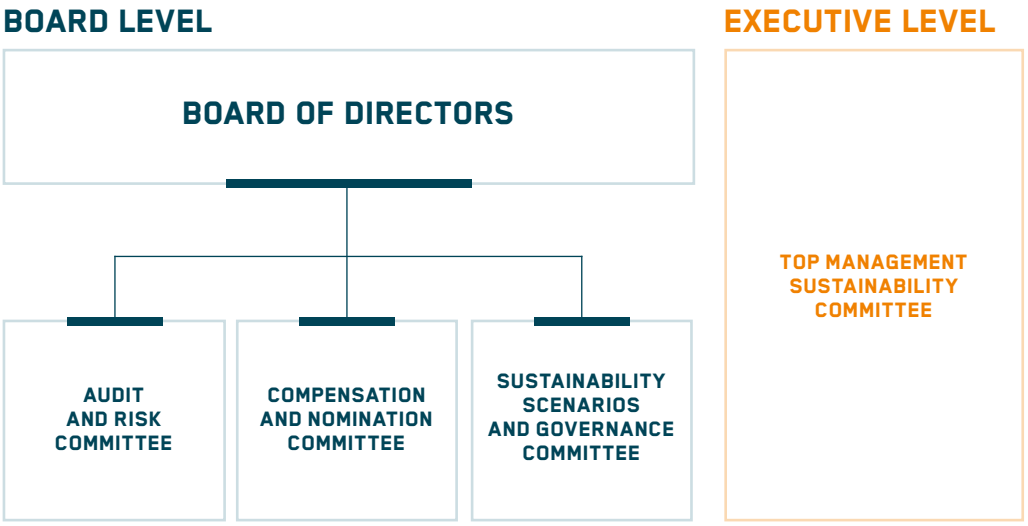
GOVERNANCE

THE ROLE OF THE BOARD AND ITS COMMITTEES

The **Board of Directors** has been increasingly involved in the internal strategic discussion on climate-related issues and their implications on business strategy and related plans.
An annual workshop is organised for Board members and Division Managers to discuss the strategic outlook. In 2018, the workshop was held in September during which the Board discussed the industry scenarios starting from macro-trends and climate change-related issues.
Furthermore, during the meeting held in July and December 2018, the Board of Directors approved the results of Enterprise Risk Assessment in accordance with their responsibility.
In December 2018, the Board of Directors discussed the contents of the document "Tackling Climate Change" and the "Strategic Plan for GHG reduction" regarding the energy efficiency initiatives adopted by Saipem.
During the meeting on January 15, 2019, the Board of Directors of Saipem S.p.A. approved the "Tackling Climate Change" document.
Finally, the Board of Directors' meeting held on February 27, 2019 approved Saipem's 2019-2022 Strategic Plan, built upon the new energy transition scenarios.

The Board of Directors is also responsible for approving the Managerial Performance Plan, upon the proposal of the **Compensation and Nomination Committee**. The Plan is drawn up on the basis of the Company Strategic Plan.
By approving the Plan, the Board of Directors assigns the Company's objectives to the CEO. Subsequently, the CEO communicates the objectives set out to the Managers so that they are shared and implemented throughout the organisation.
The 2019 targets resolved by the Board of Directors on January 15, 2019 for the 2020 Short-Term Variable Incentive Plan are in line with the business model and strategic guidelines. As part of the Company objectives set in the Plan, sustainability objectives account for 15% of the Short-Term Variable Incentive Plan, as described in the annual Remuneration Report.

SAIPEM CLIMATE-RELATED GOVERNANCE STRUCTURE




SCARABEO

The **Sustainability, Scenarios and Governance Committee** is responsible for assisting the Board of Directors by fulfilling a preparatory, consultative and advisory role in assessment and decision-making processes with regard to Saipem's business sustainability issues and its engagement with all stakeholders, the Corporate Governance of the Company and the Group, Saipem's Corporate Social Responsibility and the review of scenarios envisaged in the preparation of the Strategic Plan. The Committee, chaired by the Chairman of the Board, addressed the topic of climate change on several occasions in meetings held in 2018 and 2019.
In particular, the Committee discussed Company objectives, the contents and objectives set out in the "Strategic Plan for GHG reduction", the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and the contents of the 'Tackling Climate Change' Disclosure.

Furthermore, the Committee was involved in the preliminary discussion concerning the Divisions' strategic plans, including how the strategy took climate change and energy transition aspects towards a low-carbon economy into consideration; this was then discussed at Board level throughout the entire 2019-2022 Strategic Plan approval process.

The **Audit and Risk Committee** has the duty to consult and support the Board of Directors' decisions in matters relating to the internal control and risk management system. The results of the Enterprise Risk Assessment, which may include climate-related risks, are submitted for review and advice to the Committee every six months before being approved by the Board of Directors. In particular, the results of Enterprise Risk Assessment were reviewed by the Committee in July and December 2018.

THE ROLE OF MANAGEMENT

Saipem has appointed a Top Management Sustainability Committee since 2007 that provides strategic guidance in all aspects connected with sustainability. It is chaired by the CEO and is composed of Division Managers/COOs and Directors, supported by the Corporate Sustainability Function.

The Top Management Sustainability Committee defines the priorities of Saipem's Sustainability Programme, approves the annual Sustainability Plan, which integrates the results of the risk assessment and materiality analysis, and evaluates the activities conducted and results achieved for all aspects that contribute to sustainable development, including climate change.

Moreover, it defines the guidelines of disclosure, in accordance with relevant legislation, international standards and the expectations of stakeholders, on non-financial annual performance and approves the relevant documentation to be submitted to the Sustainability, Scenario and Governance Committee for a preliminary examination and to the Board of Directors for approval. The Top Management Sustainability Committee usually meets three times a year.

In 2018 the Committee discussed the Company Sustainability Plan and related objectives, the contents and implementation of the 'Strategic Plan for GHG reduction'. Furthermore, the contents of the 'Tackling Climate Change' Report have been submitted for discussion by the Top Management Sustainability Committee to the Sustainability, Scenario and Governance Committee for a preliminary examination and to the Board of Directors for final approval.

CLIMATE-RELATED INCENTIVES

As part of the Company's objectives for 2019, among the sustainability objectives (which account for 15% of the Short-Term Variable Incentive Plan), the following environmental targets have been set:

- Reduction of direct and indirect CO_2 emissions,
- Execution of studies and energy diagnoses aimed at analysing energy flows and identifying potential areas of efficiency,
- Implementation of specific initiatives of energy efficiency for Saipem's assets and projects.

Objectives related to variable remuneration represent the priorities for the overall performance of the Company and Divisions, in line with the Strategic Plan and with the expectations of shareholders and stakeholders.
With reference to environmental targets set for 2018, both targets were achieved:

- Revision of existing Saipem Group Emission Estimation Methodology and third-party validation;
- Preparation of the 4-year Strategic Plan for GHG reduction (see pages 32-33).

RISKS AND OPPORTUNITIES

Saipem is aware that climate change may have a significant direct and indirect impact on its business operations. Working in the energy sector, traditionally in the oil and gas industry, our business activities are inherently exposed to both transition and physical climate change risks. At company level, climate-related risks are identified and assessed by integrating them into the Enterprise Risk Management model.

On the other hand, Saipem can play an active role in these changing scenarios; with our cutting-hedge and sustainable solutions, we can help our clients meet the demand for a low-carbon future. The opportunity management process is executed in terms of business development, commercial activities, tendering and operations. The identification of development opportunity, analysis of competition, analysis of the evolution of Saipem's competitive positioning, identification of the main future challenges of the reference industry, and possibilities for business portfolio diversification are elements considered by the Divisions and the CEO in defining the Strategic Plan and evaluating investment initiatives.

TOTAL QUANTIFIED OPPORTUNITIES

1.8 BLN EUR

ESTIMATED POTENTIAL REVENUES RESULTING FROM CLIMATE-RELATED OPPORTUNITIES IN A 3-YEAR TIME FRAME

CLIMATE-RELATED RISKS

TECHNOLOGY RISK

RISK 1	ASSESSMENT*	FINANCIAL IMPACT	MANAGEMENT METHOD
Difficulties in expanding promptly and effectively a technological portfolio on energy decarbonisation (i.e. solutions for renewables energies, GHG emissions reduction and CO_2 management)	**Time horizon** > Long-term **Likelihood** > Likely **Magnitude of fin impact** > Medium- high	This risk may result in a reduced demand for Saipem services	Technology intelligence and scouting activities on energy decarbonisation; finalisation of agreements focused on energy decarbonisation with technological providers; filing of new patents and possible acquisition of licenses on renewables energies, circular economy and CO_2 management; internal generation of innovative solutions regarding renewable energies and CO_2 management through dedicated resources

PHYSICAL RISK

RISK 2	ASSESSMENT*	FINANCIAL IMPACT	MANAGEMENT METHOD
Significant accidents occurring to strategic assets because of extreme weather events	**Time horizon** > Long-term **Likelihood** > Unlikely **Magnitude of fin impact** > High	These risks may result in the write-off, early retirement or damage of existing assets	Specialised training program for employees on technical and HSE topics and on developing a sense of responsibility and awareness; maintenance programs on yards, vessels and their main components (engines, onboard tools, etc.), presence of HSE and Vessel management system, implementation of Asset Integrity model, insurance coverage and reinsurance by captive company

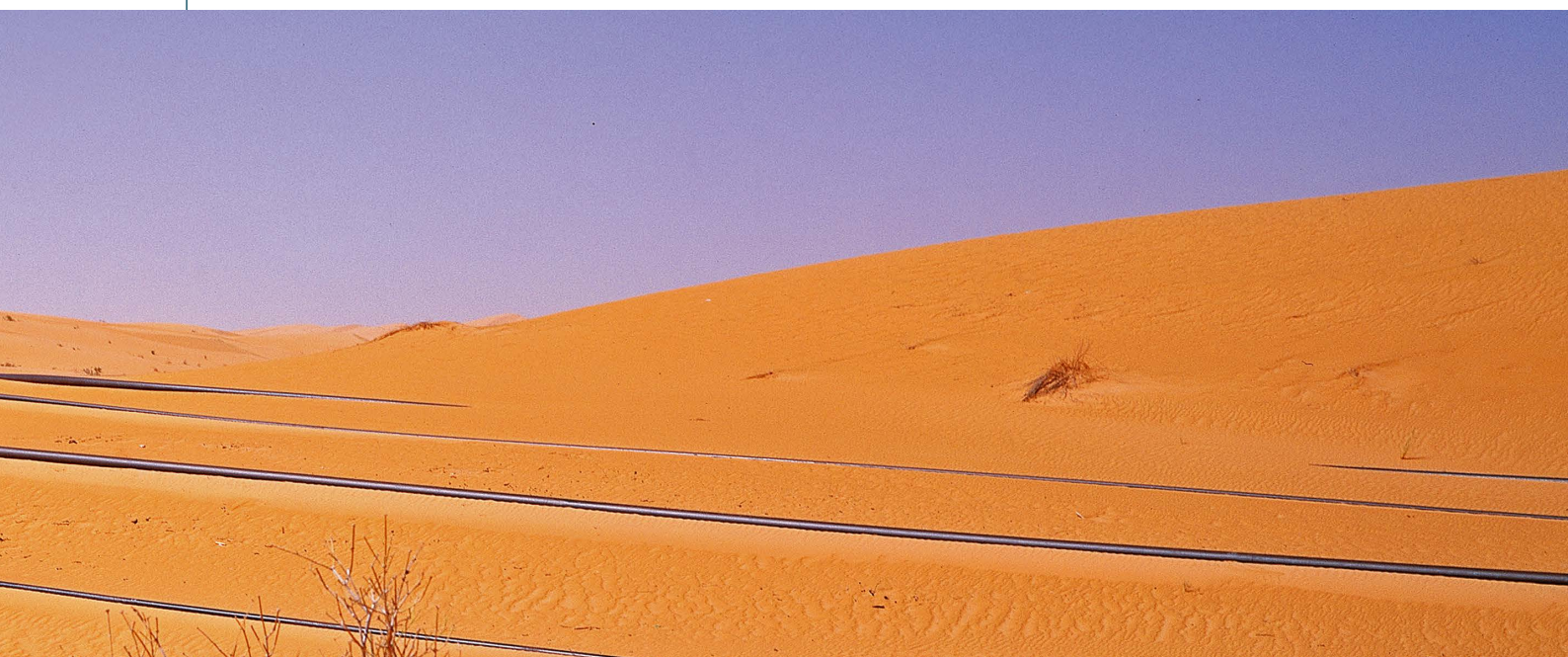
(*) A" Time horizon" minor or equal to 1 year is considered 'Short-Term', between 2 and 4 years is considered 'Medium-Term', longer than 4 years is considered 'Long-Term'. The classification of "Likelihood" and "Magnitude of financial impact" categories refers to Saipem Enterprise Risk Management classification.

REPUTATION RISK

RISK 3	ASSESSMENT*	FINANCIAL IMPACT	MANAGEMENT METHOD
Negative evaluation on sustainable business strategy and sustainability / ESG (environmental, social and governance) performances by financial stakeholders	**Time horizon** > Short-term **Likelihood** > More likely than not **Magnitude of fin impact** > Medium-high	These risks may lead to an increase in the cost of lending and a reduction in capital availability	Analysis of financial stakeholders' expectations and priorities in order to align strategy; team aims to manage financial stakeholders on their request on ESG/ Sustainability matters and Saipem performance, proactive engagement activities, and release of sustainability documents and reports to facilitate financial stakeholder understanding of Saipem ESG strategy

REGULATORY RISK

RISK 4	ASSESSMENT*	FINANCIAL IMPACT	MANAGEMENT METHOD
Increasing operational costs due to extended applicability of greenhouse gas emissions legislation (Carbon Tax or Emission Trading Scheme)	**Time horizon** > Long-term **Likelihood** > More likely than not **Magnitude of fin impact** > Medium-high	The risk may lead to increased costs but also in a reduced demand for Saipem services, resulting from sentences or fines.	Constant monitoring of regulation on GHG (greenhouse gas) emissions worldwide; creation of a four-year plan with quantitative targets for GHG emissions reductions and energy efficiency at Divisions and corporate level; Energy efficiency initiatives; periodic maintenance and upgrading to improve environmental performances of assets.



CLIMATE-RELATED OPPORTUNITIES

PRODUCTS AND SERVICES

OPPORTUNITY 1	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Increase of revenues in consolidated business segments aimed at reducing climate-related impacts (e.g. Infrastructures, renewables, water projects, etc.)	**Time horizon** > Current **Likelihood** > More likely than not **Magnitude of fin impact** > High	Market opportunity in terms of revenues for infrastructure projects for ongoing tenders or projects that may be awarded within next 3 years	Innovation efforts, both incremental and disruptive. Strengthening of commercial efforts in these market segments. Scouting to identify strategic technological partners

OPPORTUNITY 2	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Development of new business segment in the framework of infrastructure aimed to reduce climate-related impacts (e.g. Smart city, Smart Infrastructure)	**Time horizon** > Medium-term **Likelihood** > More likely than not **Magnitude of fin impact** > Medium	Market opportunity in terms of revenues for smart city and smart infrastructure projects associated with future tenders that may be awarded within next 4 years.	Strengthening of commercial efforts in these market segments. Scouting to identify strategic partners and or acquisition.

OPPORTUNITY 3	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Increase in revenues from renewable business segment aimed at reducing climate-related impacts (offshore wind farm)	**Time horizon** > Short-term **Likelihood** > Likely **Magnitude of fin impact** > High	Revenues from offshore wind farm project awards	R&D investment and innovation efforts. Strengthening of commercial efforts in these market segments. Scouting activities to identify strategic partners

OPPORTUNITY 4	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Access to new CCUS (Carbon Capture Utilisation and Storage) market to support client requests	**Time horizon** > Medium-term **Likelihood** > More likely than not **Magnitude of fin impact** > Medium - High	Revenues for potential CCS projects on new investments for oil extraction, engineering feasibility study to verify cost and opportunities	R&D investment, potential technology acquisition and partnership. Strengthening of commercial efforts in these market segments

OPPORTUNITY 5	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Access to new additional renewable markets and satisfaction of customers' requests (floating wind farm, ocean energy, tropospheric wind etc)	**Time horizon** > Long-term **Likelihood** > Likely **Magnitude of fin impact** > High	Revenue due to the award of these kind of project at 2024	R&D investment and innovation efforts in renewables; new partnership agreement; strengthening of commercial efforts in these market segments

RESOURCE EFFICIENCY ON OUR ASSETS

OPPORTUNITY 6	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Offer more efficient and cost-optimized solutions through energy efficient solutions in vessels and yards	**Time horizon** > Current **Likelihood** > Very likely **Magnitude of fin impact** > Low	Cost saving related to reduced fuel and electricity consumption costs due to initiatives already implemented	Implementation of energy assessment to identify adequate solution and maximise savings Design and realisation of measures and interventions aimed at energy and GHG emissions reduction

OPPORTUNITY 7	ASSESSMENT	FINANCIAL IMPACT	MANAGEMENT METHOD
Fuel consumption optimisation through predictive analytics in offshore drilling fleet	**Time horizon** > Medium-term **Likelihood** > Very likely **Magnitude of fin impact** > Low	Cost savings from fuel cost reduction and reduction in carbon tax (where applicable)	Plan to install a predictive maintenance tool for drilling fleet, starting with a Pilot vessel in 2019

RISK MANAGEMENT

The process of risk identification and assessment is implemented both at company level (i.e. Group and subsidiaries) and at project level.

At company level, climate-related risks are identified and assessed by integrating them into multi-disciplinary, company-wide risk processes. Enterprise Risk Management Model is developed in accordance with the CoSO Framework (internal control system model issued by the Committee of Sponsoring Organisations of the Treadway Commission - 1992). Risk Owners are responsible for identifying and assessing risks in their remit. They identify and describe the main events that could affect the achievement of business objectives, strategies and measures to address them. Mitigation measures are constantly monitored to evaluate the effectiveness and the impact on the overall risk evaluation.

Risks therefore are assessed in terms of likelihood and impact and on the basis of different impact drivers (Qualitative, Economic, Financial, Image and Reputation, Environment, Health and Safety, Security and Social Impact) for the Group and the main subsidiaries. Based on the score, risks are placed in the risk matrix matching their likelihood and impact. They are thus classified as Tier 1, Tier 2 and Tier 3 in accordance with their score. Finally, risks assessed in Tier 1 and 2 for the Group are subject to monitoring and analysis on a quarterly basis. Once

risk assessment is completed, the CEO of the Group and the CEO (or equivalent position) of the subsidiary present the relevant results to their respective Board of Directors for approval. Risk assessment is regularly updated on a six-month basis through several meetings conducted by the Enterprise Risk Management function along with the management team. Each risk owner is responsible for managing risks under their responsibility and monitoring the evolution of the ones assessed as 'top risks' and the respective remedial or mitigation actions.

At project level, risk management is implemented by the Project Manager (both in the commercial and the execution phases) to identify any risks and opportunities to be mitigated and capitalised upon. The identification process determines and records the risks or opportunities identified that might affect the project. Risks are prioritised through quantitative assessments, which define the probability and impact of each risk within values ranges, whose thresholds are defined in the risk management plan, which defines how risk management will be structured and performed on the project. For any identified risks, a numeric score will be calculated as a combination of the likelihood of occurrence and the economic impact. Where feasible, depending on the priority assigned, a mitigation plan is associated with the risk and monitored during the project lifecycle.

TAKING ACTIONS AGAINST CLIMATE CHANGE: OUR STRATEGY

Saipem plans to gradually reduce its dependence on the fossil fuel business by reducing its own CO_2 emissions and by continuously expanding its offer in less climate-impacting fields, acting as an innovative Solutions Provider to support clients in identifying the best low-carbon approaches and technological solutions.

KEY PILLARS OF SAIPEM'S STRATEGY

Recognising the actual global energy transformation and related risks and opportunities, Saipem plans to gradually reduce its dependence on the fossil fuels business with a comprehensive strategy based on 3 pillars.

EXTENDING THE OFFER
to our clients in less climate-impacting fields

BECOMING A KEY PARTNER
for our clients in their decarbonization actions

IMPROVING THE EFFICIENCY
of our assets and operations to reduce GHG emissions

1

Reducing our dependence on the fossil fuels business by **extending the offer to our clients in less climate-impacting fields**, investing in renewable technologies and by developing more sustainable fossil fuels uses and diversifying its activities. For this aspect, Saipem's strategy aims to:

Strengthen market penetration in already existing low-carbon markets (i.e. offshore wind farm, biofuel, concentrated solar power, etc.) and create access to new renewable and low-carbon markets (e.g. wave, tidal, ocean thermal energy conversion, energy storage, hydrogen and hybridisation for renewable energy integration).

ONGOING PROJECTS

Saipem successfully installed the first commercial floating wind farm in the world, the Hywind Scotland Project for Equinor that required an innovative solution to lift, handle and install the gigantic, fully assembled, 6 MW wind turbine generators on floating spars anchored to the seabed.
Saipem completed activities for the Hornsea Wind Power project for Oersted, which involved the transport and installation of offshore platforms.
Front End Engineering Design (FEED) and project management activities already begun for the NNG (Neart na Gaoithe) Offshore Windfarm project, in view of the potential engineering, procurement, fabrication and installation phases of 52 jackets for the development of a windfarm.
A memorandum of understanding has been signed with Plambeck Emirates LLC for the development and construction of a 500 MW floating offshore wind farm in Saudi Arabia.
A feasibility study is ongoing for EniPower regarding peak load high efficiency units based on aeroderivative gas turbines for capacity market service to cover lack of production of renewable sources.
A collaboration agreement has been signed with technical consultancy Studio Rinnovabili to bid on wind and solar power engineering and construction contracts in domestic and international markets.
A survey campaign is ongoing in the Messina strait where the best location for the deployment of the GemStar hydroturbine, a technology patented by SeaPower, has been identified. The site has excellent current resources and Saipem will provide T&I for the turbine plus additional services.
A dedicated "New Energies" Product Line has been recently established within the Onshore E&C Division.

INNOVATIVE SOLUTIONS AND R&D

Saipem has developed a floating offshore wind substructure that will go into the water for testing off Ireland's west coast as of 2022, called "Hexafloat". Hexafloat aims to be a one-size-fits-all foundation for a range of turbine sizes. The concept has already been tried out in a test basin in 2018 and will next be put through its paces at full scale off the coast of Ireland in a project to accelerate market uptake of floating offshore wind technology.
Saipem has signed an agreement with KiteGen, an innovative company that has developed a new solution to exploit wind energy. The agreement regulates the collaboration between the two companies to develop, produce and deploy KiteGen proprietary technology to produce electricity from high altitude winds.
A novel concept for an Offshore Floating Solar Park has been developed by Moss Maritime (one of Saipem's subsidiaries providing highly technological engineering services).
Saipem and the Finnish company Wello Oy have signed a Memorandum of Understanding to optimise WEC Penguin technology, one of the most promising among the new systems for the production of energy from marine waves. The objective of the agreement is the development of future initiatives in the sector.
Additionally, biofuels are a tangible solution for reducing the carbon footprint caused by transportation, Saipem is currently scouting innovative technologies (e.g. 2nd generation bioethanol, bio jet fuel and biodiesel) to penetrate and expand into the biofuel sector.

Diversification on the market, focusing on non-energy related opportunities such as infrastructures for sustainable mobility, water management and environmental services for the circular economy

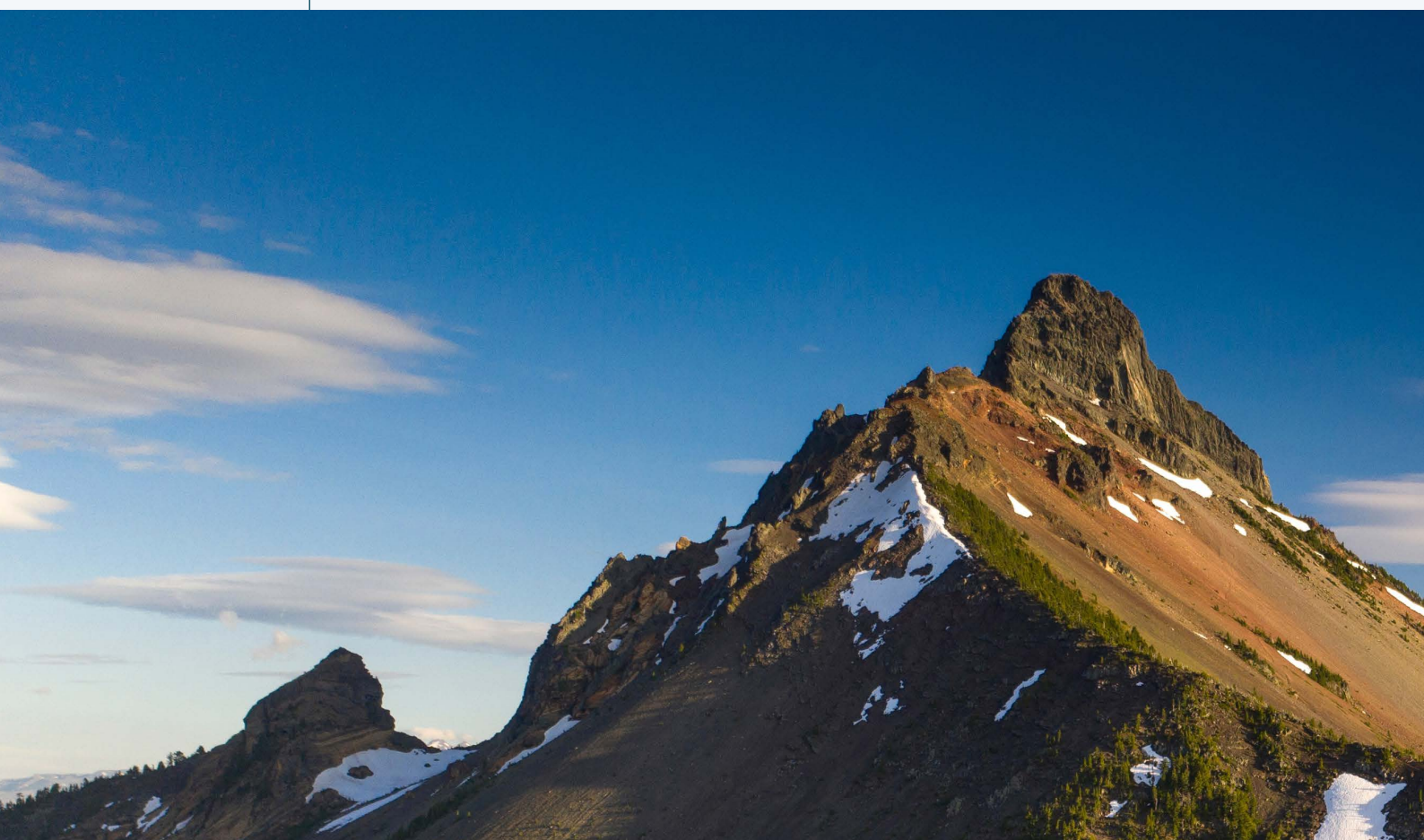
ONGOING PROJECTS

In the infrastructure sector, construction of the first lot of the Brescia-Verona high speed rail line is ongoing for Rete Ferroviaria Italiana. The CEPAV 2 high speed Brescia-Verona project includes the engineering, procurement and construction of a railway track of approximately 48 kilometres in the North of Italy.
Contributing to the circular economy are, decommissioning projects to dismantle existing platforms such as the BP Miller project and the LOGGS project for ConocoPhilips, together with the already completed Costa Concordia dismantling project, which was one of the most important green ship recycling projects in Europe: for a total of around 86% of recycled materials.
As far as water management is concerned, the Spence Growth Option project for the development of a desalination plant and water pipelines in the north of Chile.

INNOVATIVE SOLUTIONS AND R&D

The Circular Economy:
Saipem and ITEA, a Sofinter company, have signed a license agreement on ITEA's Proprietary ISOTHERM Pwr® "Flameless" Oxy-Combustion Technology which produces steam, electricity and pure CO_2 for by flexible use of low-ranking fuels such as waste, including plastic scraps, heavy oils, pet coke and several other feedstocks. The agreement will give Saipem access to the technology for Oil & Gas applications, allowing us to offer original and circular sustainable solutions to our clients, such as the ongoing feasibility study related to the exclusive application (patent pending) of waste treatment to generate energy and CO_2 into Urea.

Development of a new electrochemical technology for to treat wastewater from industrial plants is underway. This technology will overcome the complexity and unreliability of biological processes and will offer a sustainable solution with a higher energy efficiency.
The development of innovative solutions to sustainably treat waste or residual feedstock from the O&G industry (or other industries, in a perspective that also includes plastics recycling), with their consequent valorisation into energy and/or valuable products, will become an important asset; the Company is already scouting technologies and testing innovative approaches in order to be a future leader in the field.



Focus on less carbon intensive energy sources, in particular the use of Natural Gas as an energy source for the transition period (e.g. LNG)

ONGOING PROJECTS

Saipem is well positioned to capture the growing number of liquified natural gas projects around the world. Some important projects have been recently awarded to Saipem, including the Arctic LNG2 project and the Mozambique LNG project.
Saipem has also been selected as the preferred EPC contractor for the Nigeria LNG Train7 Project pending Final Investment Decision. These projects are on top of the base load facilities under execution for the Tangguh Expansion Project in Indonesia and Nong Fab Regasification Terminal in Thailand and of the support services provided to other operational LNG facilities like Panigaglia in Italy.

INNOVATIVE SOLUTIONS AND R&D

There are several ongoing efforts in the Liquefied Natural Gas (LNG) sector:
Definition of proprietary solutions for small-scale Natural Gas liquefaction and LNG re-gasification are showing good promise for becoming a flexible tool to support sustainable mobility in the near future.
Development of the new Liqueflex™ Liquefaction technology, particularly fit for mid-scale applications both onshore and, thanks to its characteristics of enhanced safety and compactness, for Floating LNG (FLNG).
The recently achieved pioneering experiences in the market of conversion of LNG Carriers to FLNG (Floating Liquefied Natural Gas) units and FSRU (Floating Storage Regasification Units) by the Moss Maritime subsidiary.
Definition of proprietary solutions for cold energy recovery in LNG Regasification Plants, by means of innovative Organic Rankine Cycles, and for Boil Off Gas Re-liquefaction for Bunkering facilities.

2

Becoming a key partner for our clients in their decarbonisation actions: Leading energy companies, but also other carbon-intensive industries, i.e. steel and cement, are decarbonising their footprint and driving at-scale digital transformation across the value chain, with leading EPC contractors investing in decarbonisation technology and digitalisation. Saipem is striving to become "the partner of choice for clients committed to the low-carbon energy transition".

The ability to properly manage the CO_2 value chain will be of critical relevance. Saipem can master the whole Carbon Capture & Storage (CCS) chain thanks to its solid background in capture process technology, pipeline fluid transportation over long distances, and onshore and offshore drilling for CO_2 injection. We have executed EPC projects involving CO_2 removal, Acid Gas Reinjection and CO_2 pipelines.

The target is to be ready for future deployment of CCS when the necessary regulatory measures are implemented worldwide. As an example, Saipem has recently completed a feasibility study of the Northern Lights Norwegian CCS project for the subsea CO_2 transportation phase. Furthermore, CO_2 re-utilisation options are being intensely pursued as a first step towards industrial exploitation of these kinds of technologies.

Saipem has extensive industrial knowledge in the design and implementation of CO_2 reutilisation plants, especially from its experience in the urea production process and gasification of tar residues. Efforts are continuing to keep our proprietary licensed Snamprogetti™ Urea Technology at the highest level of competitiveness, also by decreasing energy consumption and reducing the environmental impact (Urea Zero Emission) through highly innovative solutions.

Moreover, Saipem is continuously scouting emerging technologies to build a distinctive technology portfolio.

A few recent studies on CO_2 capture (a study conducted for OGCI, the Oil and Gas Climate Initiative) and transportation were successfully completed for our key customers.

Furthermore, energy efficient technologies were implemented by Saipem in order to increase performance of Oil & Gas plants.

Meanwhile, a dedicated innovation project was recently launched to develop a methodology for early-stage estimation and minimisation of carbon footprint from Oil & Gas capital projects.

Saipem aims at improving the processes to advance towards carbon-neutral operations across the entire EPC value chain. We want to become a key partner for our clients in this respect, mapping, starting from the engineering phase, equipment with higher efficiencies to be proposed to our clients in order to reduce CO_2 emissions during their plant operation. Moreover, we are implementing new guidelines in the procurement activities, inquiring our suppliers to measure the CO_2 footprint of the provided items, to be able to propose alternative solutions with lower CO_2 footprints to our clients. In current new projects, we are already including specific requirements for site energy efficiencies in bid inquiries for site camp installation.

3

Improving the efficiency of our assets and operations to reduce GHG emissions. Saipem issued a 4-year Group GHG emissions Strategic Plan in 2018 to identify specific areas of improvement and specific targets to reduce overall GHG emissions.

Saipem implements, for its assets (vessels, yards, temporary construction facilities and office buildings) and projects, a specific assessment to identify energy efficiency solutions, guarantees proper maintenance and upgrades, develops innovative energy efficiency initiatives, and monitors energy and emission performance to evaluate the effectiveness of its actions.

Saipem eco-Operations (SeO) campaign was launched in 2018, to monitor and bring to light all the best practices that can be implemented on each vessel to reduce their fuel consumption and GHG emissions (see page 34). Among these best practices, those aimed at reducing vessel consumption in operation include the Ship Energy Efficiency Management Plan, transit route and speed optimisation practices, power management system optimisation, feasibility studies on vessel hybridisation with energy storage and heat recovery from exhaust gases.

For onshore activities, a good practices booklet for energy efficiency in accommodation camps has been issued. Based on the results of assessments performed in selected accommodation camps, the booklet provides a tool to increase awareness about GHG reduction initiatives and provides a useful guidance to the personnel in charge of managing the camps. Further, a system to assess suppliers based on their GHG footprint is under development, providing an efficiency driven framework for the procurement of materials and equipment.

A set of measures have been identified and investigated on board the offshore drilling vessels to define the most efficient solutions in terms of savings of greenhouse gases emissions and increase the energy efficiency of the assets. These solutions include technical interventions as well as management measures that have been gathered in good practice booklets.

It is also worth mentioning that Moss Maritime has developed, a distinctive Hybrid Concept through a green design approach for application mostly on new or re-adapted drilling rigs. This approach is currently available to ship owners and shipyards.

Furthermore, Saipem is committed to reducing emissions from the transportation of people promoting sustainable mobility and optimising transportation. Different initiatives and campaigns are already in place, as the appointment of the Mobility Manager, car-pooling, agreement with car sharing and bike sharing services for the headquarters, journey management, use of multi passenger vehicles at construction sites as well as smart working initiatives for employees.

Finally, Digital Transformation opportunities are being assessed and implemented to improve company work processes, to boost productivity and as a noticeable side-effect to also reduce related CO_2 emissions.

USE OF SCENARIOS

Energy transition entails the competition of different energy sources and technologies in order to capture increasing shares of the energy mix. At Saipem, the assessment of the long-term industry drivers is based on the analysis of different scenarios: each one of them describes a different path leading to a long-term energy landscape by 2050. The scenario analysis has been applied to the entire Company, covering macro and energy trends that may have an impact on the main drivers of Saipem's business.

Industry scenarios are among the elements considered in the Strategic Planning process and are updated annually. They are discussed with the Divisions and Top Management and are the subject of dedicated meetings of the Board of Directors.

Both Long-term and short to mid-term scenarios are analysed in the frame of the planning process.

Short to mid-term scenarios are only partially affected by the dynamics of the long-term drivers and therefore the short to mid-term demand in Saipem reference markets does not differ materially considering the different long-term scenarios. However, even in the short to mid-term, industrial players need to look at the possible long-term implications for their business models and positioning, therefore we are working to define areas of focus for further analysis and assessment in view of the definition of possible climate change mitigation plans and actions.

Long-term scenarios developed by several sources (info providers, oil companies, stakeholders and intergovernmental organisations) have been compared in order to assess their consistency with the 2 °C scenario. A significant variability was recorded on the different long-term scenario expectations and this is a sign of widespread uncertainty throughout the industry and among its stakeholders with regard to the actual timing for the implementation of political and industrial choices consistent with 2 °C scenarios. Together with several other initiatives linked to Saipem's response to climate transition, we intend to create an internal web tool to share the main long-term scenario information also with the purpose of increasing awareness within the company on the fundamental topic of energy transition and the evolution of the energy mix and technologies versus past expectations.

The different scenarios are analysed in this perspective to better understand their sustainability in the long-term. Several relevant aspects include the following:

- Global and regional economic growth that are considered key drivers for the evolution of the energy demand. While tampered by rising efficiencies in energy generation and consumption, the global energy demand is seen as growing in all the scenarios, and in green scenarios the effect of a new wave of reforms would even result in a boost for the global economy.
- The role of coal in almost every scenario is expected to decrease over the projection period because of the higher carbon footprint from its feedstock use in power generation. Renewables sources, even if affected by some constraints (such as limited geographical distribution and intermittency), today represents by far a more sustainable alternative and their diffusion is expected to grow steadily up to 15% of the share in the energy mix for greener scenarios.
- Demand for oil & gas is seen as robust in all scenarios, in particular thanks to gas that is considered a viable low-carbon energy source during the transition. Ample reserves and production capacity together with a growing global network of associated infrastructures (liquefaction and regasification facilities for marine transportation, offshore and onshore inter-continental trunklines) will further boost the exploitation of gas. Oil and gas, in aggregate, are expected to satisfy more than 50% of the primary energy demand up to 2050 in green scenarios and around 55% in base scenarios, also because – in addition to the

production of fuels (for land vehicles, marine vessels and aviation) - such sources are the basis for the production of additives, lubricants, plastics, paints and several other chemical products.

- Global penetration of CCUS technologies (carbon capture, usage and storage) within energy processes is seen, together with the evolution of the energy sources mix, as an enabling factor to meet the challenging targets of the 2015 Paris agreement. Saipem is closely looking at the opportunities offered by the potential widespread application of this technology as an important diversification factor for its product portfolio and a valuable solution for a number of important stakeholders in the industry.
- The growth of global awareness on climate change-related risks and the consequent introduction of more and more stringent policies at different levels (international, national, local/city) are expected to influence the penetration of the emerging mobility solutions (including the gradual expansion of the global Light Duty Electric Vehicle fleet), the growth of renewable energy plants, the expansion and modernisation of electric grid infrastructures in parallel with electric energy consumption growth, the boost of carbon capture technologies and the shift from coal and, partially, oil to gas.

ENSURING A RESILIENT BUSINESS

All the scenarios analysed consider oil to remain a part of the energy mix in the near future, while it is expected that gas will play a key role across different scenarios as a source that will be able to drive the transition towards a more sustainable energy mix. In this context, large-scale investment in oil and especially gas infrastructure will remain necessary even in the medium to long-term and we expect traditional clients to continue to invest in long-term strategic projects, especially in some key regions, such as the Middle East and Africa. Their focus will gradually encompass cutting-hedge technological solutions with a lower carbon footprint, representing a strong opportunity for Saipem.

The effort in developing technologies, the commitment to constantly adapt the competence mix and innovation initiatives are the most effective leverages that Saipem is exploiting to tackle climate related challenges that the industry is managing today.
Diversification in segments with a lower carbon intensity and, to the possible extent, adjacent segments where Saipem can leverage its competences will remain among the strategic pillars in the coming years.

This approach is highlighted in our recent portfolio transformation – today, 60% of the company's award backlog is no longer related to oil.

OUR RESILIENCE

- A significant need still for large investments in hydrocarbon infrastructures for the long-term
- A stronger and stronger shift towards gas, considered as the energy transition source

- Additional opportunities in lower carbon sectors are expected to continuously increase up to 2050, including the development of technologies for the de-carbonizations of fossil fuel emissions
- Growing renewable source opportunities, some of which are broadly consistent with Saipem's mix of competencies and capabilities

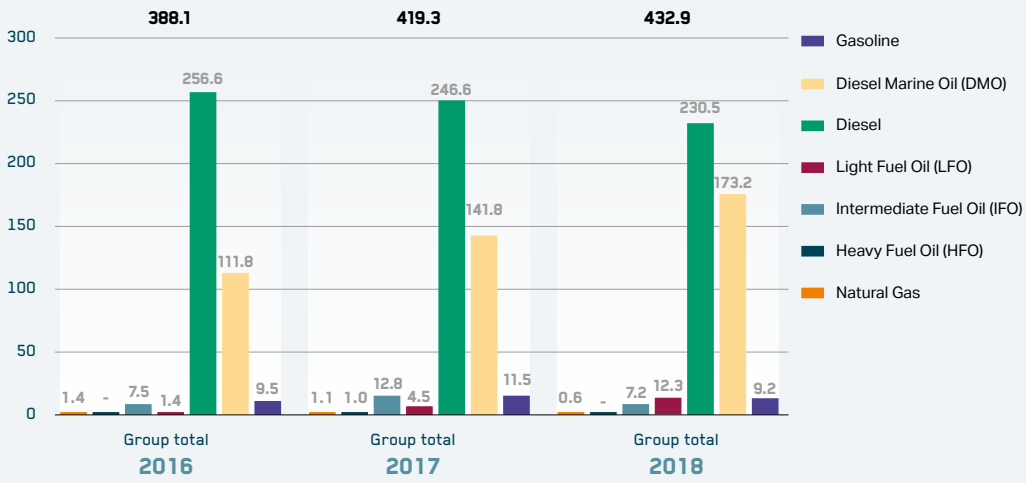
RESILIENCE

METRICS AND TARGETS

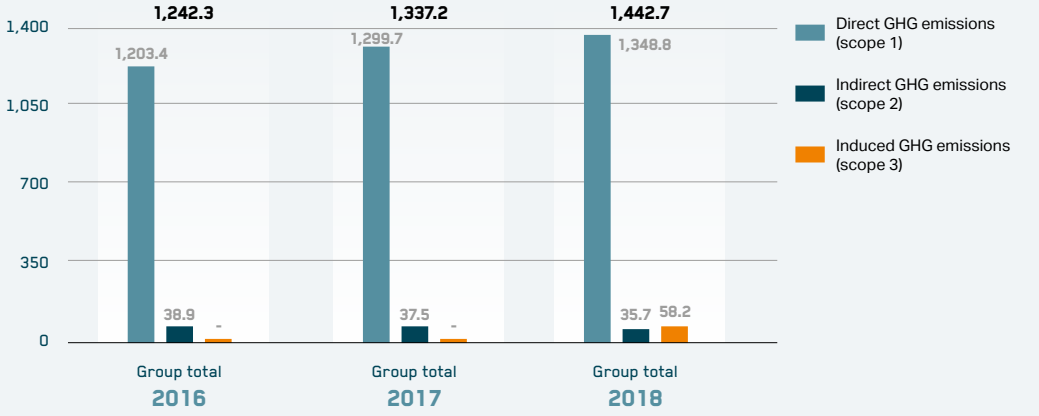
METRICS

All Saipem projects and sites monitor their energy consumption data, including subcontractor data, on a quarterly basis. Data are uploaded to a dedicated IT system. More details about the reporting boundary can be found in our Consolidated Non-Financial Statements (document drafted in compliance with the EU and Italian regulations) and Sustainable Saipem 2018. Both documents and reported data are subject to limited assurance by an independent auditing company.
Energy consumption data are used to calculate GHG emissions. Saipem has developed a methodology to estimate emissions for each specific emission source. This methodology was reviewed in 2018 and validated by the third-party Bureau Veritas in accordance with UNI EN ISO 14064-3:2012 standard. The calculation methodology now also covers scope 2 and scope 3 (limited to business trips).

DIRECT ENERGY CONSUMPTION (ktoe)



EMISSIONS (kt CO_2 eq)



Note: Saipem began calculating scope 3 emissions as of reporting year 2018.

Direct energy consumption increased by 3% in 2018 over 2017 for the Group's entire perimeter, in line with the increase in business from some significant operating projects. Sites that experienced the most significant increases in energy consumption over the previous year are: Jazan Integrated Gasification Combined Cycle (Saudi Arabia), Tangguh LNG Expansion (Indonesia), Khankendi vessels (Azerbaijan), Castorone, Saipem 12000, ERSAI Yard. An increase in Diesel consumption in 2017 was experienced with the Jazan Integrated Gasification Combined Cycle project which records the highest consumption for the year and of Diesel Marine Oil consumption, due to an increase of Castorone pipelay vessel activities.

INNOVATION FOR DECARBONISATION

€3.1 MLN

AMOUNT SPENT ON DECARBONISATION R&D AND TECHNOLOGY APPLICATION IN 2018

6

NEW PATENT APPLICATIONS FILED FOR ENERGY DECARBONISATION TECHNOLOGIES IN 2018

3

NUMBER OF SIGNED COOPERATION/LICENSE AGREEMENTS FOR ENERGY DECARBONISATION PROJECTS IN 2018

TARGETS

Reducing its emissions, as well as improving energy efficiency, is one of the company's environmental priorities.

In 2018, Saipem decided to further intensify its GHG emission reduction policy by drafting a specific four-year Strategic Plan to outline its corporate vision to improve the efficiency of its activities and consequently reduce emissions.

This Saipem plan set **an overall target to reduce GHG emissions by 120 kt CO_2eq within 2022** versus 2017 baseline year. It also identified the necessary actions to ensure the positive results. Progress towards reaching this target will be closely monitored and appropriate fine-tuning is envisaged on an annual basis with a review of the GHG reduction plan.

EMISSION REDUCTION INITIATIVES

Saipem's approach to energy efficiency (and consequently to greenhouse gases emissions) has become increasingly more structured over the years. Energy assessments, in line with the ISO 50001:2011 standard, have been carried out over time on the main office buildings, vessels, construction yards, and drilling vessels. Choosing which assets are to be assessed is decided in accordance with the following criteria: level of criticality in terms of energy consumption, level of control, feasibility of intervention, and need for regulatory compliance. These assessments laid the foundation for identifying areas where energy efficiency can be improved. A study on the technical and economic feasibility of the solutions identified is carried out yearly and submitted to management for the definition of an action plan. The most meaningful initiatives implemented to promote energy efficiency are briefly described hereunder.

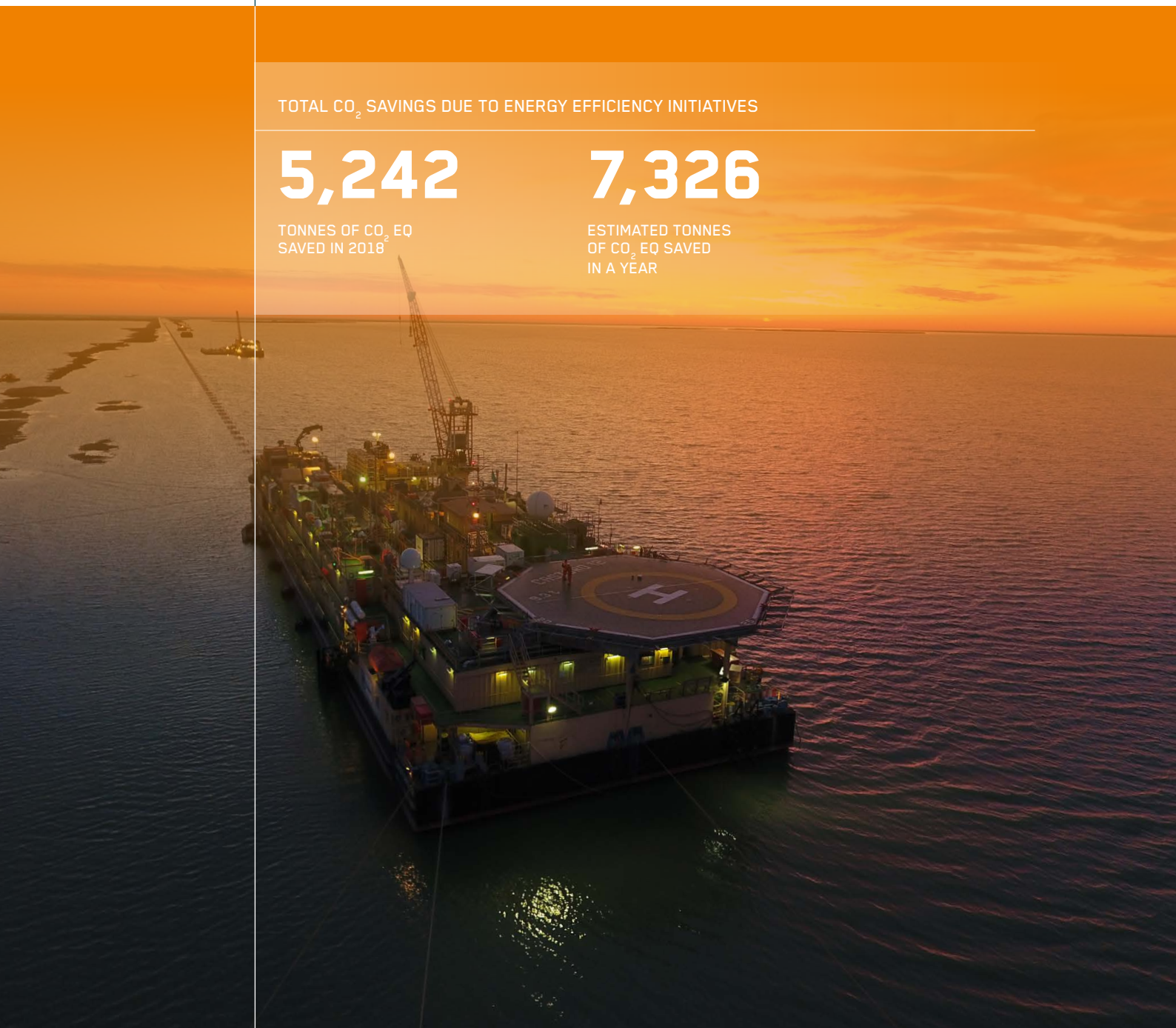
TOTAL CO_2 SAVINGS DUE TO ENERGY EFFICIENCY INITIATIVES

5,242

TONNES OF CO_2 EQ SAVED IN 2018

7,326

ESTIMATED TONNES OF CO_2 EQ SAVED IN A YEAR



ENERGY EFFICIENCY FOR OFFSHORE VESSELS AND RIGS

Energy efficiency improvements for vessels

Saipem eco-Operations (SeO) Campaign was launched in 2018 to monitor and bring to light all the best practices that can be implemented on each vessel to reduce fuel consumption and GHG emissions. The campaign consists of different phases: An energy assessment to identify SeO; launching of the campaign on board; focal point and workgroup identification; cascading to the full crew; SeO implementation and reporting / Feedback and Review. All implementable best practices are identified during the first phase: Energy assessments are particularly crucial since they assess the entire energy use of vessels area by area, determining consumption breakdown in order to identify and analyse the feasibility of possible energy efficiency measures.

Such energy assessments were performed for the most relevant vessels to quantify the environmental benefits of systems already implemented on board and to evaluate further interventions. In particular, Saipem 7000 and Castorone were subject to an in-depth study carried out in collaboration with Politecnico di Milano which identified:

- best practices such as the definition of each vessel's ecospeed (i.e. the optimal speed for a vessel to cover a route with the lowest fuel consumption);
- tests to build the specific consumption curve (SFOC - specific fuel oil consumption) of diesel generators on board;
- feasibility studies and an estimation of the environmental and economic advantages of a list of initiatives, such as the identification of the most appropriate LED systems for Offshore operations subject to extreme marine conditions;
- implementation of heat recovery systems from fumes or other heat sources;
- implementation of VFD (variable frequency drive) systems on cooling water pumps;
- implementation of automatised systems that can choose the most suitable of the two fan speeds available to avoid waste;
- vessel hybridisation with energy storage systems.

The environmental benefit of a heat recovery system already implemented on board Castorone was evaluated for the first time in 2018, and a saving of 2,123 tonnes of marine diesel oil and of 6,593 tonnes of CO_2 emissions per year was estimated. Finally, construction vessels are improving their lighting system, with a 4-year LED replacement plan. Among the vessels in the fleet, Castoro 10 has already taken the first steps in starting to switch to LED to light the winch rooms and since its implementation, this has reduced the on-board lighting energy demand by 3.5 MWh and saved 0.89 tonnes of fuel and 2.77 tonnes of CO_2.

VESSELS: TOTAL SAVINGS IN 2018

547
TONNES OF FUEL

1,700
TONNES OF CO_2 EQ

Route optimisation

Saipem continued to carry on route optimisations of its offshore and drilling vessels through the use of software to detect the best route each day by inputting updated weather conditions and marine currents. In 2017, the software was applied to the FDS 2 vessel and to the Scarabeo 9 drilling rig, saving 51 tonnes of marine diesel oil and 157 tonnes of CO_2 emissions.

Indeed, the Oil & Gas industry has undergone radical changes over the last few years, with current contracts being often characterised by short-term activities and the frequent need for long relocations, whence route optimisation can be considered an efficient solution for reducing CO_2 emissions. This has indeed become a regular good practice within Saipem's organisation since all masters in our fleet are required to use this software during transits on transoceanic routes with medium or high potential for economic and environmental benefits. In 2018, it was used for 6 vessels employed in 8 voyages and led to saving 547.26 tonnes of fuel and avoided 1,700 tonnes of CO_2 eq. emissions.

ENERGY EFFICIENCY FOR YARDS

Several energy-saving initiatives were implemented at yard level throughout 2018.

The following initiatives were implemented in the Ambriz yard (Angola): Switching off electricity in accommodations during working hours; replacing the electrical air compressor with a mechanical one provided on request; improving the GenSet load; and reducing the amount of travel to Luanda and Soyo.

At the SCNL yard (Nigeria), 115 additional LED floodlights were installed in the yard's external areas and perimeter. The STAR yard (Saudi Arabia) further increased its power production efficiency by means of a new GenSet which concurred with lower specific oil consumption and the Boscongo yard (Congo) improved its energy performance, increasing the amount of electricity taken from public networks.

In 2018, the ERSAI yard (Kazakhstan) continued the implementation of its action plan for energy saving and efficiency: The replacement of old fluorescent, incandescent, and arc mercury lamps with LED lights and the installation of new ones. In 2018, the lighting system was improved by replacing 8,000 additional lamps with LED lights. The expected energy saving from implementing this initiative is about 1,600 MWh/year, equal to 751 tonnes of GHG per year. The new part of the training centre, built using innovative construction materials and technologies, contributed as well to achieving higher energy efficiency, contributing to an annual saving of 22.41 MWh and 10 tonnes of GHG.

TOTAL SAVINGS IN 2018

686
TONNES OF FUEL

1,002
MWH OF ELECTRICITY

ENERGY EFFICIENCY AT THE AL-ZOUR REFINERY PROJECT

In 2018, the Al-Zour Refinery Project in Kuwait saw a joint commitment with subcontractors to implement energy efficiency initiatives. One example is the Sun Light initiative where the most recent photovoltaic technology - a solar powered barrier warning light package - was installed to enable the use of free solar energy, reduce non-functional lights and expensive battery replacement, and curb the cost of battery disposal.

TOTAL SAVINGS IN 2018

66
TONNES OF CO_2 EQ

21
TONNES OF FUEL

RIG ELECTRIFICATION IN KAZAKHSTAN

In 2017 and 2018, Saipem decided to invest in the electrification of 2 onshore drilling rigs operating in Kazakhstan. These rigs are currently powered by the local electrical high-voltage grid distribution system and by the local gas turbine power station owned by the Client. Specifically, the new configuration entails several advantages in comparison with the typical configuration powered by rig diesel generators: a cost reduction in the maintenance of rig diesel generators; a reduction in emissions of harmful substances into the atmosphere (including GHG emissions); a reduction of noise emission levels; a significant Client cost savings owing to the reduction of fuel and fuel transportation costs. These gains highlight how fruitful client-contractor partnerships of this kind are able to achieve decisive goals in terms of operational efficiency and the reduction of operational environmental impacts.

SAVINGS

755

TONNES OF CO_2 EQ SAVED IN 2018

1,034

ESTIMATED TONNES OF CO_2 EQ SAVED IN A YEAR

ENERGY EFFICIENCY IN ITALIAN OFFICES

We upgraded our offices in San Donato Milanese in 2018 by installing occupancy sensors and LED lights in the lavatories. Moreover, we started to install permanent wi-fi sensors that will enable Saipem to monitor the energy flow of its permanent offices through a dedicated dashboard. The system will be finalised in 2019 and will support energy consumption assessments and the identification of opportunities for efficiency improvements.

YEARLY POTENTIAL SAVING ESTIMATION

27

TONNES OF CO_2 EQ

73

MWH OF ELECTRICITY

PROMOTING SUSTAINABLE MOBILITY

Saipem promotes behavioural changes by its employees to reduce emissions caused by commuting. For instance, the Company organises a shuttle-bus system to and from its main offices and yards, offers employee discounts for public transportation, public bike-sharing and car- sharing services, and has created a carpooling incentive system for employees.

INTERNAL CARBON PRICING

Saipem's vision is driven by the creation of shared value. This is the basis of the Company's sustainability concept that recognises the importance of taking all stakeholders into account in Saipem's value creation process, including society as a whole and the environment.

An important step forward in this approach entails the identification of all environmental and social impacts our Company generates and their measurement in order to be adequately managed for the benefit of the environment and society. The measurement of these impacts is of paramount importance for a company to better integrate sustainability aspects in its decision-making process, aware that more comprehensive measurements lead to a more comprehensive management approach and to increased transparency in terms of sustainable accountability. Based on previous experiences, studies on this topic and literature reviews, Saipem has recently designed its own measurement model, called REVALUE, which strives to value the overall impact of Saipem's business activities worldwide.

The REVALUE model is based on existing impact measurement techniques that outline the relationship between business activity inputs, their corresponding outputs and their long-term outcomes. The impact is then the measure of the outcome attributable to the business activities. This causal process has been structured considering the perspectives and impacts for Saipem's relevant stakeholders, including government and local authorities, business partners, local employees and neighbouring communities.

A comprehensive analysis of input/output/impact has been carried out taking into consideration the main inputs (impact drivers) related to Saipem's activities worldwide.

In order to quantify the impacts, proxies have been identified and quantified by using different methodologies and data sources, both internal and external.

With reference to climate change, an impact pathway is identified below:

INPUT (impact driver)	OUTPUT	IMPACT
GHG emissions	Contribution to climate change	Change in health and well being

The impact for society has been calculated by use of a proxy as societal costs of GHG emissions, amounting to **€135 per tonne CO_2** (estimated value including the impact on humans and the environment).

Further details and the 2018 results can be found here:
https://www.saipem.com/sites/default/files/2019-05/04Revalue18.pdf

ENGAGING WITH INTERNATIONAL ASSOCIATIONS AND ORGANISATIONS ON CLIMATE-RELATED ISSUES

Being a contractor company, Saipem has no direct influence on policy makers and local government actions and initiatives. However, because it was aware of its important role as an economic actor in influencing social change, in 2016 Saipem joined the UN Global Compact. Saipem constantly interacts with UN Global Compact representatives and participates in national and international events, including topics related to environmental impacts and Climate Change-related issues.

As a key player in the energy sector, Saipem is an active member of specific trade associations in countries where its presence is well structured, participating in dialogue and events on climate and environmental issues.
As an example, Saipem is a member of EVOLEN (Association of French companies and professionals from Oil & Gas to Energy Futures). The association aims to disseminate scientific and technical knowledge among its members and anticipate changes in the business by favouring collective work and forward thinking and advocating for innovation and partnerships.
This allows Saipem to be involved in a dynamic network, promote its technological excellence and share information and experience on various subjects including sustainability aspects, such as energy efficiency and climate related issues.
Saipem recently became a member of Renewable UK, the UK's leading renewable energy trade association, specialising in onshore wind, offshore wind, and wave & tidal energy.
Furthermore, Saipem participates in the Norwegian Solar Energy Cluster aimed at creating different cooperation structures and supporting competence in the solar energy sector.

Saipem is also participating in the DeRisk-CO project in Italy organised by FEEM (Fondazione Eni Enrico Mattei). DeRisk-CO is a research and scientific dissemination project aimed at raising awareness on risks and opportunities associated with climate change with the objective of studying tools for scenario analysis. Thanks to its international network, FEEM integrates its research and dissemination activities with those of the best academic institutions and think-tanks around the world. In this context, Saipem supported the organisation of a dedicated workshop focused on the analysis of the recommendations of the Task Force on Climate-Related Financial Disclosure, the identification of risks and opportunities and scenarios analysis.

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Most of the pictures included in this report are the work of Saipem colleagues who participated in the in-house Sustainability Photographic Award.

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