# 2021 SHAPING A NET-ZERO FUTURE



**ENGINEERS FOR A SUSTAINABLE FUTURE** 

# Shaping A Net-Zero Future

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# **ABOUT THIS REPORT**

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's overall strategy and governance, their climate-related financial risks and opportunities, and relevant metrics and targets. This document is published in October 2021, data and information are taken from Saipem's accounting system, mainly referring to the full 2020 year.

### Disclaimer

By their nature, forward-looking statements are subject to risk and uncertainty since they are dependent upon circumstances which should or are considered likely to occur in the future and are outside of the Group's control. These include the identification and assessment of climate-related risks and opportunities (including the reported quantification).





Silvia Merlo, Chairman of the Board of Directors

Francesco Caio, Chief Executive Officer and General Manager

Dear Shareholders, Dear Stakeholders,

global warming, attributed by scientists to anthropogenic emissions of gases into the atmosphere has triggered phenomena that are destined to generate irreversible damage to the planet. In fact, the 2021 report of the Intergovernmental Panel on Climate Change (IPCC) revealed changes in the Earth's climate with serious impacts on the environment and biodiversity. However, it also described scenarios in which, if humanity manages to reduce greenhouse gas emissions within the timeframe set by the Paris Agreement, the increase in temperature will be able to be kept under control.

The two recent international meetings of the G20 summit in Rome and the COP26 conference in Glasgow testify to the firm will of the governments to continue discussions on climate change, on the assumption of commitments and in identifying, in the short term, measures for an effective ecological transition. Commitments corroborated, today more than in the past, by conscious and incisive demands of public opinion.

Among the main players called to act are companies, which are required to pledge, in the short to medium term, to produce lower emissions and invest in new infrastructures and technologies to support the energy transition, with the adoption of new business models and new skills.

Saipem affirms its strategic choice to be among the protagonists and enablers of this transition era. It is technology that will make transition capable of combining growth, economic well-being, inclusion and environmental sustainability possible. And Saipem has always operated with innovative technologies to create complex systems and infrastructures. Today Saipem, through the expertise of its people and its technologies, effectively contributes to energy decarbonisation along its value chain; reducing not only its own carbon footprint but also that of its clients towards whom it increasingly places itself as a technological ally on their path towards Net-Zero.

One of the pillars of the Plan that we launched on October 27, 2021 is our commitment to the energy transition. Saipem considers the energy transition not just a mere shift towards low carbon sources, but a radical transformation of the entire energy ecosystem. From a highly centralised sector, characterised by large and infrequently digitalised systems to a strongly interconnected distributed one, with a growing centrality of innovative services and new operators rather than traditional ones in terms of both supply and demand. It is a profound change that requires innovative and flexible operating models to compete and grow profitably and that Saipem has already begun to implement with the commitment to reach Net-Zero by 2050, in line with the rules for reducing emissions established by international agreements.

As a corollary to the plan, our new brand purpose embodies our commitment: "Engineers for a sustainable future" which places the very basis of our identity at the service of ESG factors.

To implement the new strategy, Saipem expects to make cumulative investments over the plan's timeframe of approximately 1.5 billion euro, of which over 200 million euro alone to build up the portfolio of "transition" technologies in order to be able to successfully compete in the new ecosystem: from  $CO_2$  capture processes, to biofuels, from hydrogen to robotics systems for remote monitoring and maintenance of plants. Among other things, the strategy provides for growth in the sustainable infrastructures sector which has now become one of the main factors enabling the sustainability path of world economies.

This document, Saipem's fourth on climate change, drawn up following the recommendations of the Task Force on Climate Related Financial Disclosure, bears witness to our commitment to tackle this vital and inevitable challenge and our contribution to making a more sustainable future possible. The strong propensity of the new management to make the described commitment concrete in the short term suggests a reading of the document itself as the basis of a new, innovative strategic sustainability programme already launched through the new business plan.

In fact, we are confident that, thanks to the skills of our people, our distinctive ability in project management, the value of our assets, Saipem will be a key player in the ecological transition.



# GOVERNANCE

# THE ROLE OF THE BOARD AND ITS COMMITTEES

The Board of Directors has been increasingly involved in the internal strategic discussion on climate change issues and their implications on business strategy and related plans. In a 2020 meeting of the Board of Directors, in office until April 30, 2021, held on November 19, the Board discussed the industry scenarios and the respective implications and opportunities for the company in the management of the energy transition. On November 25, 2020, the Board of Directors, in office until April 30, 2021, was also involved in a preliminary meeting on the Divisions' strategic lines for the 2021-2024 period. In addition, the Board of Directors' meeting held on February 24, 2021 approved Saipem's 2021-2024 Strategic Plan, built upon the new energy transition scenarios. The Board of Directors is also responsible for reviewing and approving the Managerial Performance Plan, upon the proposal of the Compensation and Nomination Committee. This Plan is drawn up based on the Strategic Plan. By approving the Plan, the Board of Directors assigns the Company's objectives to the CEO. Subsequently, the CEO communicates the established objectives to the

the established objectives to the Managers so that they are shared and implemented throughout the organisation.

The 2020 targets resolved by the Board of Directors in office at the time during January 14, 2020 meeting for the 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, the sustainability/ESG objectives are linked to the Short-Term Variable Incentive Plan. For 2020 and 2021 these objectives account for 30% of the short-term variable remuneration. One of the sustainability objectives was directly linked to the reduction of GHG emissions and the implementation of energy efficiency initiatives.

Furthermore, during meetings held on April 22, 2020, June 30, 2020, September 24, 2020 and December 17, 2020, the Board of Directors, in office until April 30, 2021, examined the results of the Enterprise Risk Assessment at Group level, including the analysis of the Company's relevant risks. On October 27, 2020, after a preliminary evaluation carried out by the Sustainability, Scenarios and Governance Committee, in office until April 30, 2021, the Board of Directors discussed and shared the contents of the document "2020 - Leading the path to energy transition" prepared in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosure (TFCD).

The Sustainability, Scenarios and Governance Committee, in office until April 30, 2021, chaired by the then Chairman of the Board, who held the position until April 30, 2021, was originally responsible for assisting the Board of Directors by fulfilling a preparatory, consultative and advisory role in assessments 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 contemplated in the preparation of the Strategic Plan. From January 1, 2021, with the application in Italy of the new version of the Corporate Governance Code, the responsibility of the Sustainability, Scenarios and Governance Committee was extended and the Committee, in office until April 30, 2021, was responsible for assisting the Board of Directors by fulfilling a preparatory, consultative and

advisory role in assessments and decision-making processes with regard to Saipem's business Sustainability issues and its engagement with all stakeholders, Saipem's Corporate Social Responsibility and the review of scenarios envisaged in the preparation of the Strategic Plan, based also on the analysis of significant issues for the creation of long-term value and the Corporate Governance of the Company and the Group.

The Committee, in office until April 30, 2021, addressed the topic of climate change on several occasions during the meetings held in 2020, particularly on February 24, June 17, October 12 and November 17, discussing relevant issues, such as Saipem's disclosure of "Leading the path to energy transition", its implications on business strategies and the initiatives undertaken by the Company in this area.

The Shareholders' Meeting on April 30, 2021 appointed the new Board of Directors which, during the meeting of May 18, 2021, confirmed the establishment, among others, of the Sustainability, Scenarios and Governance Committee and confirming an even greater attention to Environmental, Social, Governance (ESG) issues, integrated the Committee's competences with the provisions highlighted below in bold:

has the task of assisting the Board of Directors with preliminary functions, proactive and consultative in nature, in evaluations and decisions relating to sustainability issues, also understood as environmental, social & governance, connected to the exercise of business activities and its interactions with all stakeholders, to corporate social responsibility, the examination of the scenarios for the preparation of the strategic plan, also based on the analysis of the relevant issues for long-term value generation and the corporate governance of the Company and the Group;

- > monitor the application of the sustainability vision approved by the Board of Directors, also within the broader concept of purpose, and propose the necessary actions to determine the value generated by the company for stakeholders, also in the context of stakeholders engagement activities, contributing to the definition and adoption of a model to measure the value;
- > monitor the positioning of the Company's Code of Ethics with national and international regulations and best practices, formulating proposals to the Board of Directors;
- examine scenarios and guidelines for the preparation of the strategic plan, also based on the analysis of the relevant issues for the generation of long-term value, expressing an opinion to the Board of Directors.

The Audit and Risk Committee is tasked with consulting and supporting the Board of Directors in their decisions on 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 suggestions to the Committee every six months before being approved by the Board of Directors. In particular, the results of the Enterprise Risk Assessment were reviewed by the Committee in July and December 2020.

In 2020, Saipem become an official supporter of the recommendations of the Task Force on Climate-Related Financial Disclosure.

# THE ROLE OF MANAGEMENT

The Chief Executive Officer, based on powers conferred by the Board of Directors, is responsible for the management of the Company. Among the other duties and responsibilities, the CEO verifies the Company's 4-year Strategic Plan drawn up by the Divisions. The Plan takes into

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account the outcome of an extensive market scenario analysis, which also includes 2-degree scenarios. The Strategic Plan is then submitted to the Board of Directors for approval on an annual basis or when deemed necessary, in case of updates, on a different timeframe.

In addition, the CEO, along with the Risk Management, Supply Chain and Business Integrity Director, presents the relevant results of the Enterprise Risk Assessment for approval to the Board of Directors every six months. It also includes any related key treatment activities in place to mitigate identified risks, including those related to energy transition, decarbonisation and climate change.

Furthermore, Saipem has appointed a Top Management Sustainability Committee since 2007 that provides strategic guidance in all aspects connected to 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 disclosure guidelines, in accordance with the 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 preliminary examination and to the Board of Directors for approval.

The Top Management Sustainability Committee usually meets three times a year.

In 2020, 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 "Leading the path to energy transition" report were submitted for discussion by the Top Management Sustainability Committee to the Sustainability, Scenario and Governance Committee for preliminary examination and to the Board of Directors for final approval. The GHG emission reduction strategy for the achievement of the Net-Zero was conceived and discussed throughout 2020 with the Top Management and finally approved by the CEO. The detailed Net-Zero programme will be finalised in 2021.

# **CLIMATE-RELATED INCENTIVES**

The Sustainability/ESG objectives for 2020, accounting for 30% of the Short-Term Variable Incentive Plan, included, among others, a series of targets related to Climate Change, namely:

- reducing direct and indirect GHG emissions;
- conducting studies and energy diagnoses to analyse energy flows and identify potential areas of efficiency;
- implementing specific initiatives to manage and reduce GHGs.

All targets were achieved with about 26.68 kt of  $\text{CO}_2$  eq saved thanks to the implementation of energy efficiency and savings initiatives, and 15 energy assessments and feasibility studies were performed (see details on page 33).

Among the ESG/sustainability objectives for 2021, representing 30% of the Short-Term Variable Incentive Plan, a new objective was set on climate-related issues with the following specific targets:

- reduction in GHG emissions;
- definition of Saipem Group Strategy and Action Plan for carbon neutrality.

# RISKS AND OPPORTUNITIES

Saipem is aware that climate change may have a significant direct and indirect impact on its business operations. Being a global solution provider in the energy sector, 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. For example, with our cutting-edge 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.

# **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 (i.e. for the Group and subsidiaries) by integrating them into multi-disciplinary company-wide risk identification, assessment, and management processes, called Enterprise Risk Management (ERM). The ERM Model, developed in accordance with the COSO Framework<sup>1</sup>, provides an assessment of the strategic, external and operational risk events at Corporate, Sector and Subsidiaries level and the monitoring of the Top Risks, supplying an update of the risk profile for Saipem in relation to strategic and management objectives. The risk assessment is regularly performed and updated on a six-month basis through several meetings and workshops conducted with the managers of the organisations. Saipem management analyses all risks

that may negatively impact on strategic and management objectives of the company.

The Risk Owners are responsible for identifying and assessing, managing and monitoring the major risks (those risks that could affect the achievement of business objectives) under their responsibility and related to relevant activities, based on which, they identify and implement specific measures. Each risk event is evaluated on the basis of the identified planned horizon (i.e. from the 1st , 2nd, 3rd or 4th year of 4-year strategic plan or eventually beyond the strategic plan), and is assessed in terms of likelihood (5 clusters from rare to more than likely) and impact (5 clusters from negligible to extreme) based on different impact drivers (strategic, economic, financial, image and reputation, environment, health and safety, security and social impact) for the Group and the main subsidiaries. Therefore, based on scorings, the risks are represented in a risk matrix

<sup>(1)</sup> Internal Control System model issued by the Committee of Sponsoring Organisations of the Treadway Commission.

matching likelihood and impact and are classified as Tier 1, Tier 2 and Tier 3. The most significant risks, i.e. those assessed in Tier 1 and 2 for the Group, are subject to monitoring and analysis on a quarterly basis. Risk owners are responsible for identifying and implementing risk mitigation actions. Mitigation actions for top risks are monitored through key control indicators. The results of the risk assessment are reported to the top management, including the Division Heads and the Head of Strategy, in order to support the preparation of the strategic plan and relevant opportunities. Once the risk assessment is completed, the Head of Risk Management and the CEO report the major risks to the Board of Directors at least twice a year.

The process for managing climate-related risks is fully integrated in the Enterprise Risk Management at Saipem. In particular, each risk owner identifies treatment activities to avoid, reduce, share, or transfer negative impacts that could be caused by risks. With reference to climate related risks, during 2020 a detailed assessment was carried out to focus exclusively on the climate-related component of the risks. Results of this assessment are reported at pages 9-11.

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, that 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. Climate-related risks may include physical risks which can impact project execution. Where feasible, depending on the priority assigned, a mitigation plan is associated with the risk and monitored during the project lifecycle.

# **CLIMATE-RELATED RISKS**

# **PHYSICAL RISK**

RISK	ASSESSMENT*	FINANCIAL IMPACT	RISK MANAGEMENT ACTIONS
Significant accidents occurring to strategic assets due to weather events.	Time horizon <ul> <li>medium-term</li> </ul> <li>Likelihood <ul> <li>very unlikely</li> </ul> </li> <li>Magnitude <ul> <li>of financial impact</li> <li>medium</li> </ul> </li>	These risks may result in damage or loss of strategic assets, injuries, and fatalities of personnel and environmental damage. The magnitude of the financial impact was assessed considering loss of business opportunities due to a loss of an asset; the potential increase of	<ul> <li>Main mitigation actions are:</li> <li>insurance coverage;</li> <li>inclusion of weather-related contractual clauses;</li> <li>HSE and Vessel management system;</li> <li>specialised training for</li> </ul>
		insurance fees, and the quantified risks at project level associated with climate related events.	employees on technical and HSE topics.

(\*) A "time horizon" less than 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 CDP classification (https://www.cdp.net/en/guidance/ guidance-for-companies). The magnitude of financial impact is assessed based on the impact on the Group EBITDA. The assessment of risks refers to residual risks and integrate the effect of mitigation measures implemented.

# **TRANSITION RISKS**

# **Business Risk**

RISK	ASSESSMENT*	FINANCIAL IMPACT	RISK MANAGEMENT ACTIONS
Ineffective strategic positioning for exploiting energy transition opportunities.	<ul> <li>Time horizon</li> <li>medium-term and long-term</li> <li>Likelihood</li> <li>likely</li> <li>Magnitude of financial impact</li> <li>medium-high</li> </ul>	This risk may result in the loss of business opportunities in energy transition projects.	<ul> <li>Main mitigation actions are:</li> <li>development of commercial and technology partnerships with key players with/for a positioning in energy transition;</li> <li>business development and strengthening of commercial efforts;</li> <li>technology scouting and finalisation of agreements focused on energy transition with technology providers;</li> <li>exploitation of proprietary technologies;</li> <li>increase of investments in new technologies.</li> </ul>
Technology Risk			
RISK	ASSESSMENT*	FINANCIAL IMPACT	RISK MANAGEMENT ACTIONS
No sufficient effectiveness in deploying energy transition technologies.	<ul> <li>Time horizon</li> <li>medium-term</li> <li>Likelihood</li> <li>unlikely</li> <li>Magnitude of financial impact</li> <li>medium-low</li> </ul>	This risk may result in the loss of business opportunities in energy transition projects involving new technologies.	<ul> <li>Main mitigation actions are:</li> <li>promotion of technology intelligence and scouting activities on decarbonisation and energy transition;</li> <li>agreements with technology providers;</li> <li>internal generation of innovative solutions;</li> <li>filing of new patents and licence acquisitions.</li> </ul>
Regulatory Risk			
RISK	ASSESSMENT*	FINANCIAL IMPACT	RISK MANAGEMENT ACTIONS
Increase in operational costs due to changes in greenhouse gas emissions legislation.	Time horizon <ul> <li>medium-term</li> </ul> <li>Likelihood <ul> <li>likely</li> </ul> </li> <li>Magnitude of financial impact</li> <li>low</li>	This risk may result in an increase in operational costs. The financial impact is assessed considering the average carbon tax spent in applicable countries in the 4-year time frame.	<ul> <li>Main mitigation actions are:</li> <li>constant monitoring of regulations on GHG emissions worldwide;</li> <li>application of a plan with quantitative targets for GHG emissions reduction and energy efficiency;</li> <li>maintenance and upgrading to improve environmental performances of assets.</li> </ul>

(\*) A "time horizon" less than 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 CDP classification (https://www.cdp.net/en/guidance/guidance-for-companies). The magnitude of financial impact is assessed based on the impact on the Group EBITDA. The assessment of risks refers to residual risks and integrate the effect of mitigation measures implemented.

# **Reputation Risk**

### **RISK**

#### **ASSESSMENT\* FINANCIAL IMPACT**

Negative evaluation on sustainable business strategy and sustainability/ ESG performances by financial stakeholders.

Time horizon > short and medium-term

- Likelihood
- > likely
- Magnitude
- of financial impact

> low

The assessment considers the different cost of capital quantified on the difference of issuing a plain vanilla bond vs a sustainability- > sustainability reporting; linked bond.

#### **RISK MANAGEMENT ACTIONS**

Main mitigation actions are:

- > engagement activities with financial stakeholders;
- > materiality analysis to prioritise issues on Sustainability matters;
- > assurance process to guarantee reliable information to external stakeholders

# **CLIMATE-RELATED OPPORTUNITIES**

# **PRODUCTS AND SERVICES**

#### **OPPORTUNITY** ASSESSMENT\*\* FINANCIAL IMPACT MANAGEMENT METHOD Increase revenues in Time horizon Both incremental and Market opportunity in consolidated onshore > short-medium term terms of potential future disruptive innovation efforts; business segments revenues for green and business development and Likelihood aimed at reducing infrastructure projects strengthening of commercial > likely climate-related impacts efforts; scouting to identify for ongoing tenders or Magnitude (e.g. green & hybrid projects that may be strategic technology partners; renewable technologies, of financial impact awarded within the next cooperation with clients and significant key institutions. water projects, smart 4 years. cities, infrastructures, etc.). **OPPORTUNITY FINANCIAL IMPACT** MANAGEMENT METHOD **ASSESSMENT\*\*** Increase in revenues in Time horizon Market opportunity in New Business Line for the offshore renewable > short-medium term terms of potential future offshore renewables; business segment revenues including strengthening commercial Likelihood existing contracts efforts geographically aimed at reducing > more than likely climate-related impacts and ongoing tenders tailored; partnership (e.g. offshore wind farm). Magnitude or future projects collaborations; reinforcing of financial impact estimated to be awarded Innovation & R&D. relevant within the next 4 years. **OPPORTUNITY** ASSESSMENT\*\* MANAGEMENT METHOD FINANCIAL IMPACT Access to new, Time horizon Market opportunity R&D investment in innovative additional > long-term generating potential renewables, potential renewable markets future revenues. technology acquisition and Likelihood and meeting client new partnership agreements, > more likely than not needs (ocean energy, strengthening commercial Magnitude efforts in these market tropospheric wind, etc.). of financial impact segments. > low

(\*\*) A "time horizon" less than 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 CDP classification (https://www.cdp.net/en/guidance/

guidance-for-companies). The magnitude of financial impact is assessed based on the impact on the Group EBITDA.

#### **OPPORTUNITY**

### ASSESSMENT\*\*

Access to a new market for CCUS (Carbon Capture Utilisation and Storage) to support client requests and expand business opportunities also leveraging the recent acquisition of a new  $CO_2$ capture technology.

Time horizon > short-term

Likelihood > likely

Magnitude of financial impact low

### FINANCIAL IMPACT

Market opportunities in terms of contracts that may be awarded for future potential CCUS projects.

#### MANAGEMENT METHOD

Strengthening commercial efforts in this new market; Innovation and R&D efforts. technology scale up; Cooperation with potential clients and partners.

#### **OPPORTUNITY**

for Hydrogen value

chain development

plants).

Access to a new market

(stand-alone Hydrogen

#### ASSESSMENT\*\*

Time horizon > medium-term

Likelihood > unlikely

Magnitude of financial impact low

# **FINANCIAL IMPACT**

Market opportunities in terms of contracts that may be awarded for future potential Hydrogen projects.

# MANAGEMENT METHOD

Strengthening commercial efforts in this new market; Innovation and R&D efforts; scouting to identify potential partners /partnership strategy.

### **RESOURCE EFFICIENCY ON OUR ASSETS**

#### **OPPORTUNITY**

Offer more efficient and

through energy efficient

solutions on vessels and

in yards and drilling rigs.

# **Time horizon**

ASSESSMENT\*\*

cost-optimised solutions > short-term Likelihood

> more than likely

#### Magnitude of financial impact > low

#### **FINANCIAL IMPACT** MANAGEMENT METHOD

Cost saving related to reduced fuel and electricity consumption costs due to the implementation of energy efficiency solutions already identified in the 4-year Strategic Plan for GHG emissions reduction.

Implementation of energy assessments to identify adequate solutions and

maximise savings; design and implementation of measures and actions aimed at energy and GHG emissions reduction.

(\*\*) A "time horizon" less than 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 CDP classification (https://www.cdp.net/en/guidance/ guidance-for-companies). The magnitude of financial impact is assessed based on the impact on the Group EBITDA.

# **TOTAL QUANTIFIED OPPORTUNITIES**

ESTIMATED POTENTIAL REVENUES RESULTING FROM CLIMATE-RELATED OPPORTUNITIES IN THE 4-YEAR STRATEGIC PLAN (2021-2024)

# **USE OF SCENARIOS**

The effects of the COVID-19 outbreak are expected to be material especially in the medium to short-term, with a visible impact across all businesses, in particular on the upstream ones. A fully comprehensive analysis of the long-term scenarios post COVID-19 was been undertaken in the fourth quarter of 2020. The analysis described below is hence consistent with the post-COVID-19 expected scenarios.

Energy transition entails the competition of different energy sources and technologies to gain increasing shares of the energy mix. In Saipem, the assessment of the long-term industry drivers is based on the analysis of different scenarios, describing possible pathways leading to different long-term energy landscapes by 2040. The scenario analysis has been applied to the entire Company, considering the key macro-economic and energy trends that may have an impact on the main drivers of Saipem's businesses. Industry scenarios are updated at least annually, discussed with Saipem's Divisions and Management and they are subject to approval by the Board of Directors. The approved market scenarios are the basis of the preparation of the 4-years Strategic Plan of the Company.

Scenario analysis encompasses the study of different market outlooks, prepared by institutions, industry players and specific info-providers, to construct a comprehensive framework on the evolution of the long-term energy and non-energy related trends. In 2020, the scenario was analysed referring to BP, IHS and IEA's outlooks, foreseeing a visible reduction of the energy demand in all the scenarios, compared to pre-COVID estimates. This reduction is driven by the expected evolution of a series of factors, such as behavioural changes, energy efficiency improvements, technology advantages, and green policy improvement. In this frame, several oil companies (such as BP, ExxonMobil, Equinor, Total, Shell, Eni, Petronas, ConocoPhillips) and industry players, like Saipem, have updated their strategy in term of decarbonisation and transition of their current portfolio, bringing a new commitment on emission reduction targets over the next decades. Scenarios have been reviewed across different dimensions and clustered on the key assumptions regarding the energy intensity and the evolution of the key primary energy sources (oil, gas, coal, nuclear, hydro and renewables). The underlying hypotheses implied in each scenario have been stress-tested based on the likelihood of their viability in the long-term, considering for example, the possible evolution of energy efficiency, the substitution effects on oil-related demand from different alternative sources. This analysis has confirmed a further strengthening of the

climate action policies (in any case below the Paris agreement's target) and a boost in the development of clean energy technologies, mainly Hydrogen and CCUS (Carbon Capture Utilisation and Storage) in addition to renewable energy sources. The scenario analysis (both for the long and medium terms) is one of the key elements to formulate the strategic implications on the energy industry value chain and Saipem's main reference sectors (Exploration & Production (E&P), Oil&Gas, Midstream Gas, Downstream Refining and Petrochemical, Wind and Solar) and, even if in the long-term significant differences between the scenarios are evident, the short-term still appears to be less affected by the long-term dynamics. Nevertheless, while the demand in Saipem's reference markets does not differ materially in the short to medium terms, industrial players need to evaluate today the implications in the long-term of the future developments for their business segments, business models, and positioning to assess the risks, resilience, and opportunities triggered by the evolving energy landscape. The industry scenarios analysis highlighted that, up to 2040:

- revised outlook in the E&P segment drives increasing pressure especially on Drilling segment expectations, both offshore and onshore. The upstream Oil&Gas sector has struggled in recent years and COVID-19 has even worsened the situation. The impact on E&P spending will also be driven by capital allocation to sustain new emissions objectives;
- E&P oil capex outlook, already foreseen to decrease in the pre-COVID scenario, is expected to be further reduced compared to previous scenarios, only partly sustained by the need to replace depleting reserves;
- E&P gas capex, growing in pre-COVID scenarios, today is expected to be only marginally reduced compared to the previous assessments;
- > midstream gas capex long-term trend is confirmed, compared to pre-COVID expectations and on average remains stable across the different scenarios, providing available and sufficient transport infrastructure (including LNG) to sustain growth in gas demand;
- refining capex expected to remain stable or decrease according to different scenarios, broadly confirming the pre-COVID long-term expectations. The increasing focus on biofuels market in different sectors is confirmed;
- petrochemical investments should remain stable across scenarios due to global economic and population growth. A possible partial substitute is represented by new GreenChem products;

> annual capex for renewable energy supply is expected to grow significantly up to 2040, confirming the central role of renewables in the energy mix up to 2040 (4% CAGR). Wind, Solar PV and Hydro are set to represents 85% of power generation expected in 2040.

Based on the above, Exploration & Production activities are expected to suffer the highest reduction in capex, while other reference sectors are set to remain broadly in line or to improve versus pre-COVID outlooks. As the role of Oil&Gas is declining going forward, counterbalanced by renewables, two technology breakthroughs are forecasted as increasingly important to accelerate the energy transition: CCUS (Carbon Capture Utilisation and Storage) and Green Hydrogen.

From a broader perspective, with different configurations and rates over time, all scenarios highlighted the common emergence of a global long-term mega-trend, accelerating the pace of the energy transition and pushing the need for global infrastructure, boosted also by COVID-19 stimulus packages:

### Mega Trends & Civil Infrastructure

Demographic, environmental and socio-economic megatrends are increasing the need for infrastructure in the world:

- world population expected to grow further, up to over 9 billion people in 2040;
- rising awareness and need to "green" infrastructure to reduce environmental impact;
- other sector-specific drivers, such as need for international transports and guarantee of energy and water security;
- as a result, infrastructure market expected to reach 2.2 T\$ by 2040, stimulated also by public investments, especially in China and EU;
- China and Europe announced the largest infrastructure spending packages to date in G20 countries:
  - China with 1.4 T\$ investments in the next 5 years in new infrastructures (high speed rail, AI & data centres, EV charging stations);
  - European Union with 1.1 T\$ stimulus through Green Deal to support green and digital projects.

### Pressure on Oil&Gas and capital allocation

> awareness of climate change is putting increasing pressure on Oil&Gas players who are committing to Net-Zero targets, and on Governments that support the Energy Transition through public investments/incentives;

- climate-related considerations are the main factors leading to exclusion from financial assets pertaining to Sustainable Investing (31 T\$ assets), representing around 1/3 of total Asset Under Managements;
- sustainable investments are also showing more resilience to COVID-19 impacts and are likely to continue growing;
- > pressure on Oil&Gas industry is mounting also from institutional investors. As a result, Oil&Gas companies are setting the target to become Energy Companies:
  - Oil&Gas majors increasingly spending on low carbon projects (from 3% in 2018 to around 7% of total capex in 2020), targeting around 10% returns from low carbon business;
  - European IOCs drive the sector's climate action, converging towards Net-Zero for Scope 1 & 2 and to around 50% intensity reduction for overall emissions;
  - US IOCs and some NOCs begin to set long-term targets with few preliminary milestones;
  - Oil&Gas companies with severe decarbonisation targets still represent a limited share of the global oil production.

### New technology trends

Compared to last year's outlooks, two technology breakthroughs are forecasted as increasingly important to accelerate the energy transition: CCUS (Carbon Capture Utilisation and Storage) and Green Hydrogen:

- to accomplish the challenging estimates of a Net-Zero world, all scenarios gave plenty of room to CCUS in their revised Outlooks;
- Hydrogen plays an increasing role as the world transitions to a low-carbon system.

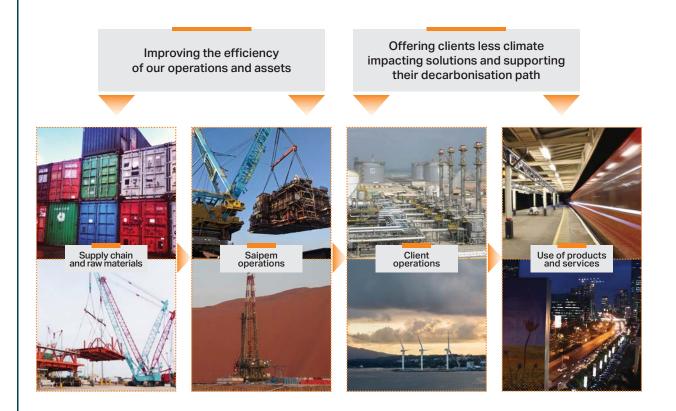
In all the scenarios analysed, oil is expected to remain a part of the energy mix in the near future, while gas will play a key role across different scenarios as a source that will be able to drive the transition towards a more sustainable energy mix. In this context, large-scale investment in oil and especially in gas infrastructures 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. Due to the current situation, their focus has been accelerated towards cutting-edge technology solutions with a lower carbon footprint, representing a significant opportunity for Saipem.

# ENSURING A RESILIENT BUSINESS

# MANAGING RISKS AND MAXIMISING OPPORTUNITIES

Recognising the actual global energy transformation and related risks and opportunities, Saipem has gradually transformed its ambition and targets, changing its profile from a traditional Oil&Gas service contractor to the new role of a "Global Energy Solutions Provider", supporting the transition to a "Net-Zero carbon" economy. Saipem is ready to support clients in identifying the best low carbon approaches and technology solutions to become a key partner by:

- extending the offer for zero carbon and low carbon solutions to our clients and supporting their decarbonisation path;
- improving the efficiency of our assets and operations to reduce our GHG emissions.



EXTENDING THE OFFER TO OUR CLIENTS ON LESS CLIMATE IMPACTING SOLUTIONS AND SUPPORTING THEIR DECARBONISATION PATH

All the scenarios analysed indicate that the future energy mix will comprise less oil but significant gas, as the latter is the energy source underpinning the transition towards a more sustainable energy mix. In this context, investment in oil and especially gas infrastructures will be required 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-edge technology solutions with a lower carbon footprint, representing a significant opportunity for Saipem. The effort in developing technologies, the commitment to constantly adapt the competence mix and innovation initiatives are the most effective levers that Saipem is exploiting to tackle climate related challenges that the industry is facing today.

In this sense, technology innovation plays a pivotal role: it is a key lever to drive the Company faster towards cutting edge and fully decarbonised energies. Our innovation agenda is strictly aligned with these strategic priorities and we manage a balanced portfolio of innovation projects to address equally different opportunities and threats.

The different targets of Saipem's energy transition strategy are pursued through a mix of efforts with different levels of maturity: innovation activities aimed at intercepting new and potentially disruptive technologies and related markets (scouting activities are continuously underway to identify potential partners with whom Saipem can cooperate), technology-pushed business development efforts aimed at helping clients to re-design their carbon footprint, and already structured commercial projects where innovative approaches find full exploitation.

Diversification in segments with lower carbon intensity and 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, at the end of 2020 where about 76% of the Company's E&C backlog was no longer related to oil.

Saipem is pursuing diversification with a strategy reflected in four main pillars:

#### **Driving the Energy transition**

# RENEWABLES

Offshore renewable energies are particularly relevant for us, especially offshore wind and floating solar parks; their systemic integration is decisive.

#### DECARBONISATION OF CARBON-INTENSIVE INDUSTRIES

Still producing energy by fossil fuels but significantly reducing related GHG emissions. This may impact not only the Oil&Gas downstream industry but also other carbon intensive industries.

#### CIRCULAR ECONOMY AND OTHER NON-ENERGY RELATED OPPORTUNITIES

Embracing new models that create value and safeguard the environment by improving the management of resources, eliminating waste and maximising circularity.

### HYDROGEN

It can find important room as a totally decarbonised gas that could progressively substitute natural gas, especially for the applications that will be difficult to electrify.

### RENEWABLES

Our focus is on strengthening market penetration in already existing renewable markets (i.e. solar, photovoltaic, on/offshore wind farm, advanced biofuels, concentrated solar power, etc.) and creating access to emerging renewable technologies (e.g. wave, tidal, ocean thermal energy conversion, floating photovoltaic, energy storage and efficiency, hydrogen and hybridisation for renewable energy integration). That is why we are working to develop new innovative projects through collaborations with players in different corners of the world.

# PROJECTS

In 2019, EDF Renewables awarded Saipem the EPCI contract for the construction of the Neart na Gaoithe (NnG) project. This is the first turn-key contract awarded to Saipem in the offshore wind farm sector. The Neart na Gaoithe is a 450 MW offshore wind farm off the coast of Scotland. Saipem's scope of work consists of the engineering, procurement, construction and installation of 54 steel foundation jackets for an equivalent number of 8 MW wind turbines, 2 steel foundation jackets for the offshore electric substations and the transportation and installation of the topsides. In the same year, Saipem was awarded a new contract for the Formosa 2 offshore wind farm in Taiwan. The scope of work entails the supply of material and fabrication of 32 foundation jackets. The wind farm is jointly developed by a consortium with JERA, Macquarie Capital Group, Stonepeak Infrastructure Partners and Swancor Renewable Energy.

Other recent acquisitions include:

- > the transportation and installation of two offshore platforms for "Dogger Bank A" and "B" Wind Farms off the North East coast of England. At the end of the project, Dogger Bank will be the world's biggest offshore wind farm;
- the installation of 114 foundations for the Seagreen Offshore Wind Farm, a joint venture project off the East coast of Scotland;

- > the design work, construction and installation of 71 concrete Gravity-Based Structures (GBS) as foundation for the Fécamp offshore wind farm in Normandy, France. The contract is executed together with partners;
- the EPCI (Engineering, Procurement, Construction and Installation) of 64 steel monopiles for the Courseuiles wind farm in Normandy, France.

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 the lack of production of renewable sources. As part of completed 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.

### INNOVATIVE SOLUTIONS

Saipem and Equinor have signed a cooperation agreement to develop a floating solar park technology solution for near coastal applications. The Design Development phase has been finished, while the Demonstration phase is ongoing before proceeding to the final Commercialisation phase. The technology is based on the in-house developed floater concept by Moss Maritime, part of Saipem's XSIGHT Division, which is a modularised system, designed for easy fabrication, transportation and installation at operation site. The technology provides the same benefits as already established by solar photovoltaic solutions for calm sea locations (Floating Photovoltaic). However, being

designed for more rough weather conditions, additional locations can now be considered. The concept has a dual application: it is suitable for areas where there are no large water reservoirs and also for very windy areas. Saipem has developed a lighter floating offshore wind substructure called HexaFloat, which uses an adjustable hanging counterweight to provide an adaptable foundation to cope with turbine sizes of up to 15+ megawatts in the most cost-effective way thanks to low motions and accelerations and lighter structure and mooring design. To complete the demonstration of the technology, two main initiatives are under way. First, Saipem and the Italian Consiglio

Nazionale delle Ricerche CNR (National Research Council) have signed a cooperation agreement in November 2020 which will allow the research centre to use the HexaFloat concept. This agreement represents the start of a synergy between the biggest Italian research centre and Saipem, leading to an advancement in the TRL (Technology Readiness Level) of floating foundation and at the same time to an improvement in the design criteria which are fundamental for accelerating the cost reduction curve. The first prototype of the HexaFloat will touch water in 2021. Second, the AFLOWT (Accelerating market uptake of Floating Offshore Wind Technology) demonstration project is progressing to a full-scale test of the offshore HexaFloat technology, through a consortium led by the European Marine Energy Centre (EMEC) and funded by Interreg North West Europe. Start of power production is planned for 2023. Meanwhile, several commercial projects using floating wind farm and floating solar power technologies were initiated: Saipem will co-develop a wind farm in the Adriatic Sea off the coast of Ravenna (the AGNES Project). A Memorandum of Understanding was recently signed with AGNES, a company that develops renewable energy projects in the Adriatic Sea, in particular offshore and nearshore wind farms, floating solar panels at sea, energy storage systems and hydrogen production from renewable sources, and QINT'X, an Italian company specialised in renewable energy, solar, wind and hydroelectric energy and e-mobility (electric vehicles). This project will involve the installation of about 60 turbines and will use innovative technologies such as floating solar technology based on Moss Maritime's proprietary technology. AGNES enables the creation of an intricate renewables hub where the wind energy produced will not be used as such but can also allow the production of Green Hydrogen and Oxygen (useful for aquaculture applications). Systemic integration among different intermittent renewable energies and a hydrogen production unit will allow the best available resources to be exploited and represents the future evolution of these complex systems. Saipem has signed an agreement with Kite-Gen, 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.

With reference to ocean energy projects, Saipem has been involved with 3 technology providers whose devices can be offered to energy company clients, already reaching significant results.

In the field of Wave Energy, Saipem and the Finnish technology provider Wello Oy have undertaken to work together for the successful execution of their first joint project that involves the deployment of Wello's Penguin Wave Energy Converter at the Biscay Marine Energy Platform test area, in the North of Spain.

As regards Water Current Energy, the XSIGHT Division supported a specific survey campaign on an identified installation site for the application of the hydro-turbine device, in the Messina Strait in 2020. Following the positive test results, the XSIGHT Division is monitoring the EU Green Deal programme to issue a project proposal for the execution of the pilot project.

Saipem, through its affiliate Sofresid Engineering, owns a 19% stake in the French company Sabella, one of the pioneers of the development of Tidal stream devices, which aims is to provide renewable and predictable energy production to remote networks around the world such as islands or other off-grid locations.

Saipem has recently signed a collaboration agreement with the Italian National Institute of Geophysics and Volcanology (INGV, Istituto Nazionale di Geofisica e Vulcanologia) to carry out feasibility studies to realise geothermal plants, evaluating applicable technology solutions and playing a coordination role in the verification of industrial feasibility. With regard to biomass conversion, an in-depth investigation has been devoted to biofuel production processes and technologies with a focus on 2<sup>nd</sup> generation bioethanol and its integration with the technology for biogas production. In this frame, a Memorandum of Understanding is being finalised with a technology provider to co-develop the technology. Moreover, several approaches for the production of bio-methane from different kinds of waste (landfill, municipal, agricultural, sewage sludge and energy crops) and for the production of bio-jet fuels (fuel used in planes) from bio-olefins are under investigation.

## DECARBONISATION OF CARBON-INTENSIVE INDUSTRIES

Focus on less carbon intensive energy sources, in particular the use of Natural Gas as a fundamental energy source for the transition period (e.g. gas monetisation and LNG), but also on the management of the  $CO_2$  value chain to provide decarbonisation solutions for our clients, including energy efficiency and Carbon Capture and Storage (CCS) solutions.

### PROJECTS

With reference to Natural Gas, Saipem is a key player in the global liquefied natural gas market with the award of 3 major LNG projects: the Arctic LNG2 project in Russia, the Mozambique LNG project and the Nigeria LNG Train 7 project.

Saipem is building the Arctic LNG2 giant plant in Murmansk (North of Russia) with its partners for Novatek. The project is composed of three lines for the production of LNG (topside facilities) to be installed on three concrete gravity-based-structures (GBS) with an LNG storage capacity of up to 680,000 m<sup>3</sup>. The Mozambique LNG project, with a production capacity of 12.9 mtpy, is strategic for Saipem as it will allow us to be present in a country that is emerging on the international energy scene.

The Nigeria LNG Train 7 project consists of the construction of one complete LNG train and one additional liquefaction unit with a total capacity of approximately 8 million mtpy, plus other extensive associated utilities and infrastructures. This project confirms our ability to build solid relationships, qualifying Saipem as a global company.

These projects are on top of the base load facilities under execution for the Tangguh Expansion project in Indonesia and for the Nong Fab Regasification Terminal in Thailand and of the support services provided to other operational LNG facilities like Panigaglia in Italy. The provision of energy efficiency solutions is already embedded in Saipem's portfolio, both regarding the construction of new plants with state-of-the-art solutions for optimising efficiency, and the retrofitting of existing plants to reduce waste and energy consumption. Saipem can master the whole Carbon Capture and 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<sub>2</sub> injection. Efforts are continuing to keep our proprietary licenced 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.

Regarding CO<sub>2</sub> transportation, Saipem has completed a FEED of the Northern Lights

Norwegian CCS project, the main European project for large-scale CCS, for the subsea  $CO_2$  transportation phase. In addition, Moss Maritime was involved in the liquefied  $CO_2$  ship transport solution, also part of the same project.

Currently, we are also supporting an activity funded by the Norwegian Government targeting identification of non-metallic materials suitable for use in  $CO_2$  pipelines. In addition, Moss Maritime is part of Altera's Infrastructure's Stella Maris CCS initiative together with Equinor, Total, DNV GL, Sintef and other partners. The Stella Maris feasibility study covers large scale transport and injection of  $CO_2$  in subsea reservoirs/aquifers. Finally, CO<sub>2</sub> storage solutions, like CCS, have been identified as the future for Offshore Drilling since wells are a critical component of any CCS project. It is likely that a large part of the future storage of carbon dioxide will be offshore. Wells will be drilled and completed for multiple purposes, such as exploring the suitability of geologic formations, injecting CO<sub>2</sub> and monitoring the behaviour and location of injected CO<sub>2</sub>.

In this overall respect, in December 2020, Saipem signed a Memorandum of Understanding (MoU) with Eni to cooperate on the identification and engineering of decarbonisation initiatives and projects in Italy. In particular, the companies intend to identify possible opportunities for collaboration in the carbon capture sector, utilisation and storage of CO<sub>2</sub> produced by industrial areas throughout Italy. The objective is to contribute towards the decarbonisation process of entire production chains, particularly those of the highest energy intensity by taking clear steps with immediate action to combat climate change and to achieve CO<sub>2</sub> reduction targets at national, European and global levels. Through the MoU, Eni and Saipem will also evaluate participation in programmes financed by the European Union as part of the Green Deal Strategy, proposing the possible inclusion of specific initiatives within the plan for the use of funds intended to support Member States of the European Union in the post-COVID-19 phase ("Recovery and Resilience Fund").

### FOCUS ON SNAMPROGETTI™ SUPERCUPS TRAYS

We are committed to supporting our clients by suggesting specific measures and proprietary solutions for their energy efficiency. We are continuously improving efficiency in ammonia-urea complexes through technology integration, especially with the introduction of the Snamprogetti™ SuperCups trays, which drastically increase the mixing efficiency of the reactant phases, thus optimising the product conversion rate; several new and revamped plants are adopting or will adopt the SuperCups trays. The use of SuperCups substantially contributes to energy saving, resulting in:

> 6-8% estimated reduction of hourly emissions of  $CO_2 eq$  (in t  $CO_2 eq/h$ );

> 5-10% estimated reduction of carbon intensity (in t  $CO_2$  eq/t prod).

This means that the application of a full set of SuperCups in a Urea mega-Plant of 5,500 mtpd (metric tonne per day) of capacity, may result in an overall reduction of 65-80 metric tonne per day of  $CO_2$  emissions.

### INNOVATIVE SOLUTIONS

Saipem is developing subsea technologies related to subsea processing and drones that will enable all-electric developments, thus reducing the carbon footprint of subsea field developments.

We are also engaged in developing solutions to decarbonise Oil&Gas facilities through the provision of local renewable sources. For example the Windstream solution aims to feed remote subsea systems with local power supply and auxiliaries provided by one or several floating wind turbines. The floating foundation naturally accommodates the wind turbine generator but also all the utilities that may be needed for subsea field development and operation, i.e. power distribution, control system, chemical storage and injection and a back-up energy system that can maintain power supply in the absence of wind. This last aspect is being investigated through local power storage solutions

Further, 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<sup>™</sup> Liquefaction technology, particularly suited for midscale 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.

As regards  $CO_2$  capture technology, notwithstanding the already existing track record, Saipem has continuously scouted emerging technologies, building a distinctive technology portfolio to serve either for the purification of natural gas from reservoirs with a high  $CO_2$  content or for capture of  $CO_2$  from combustion flue gas in power generation and industrial processes.

Saipem has recently acquired a proprietary technology for  $CO_2$  capture from the Canadian company  $CO_2$  Solutions Inc. The technology, originally developed by the start-up and now further developed by Saipem, lowers the post-combustion cost threshold for capturing  $CO_2$  by allowing its sequestration and reuse to obtain new marketable products. It is more environmentally friendly than state-of-the-art technologies using amine-based solvents; moreover, regeneration at low temperature allows for the use of low-grade heat such as hot water rather than steam, with a significant reduction in both energy consumption and operating costs.

The technology has been demonstrated on an industrial scale (30 tonnes of  $CO_2$  per day) and has reached the marketing stage (TRL-8) after its recent validation and accreditation. Furthermore, CO<sub>2</sub> re-utilisation options to produce urea or, by hydrogenation with Green Hydrogen, to methanol, Substituted Natural Gas (SNG) or other e-fuels, are being intensely pursued as a first step towards industrial exploitation of capture technologies. In parallel intensive market scouting is under way to develop new concepts of offshore CCUS plants to be installed on offshore fixed facilities. As a leading company in the design and construction of pipelines, we are involved in studies to develop the knowledge, engineering tools, methods and procedures that will be the basis for the execution of future projects concerning offshore CO<sub>2</sub> transportation.

# CIRCULAR ECONOMY AND OTHER NON-ENERGY RELATED OPPORTUNITIES

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

# PROJECTS

In the infrastructure sector, construction of the first lot of the Brescia-Verona (North of Italy) 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. Contributing to the circular economy are decommissioning projects to dismantle existing platforms such as the BP Miller project, the LOGGS project and the 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, there is the Spence Growth Option project for the development of a desalination plant and water pipelines in the North of Chile.

### INNOVATIVE SOLUTIONS

■ Saipem and ITEA, a Sofinter company, have signed a licence agreement on ITEA's Proprietary Isotherm Pwr® "Flameless" Oxy-Combustion Technology which produces steam, electricity and pure CO<sub>2</sub> 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. Innovative efforts have also been initiated in the field of waste water treatment, including novel solutions for ammonia-urea complexes (and also for refineries) by cooperating with Purammon Ltd for the highly effective removal of nitrogen and organic contaminants through a novel electrochemical technology, that makes it possible to comply with the most stringent environmental regulations. This approach will be extended to the overall water cycle management (including recycling wastewater).

# HYDROGEN

Focus on decarbonising hydrogen production to make hydrogen a fundamental factor in the energy transition period as an energy carrier.

# PROJECTS

Both Blue Hydrogen (hydrogen from fossil fuel with carbon capture) and Green Hydrogen (hydrogen from water electrolysis with renewable power) are being considered by Saipem. Green Hydrogen is the final target, but Blue Hydrogen is a compatible opportunity for moving this option to the market more quickly in the next two decades. Saipem is concentrating its efforts both on onshore and offshore hydrogen production technologies and on related infrastructure issues which will be decisive in its fully successful affirmation. We have begun to develop several projects and activities in the hydrogen field, in the intimately connected areas of technology innovation and industrial initiatives development. The following initiatives are worth noting with regard to technology Innovation:

 in response to the global ambition of reducing the environmental footprint from global ship transport, Moss Maritime, in cooperation with Equinor, Wilhelmsen and DNV-GL, has developed a design for a Liquefied Hydrogen (LH<sub>2</sub>) bunker vessel. We are ready to support the shipping industry in implementing solutions for liquefied hydrogen for future projects;

Sofresid Engineering was the winner of an Open Innovation Challenge launched by RTE (French Electric Network) with the HyBSea system. HyBSea is a concept for the development of a "marinised" module including sea water treatment, and electrolysed production of hydrogen and oxygen.

Moreover, novel concepts are being developed for the design of self-sustaining "Energy Islands" that will generate energy from renewables, stored as electricity or hydrogen that will later be distributed to the relevant markets. In this frame, Saipem has recently developed the X-H<sub>2</sub>UB concept for offshore production, storage, and distribution of Green Hydrogen.

As far as industrial initiatives are concerned, we are also investigating other projects for the production of Green Hydrogen on offshore

In September 2020, Snam and Saipem

platforms. In addition, we have onshore projects for renewable power conversion to Hydrogen and its direct injection into the grid, and renewable power to Green Hydrogen through electrolysis for road transport or to feed fuel cells for maritime propulsion.

### INNOVATIVE SOLUTIONS

signed a Memorandum of Understanding to start working together on new energy transition technologies, in particular to jointly define and develop initiatives for Green Hydrogen production and transport and the capture, transportation and reuse or storage of carbon dioxide (CCU and CCS). This agreement, which was signed by the companies' CEOs, also involves a collaborative effort to develop feasibility studies to find new solutions to transport both liquid and gaseous form of hydrogen by using and adapting existing infrastructures and networks, as well as transport by ship.

The partnership between Snam and Saipem is already under way for the development of water electrolysis technology, a process that will make it possible to reduce CO<sub>2</sub> emissions to zero in the production of green hydrogen, thereby contributing to the launch of the hydrogen market by supporting the European Commission's Hydrogen Strategy and effectively fighting climate change. For green hydrogen, Saipem is analysing novel concepts for the design of self-sustaining "Energy Islands" taking generation from renewables to store as electricity or hydrogen, and then distributing it to the relevant markets. Furthermore, Saipem is scouting solutions and investing in technologies to effectively compete on the whole hydrogen value chain. In addition, future ship transport solutions for liquefied hydrogen, both large and smaller

scale, are under development.

As far as offshore pipeline transportation of  $H_2$  (pure or blended with NG) is concerned, we are studying the design of new pipelines or re-conversion of existing pipes for Hydrogen transport. We are also working on the definition of international standards to design new sealines (Offshore Pipelines) or re-conversion of existing ones, through participation in several Joint Industry Programmes (JIPs) together with some of the most relevant energy companies, consultant and pipe manufacturers.

In this context strong relationships with Universities, Certification Entities and Start-Ups have been accelerated. Within such initiatives, the expected material testing activities will also play a key role and an intensive engineering effort is dedicated to the development of knowledge, engineering tools, methods and procedures that will be the basis for the execution of future projects concerning offshore safe H<sub>2</sub> transportation and storage. In parallel, intensive market scouting is under way to develop new concepts of offshore H<sub>2</sub> production & storage plants to be installed on offshore fixed or floating facilities. In conclusion, Saipem is strongly committed to an overall effort by exploiting its own specific know-how and competences and selectively accessing new technologies, to improving cost and infrastructure issues, necessary

elements that will make a real and concrete

transition to new fully decarbonised energies.

2021 SHAPING A NET-ZERO FUTURE \23

# SUPPORTING OUR CLIENTS TO MEASURE THEIR CARBON FOOTPRINT

The first step in being able to reduce or increase something is to measure it. That is why we support our clients in their decarbonisation efforts also by helping them measure their carbon footprint. Thus, we have developed a series of tools to assess the overall carbon footprint in a life cycle perspective, in particular:

The GHG Estimation tool for the value chain called **SOCE (Saipem Offshore Carbon Estimation)** is an internally developed tool aimed at quantifying the  $CO_2$  emissions of the entire value chain of upcoming EPCI (Engineering, Procurement, Construction and Installation) projects using LCA methodology. The results will support decision making on a strategic level, identifying project phases and assets in the chain of emissions that have the highest carbon footprint and the largest margins for improvement. This tool assumes a strategic role from several points of view: from a client perspective, it allows us to quantify the overall GHG emissions of a project. In our supply chain, it represents a precious lever for addressing sustainability by helping our suppliers identify the goods and services that show lower impacts. It is worth mentioning that Saipem received the Environmental Sustainability Award 2020 from the International Marine Contractors Association (IMCA), in the environmental sustainability category, for its innovative tool for estimating  $CO_2$  emissions from its offshore projects.

The **GHG supplier model** is a tool capable of estimating GHG emissions across the supply chain. It was developed specifically for the supply chain because it is the largest source of Scope 3 emissions for Saipem. An analysis involving selected projects has identified procurement categories, which cover around 80% or more of Scope 3 emissions from the supply chain of a project and seven material clusters. The tool has been designed in a way that it is possible to thoroughly vet Saipem suppliers (asking them to provide all supply chain inputs necessary for model run) or in a more simplified way (asking them to provide only the most important supply chain input). The model was completed in 2019 and it was tested in 2020 in collaboration with some suppliers. After the completion of the test run, the model will be reassessed in order to verify how suitable it is for final deployment in our current vendor management processes and vendor selection criteria.

XSIGHT is offering **LCA (Life Cycle Assessment)** studies using the LCA methodology set in the ISO 14040 and ISO 14044 standards, to provide its clients with a reliable and transparent quantitative assessment of their potential environmental impacts of their projects, products, processes or circular economy-based integrated systems, from revamping up to new configurations. A fact-based sustainability Report is delivered for both new plants and existing ones. For operating facilities, the Life Cycle Assessment (LCA) enables the Environmental Product Declarations (EPD), an international certification compliant with the ISO 14025 standard.

Saipem has developed a specific **Design for Low Carbon** methodology to provide a decarbonisation perspective for clients towards achieving the Net-Zero target, maximising the early-stage carbon reduction, avoiding time and cost impacts. It allows to estimate, during the early phase of the design, the Carbon Footprint of Saipem's products in order to identify low-carbon solutions, in terms of Carbon Intensity reduction, Energy Efficiency increase and  $CO_2$  avoidance cost supporting the decision-making process of our clients. XSIGHT Division has developed a tool to support the Saipem methodology to forecast GHG emissions for plant design. The methodology and the tool have been certified and validated by an independent third party in accordance with the principles of the ISO 14064 "Greenhouse Gases" standard.

The **Environmental KPI calculation tool**, currently under development, is aimed at calculating the main environmental KPIs of a project using a homogeneous approach, including carbon footprint. The starting point of the adopted methodology is the identification of the plant boundary. This approach allows to minimise influences related to project peculiarities and the local context of the specific project as far as possible. The tool is tailored to be used during the engineering phase of the project fully integrated within the existing workflow. Each unit analysed will become a record of a database that will be established over time, and that will allow statistical analysis for monitoring and comparing environmental performances.

# IMPROVING THE EFFICIENCY OF OUR ASSETS AND OPERATIONS TO REDUCE GHG EMISSIONS

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In addition to providing our clients with solutions for decarbonisation and lower climate impacts, Saipem is committed to working on its own GHG emissions to reduce its direct impact. These emissions are the result of Saipem activities in offices, logistic bases, fabrication yards, onshore and offshore drilling rigs, offshore construction vessels and construction worksites.

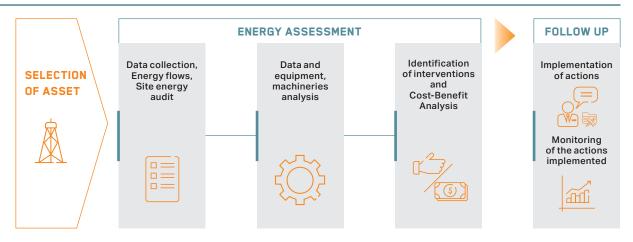
In 2020, Saipem has set the objective of accelerating the pursuit of medium and long-term strategies and implementation plans to achieve "Net-Zero" greenhouse gas emissions. Saipem's strategy can be broken down into 2 main steps.

#### Short-term (four-year) strategy

Starting from 2018, a Four-Year Strategic GHG Reduction Plan was issued to analyse and identify areas of improvement and emission reduction targets on its most energy intensive assets (e.g. vessels, rigs and yards). The Plan has been renewed and updated on an annual basis and has become part of the corporate MBOs. Short-term targets are set for Saipem's GHG emissions (Scope 1 and 2), which also represent a portion of the indirect (upstream) emissions of clients. Saipem's structured approach to its Strategic GHG Reduction Plan is based on the following main steps:

- 1. The selection of the asset to be assessed.
- 2. Performing an Energy Assessment on the asset, with the identification of potential GHG reduction and saving measures.
- 3. Implementation of the measures identified.
- 4. Evaluation of the benefit obtained.

### 4-YEAR STRATEGIC PLAN FOR GHG REDUCTION: PROCESS AND APPROACH



In 2020 alone, the measures implemented resulted in a saving of 26,700 tonnes of  $CO_2$  eq, measured against Saipem's 2018 emissions baseline. It is estimated that, thanks to the GHG Strategic Plan, Saipem will not emit 255,000 tonnes of  $CO_2$  eq into the atmosphere over the 2019-2024 timeframe.

# Medium- and long-term strategy (2030-2050)

In relation to the second step, Saipem has defined a GHG emission reduction strategy for the achievement of the Net-Zero objective, with respect to Scope 1, Scope 2 and Scope 3 emissions. Two elements are considered in the medium (2030) and long (2050) term work roadmap, namely: reduction of own emissions and offsetting of residual "difficult-to-abate" emissions, while reduction activities are always considered the priority.

For offsetting projects, the expectations and needs of the communities in the areas where we operate are analysed in order to define projects that will improve their accessibility to more sustainable energy, the wealth and the socio-economic development through the implementation of some projects. The reduction activities relate to Scope 1, Scope 2 and Scope 3 emissions, as described below. The target set is 50% reduction for Scope 1 and Scope 2 GHG emissions by 2035 compared to the 2018 emissions baseline.

Concerning Scope 1, the main technology, plant and electrification actions are under way on the most energy intensive assets, namely vessels, rigs (Onshore and Offshore), accommodation camps/Temporary Construction Facilities (TCFs) and vards. Scope 2 emissions are indirect and generated using electricity from the grid, particularly in office buildings located around the world, as well as some fabrication yards in non-remote areas, with available grid connection. There will be a tendency to maximise the use of electricity from renewable sources for facilities and projects where possible. In addition, the Company Headquarter, which is the main management centre in terms of the number of employees and energy consumption, will be relocated

in 2022 to two new energy-efficient buildings with a strategic location in terms of regional and national mobility, currently under construction, in Milan. Similar choices have been made in the recent past in other important locations, such as GPS in Switzerland, Moss Maritime in Norway and Saipem Ltd in UK, and it will be the model that will be followed in future choices. In addition. Saipem wants to take a leading role in supporting and stimulating clients, suppliers and the various players in the value chain to achieve the same goals. Thanks to a reliable, traceable and independently validated Scope 3 emissions reporting system, Saipem wants to work synergistically in partnership with suppliers to reduce their emissions, especially in the area of materials procurement and mobility-related aspects.

### CASTORONE ENVIRO CLASS NOTATION

In 2020, our flagship Castorone obtained the voluntary ABS Class notation ENVIRO for green vessels, after the verification conducted by ABS with an analysis of technical documents and an onboard survey.

ENVIRO is a Class notation based on a voluntary set of rules, that go beyond mere statutory compliance with MARPOL (the International Convention for the Prevention of Pollution from Ships). The rules cover all relevant environmental aspects in the vessel's operation: e.g. oil pollution prevention, ballast water, bilge and sewage treatment, garbage management, air emissions and hull anti-fouling systems. Following these rules under Third Party verification by Class,

Saipem has taken a further step in raising the standards on green ship design, construction and operation, based on the latest technological advances. This achievement is important for demonstrating the high performance of Castorone also in terms of environmental management, thus responding to the increasing needs of our clients for minimising environmental impacts during projects execution.

### STRATEGIC PLAN ON GHG EMISSIONS REDUCTION: FOCUS ON MAIN ACTIVITIES AND INITIATIVES

#### SeO

Saipem's eco-Operations (SeO) programme was conceived in 2018 to monitor and bring to light all the best practices to reduce fuel consumption and GHG emissions on every vessel. Energy efficiency in offshore operations is achieved first and foremost by avoiding energy waste. After accurately assessing areas of improvement through energy assessments carried out by third party experts, we identified the main energy flows from the sources to the end-users and, consequently, the management and technology improvements needed to reduce consumption and increase the overall efficiency of vessels while maintaining the highest standards of operational safety. Management improvements are the basis for the SeO programme. For each vessel analysed with an energy assessment, a list of applicable management actions is defined with a detailed description of quantified achievable hourly savings in fuel and GHG emissions. This allows us to track the number of hours saved for each Saipem eco-Operation in order to quantify the reduction of GHG emissions as a direct outcome. Since March 2019, Saipem eco-Operations have been launched and implemented on some of the main vessels of the fleet: Castorone, FDS 2, Saipem 7000 and Constellation. The systematic tracking of best practices within SeO documented an avoided consumption of about 5,200 tonnes of fuel, equivalent to 16,690 tonnes of avoided CO<sub>2</sub> emissions and other pollutants into the atmosphere in 2020 alone.

#### **Route Optimisation**

Navigation is perhaps the most energy-intensive operation mode of offshore vessels. Committed to preserving the environment and reducing fuel consumption, we prepared and implemented ship energy efficiency management plans, aimed at reducing the fuel consumption of offshore vessels in all their operation modes. Route Optimisation is an additional service that we activated to reduce a vessel's footprint during navigation based on marine weather forecasts, by allowing ships to take advantage of favourable winds and currents in order to reduce fuel consumption. To clearly identify when to activate this service, we issued a Route Optimisation policy that is used by all masters to consistently advise which routes can be most beneficial, based on the distance to be covered and on average marine weather. Over 2020, the Route Optimisation service was activated on 8 routes for different main vessels. The service has delivered a savings of around 140 tonnes of fuel, that corresponds to 450 tonnes of CO<sub>2</sub>.

#### **Energy efficiency for Drilling Rigs**

An energy efficiency analysis case study was carried out in Kazakhstan with the aim of evaluating the benefits achieved through rig electrification works completed on the two onshore rigs which were connected to the local electrical network managed by the client. The case study highlighted that it is possible to improve energy efficiency and GHG reductions if the rigs are located near the electrical grid and if there is a low impact source of electrical energy (gas turbines). A 13% reduction in  $CO_2$  eq was achieved with the new power system.

In Saudi Arabia, in 2019, we started the process of renewing diesel generators on onshore Rig 5829, intended to improve energy efficiency and ultimately reduce GHG emissions. It was estimated that this asset improvement will bring about a 10% reduction in GHG emissions. In 2020, it led to a savings of 1,519 t of  $CO_2$  eq. In addition, in 2020, energy efficiency initiatives were implemented in Dammam Base in Saudi Arabia, with the installation of LEDs and more efficient AC units. The initiatives led to a respective savings in 2020 of 311 t and 143 t of  $CO_2$  eq. Since January 2019, the drilling performance dashboard has been installed on 2 onshore rigs in Kuwait with planned expansion to rigs in Saudi Arabia in 2021. The rigs in Kuwait are provided with high efficiency diesel generators and a load optimisation system which can make the generators run at the top of their efficiency curve and minimise GHG emissions. Moreover, the masts of the two rigs are provided with LED projectors, granting perfect overnight lighting, while saving about 50% of electricity compared to traditional sodium lights.

#### **Lighting system**

On assets like offshore vessels and fabrication yards but also on projects and offices, lighting is one of the most ubiquitous electrical consumptions, also because of the high number of working hours of the lamps and fixtures. For this reason, several initiatives have been implemented aimed at gradually phasing out the old lamps and replacing them with LED ones in all Divisions and at Corporate level. These LED lamps not only consume less energy, and thus contribute to decreasing GHG emissions, but also have a longer life span reducing the environmental impact over the whole life-cycle: from the purchase of new lamps to replace to the reduction of waste management for the spent ones. Several initiatives in 2020 included the substitution of these new LED lamps in offices, assets, project sites and accommodation camps, resulting in a total savings of approximately 2,700 t of CO<sub>2</sub> eq per year.

#### **Good practices booklets**

The sharing of good energy efficiency practices can be a powerful channel for obtaining significant results, especially in energy efficiency and GHG emissions reduction targets. This is why a series of Good Practices Booklets were prepared, to summarise the proposed technical and managerial measures for energy efficiency of the energy assessment studies carried out on our operations in several countries. This instrument is particularly important in particular contexts, such as drilling operations and accommodation camps: in this case, the purpose of the booklet is to provide the operations management with an overview of the energy efficiency measures that could be applied to their managed rigs and camps with a preliminary estimation of the achievable benefits.

## COLLABORATING WITH INSTITUTIONS, INTERNATIONAL ASSOCIATIONS AND ORGANISATIONS ON CLIMATE-RELATED ISSUES

After joining the UN Global Compact in 2016, Saipem has constantly interacted with UN Global Compact representatives and participated in national and international events, including topics related to environmental impacts and Climate Change-related issues.

Furthermore, Saipem encourages dialogue with institutions and with organised associations of civil society in all the countries where it operates. By way of example, in Italy Saipem participated in a hearing with a parliamentary committee during the course of an enquiry into the prospects of implementation and adaptation of the National Energy Strategy to the National Plan for Energy and Climate for 2030, and was part of the Gas Industry's Advisory Committee, for which the Italian contingent was chaired by the Ministry of the Exterior, and is active in the consultation process for the definition of the Italian Hydrogen Strategy launched by the Ministry of Economic Development. Saipem is also involved in the Energy roundtable chaired by the Ministry of the Exterior and the Ministry of Economic Development, as well as the roundtable on the theme "Smart Mobility and Artificial Intelligence" launched by the Lombardy Region (Italy), and attends various webinars organised by Italian embassies throughout the world, with speaking engagements by its managers, and has its own installation in the Italy Pavilion at the Universal Exposition in Dubai in 2021.

By virtue of the Group's solid international vocation, with a presence in over 70 countries, Saipem participates in several industrial and business associations, engages in dialogue and attends events on climate and environmental issues. Saipem is a member of several energy transition associations and networks, including the Global Carbon Capture and Storage Institute (GCCSI), and the associations CO<sub>2</sub> Value Europe, IHS and Hydrogen Europe and the European public initiative Clean Hydrogen Alliance. In addition, several ongoing collaborations are under way with important organisations, companies, research centres and start-ups, such as those with Equinor, Eni, Snam, the Italian National Institute of Geophysics and Volcanology (INGV), Italy's National Research Council (CNR) and others already described in the previous chapters.

Further, in May 2020, Saipem signed a Protocol of Understanding with Cassa Depositi e Prestiti (Italian welfare fund) to jointly assess launching innovative, high environmental, social and economic sustainability projects to promote the energy transition both nationally and internationally. These initiatives and projects, which have as their goal decarbonisation, the circular economy and energy efficiency, will mainly involve:

- > the development and construction of infrastructure for the production of energy from renewable sources, including conventional photovoltaic systems and floating systems for use on both water basins and offshore wind farms (on fixed and/or floating foundations);
- > the development of circular economy projects, with an additional focus on investment procedures including the use of specific technologies (such as technologies for exploiting household and industrial waste, the disposal of plastics);
- intervention models for the promotion, development and construction of infrastructure for the supply, transformation and use of liquefied natural gas (LNG) in maritime transport.

In the same month, Saipem also signed a framework agreement with Equinor lasting two years to provide engineering services at a global level for the Company's future projects, including energy projects in the onshore, offshore and floating wind farm sectors. This agreement adds to the existing agreement for the development of an innovative technology solution for a floating solar farm for coastal installations.

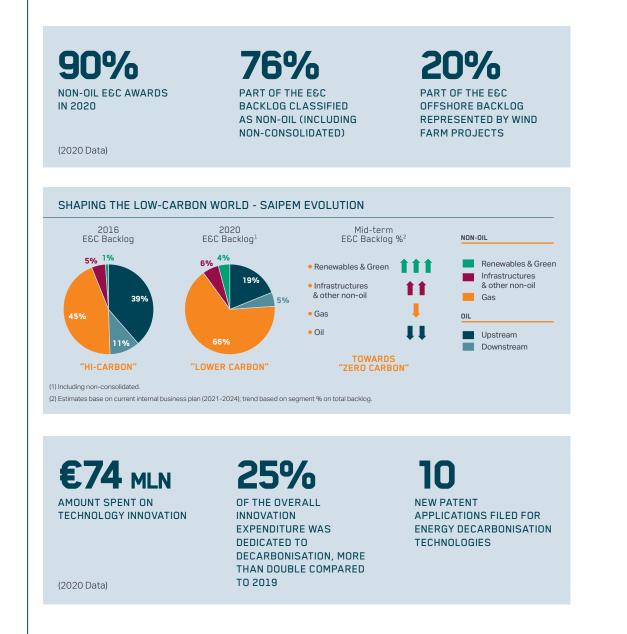
In November 2020, a framework agreement – Long Term Agreement (LTA) – was also signed with Saudi Aramco. This will last twelve years and will cover onshore engineering and construction activities. The agreement will involve activities to improve the efficiency of existing facilities and is part of Saudi Aramco's broader long-term plan to modernise its facilities in the country's Eastern Province with the aim of optimising consumption and reducing  $CO_2$  and  $H_2S$  emissions.

Saipem is also a participant 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 and actively participated in the organisation of dedicated workshops focused on the analysis of the recommendations of the Task Force on Climate-Related Financial Disclosure, the identification of risks and opportunities and scenario analysis.

In December 2020, Saipem also became an official supporter of the recommendations of the Task Force on Climate-related financial disclosure (TCFD).

# **METRICS AND TARGETS**

# **MEASURING OPPORTUNITIES**



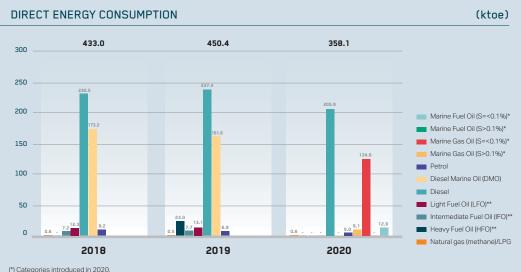
# **REPORTING EMISSIONS**

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 Statement" (document drafted in compliance with EU and Italian regulations) and "Ready for the transition - Enabling a green future" 2020 Sustainability Report. Both documents and reported data are subject to limited assurance by an independent auditing company. Energy consumption data are used to calculate GHG emissions.

### ENERGY CONSUMPTION

(LT)	2018	2019	2020
Total consumption of direct energy	18,128	18,857	14,992
Total consumption of indirect energy	321	290	531
Total energy consumption	18,450	19,147	15,523

The calculation of energy consumption in Joule is made by applying the following conversion factor: ktoe = 41,867 GJ. The value of the energy intensity is calculated through the ratio between the total consumption of direct energy and the total revenues, expressed in millions of euro.



(\*) Categories introduced in 2020.
(\*\*) IFO, LFO and HFO categories no longer contemplated since 2020.
Note. As of 2020, vessels in the fleet will no longer use Heavy Fuel Oil and Intermediate Fuel Oil, so the consumption for these two fuels will no longer be reported.
Indeed, on January 1, 2020 a new limit was introduced for the content of sulphur in fuels used on board ships, known as 'IMO 2020'. This regulation sets the sulphur limit, outside designated areas for emission control to 0.5%, which represents a significant reduction compared to the previous limit of 3.5%. Within specific areas designated for emission control to 0.5%, which represents a significant reduction compared to the previous limit of 3.5%. Within specific areas designated for emission control the limits were already more stringent (0.1%). This new limit became obligatory following an amendment to annex six of the International Convention for the Prevention of Pollution from Ships (MARPOL). These changes resulted in the updating of the reporting categories of fuels used in ships: phase-out of Heavy Fuel Oil and Light Fuel Oil and integration of Marine Fuel Oil and Marine Gas Oil, which are categorised based on sulphur levels above or below 0.1%.

### INDIRECT ENERGY CONSUMPTION

(MWh)	2018	2019	2020
Total electricity purchased from public network	88,996	80,171	54,797
Self-produced electricity from renewable sources	297.6	368.3	299.6

Direct energy consumption in 2020 fell by 21% compared to 2019, in line with the contraction of activities during the year because of the COVID-19 emergency (-18% hours worked, reduction of ship and rig operations). In particular, the sites with most consumption were the Tangguh LNG Expansion Project (32 ktoe), the Saipem 7000 vessel (17 ktoe), the Mozambique LNG project (16 ktoe) and the Saipem FDS 2 vessel (14 ktoe). In this context, we can see a general reduction

in the direct consumption of fuel used for electric generators and internal combustion engines, which confirms the operational fall, in the use of vessels and rigs during the year. The reduction in electricity is mainly attributable to a reduction in operating activities in the Kuryk yard and the suspension of operations on two onshore rigs in Kazakhstan which are powered by the electricity grid, and the closing of numerous offices due to the pandemic.

Despite this, Saipem continues to implement numerous initiatives aimed at reducing its own energy consumption and, consequently, its  $CO_2$  emissions.

The initiatives implemented are divided into four areas:

- > energy monitoring, with the objective of keeping flows of energy under control in order to identify improvement actions and assess the benefits;
- energy saving, to reduce energy consumption by eliminating energy wastage and improving process management and efficiency;
- energy efficiency, to reduce energy consumption by installing more efficient equipment;
- renewable energy, producing the same amount of energy from a source with lower emissions.

In 2020, these initiatives led to a reduction in energy consumption of 355,808 GJ at Group level. Examples of initiatives implemented during the year include: the continual improvement in the luminous efficiency in numerous onshore and offshore sites,

improvement in the efficiency of Saipem vessels (initiatives for the optimisation of routes and the Saipem eco-Operation campaign), the installation of solar light towers, a better management of energy in offshore rigs (Saipem 12000 and Scarabeo 8), etc. Through the energy saving initiatives described above, in 2020 savings of 26,689 t of CO<sub>2</sub> eq were achieved. In 2020, Saipem recorded a GHG intensity of 155.5 t CO<sub>2</sub> ea/€ mln (the value is calculated considering the location-based Scope 1 and Scope 2 emissions in relation to revenue in millions of euro). It has been estimated that through its GHG Strategic Plan, Saipem will achieve an emissions reduction of 255,000 t of CO<sub>2</sub> eq in the time span 2019-2024.

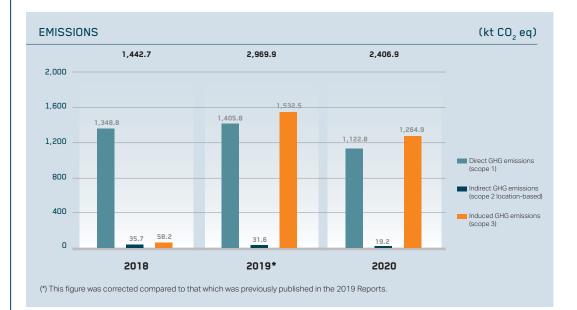
In relation to Scope 2 emissions, it is worth noting that Saipem obtained in 2020 for two of its corporate offices (Fano and Zurich) Guarantees of Origin certificates that attest the 100% renewable electricity supply. With reference to Scope 3 emissions, in 2020, there was a general reduction (-17% for the Group perimeter), due mainly to:

- a reduction in the procurement of materials, -13% of emissions, in relation to the general reduction in activities (accounting for 68% of total Scope 3);
- a lower number of flights as a result of the pandemic, -60% emissions (accounting for 2% of total Scope 3);
- a lower quantity of fuel used, -20% emissions for extraction and transport of fuels (accounting for 20% of total Scope 3).

The Company maintains a methodology for estimating emissions that is certified by an independent third party in accordance with the principles of ISO 14064-3:2012. The method was revised for the first time in 2018, and again in 2019, with an extension of the field of application of the method, and in particular by extending the emission categories of Scope 3 emissions. The following GHG emissions are considered in the document:

- direct emissions deriving from the use of fuels (Scope 1);
- indirect emissions deriving from the purchase of electricity and location and market-based emissions (Scope 2);
- indirect Scope 3 emissions deriving from:
  - extraction and transportation of the fuels used, directly and indirectly;
  - network losses in the transmission of electricity purchased;
  - water procurement and disposal;
  - procurement of materials and waste disposal;
  - shipment of materials;
  - employee use of cars in Italy;
  - hotel accommodation during business travel managed by Italy;
  - flights for business travel managed by Italy.

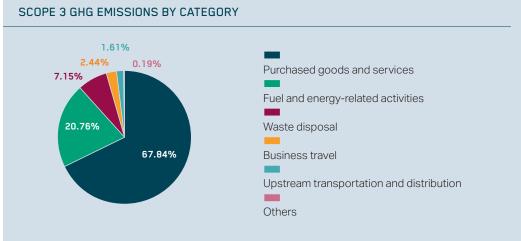
The methodology for the quantification of GHG emissions Scope 1, 2 and 3 is aligned with ISO 14064-1 for the applicable parts. Scope 1 emissions are based on emissions factors as reported in the document "IPCC Guidelines for National Greenhouse Gas Inventories 2006". Scope 2 location-based emissions are calculated based on Greenhouse gas Protocol and International comparisons (Terna). Scope 3 are calculated based on the DEFRA (UK Department for Environment, Food & Rural Affairs) database.



#### SCOPE 2 EMISSIONS - MARKET BASED

(kt CO <sub>2</sub> eq)	2018	2019	2020
Market-based Scope 2 emissions	38.2	33.8	21.5

Market-based Scope 2 emissions were calculated using residual mix emission factors.



Others include employee use of cars in Italy, hotel stays, fresh water supply, water treatment.

# TARGETS

# SHORT TERM TARGETS

2020 OBJECTIVES	2020 RESULTS	2021 OBJECTIVES
Emissions savings annual target of 19.3 kt $CO_2$ eq.	Emissions savings of 26.68 kt $CO_2$ eq.	Emissions savings of 36.5 kt of $CO_2$ eq.
Execution of energy diagnoses and feasibility studies: total 18.	15 energy diagnoses and feasibility studies*.	Definition of the Strategy and the related Saipem Group Implementation Plan for carbon neutrality (Net-Zero).

(\*) The objective is deemed to have been reached following the review of Group objectives after the COVID-19 emergency which adjusted the target setting 11 energy diagnoses and feasibility studies.

26.68 kt CO<sub>2</sub> eq saved

TARGET ACHIEVED

# LONG TERM TARGETS

50% REDUCTION OF SCOPE 1 AND SCOPE 2 EMISSIONS IN 2035 COMPARED TO THE 2018 EMISSIONS BASELINE.

NET-ZERO OF SCOPE 2 EMISSIONS BY 2025.

# **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, while 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 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 of Saipem's relevant stakeholders, and the impacts on them, including government and local authorities, business partners, local employees, and neighbouring communities. A comprehensive analysis of input/ output/impact was 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:





OUTPUT

Contribution to Climate Change IMPACT

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 for  $\in$ 135 per tonne of CO<sub>2</sub> (estimated value including the impact on humans and the environment). Further details and the 2020 results can be found here. Headquarters: San Donato Milanese (Milan), Italy Via Martiri di Cefalonia, 67



Società per Azioni Share Capital €2,191,384,693 fully paid up Tax identification number and Milan, Monza-Brianza, Lodi Companies' Register No. 00825790157

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