

# 2020



## SUSTAINABILITY REPORT



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# LETTER TO STAKEHOLDERS



**Silvia Merlo,**  
*Chairman*



**Francesco Caio,**  
*Chief Executive Officer and Managing Director*

*Dear Stakeholders,*

With the presentation of its 16<sup>th</sup> Sustainability Report, Saipem confirms its strategic choice to continue with determination on the virtuous path that combines creating economic value with environmental, economic, social and governance sustainability issues, perfecting and implementing its consistent commitment to the sustainable development of its business activities and all company processes.

As came to light during the two recent international meetings of the G20 summit in Rome and the COP26 conference in Glasgow that testify to the firm will to continue discussions on climate change, the energy transition will determine the historic changeover to using renewable energy sources as one of the main objectives in winning the fight against climate change by achieving carbon neutrality goals.

In this context, energy infrastructures unequivocally become the most important driver of sustainable development and Saipem reaffirms its ambition to be among the central figures and enablers of this era of transition. The company is, in fact, continuing to invest in technologies and know-how in order to enable, on the one hand, the evolution of the energy mix – from natural gas, just included in the EU legislation on taxonomy, to renewables – and on the other hand in designing and supplying solutions to reduce CO<sub>2</sub> emissions in industrial sectors with a high carbon impact as preparation also for serving clients in sectors other than the energy supply chain.

At the same time, Saipem intends to contribute – right from the start – to energy decarbonisation along its value chain. In this way, the company will achieve the dual effect of reducing its carbon footprint and also that of its clients, towards whom it increasingly places itself as a technological ally on their path towards net-zero. The company has adopted a two-fold strategy to achieve these objectives: on the one hand it proposes itself as a technology partner of energy companies for complex projects in order to implement them on the path to Net-Zero, and on the other hand as a supplier of modular/scalable systems and solutions for the types of applications that capture CO<sub>2</sub>, recycle plastics or produce biofuels that are becoming relevant for a growing number of industries.

In pursuing its objective as an enabler for the energy and ecological transition, Saipem also infuses its work with a

complex of ESG factors, starting with its commitment to the environment, which is also reflected in the Net-Zero programme launched by Saipem to reduce greenhouse gases with reference to Scope 1, 2 and 3 activities. Equally central to Saipem's work are health and workplace safety, where protecting our workers is the primary asset, defending Human Rights and business ethics, where attention to anti-corruption was validated in 2021 by the renewal of ISO 37001:2016 certification. Saipem is also committed to its mission and to the international profile of its business to promote the inclusion and appreciation for diversity and inclusion at all levels, both in terms of multiculturalism, represented in Saipem's population, and in fostering gender equality, as well as integrity as a qualifying transversal factor of corporate culture, and, last but not least, attention to local communities where the company operates, supporting socio-economic development.

As an Italian company, Saipem feels even more accountable as a result of the recent introduction of the principle of protecting the environment, biodiversity and ecosystems into the Italian Constitutional Charter, also in the interest of future generations. Likewise, the rules and principles that derive from European Union law and from the main international events constitute a fundamental reference point for defining future strategies and developments.

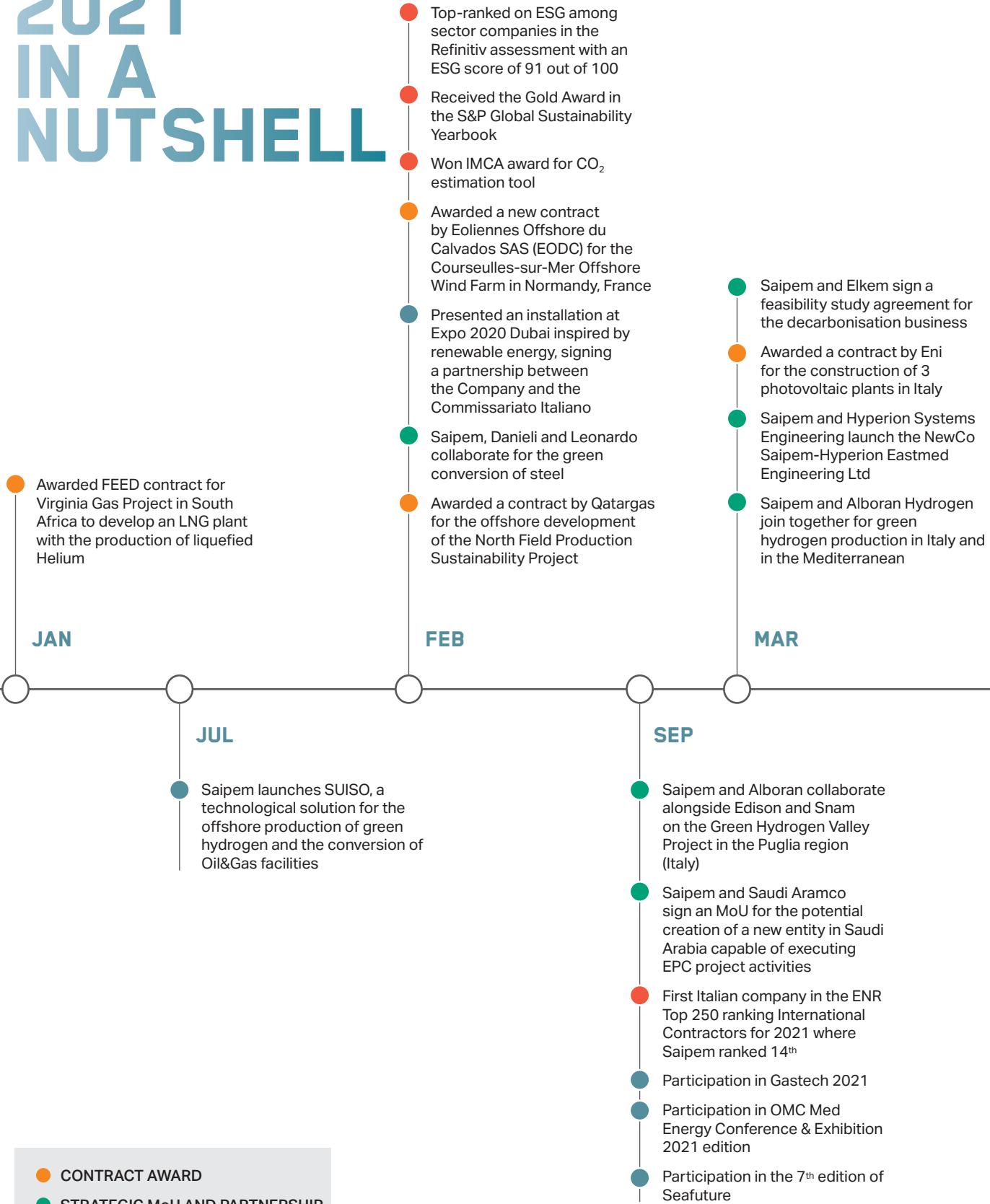
Both participation in important international initiatives such as the United Nations Global Compact, which Saipem joined in 2016, and the important recognition by ESG analysts who designated Saipem at an industry benchmark, substantiate the Company's commitment. Furthermore, the company ranked first place in the Energy Equipment Services sector in the Dow Jones Sustainability Index in 2021.

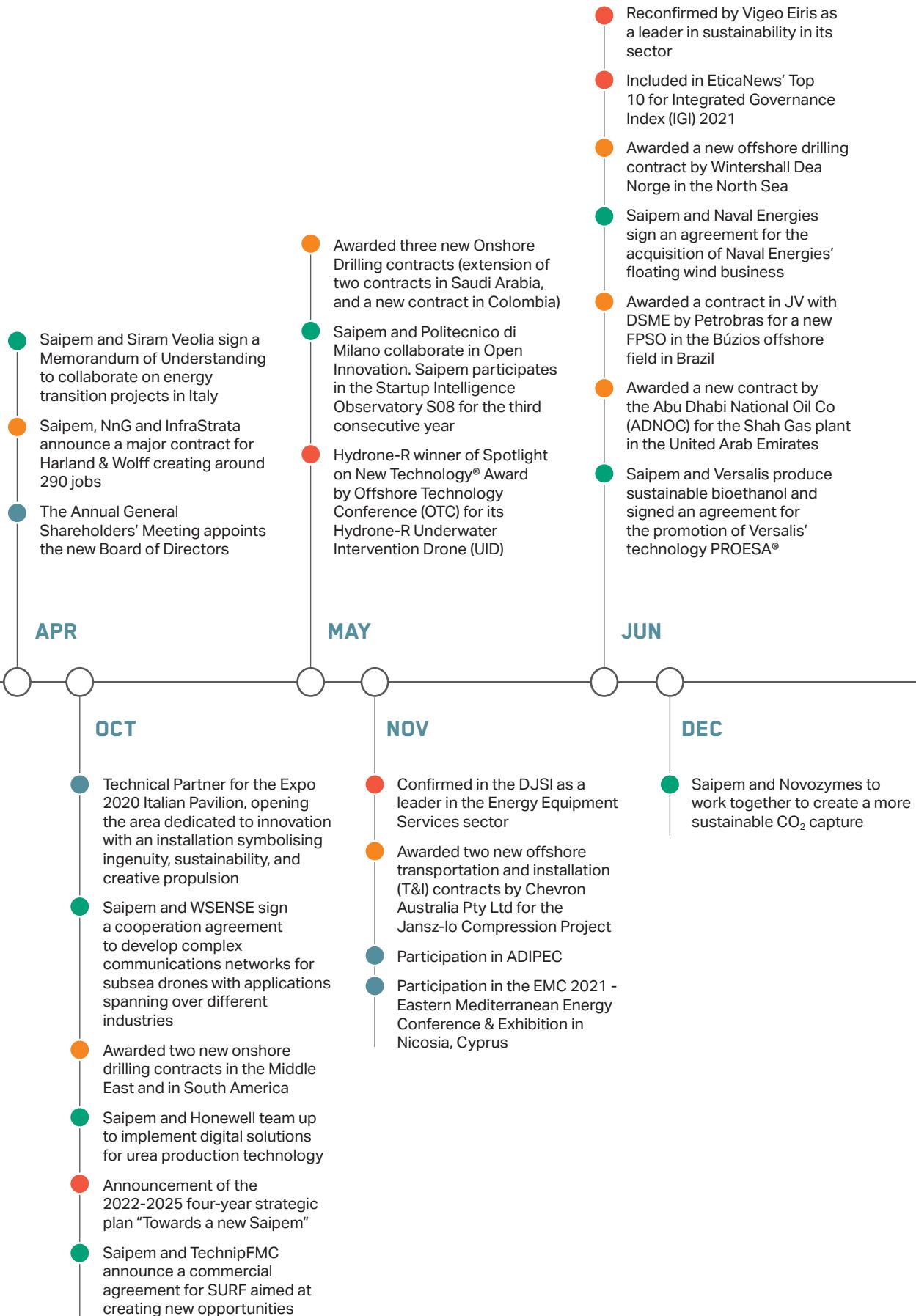
Saipem's sixteenth Sustainability Report describes in detail the company's commitment by outlining the strategies, objectives and actions implemented, to allow all stakeholders to promptly assess their work based on a responsible approach and sustainability, extended to all company activities with the ultimate goal of generating ever greater shared value.

**Silvia Merlo,  
Chairman**

**Francesco Caio,  
Chief Executive Officer and Managing Director**

# 2021 IN A NUTSHELL





# OUR SAIPEM

**Saipem is an advanced technological and engineering platform for the design, construction and operation of complex, safe and sustainable infrastructures and plants. We are active in the new low-carbon energy and industrial ecosystem, both in Italy and around the world.**

We have always cultivated technological innovation and now we find ourselves on the frontlines of the energy transition alongside our clients with increasingly digitalised tools, technologies and processes that we have devised from the outset with environmental sustainability in mind. Today we want to build a bridge to the future generating sustainable value over time for all with low-carbon energies, infrastructures and services.

We operate in more than 70 countries with around 39,000 employees of 130 nationalities.

## IDENTITY

**With a presence in more than 70 countries and 60 years of history, we bring the Italian ingenuity of our talents and our partners to the world, fostering the development of the communities in which we operate and contributing to the growth of our Country System.**

Thanks to our engineering skills, technological innovation, strong problem-solving orientation and ability to work as a team, we can take on the most extraordinary challenges.

We are a deep-rooted Italian company with an open and inclusive multicultural perspective. We are innovative, competent, reliable, resilient.

# MISSION

We are committed to working alongside our customers, transforming their strategies and projects into competitive and sustainable infrastructures, plants and processes, accompanying

them on the path to energy transition.  
We want to be the key ingredient in companies' energy transition, their bridge to a sustainable future.

# PURPOSE

We are engineers for a sustainable future. We have always promoted innovation and, today, we are already committed to building a sustainable future.  
Thanks to our engineering skills, technological innovation capacity, strong

problem-solving orientation and consolidated experience in project management, we face the most extraordinary challenges. We work as a team, bringing to the world the Italian ingenuity of our talents and our partners.

# VALUES

## CREATIVE INTELLIGENCE

Ingenuity, intelligent flexibility and innovative approach: our keys to anticipating climate change, overcoming every challenge.

## CARE FOR PEOPLE AND PLANET

A sincere commitment to protecting the health and safety of our employees and our natural habitat.

## STRIVING FOR TRUST

A total dedication to reliability towards our clients and partners.

## ENHANCEMENT OF CULTURAL IDENTITIES

Diversity is our unique value. Cross-fertilization nurtures our corporate growth.

# SAIPEM AT A GLANCE

**MORE THAN 60 YEARS**  
OF HISTORY AND LEADERSHIP IN ENERGY  
AND INFRASTRUCTURE

**130**  
NATIONALITIES

**73**  
COUNTRIES

**38,806**  
EMPLOYEES

**3,937**  
WOMEN

**79%**  
LOCAL PERSONNEL

**23,585**  
ACTIVE VENDORS

**199.7 MLN**  
WORKED MAN-HOURS

**9.6 € BLN**  
TOTAL GOODS AND SERVICES ORDERED

**68%**  
OF GOODS AND SERVICES ORDERED LOCALLY



**1,054.1 kt CO<sub>2</sub> eq**  
SCOPE 1 GHG EMISSIONS

**298 € MLN**  
INVESTMENTS

**156.8 t CO<sub>2</sub> eq/€ MLN**  
GHG INTENSITY\*

**76%**  
BACKLOG E&C NON OIL PROJECTS

**15%**  
OF ELECTRICITY CONSUMPTION  
FROM RENEWABLE ENERGY

**9.3%**  
SHARE REVENUE FROM EU TAXONOMY-ELIGIBLE  
ACTIVITIES (INCL. 91% ALIGNED)

**60 € MLN**  
OVERALL INNOVATION SPENDING

**56%**  
SHARE REVENUE FROM GAS RELATED E&C  
PROJECTS, POTENTIALLY EU TAXONOMY-ELIGIBLE\*\*

**6,875 € MLN**  
REVENUES

**8.9 € BLN**  
ECONOMIC VALUE DISTRIBUTED BY SAIPEM

(\*) The value is calculated considering the Scope 1 and location-based Scope 2 emissions in relation to revenue in million euro.

(\*\*) According to Complementary Climate Delegated Act approved in principle on February 2, 2022.

# ESG EXCELLENCE AND THE COURAGE TO TRANSFORM

## A NEW STRATEGY

### The scenario

The reference context is currently characterised by a significant recovery, both in terms of the main macroeconomic indicators and the level of demand for oil and gas products; the latter supported by a marked increase in prices on the main markets.

More specifically, various regions in the world recorded a slow return to normality during 2021. The distribution and effectiveness of vaccines, and the fiscal and monetary support provided by certain advanced economies have contributed to a significant economic recovery. Recent estimates forecast growth in world GDP for 2021 (around 5.9%) and for 2022 (around +4.9% compared to the previous year). However, economic recovery is not consistent where the possibilities of accessing vaccines and economic support mechanisms were not available on an equal basis in different areas of the world.

In this context, the energy sector, which had been among the most impacted by the 2020 crisis, began to show signs of recovery in 2021 with the recovery in demand for energy and, in particular, oil and gas. The progressive rebalancing of market fundamentals has resulted in a significant increase in oil and gas prices, which have moved beyond precrisis levels. The return to production has gradually evolved in the main geographical areas, with a widespread recovery both in North America and in the Middle East.

The expectations for the Oil&Gas sector in coming years are positive in different regions (for example, Latin America, Africa and the Middle East, areas where Saipem has a historical presence), and across the different reference markets of Saipem, starting from the most reactive to the oil and gas price trend, such as Offshore E&C, Offshore Drilling and Onshore Drilling, diversified between upstream, midstream and downstream activities. A growing focus will be given to traditional, historically more attractive Offshore Construction markets for which Saipem has unique assets in the industry, while in the Offshore Wind market a multi-stage strategy will be pursued, starting from an initial repositioning towards lower risk initiatives in order to consolidate Saipem's presence apace with the full development of the market in the coming years. A more selective commercial strategy will be pursued instead in the Onshore Construction sector than previously, both in terms of geographies and segments, while an offer will be progressively structured in modular solutions and sustainable infrastructures, through two new dedicated business lines.

An analysis of the market context shows a gradually changing world over the longer term. Global energy demand will continue to grow over the next twenty years, albeit with a different mix from the current one. The commitment by governments in the main countries to progressively reduce climate-altering emissions is expected to support a gradual shift in the use of energy

sources, favouring renewables and low-carbon sources. These commitments, which are also supported by the ESG choices of financial investors and pressure from public opinion, have led to the announcement of several emission reduction initiatives by countries and companies in different areas of the planet. The achievement of these objectives is mainly based on the development and use of a range of new technologies in areas such as renewable energy, the decarbonisation of various industrial sectors (e.g. agriculture, steel and cement production, transport), energy efficiency and the circular economy. The use of these innovative solutions in building new energy infrastructures and reducing carbon emissions is expected to create a significant market that is of particular interest to Saipem, which already has the skills and experience in this context, representing a competitive advantage in the new energy transition areas. In particular, Saipem has focused its efforts on certain key areas, such as:

- technology partnerships, patents and pilot plants on various green plant technologies (e.g. CO<sub>2</sub> capture);
- innovative robotic solutions (e.g. drones), to offer low carbon footprint monitoring and maintenance services;
- experience and a track record with plants and technologies that will be of primary importance in hybridisation strategies for energy sources;
- a solid reputation on the part of the main Oil&Gas operators that are playing a key role today in the implementation of the energy transition.

### Saipem response

In the outlined context, the main focus of Saipem's energy transition strategy is divided into four main reference markets:

- LNG and Gas monetisation (e.g. Blue Ammonia), as transitional energy carriers;
- carbon dioxide capture and sequestration, with long-term growth expectations and a number of initiatives already at an advanced stage in several countries, such as the UK, the USA and China. The market is also expected to open up in sectors other than oil and gas, such as electricity, steel and cement production;
- hydrogen and new energy carriers, primarily if produced from zero-impact energy sources. This market is also expected to grow strongly over the coming decades;
- the so-called Bio-X market, which includes several sectors that exploit organic raw materials, such as biofuels and bioplastics;
- offshore wind power, where significant investments are expected from operators mostly concentrated in Europe and, towards the second half of the Plan period, in North America, as well as in China (a less accessible market for foreign contractors).

In order to better seize the opportunities of the energy transition, it is a priority for Saipem to adopt a dual

commercial and executive approach:

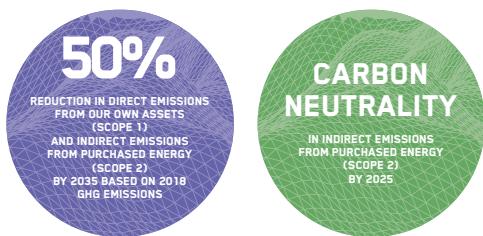
- 1) confirm the role of reference partner for Energy Companies in the development of complex projects on green or transition energy carriers (e.g. LNG, Gas Monetisation, Biorefineries, etc.);
- 2) develop and market standard and modular solutions with a high digital and technological content in order to respond to distributed energy generation trends, as well as the needs of new players in the energy ecosystem.

Finally, particular attention has also focused on the infrastructure market, in particular those with a high technological and sustainable content associated with the Italian Recovery and Resilience Plan (PNRR). Saipem has consolidated experience in the sector on several significant projects both in Italy and abroad, and all the credentials in place to take up interesting business opportunities over the coming years.

### Net-Zero Programme

In addition to providing our clients with solutions for decarbonisation and lower climate impacts, we are committed to working on our own GHG emissions to reduce our direct impact.

Based upon our long-standing commitment to the global decarbonisation trend, in February 2021 we set our medium and long-term objectives for decarbonisation, which became the milestones of our Net-Zero Programme.



Since our Net-Zero Programme covers all of Saipem's emissions, both direct and indirect, we are now acting on all three emission scopes to reach our goals and to set new and bolder ones:

- we are exploring and applying several measures to tackle Scope 1 and 2 emissions, such as retrofitting and asset renewal, electrification, use of renewable energy and alternative fuels;
- for Scope 3 emissions, which are also "shared" with other companies, we want to play an active role in supporting and encouraging all the players in the value chain to reduce our footprint together. It is only the first step to improving monitoring of this area and to exploring areas of action, with the aim of setting reduction targets as soon as possible in suitable areas of the Scope 3, like for Mobility and the Supply Chain.

We planned a set of actions within our Net-Zero Programme to reduce our emissions and meet targets set in 2021.

### The 3 Rs of Saipem: how to reduce our Scope 1 direct emissions

The reduction of Saipem's direct emissions will hinge on the three "R"s: Retrofit, Renewal and Renewables. The primary goal of these phases is to reduce the carbon footprint of all of Saipem's directly emitting assets, such as

vessels, rigs and temporary construction facilities.

1. **Retrofit:** the first phase foresees an efficiency boost in Saipem's operations through the extensive use of available technologies. Applying these technologies to current assets will make energy usage more efficient, leading to a reduction in emissions.
2. **Renewal:** this phase consists in asset substitution. Today, a new generation of assets under development will replace older ones in the future. This new generation of assets is expected to be more energy efficient and emit less GHGs, along with digitalisation and increased deployment of unmanned operations.
3. **Renewables:** the last phase is characterised by a massive implementation of renewable energy and technologies in Saipem's assets and operations. The technologies foreseen in this phase will include not only traditional technologies, but also advanced renewable energy technologies, some of which are currently under study, such as floating wind and floating solar. These renewables could be applied to Saipem's operations (for example to power vessels), as well as an integral part of the final product, powering our clients' operations.

We will follow two main streams of action alongside these phases:

- **Electrification:** a switch where possible (e.g., in ports) from electricity generation with fuel-powered generators to grid power.
- **Alternative fuels:** application of new and existing low carbon fuels to replace fossil fuels for the same operations.

### Carbon neutrality by 2025:

#### how it is possible with Scope 2 indirect emissions

To meet the ambitious target of Carbon neutrality indirect emissions from purchased energy (Scope 2) by 2025, our actions will prioritise the following criteria in order of importance:

1. Energy saving and efficiency
2. Renewable energy from the grid or self-produced renewable sources
3. Offsetting as a last chance only for residual emissions, to be applied only after considering all the measures above.

Energy flows and consumption will also be constantly monitored.

The major challenge for Scope 2 Carbon neutrality is that, in order to reduce Scope 1 direct emissions, we will implement a significant electrification of assets, starting in 2022, shifting Scope 1 emissions to Scope 2, with the subsequent need to increase our commitment in curbing those emissions with the aforementioned criteria.

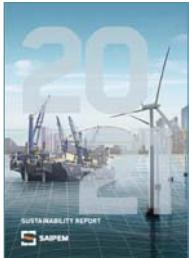
### Working with our supply chain to reduce our Scope 3 emissions

One of the biggest challenges in reducing our carbon footprint relates to indirect emissions, of which the largest share is a consequence of the company's supply chain (part of our Scope 3). To tackle this aspect, we have formed a Green Procurement Workstream in the context of the Net-Zero Programme.

*See page 69 for further information on Green Procurement.*

# 2021 TARGETED DISCLOSURES FOR OUR STAKEHOLDERS

- Clients ● Trade associations and international organisations ● Authorities and local governments ● Employees
- Future generations ● Financial stakeholders ● Local communities ● Local organisations and NGOs ● Vendors



2021 Sustainability Report

Targets: ● ● ● ● ● ● ● ● ●



2021 Consolidated Non-Financial Statement

Targets: ● ● ● ● ● ● ●



2021 Sustainability Performance Indicators

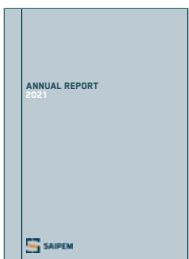
Targets: ● ● ●



2021 Shaping a Net-Zero Future

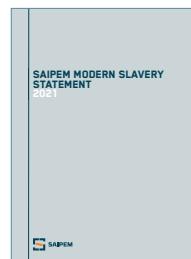
(based on the recommendations of TCFD)

Targets: ● ● ● ● ● ● ●



2021 Annual Report

Targets: ● ● ● ● ●



2021 Saipem Modern Slavery Statement

*(the document will be published in June 2022)*

Targets: ● ● ● ● ●



2021 Report on Saipem's Remuneration Policy and Compensation Paid

Targets: ● ●



2021 Corporate Governance and Shareholding Structure Report

Targets: ● ●

# STAKEHOLDER ENGAGEMENT AND MATERIALITY ANALYSIS

Operating in more than 70 countries with different social, economic and cultural contexts, we strongly believe that engagement and cooperation with our stakeholders play a fundamental role in creating value with our business. For this reason, we are committed to maintaining a constant and transparent dialogue with our stakeholders, by proactively engaging with all the people and entities we have an impact on. Our goal is to understand their priorities and expectations and to contribute to the delivery of sustainable value in the countries where we operate. We are constantly investing in the stakeholder engagement process, with the aim of building successful

relationships based on mutual dialogue, which represents a fundamental part of our sustainability strategy. We always accurately engage our stakeholders, listening carefully to better understand their specific needs and expectations, so we can integrate them into our strategies and decisions. Constant dialogue allows us to build stable relationships, promote positive and mutually beneficial interactions, and create a positive impact in the areas where we operate. All core principles for the engagement process are set out in our Management System Guidelines (MSG) on Stakeholder Engagement.

## STAKEHOLDER ENGAGEMENT APPROACH

We will only present a very basic description of our stakeholder approach in this report. For a complete and detailed treatment of this topic please refer to our Consolidated Non-Financial Statement (NFS) on page 107. Stakeholders can have very different needs, sensibilities, resources, interests and ways of operating, so each of them requires a distinctive approach that we always strive to apply

and refine, aiming for the best possible mutual outcomes from our relationships. But even if stakeholders are all unique, there are a few basic principles that are constant and translate into similar types of initiatives. Here is a brief sample of such approaches and initiatives that in a broad sense tend to recur in our stakeholder engagement process.

### APPROACHES

Open and continuous dialogue to understand expectations



Transparency



Long-term relations



Commitment to guaranteeing equal treatment and inclusion



Contribution to the progress of local communities



Regular publication of information



Periodic meetings



Commitment to fostering skill development



Commitment to guaranteeing a safe and healthy work environment



Support for emergencies or crisis



Active participation and support



### INITIATIVES

Roadshows



Conferences



Webcasts



Online surveys



Partnerships and agreements for technology innovation, environmental, social issues



In-depth interviews



Educational and training initiatives



Engagement in initiatives on ESG topics



Satisfaction survey



Initiatives to disseminate business knowledge



Engagement in volunteering initiatives



Local development initiatives



Participation in conferences, events to contribute to best practice sharing

### STAKEHOLDERS

Clients



Financial stakeholders



Employees



Authorities and local governments



Local communities



Local organisations and NGOs



Vendors



Trade associations and international organisations

Future generations

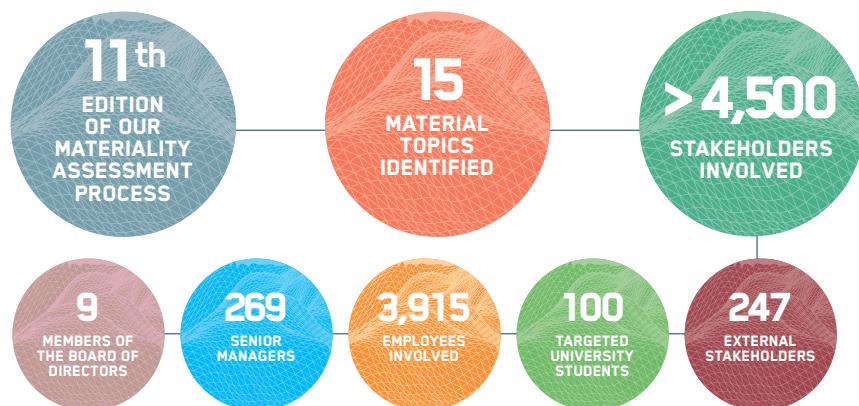


## IDENTIFICATION OF STAKEHOLDER EXPECTATIONS: MATERIALITY ASSESSMENT

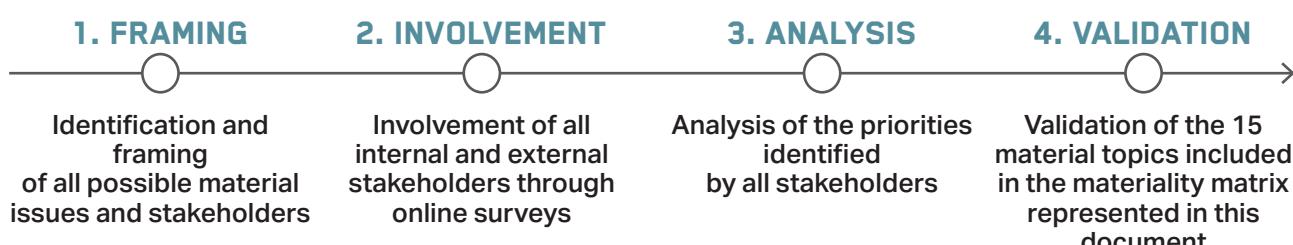
In 2021, we conducted the 11<sup>th</sup> edition of our materiality assessment process to identify our material topics, i.e., matters that are meaningful for our capacity to integrate ESG topics into the Company's strategy and in line with stakeholder interests.

The materiality assessment provides inputs for the definition of the Company Strategy, the annual objectives and the 2022 Sustainability Plan, which contains material issues representing priority areas to be addressed, as well as the structure and contents of the 2021 Sustainability Report.

*You can find further information on the Saipem materiality assessment process on page 86 of this document and on page 90 of the Consolidated Non-Financial Statement.*



## THE PROCESS IS DIVIDED INTO 4 PHASES



## DOUBLE MATERIALITY

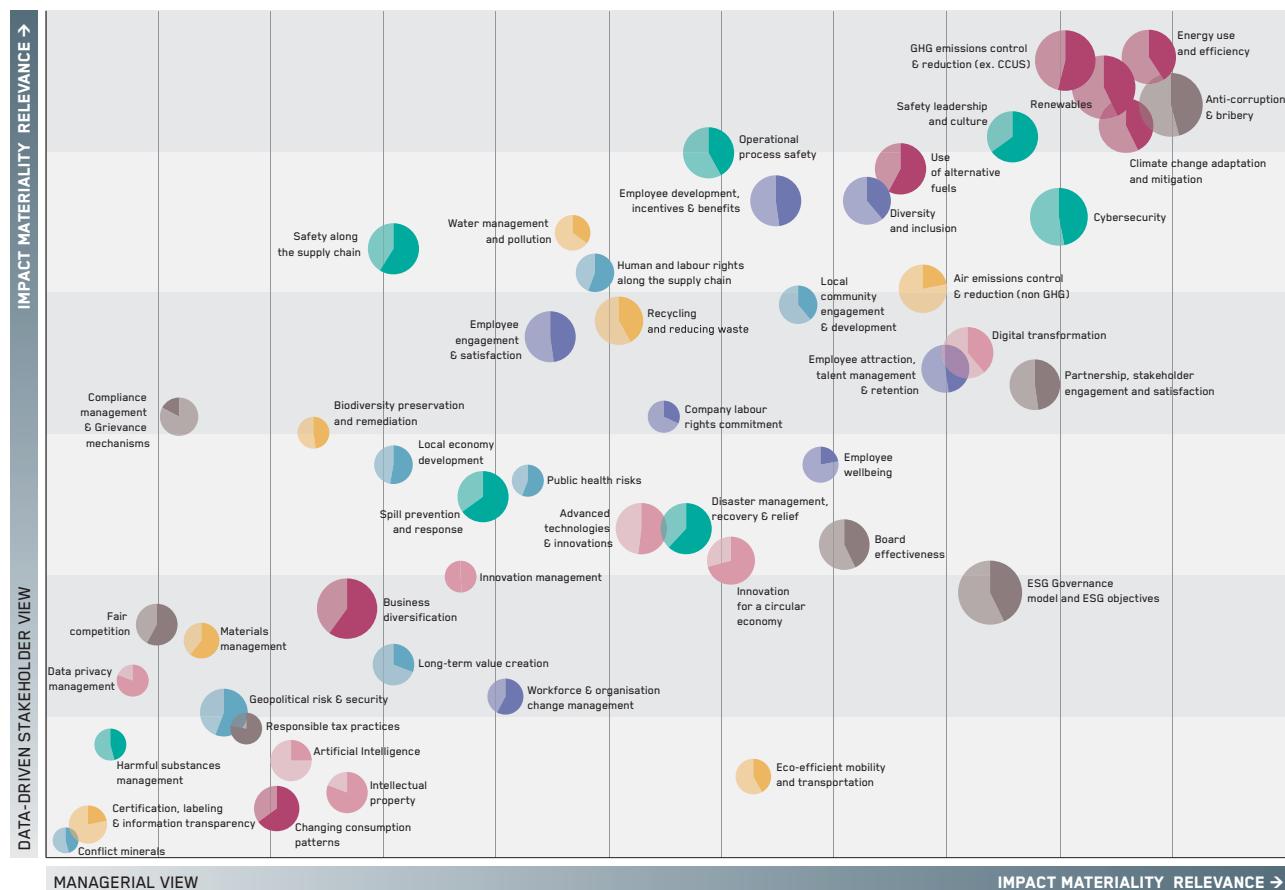
Materiality is a guiding principle defining why certain issues are important for a company, from a financial, economic, reputational, environmental, climatic, social and legal point of view. The materiality assessment reflects the needs and expectations of our stakeholders, the key ESG elements of our business model and more general societal interests. The process allows us to prioritise ESG topics, include them in our company strategy and objectives and report them to stakeholders.

This year's analysis was characterised by a novel approach, consisting of the so-called "double materiality" that, in a proactive and anticipatory way on national and European regulations, takes into account both impact

materiality and financial materiality and their interactions:

- Impact materiality identifies sustainability matters that are material/relevant in terms of all non-financial impacts of company operations and along the value chain.
- Financial materiality identifies sustainability matters that are financially material for the company based on evidence that such matters are reasonably likely to affect its value beyond what is already recognised in financial reporting\*.

(\*). Source: European Financial Reporting Advisory Group. (2021). *Proposal for a Relevant and Dynamic EU Sustainability Reporting Standard-Setting*. Brussels: European Reporting Lab @ European Financial Reporting Advisory Group.



## HOW TO READ IT

**Topics Saipem has an impact on its stakeholders or the ecosystem (Impact materiality).**

Look at the **bubble positioning**.

The positioning of the bubbles (topics) is the result of the intersection of:

- the scores given by all the stakeholders involved in the analysis (external stakeholders and employees);
- the scores given by Saipem's management.

## MATERIAL TOPICS

### CLIMATE CHANGE TRANSITION TO LOW-CARBON TECHNOLOGIES AND ENERGY USE

- Climate change adaptation and mitigation
- Energy use and efficiency
- GHG emissions control & reduction
- Renewables
- Use of alternative fuels

### GOVERNANCE AND BUSINESS ETHICS

- Anti-corruption & bribery
- Partnerships, stakeholder engagement and satisfaction

### HUMAN CAPITAL

- Diversity and inclusion
- Employee attraction, talent management & retention

### NATURAL CAPITAL MANAGEMENT AND ENVIRONMENTAL PRESERVATION (NON-CLIMATE-RELATED)

- Air emissions control & reduction (non-GHG)

**Topics that have an impact on Saipem's business, positioning and performance (Financial materiality).**

Look at the **bubble size**.

The size of the bubbles (topics) is determined by the average score given by financial stakeholders and Saipem's management (for a total of 310 individuals) involved in the analysis with an additional section dedicated to the financial materiality perspective.

Look at the **bubble slices**.

Furthermore, each bubble (topic) is made up of two slices where:

- the dark slice: represents the external view (financial community);
- the light slice: represents the internal view (Saipem management).

### RESEARCH AND INNOVATION

- Digital transformation

### SAFE OPERATIONS

- Cybersecurity
- Safety along the supply chain
- Safety leadership and culture

### SOCIAL ISSUES AND LOCAL PRESENCE

- Human and labour rights along the supply chain

**Based on widespread interest expressed by our stakeholders on further topics, the Report will also address:**

- Advanced technologies & innovations
- Biodiversity preservation and remediation
- Company labour rights commitment
- Innovation for a circular economy
- Innovation management

*A key aspect of the process is that for the first time in Saipem's materiality assessment history, we decided not to include "Occupational Health & Safety" in the 2021 list of possible ESG material topics. Safety and health are indeed much more than a priority, they are a prerequisite, a foundation of the sustainable development we have embarked on. Safety first is our core business.*

## FOCUS ON

# ESG RECOGNITION

Non-financial information is increasingly analysed by investors and the financial market, who look more analytically at the ability of a company to develop sustainable business strategies and plans over time, with measurable objectives and concrete actions that demonstrate the company's ability to manage risks and exploit the opportunities of changing markets and scenarios.

## ESG ratings and indices

ESG analysts monitor Saipem's sustainability performance constantly. Through the application of different methodologies, the Group performance is assessed in relation to environmental, social and governance topics that may be of significance for

the financial community. The resulting ESG ratings and the inclusion in the sustainability indexes are therefore deemed to be a strategic tool to support investors in identifying risks and opportunities linked to sustainability in their investment portfolio, supporting the development of active and passive sustainable investment strategies. In recent years and also during 2021, we maintained or improved our positioning in ESG ratings and indices, reaching a sector leadership position in most of them, as a result of our plan to improve disclosure on ESG matters, including actions aimed at defining and making specific ESG targets public and improving performance in the main ESG issues assessed.

## Main ESG ratings at December 31, 2021

Main ESG rating agencies	Rating (Scale)	Sector Ranking*	Sector Average Rating**	Saipem trend vs. 2020
S&P (DJSI)	78 (0<100)	1 <sup>st</sup>	35	Positive
CDP	B (D<A)	-	C	Positive
Refinitiv	89 (0<100)	1 <sup>st</sup>	71	Positive
FTSE Russell	4.2 (0<5)	1 <sup>st</sup>	2.3	Positive
Bloomberg (Disclosure Score)	67.8 (0<100)	1 <sup>st</sup>	48.6	Positive
Vigeo Eiris	62 (0<100)	1 <sup>st</sup>	-	Positive
Sustainalytics	19.8 (100<0)	5 <sup>th</sup>	24	Positive
MSCI	BBB (CCC<AAA)	-	-	Stable
ISS ESG	C+ (D-<A+)	-	-	Stable
Ecovadis	71 (0<100)	-	45.6	Positive

(\*) Sector Ranking is communicated officially to Saipem by ESG rating agencies; peer groups defined by agencies.

(\*\*) Sector Average Rating is defined by ESG agency or, in case of Refinitiv, Bloomberg and Sustainalytics, calculated considering the following peers group: TechnipFMC, Subsea 7, Petrofac, Tecnicas Reunidas, Maire Tecnimont, Aker Solutions.

## ESG indices and other distinctions

Member of

**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA

**MIB ® ESG**

**Sustainability Award**

Gold Class 2021

**S&P Global**



# OUR COMMITMENT TO THE SUSTAINABLE DEVELOPMENT GOALS AND THE UN GLOBAL COMPACT

The UN Global Compact is the world's largest strategic corporate sustainability initiative. Since 2000, it has required its more than 16,000 signatories in 170 countries to align with the ten Universal Principles in the areas of human rights, labour, environment and anti-corruption, as well as to take strategic actions to advance broader societal goals, such as the 17 UN Sustainable Development Goals (SDGs), with an emphasis on cooperation and innovation.

We officially became a Global Compact signatory in 2016 and obtained participant status in 2018. To integrate the ten principles of the Global Compact into our core values, business strategy and all operational activities, we have incorporated them into our strategies, policies and procedures.

We protect and promote **human and labour rights**, we are committed to continuously cooperating with our suppliers to ensure an ethical and reliable supply chain. We focus on technological innovation to minimise environmental impacts and we have advanced governance structures to actively prevent any form of corruption. With our human rights policy, we recognise and promote respect for human rights both in our own activities and in those carried out with partners. We signed the Women's Empowerment Principles at the end of 2020 to reaffirm our commitment to diversity, including gender diversity, which represents a key resource for innovation, productivity and long-term growth.

We strive every day to be an exemplary leader who continuously raises **awareness on environmental** issues, promoting an environmental protection culture that safeguards local communities. Moreover, we are

committed to developing technologies that minimise our environmental impact and overall footprint.

By implementing an advanced "**Anti-corruption** Compliance Programme" in line with international best practices and the "zero tolerance" principle expressed in our Code of Ethics, we are committed to fighting corruption every day.

**Renewing our commitment to support the UNGC every year is a concrete proof of our willingness to always run our business making this initiative and its principles part of our business strategy, day-to-day operations and organisational culture.**

## Our contribution to Sustainable Development Goals

In addition to the UNGC Ten Principles, we are actively contributing to the realisation of the 2030 Agenda for Sustainable Development of the planet, and in particular to the attainment of the Sustainable Development Goals (SDGs) applicable to our business and operations.

Thanks to our global presence, we can pursue different goals in different countries where we operate, concentrating particularly on those directly linked to our business activity, and creating real value in each area. Among all the SDGs, our commitment to fight climate change (SDG 13) certainly stands out. We pursue this goal at the global level through our continuous investment in expertise, innovation and environmentally friendly technologies.

*For further information on SDG-driven initiatives undertaken at local level see page 71.*

## FOCUS ON

### THE TEN PRINCIPLES OF THE UN GLOBAL COMPACT

#### Human Rights

- [Principle 1] businesses should support and respect the protection of internationally proclaimed human rights; and
- [Principle 2] make sure that businesses are not complicit in human rights abuses.

#### Labour

- [Principle 3] businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- [Principle 4] the elimination of all forms of forced and compulsory labour;

- [Principle 5] the effective abolition of child labour; and
- [Principle 6] the elimination of discrimination in respect of employment and occupation.

#### Environment

- [Principle 7] businesses should support a precautionary approach to environmental challenges;
- [Principle 8] undertake initiatives to promote greater environmental responsibility; and
- [Principle 9] encourage the development and diffusion of environmentally friendly technologies.

#### Anti-corruption

- [Principle 10] businesses should work against corruption in all its forms, including extortion and bribery.



## RESULTS AND OBJECTIVES

MATERIAL TOPICS	2021 OBJECTIVES AND RESULTS	2022 OBJECTIVES
<b>AIR EMISSIONS CONTROL &amp; REDUCTION (NON GHG)</b>	<p>&gt; Group Target for Scope 1 and 2 GHG emissions: 50% reduction in 2035 compared to the 2018 emissions baseline.</p> <p>✓ &gt; Manifesto and strategic lines defined and approved.</p> <p>✓ &gt; Implementation plans defined and approved.</p> <p>✓ &gt; Third-party certification achieved.</p>	<p>&gt; Implementation of a monitoring system to improve information concerning Scope 3 emissions from supply chain and market survey to set Scope 3 objectives.</p> <p>&gt; Science Based Target integration evaluation.</p> <p>&gt; Internal Carbon Pricing adoption.</p> <p>&gt; Exploration of offsetting and insetting initiatives.</p> <p>&gt; Savings of cumulated GHG emissions associated with energy efficiency initiatives during the 2022-2024 period.</p> <p>TARGET: 153,120 t of CO<sub>2</sub> eq.</p> <p>&gt; Increase the number of worksites connected to the electricity grid using 100% renewable energy.</p> <p>TARGET: 6 new worksites in 2022.</p> <p>&gt; Finalise the list of intensity KPIs for each business line.</p>
<b>CLIMATE CHANGE ADAPTATION AND MITIGATION</b>	<p>&gt; Achieve 2020-2024 strategic plan objectives for 2021 in terms of savings on emissions (36,500 t of CO<sub>2</sub> eq).</p> <p>⚠ &gt; Savings achieved 36,976 t of CO<sub>2</sub> eq.</p>	
<b>ENERGY USE AND EFFICIENCY</b>	<p>&gt; Assess all assets connected to the electricity grid to explore the possibility of obtaining 100% electricity certificated from renewable sources.</p> <p>✓ &gt; All worksites connected with electricity (54 in total) have been assessed. 38 worksites do not have the possibility to guarantee the 100% renewables. 11 worksites are powered with 100% renewables sourced electricity (20% of the total) for a total of 10,874 MWh electricity.</p>	
<b>GHG EMISSIONS CONTROL &amp; REDUCTION</b>	<p>&gt; Define a set of asset specific KPIs for the assessment of GHG reduction initiatives and the implementation of the associated reporting.</p> <p>⚠ &gt; A number of KPIs have been developed for specific assets and operations to measure GHG intensity (e.g. tonnes of GHG/Rig operating day).</p>	
<b>RENEWABLES</b>		
<b>USE OF ALTERNATIVE FUELS</b>	<p>&gt; Assess the possibility of using SAF (Sustainable Aviation Fuel) for a share of flights purchased before the end of 2021.</p> <p>✓ &gt; Several contacts with airlines to evaluate the possible use of SAF and analysis of related Scope 3 GHG emissions reduction and costs.</p> <p>Design of a pilot project with an identified airline.</p>	<p>&gt; Using SAF for a pilot project with an identified airline during 2022.</p>
<b>ANTI-CORRUPTION &amp; BRIBERY</b>	<p>&gt; Maintain the suitability of Model 231 and the respective procedures.</p> <p>✓ &gt; Saipem's Model 231 was updated on December 23, 2021 in order to incorporate the regulatory and organisational updates that took place during 2021. On January 14, 2022 a further update was necessary in relation to the new composition of the Compliance Committee.</p> <p>✓ &gt; Continue to maintain a suitable internal control and risk management system.</p> <p>✓ &gt; The internal control and risk management system is integrated into the organisational and corporate governance structures at group level.</p>	<p>&gt; 100% coverage of the countries envisaged by the training plan for Anti-Corruption and 231 Compliance.</p>
<b>PARTNERSHIP, STAKEHOLDER ENGAGEMENT AND SATISFACTION</b>	<p>&gt; 100% coverage of the countries envisaged by the training plan for Anti-Corruption and 231 Compliance.</p> <p>✓ &gt; +4,500 people engaged in the materiality assessment process.</p> <p>✓ &gt; 18 partnerships/collaboration agreements signed for innovation with start-ups, universities, and other partners.</p> <p>✓ &gt; Saipem reputation assessment carried out involving 22 key people among our global clients.</p> <p>✓ &gt; Saipem reputation assessment carried out in Italy, among informed Italian general public via 2,000 surveys.</p> <p>✓ &gt; Saipem engagement in World Economic Forum initiatives.</p>	<p>&gt; Continue the engagement with stakeholders for the materiality assessment.</p> <p>&gt; Maintain the number of active partnerships and collaborations in place for innovation.</p> <p>&gt; Continuous monitoring of Saipem's reputation.</p> <p>&gt; Keep on engaging in current and new World Economic Forum initiatives.</p>
<b>DIVERSITY &amp; INCLUSION</b> <b>EMPLOYEE ATTRACTION, TALENT MANAGEMENT &amp; RETENTION</b>	<p>&gt; Continue to attract talents, with a specific focus on women and young people.</p> <p>&gt; Launch of a Mentoring programme with the aim of promoting the Diversity and Inclusion processes.</p> <p>⚠ &gt; Employer Branding and attraction activities dedicated to young talents involving internal Role Models.</p> <p>✓ &gt; A mentoring programme dedicated to female empowerment was created. Employer Branding activities were carried out to promote Saipem as an employer for equal opportunities.</p> <p>✓ &gt; A training activity dedicated to overcoming unconscious bias was launched involving 80 employees.</p>	<p>&gt; Continue to foster an inclusive culture through specific initiatives to enhance skills and competences of our employees and attract candidates with diverse skills.</p> <p>&gt; Continue to promote an inclusive culture through specific initiatives that enhance diversity and ensure equal opportunities.</p>

Reached

Ongoing

MATERIAL TOPICS	2021 OBJECTIVES AND RESULTS	2022 OBJECTIVES
<i>cont.ed</i> DIVERSITY & INCLUSION EMPLOYEE ATTRACTION, TALENT MANAGEMENT & RETENTION	(Δ) ➤ Monitoring of the voluntary turnover rates of women.	
DIGITAL TRANSFORMATION	<ul style="list-style-type: none"> <li>➤ Implement 6 new digital solutions in the EPCI area and 5 in the asset management area.</li> <li>➤ Scale 4 industrialised digital solutions on EPCI projects.</li> <li>➤ Extend the scope of application of new work methodologies (e.g. Agile Methodology, Design Thinking, Data Science).</li> </ul>	<ul style="list-style-type: none"> <li>(✓) ➤ Implementation of 6 new digital solutions in EPCI and 7 in asset management.</li> <li>(✓) ➤ 7 industrialised digital solutions scaled.</li> <li>(✓) ➤ Agile extended on multiple initiatives on different areas of business and staff.</li> </ul>
CYBERSECURITY		<ul style="list-style-type: none"> <li>➤ Saipem SpA has achieved a certification for its Information Security Management System compliant with ISO/IEC 27001.</li> </ul>
OCCUPATIONAL HEALTH & SAFETY	<ul style="list-style-type: none"> <li>➤ Confirm the renewal of the Group's ISO 14001 and ISO 45001 certifications.</li> </ul>	<ul style="list-style-type: none"> <li>(✓) ➤ ISO 14001 and 45001 certifications renewal has been obtained.</li> </ul>
SAFETY LEADERSHIP & CULTURE	<ul style="list-style-type: none"> <li>➤ Achieve an HLFR of at least 1.07</li> <li>➤ Achieve a TRIFR of at least 0.45</li> <li>➤ Ensure the safety of personnel by continued monitoring of the TRIFR and the introduction of an additional metric, the HLFR (High Level Frequency Rate).</li> <li>➤ Aside from the measures for containing the pandemic that have been tried and tested, encourage Sars-CoV-2 COVID-19 vaccinations among Saipem people.</li> </ul>	<ul style="list-style-type: none"> <li>(✓) ➤ HLFR = 0.76</li> <li>(✓) ➤ TRIFR = 0.37</li> <li>(✓) ➤ Saipem is continuously monitoring the performance indicators in order to promptly identify possible criticalities, their underlying causes and intervene with corrective actions.</li> <li>(✓) ➤ A total of 224 epidemiological bulletins have been issued since the beginning of the pandemic. Continuous update of the Health Risk assessment, of the COVID-19 Management internal procedures and implementation of the most appropriate preventive measures. 9 communications issued by the Health and Medical Taskforce on actual and emerging issues related to the disease prevention. Monitoring of the COVID-19 Vaccination coverage in 2021: 18,630 fully vaccinated employees; 3,280 employees with first dose.</li> </ul>
HUMAN AND LABOUR RIGHTS ALONG THE SUPPLY CHAIN	<ul style="list-style-type: none"> <li>➤ Continue to support the improvement of the supply chain in terms of HSE standards and human and labour rights, including through partnerships with local business associations and institutions in the areas we operate in.</li> </ul>	<ul style="list-style-type: none"> <li>(✓) ➤ Confirm our commitment to the UN Global Compact.</li> <li>➤ Join the Building Responsibly initiative.</li> <li>➤ Implementation of the Human Rights Risks assessment in 23 countries.</li> <li>➤ About 600 vendors analysed during qualification on Human Rights and 595 on HSE aspects.</li> <li>➤ 5 Subcontractor Safety Forums in Thailand and Nigeria.</li> </ul>
SAFETY ALONG THE SUPPLY CHAIN	<ul style="list-style-type: none"> <li>➤ Identify further areas/assets where a green procurement approach can be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>(Δ) ➤ As part of the Net-Zero programme, a Green Procurement Roadmap was set up and a Green Procurement Stream was created to achieve its objectives.</li> </ul>

You can find further information on Saipem's commitment, results and objectives on page 117 of the Consolidated Non-Financial Statement.



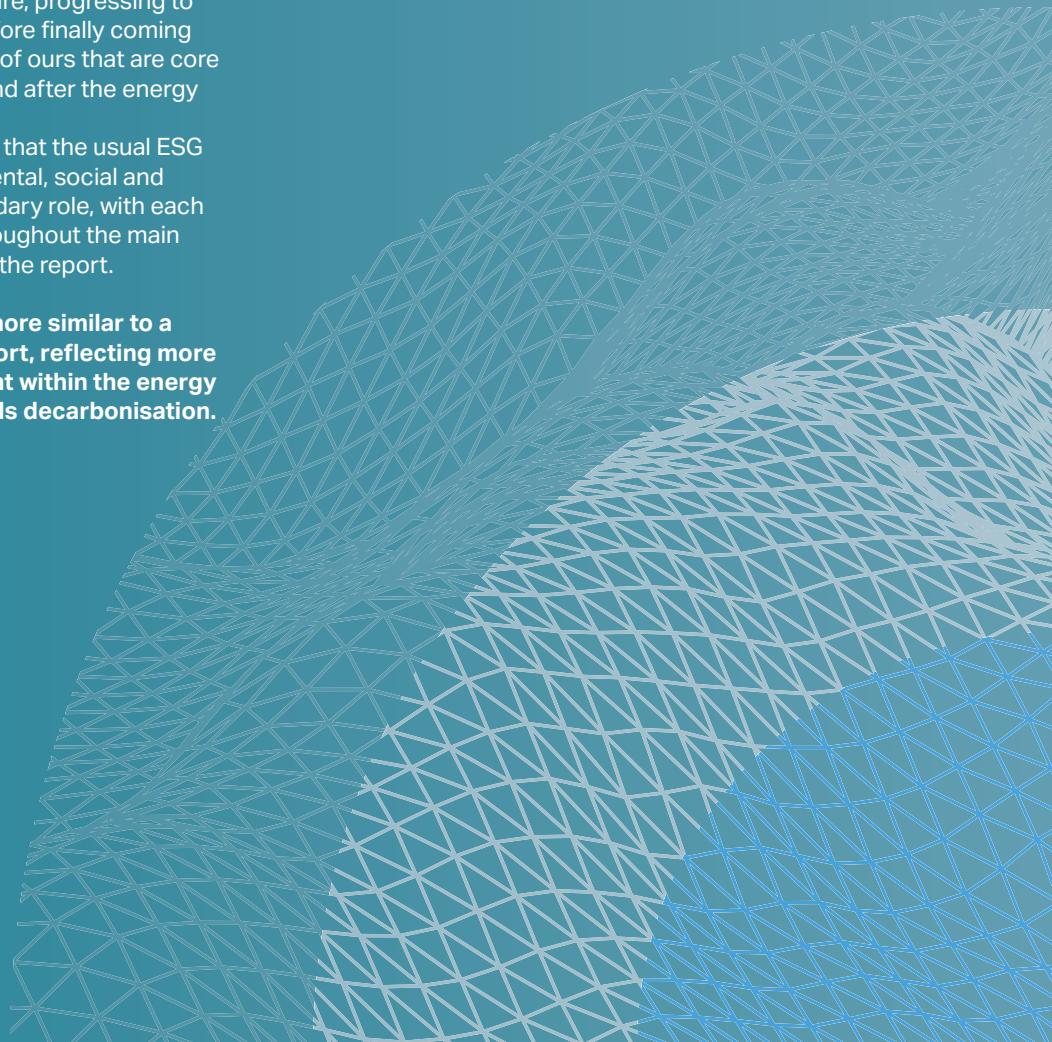
# HOW TO NAVIGATE THIS REPORT

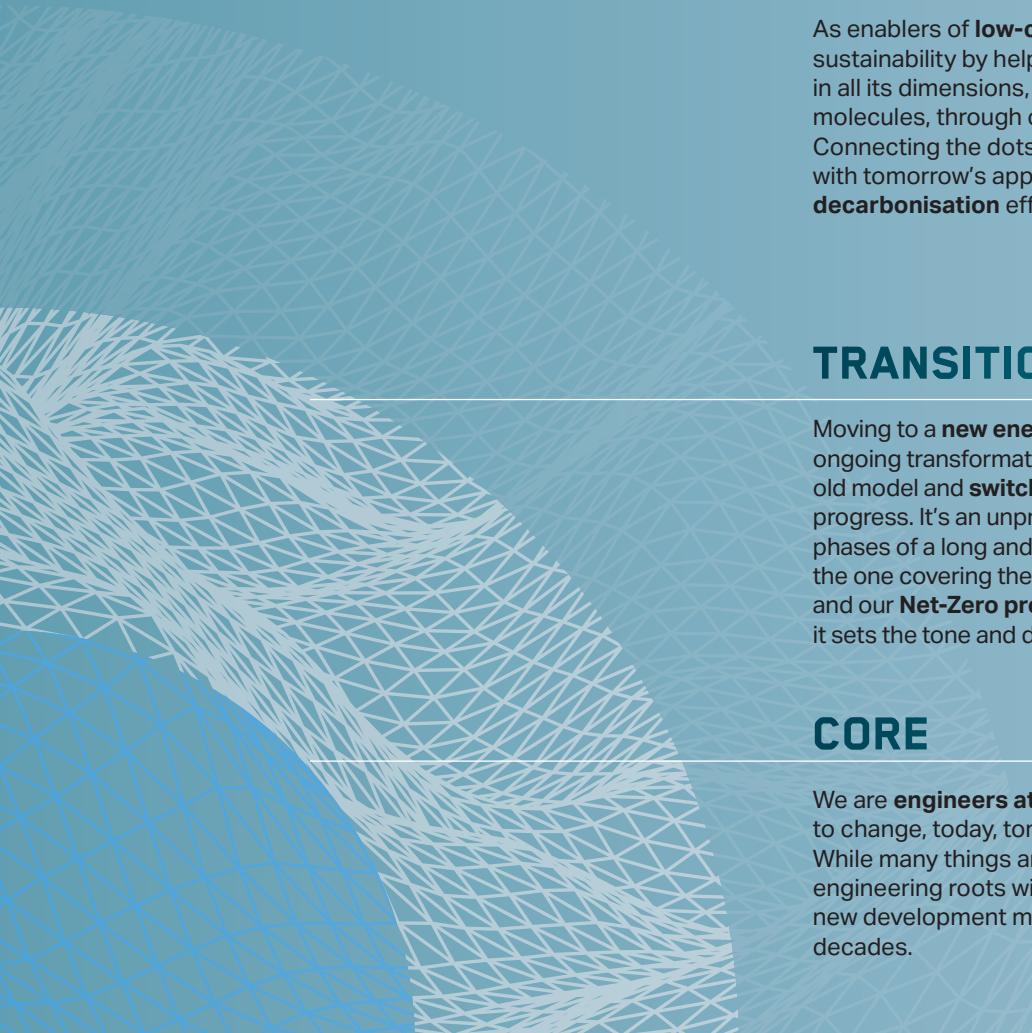
This report has adopted a chronological structure, describing three different phases of Saipem's planned journey toward decarbonisation.

The chronological structure takes the shape of a circular three-leg tour, which will start with a look at the transition Saipem will undergo in the near future, progressing to our long-term vision of net-zero before finally coming back home to describe those traits of ours that are core today and will remain core during and after the energy transition.

Our chronological approach means that the usual ESG thematic division among environmental, social and governance aspects takes a secondary role, with each theme being weaved in and out throughout the main circular, chronological trajectory of the report.

**Our aim is to provide something more similar to a travel journal than a company report, reflecting more closely Saipem's own development within the energy transition and contribution towards decarbonisation.**



A large, abstract graphic element occupies the left half of the page. It is composed of a dense, light blue-colored mesh of interconnected triangles, creating a wavy, undulating pattern that suggests a digital or networked structure.

## VISION

page 40

As enablers of **low-carbon strategies**, we can promote sustainability by helping draw the map of decarbonisation in all its dimensions, from green electrons to green molecules, through our problem-solving capabilities. Connecting the dots of today's technological research with tomorrow's applications, we can contribute to **decarbonisation** efforts in all their phases.

## TRANSITION

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Moving to a **new energy paradigm** is a more complex, ongoing transformation than just **switching off** the old model and **switching on** a new model. It's a work in progress. It's an unprecedented trajectory through many phases of a long and complex journey. And the first phase, the one covering the next few years, with the **gas as driver** and our **Net-Zero programme**, is the most crucial one, as it sets the tone and direction for the entire journey.

## CORE

page 50

We are **engineers at our core**, and that's not going to change, today, tomorrow or in the distant future. While many things around us will be different, our engineering roots will keep us firmly planted in whatever new development model emerges in the next few decades.



# TRANSITIONING TOWARD NET-ZERO

# TRANSITIONING TOWARD NET-ZERO



In this first leg of our decarbonisation journey, we look towards the near future and the leading role of gas in this journey. As mentioned in the introduction, our starting point is the transition we are experiencing as a company. In this section one can get a sense of what we are doing and how we are getting ready to address the challenges of decarbonisation in the next few years.

**Our first stop is probably the most crucial one, as it sets the direction we are taking, providing the basic coordinates that will guide us through our entire journey.** It traces our own Net-Zero emissions route on the decarbonisation map. It also outlines how we intend to help our clients decarbonise their own businesses in our role as an advanced technology platform.

We will illustrate these points describing a series of projects and initiatives having to do with the reduction of greenhouse gas (GHG) emissions, energy efficiency improvements and many other aspects. They have all been selected among many to give a sense of how we are changing to address the challenges and seize the opportunities for decarbonisation.

## 36,976 t CO<sub>2</sub> eq

EMISSION SAVINGS ACHIEVED IN 2021

THIRD PARTY VALIDATION OF THE DOCUMENTATION PRODUCED FOR CARBON NEUTRALITY (NET-ZERO PROGRAMME).

## GREENHOUSE GAS REDUCTIONS AND ENERGY EFFICIENCY IMPROVEMENTS

**Two sides of the same coin: we do not need to decarbonise what we do not emit. Consuming less, consuming smartly.**

In this transition phase, we have planned specific initiatives to cut both Saipem's direct and indirect GHG emissions. Concerning the first scope, Retrofit and Renewal initiatives are key to reducing the carbon footprint of all our direct emitting assets, such as vessels, rigs and Temporary Construction Facilities (TCFs).

In the first phase (Retrofit), we boost the energy efficiency of our operations with the extensive use of available technologies, leading to a reduction in emissions.

Preparatory energy studies assess the energy consumption of assets to identify improvement areas. Examples of Retrofit initiatives implemented across our Company are:

- > hybridisation;
- > LED replacement;
- > heat recovery systems;
- > shore power connection for vessels;
- > freshwater makers;
- > hull cleanings.

In the second phase (Renewal), we see the Renewal of our assets, as we replace old assets with new ones. This new generation of assets is expected to be more energy efficient and emit fewer GHGs, along with digitalisation and increased deployment of unmanned operations.

We will also begin sowing the seeds for future developments, laying the ground for and introducing

some elements of the next "R"s, with the first examples of "Renewables". The technologies applied in this phase will not only be the "traditional" ones that we know today, but they will hopefully be more advanced renewable energy technologies, some of which are currently under study, such as marine energy and floating solar. These renewables could be applied to Saipem's operations as an integral part of the final product, powering client operations.

As far as the cut in our indirect emission is concerned, as mentioned in the Introduction on page 11, our actions in reducing Scope 2 emissions are framed within a specific hierarchical order:

1. Energy saving (electrification) and efficiency shall be the most important and widespread methods for GHG reduction.
2. Renewable energy from the grid should be used where grid connection is available.
3. Where the grid is not available, energy should come from self-produced renewable sources directly on site, with proprietary or controlled assets.
4. The residual, hard-to-abate emissions can be offset through the purchase of carbon credits.

One of the biggest challenges in reducing our carbon footprint is related to indirect (Scope 3) emissions, whose largest share comes from the company's supply chain.



■ Hamriyah logistic base.

To tackle this aspect, we formed a Green Procurement Workstream, about which further information can be found in the "Added value at our core" chapter on page 69.

A few examples of initiatives within this framework are listed below.

## 1. REDUCING GHG EMISSIONS IN OUR ONSHORE E&C PROJECTS AND BASES

The logistics base of the Hamriyah free zone in the United Arab Emirates implemented a series of initiatives to reduce the GHG emissions of its electricity supply. With the need to be self-sufficient as the base is not connected to the public grid, we intervened directly on its electricity generation system.

To reduce reliance on diesel generators, we installed a photovoltaic plant equipped with Li-ion battery storage: the outcome is a hybrid power generation system that, thanks to its batteries, can store renewable electricity during the day and release it at night, potentially keeping the diesel generator off for the whole night.

To reduce the base carbon intensity also in daytime, we replaced the main diesel generator with a newer, smaller

one, which can meet the base electricity demand more efficiently. This way, the generation system could better fit the base electricity needs during work hours.

The combination of these interventions led to a savings of about 73 t CO<sub>2</sub> eq in 2021, and the expected savings for the next years will be around 187 t CO<sub>2</sub> eq/year.

In 2021, project temporary construction facilities (TCF) were the focus of multiple initiatives aimed at improving their energy performance.

Projects took into account all aspects of a TCF's energy balance, such as lighting, air conditioning, electric appliances, metering devices and market-ready technologies that can reduce its energy consumption. Clean energy, in the form of photovoltaic and solar heating technologies, is key to a TCF's energy performance, allowing their deeper decarbonisation.

Building on last year's efforts, we continued with our plan to install indoor LED lights in new and old project TCFs, with the installation of new LED light poles and external lights, motion sensors to reduce unnecessary electricity use, and new, much more efficient electric appliances like washing machines and dryers. Some projects also equipped new TCFs with improved thermal insulation, a key intervention to reduce the need for climatisation. Regarding renewable

energy, in the Saudi region in particular, we are installing a photovoltaic system to power the TCF of one of our accommodation camps. We are also placing several sets of solar water heaters in the main camp facilities to reduce the electricity consumption.

New projects incorporated energy performance guidelines starting from the bid phase, involving subcontractors in the process, as they represent a large share of total energy use in projects. The guidelines will be shared with our main subcontractors to directly involve them in the development of our future energy requirements, aiming to further advance our projects' decarbonisation.

## 2. ENERGY EFFICIENCY AND TECHNOLOGY INITIATIVES ONBOARD OUR E&C FLEET

Onboard our E&C fleet our goal is to both implement energy efficiency initiatives and provide technology solutions to address Net-Zero challenges.

In the framework of energy efficiency initiatives, we have set up a monitoring system for the entire offshore E&C fleet: these are defined in each vessel's Ship Energy Efficiency Management Plan (SEEMP) in accordance with MARPOL (International Convention for the Prevention of Pollution from Ships) Annex VI and are calculated monthly from their daily energy use.

On board each vessel, the Chief Engineer is responsible for recording fuel consumption, as well as the type of activity carried out daily. This makes it possible to evaluate each vessel's energy performance split in different KPIs, one for each activity/operation mode, e.g., in port stay, transit, dynamic positioning, etc. This way, we can provide an accurate benchmark for comparing vessel GHG performances over the years, even when their operating profile, i.e., the amount of time spent in each activity changes from year to year.

A second initiative concerns biofuel trials. In the context of our short and medium/long-term strategy to reach Net-Zero, as alternative fuels face technical challenges and barriers, while renovating the fleet of offshore E&C vessels, we are also focusing on finding practical solutions to adopting low-carbon fuels for our existing units.

For this purpose, a test-run with biofuel will be arranged for one of the main vessels of the fleet, Saipem 7000, during its winter maintenance period in 2022.

The running-test procedure and the monitoring protocol were set up in close cooperation between Saipem, the biofuel supplier and the manufacturer of the engines and the fuel treatment system. Upon successful completion of these tests, operating Saipem 7000 and other vessels with 100% renewable biodiesel will allow Saipem

to strongly reduce the CO<sub>2</sub> eq footprint of its offshore operations, representing a tangible step towards reaching our clients' and our own decarbonisation targets.

Another initiative aimed at monitoring and mitigating CO<sub>2</sub> emissions is the Fuel Consumption monitoring tool. This tool, based on the Asset and Operations IoT platform, monitors fuel consumption and CO<sub>2</sub> emissions of vessels based on data acquired on board in different operational conditions (Transit/DP/Idle). It also builds characteristic curves and dashboards supporting analysis, helping define best practices and reducing the consumption of fuel and CO<sub>2</sub> emissions. The tool has passed its prototype phase and its deployment on the fleet will start in 2022.

Saipem's eco-Operations (SeO) campaign was launched in 2018 to monitor and bring to light all the best practices to reduce fuel consumption and GHG emissions on every vessel. 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 technological improvements needed to reduce consumption and increase the overall efficiency of the vessel while maintaining the highest standards of operational safety. Management improvements are the basis for the SeO programme. Through the energy assessment study, each vessel involved now has a list of managerial actions that can be taken when it comes to the hourly saving of fuel consumption 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. Saipem eco Operations have been launched and implemented on the main vessels of the fleet since March 2019: Castorone, Constellation, Saipem FDS, FDS 2 and Saipem 7000. Over 2021, the systematic tracking of best practices within SeO documented about 5,100 tonnes of avoided fuel consumption, equivalent to 16,300 tonnes of avoided CO<sub>2</sub> emissions and other pollutants in the atmosphere. These are gross avoided consumptions, kept monitored on a monthly basis to ensure commitment by the crew on the continuous implementation of energy saving best practices: the effective net impact in terms of saving is then quantified separately based on vessel GHG KPIs calculated from their recorded fuel consumptions. The net saving quantified by means of such KPIs for 2021 amounts to 12,000 tonnes of CO<sub>2</sub>.

Route Optimisation is an additional service that we activated to reduce a vessel's footprint during navigation



■ Fuel Consumption monitoring tool.

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. Following these routes also facilitates the vessels in implementing eco speed, i.e. the optimal transit speed that minimises fuel consumption within the limits set by weather constraints. To promote the adoption of these initiatives by vessels and projects, specific KPIs and targets have been set. This will help track over time, for example the percent of total annual navigation days in speed mode and check how the trend improves throughout the years. On the other hand, to encourage the activation of the Route Optimisation service, at the sites level the vessels were assigned individual targets based on intensive KPIs in tons of CO<sub>2</sub> emitted per hour. These were defined in each vessel's SEEMP, split for each activity of operation mode, including navigation/transit. The Route Optimisation service has been activated since 2019 on 23 routes for different main vessels. The service has delivered a savings of around 720 tonnes of fuel, that corresponds to 2,300 tonnes of CO<sub>2</sub>: out of these, 190 tonnes of CO<sub>2</sub> saving was achieved in 2021 with its implementation on 5 routes.

### 3. ENERGY EFFICIENCY IN DRILLING OPERATIONS

As part of our wider commitment to reduce the impact of onshore drilling rigs and their logistic bases, in 2021 we implemented numerous initiatives to increase their energy efficiency. Initiatives range from replacing old generators with new, more efficient models to implementing a pilot monitoring system that automatically starts and stops

engines based on the power needed. The following is a summary of the initiatives we put in place.

First, one of the main focuses was to lower the emissions of drilling equipment by increasing the level of detail of fuel-use monitoring and linking it to operational data. The initiative implemented a comprehensive GHG Dashboard improving the monitoring and traceability of fuel consumption and GHG emissions of drilling rigs. Its aim is to better manage the electricity produced by their diesel generators and increase efficiency by powering higher loads. Currently, about 40% of all operating drilling rigs have been integrated into the dashboard, but our goal is to gradually extend coverage to the whole fleet. As an additional initiative to extending the level of detail of data monitoring, 3 drilling rigs in Kuwait and in Colombia installed a system to remotely collect the fuel consumption and load data of each engine in real time.

Linked to this monitoring system, we have also implemented a dedicated tool that automatically switches engines on and off depending on their load in a pilot rig in Kuwait, aimed at reaching maximum efficiency for each engine. This initiative has brought a significant improvement in terms of fuel consumption and GHG emissions, consisting of 150 tonnes of diesel saved compared to the performance of a rig operating without this automatic system, equivalent to 476 t CO<sub>2</sub> eq.

Diesel consumption in drilling rigs is not only dependent on their use but also on the overall performance of the electrical power generation. In 2021, we chose to purchase new and more efficient diesel engines in Saudi Arabia, as they allow us to generate more power with less fuel, reducing the environmental impact of drilling. This initiative was implemented in Saudi Arabia for rig 5898 and the Dammam base, where it brought a savings of about 369 and 188 tonnes of diesel respectively, equivalent to around 1,173 and 725 t CO<sub>2</sub> eq.

Lastly, to increase awareness of technological, operational and management measures aimed at reducing GHG emissions of drilling assets, we published the "Energy Efficiency and GHG Reduction Best Practices," an overview of the commitment to the energy transition and our strategies for GHG reduction. It includes our short-term plans to improve the efficiency of operations and drilling assets, with a brief presentation of the GHG reduction initiatives and other best practices in the onshore drilling area. It also includes a new section dedicated to innovative solutions that are undergoing an in-depth analysis, in the context of our long-term strategies to achieve the ambitious targets set by the company towards Net-Zero emissions.

## Our decarbonisation journey

The decarbonisation objectives we set in February 2021 are the results of a journey we embarked upon years before:

- In 2018, we began improving the efficiency of our most energy-intensive assets (vessels, rigs and yards), starting with energy diagnoses and concluding the process with the publication of our first Four-year Reduction Plan for GHG, which is now revised and updated annually. The objective of the plan is to identify specific areas of improvement and short-term targets for reducing Saipem's overall GHG emissions, which also represent part of our clients' indirect (upstream) emissions. Furthermore, from 2018, the GHG-reduction target contained in the GHG Reduction Plans has become part of the company's short-term variable incentive plan, and, from 2021 the plans are incorporated in the Net-Zero Programme.
- The company has also been producing an Implementation Plan to identify key actions aimed at reducing GHG emissions in a long-term scenario in the context of the Net-Zero Programme. The Plan will be revised periodically, following a "plan, do, check, act" (PDCA) approach.

The combination of the two plans reports the Saipem roadmap to the Net-Zero emissions, while the first one focuses on the next 4 years' timeframe and has a strong connection with Saipem global Strategy and Industrial Plan, the second one paves the way for the next decades.

We aim to implement new policies and procedures throughout our business to help us meet our targets.

The challenge we face is tracking all energy scenarios, technology developments and political initiatives around the world in a constantly shifting landscape, and that's why we are implementing several tools to help us raise awareness and keep our focus. Awareness and behavioural change programmes will be integrated as part of our decarbonisation plans.

This continuous change will be concretely supported from 2022 with the adoption of an Internal Carbon Price impacting every activity with GHG emissions, with the aim of financing climate-related projects. This amount will stimulate a future reduction in such emissions with the simple equation, less GHG emitted less amount to pay. In March, we adopted a structured method, with the official creation of the Net-Zero Programme workgroup, a multidisciplinary team made up of more than 200 people in our company. This allowed the programme to be included and integrated within all business lines.

The team is chaired by a Steering Committee responsible for promoting and overseeing activities and for approving strategies and plans. A Programme Management Team directs the development of the project and monitors the fulfilment of objectives.

The reliability of the Programme is assured by a validation performed by an independent third-part company, with the aim of verifying if it is suitable both in technical and technological terms, also with a view to the main stakeholders' expectations, as well as of highlighting any ideas for improvement.

## GHG ESTIMATION TOOLS

You can't change what you don't measure, so we have developed various tools for GHG estimation both for internal Saipem purposes and to support our clients in their decarbonisation efforts.

For this second purpose, the Carbon Footprint of projects is the very first step towards the definition of a proper business decarbonisation strategy aiming for a net-zero/carbon neutral industry. Estimating emissions from a project's early phase using internationally recognised standards is the key to proper accounting, making present-day Carbon Footprints the steppingstone for the subsequent decision-making process.

A first certified tool to enable sustainable investment decisions is the so-called "EmiRed™", the Emission

Reduction solution, which aims for Carbon Reduction from the concept phase, through design, cost estimate & comparison.

EmiRed™ (formerly "Design for Low Carbon" when conceived in the "Innovation Factory" Incubator), is a unique decarbonisation solutions service, integrating the best available technologies engineered by Saipem, with the purpose of supporting our clients' net-zero goals. These are the key distinctive features of EmiRed™:

- applicable to brownfield and greenfield developments;
- certified by Bureau Veritas and based on international standards (ISO, IPCC, GHG Protocol, API);
- propriety tool based on extensive engineering experience allowing customisation for client project needs;

## TOTAL GHG EMISSIONS

	GHG emissions/revenues	Scope 1 emissions (kt CO <sub>2</sub> eq)	Scope 2 emissions (kt CO <sub>2</sub> eq)	Scope 3 emissions (kt CO <sub>2</sub> eq)
2019	158.0	1,405.8	31.6	1,532.5
2020	155.5	1,123.0	19.2	1,264.9
2021	156.8	1,054.1	23.8	1,586.7

## SCOPE 1, 2 AND 3 DEFINITIONS

- Scope 1 includes direct emissions from the use of fuels in our main assets (e.g. vessels, rigs, yards, accommodation camps).
- Scope 2 includes indirect emissions produced by purchased electricity\*. Scope 2 emissions physically occur at the facility where electricity is generated. They can be calculated using a location-based approach (reflecting the average emissions intensity

of grids on which energy consumption occurs) or with a market-based approach (reflecting emissions from electricity that companies have purposefully chosen).

- Scope 3 includes emissions that are the indirect emissions associated with Saipem's activities in its value chain, excluding the purchase of electricity (in particular, the purchase of raw materials, extraction and transport of fuels, waste disposal, flights, hotel stays, shipments, water supply and treatment).

(\*) Completion of the accounting of Scope 2 expected for 2022 with the reporting of emissions deriving from the purchase of heat.

- models the full life cycle costs including emissions;
- covers Scope 1 & 2 emissions (Scope 3 in progress).

The GHG Estimation module aims to create the Reference Case based on client requirements and original configuration. This initial baseline is compared with internationally recognised benchmarks and used to measure the effectiveness of any proposed optimisation. It is a flexible and reliable tool, applicable to any project phase and any product.

As part of the digitalisation process, EmiRed™ moved to an integrated and collaborative web platform, providing a central and robust database to allow knowledge enhancing, powerful benchmarking and data analytics. The GHG Minimisation module is based on an applicability analysis and an assessment. Firstly, the Applicability Analysis allows to easily identify Decarbonisation Solutions that are feasible in accordance with project requirements and site specificity. The Decarbonisation Solutions are the main best practices, such as: Energy Efficiency, Carbon Capture, Renewables, Fuel Switching and Methane Emission Reduction.

Afterwards, by integrating the best available technologies engineered by Saipem, the achievable low carbon

scenarios are easily assessed through an equipment library-approach, which is based on extensive experience as an EPC contractor and integrator. The configuration sizing allows for quantifying the decarbonisation achieved and the additional cost as a variation from the Reference Case.

Lastly, the comparison module provides insights on the results through specific KPIs and sensitivity graphs, highlighting the pros and cons and supporting the decision-making process, to meet client targets on both economics and decarbonisation.

A second tool is the Offshore Carbon Estimation (SOCE) Process, which aims to quantify the carbon footprint of any offshore EPCI (Engineering, Procurement, Construction and Installation) project executed by Saipem. It allows for the overall Carbon Footprint of a project to be quantified, providing details on each phase and specific assets in the chain of emissions. When studying a project, it produces an estimate of emissions pertaining to our scope of work to be included in tender proposals. It also allows for comparison of different scenarios/solutions when considering the project at the conceptual stage. This information helps our own and the client's

## What's happening around us?

- 1. Context Analysis:** most businesses have committed to achieving Net-Zero carbon emissions. Several factors are driving this transformation. Primarily, after signing the Paris Agreement, governments started to define challenging targets in order to achieve Net-Zero. Financial stakeholders are also increasingly focused on understanding the impact of their investments on climate and using active ownership to orient company decisions. The new EU strategy on Sustainable Finance will reinforce this direction.
- 2. Energy Scenarios:** post-pandemic scenarios make the long-term reduction of global CO<sub>2</sub> emissions a priority, focusing the international community's attention on finding different ways to harness energy. During this transition, electrification, the production of biofuels and other elements contained in the Saipem Net-Zero Programme will become more important as the cost of emissions rises.
- 3. Sustainable Finance:** the quest for more sustainable economic development and the need to accelerate the energy transition are increasingly affecting the investment decisions of individuals and capital markets. The long-term prospects of companies committed to sustainable business practices tend to be considered less risky and more profitable. Banks and capital markets are therefore developing new financial instruments, such as green bonds and sustainability-linked bonds, reserved for companies that are setting specific targets and ambitious timelines for decarbonisation or other ESG goals. Failure to achieve targets would result in increased finance costs. This market trend is expected to continue and to put increased pressure on borrowers in all industries.

decision-making process, facilitating the identification of activities with the largest impacts in terms of emissions. The estimation is carried out taking into consideration emissions embedded in the input resources and in the activities related to the construction of the plant (oil or gas field development, gas pipeline, windfarm, etc.). The structure of the tool allows for the inclusion of both the operation and end-of-life phases, although these activities are generally beyond our scope of work. Thus, the tool offers an innovative and customised solution for our clients, providing them with a bird's eye view of their plant's overall CO<sub>2</sub> eq footprint. Each EPCI project phase is modelled using various data sources with emission factors representing the average tonnes of CO<sub>2</sub> eq emitted using the appropriate unit of measurement (day, hour, distance, etc.) per type of

activity. For activities under our control, the environmental reporting system provides data on our direct fuel and electricity consumption. This provides added value to the tool since the output is based as much as possible on the actual performance of our assets (engineering offices, vessels and fabrication yards). Figures are based on our emission estimation methodology, calculating direct and indirect emissions from our activities and assets. This methodology meets the most updated international standards, audited and certified by a third party in accordance with ISO 14064-3:2019. For activities not under our direct control and reporting (e.g. chartered transport/spread vessels, procurement phase), data sources for each activity include both average benchmarks and information gathered from internal experience in previous projects.

## THE WAY WE ARE DECARBONISING THE OIL&GAS BUSINESS

The global challenge posed by the need for a sustainable future and the energy transition calls for a massive effort and a comprehensive strategy. While many efforts aim to power production with green energy only, increasing the energy efficiency of existing processes is the first step toward making gains in sustainability. At the same time gas will play a key role as a source that will be able to drive the transition towards a more sustainable energy mix.

### LOW CARBON LNG

By leveraging our complementary capabilities, together with an original equipment manufacturer we collaborated on a low carbon LNG conceptual project to reduce greenhouse gas emissions from LNG trains.

Detailed assessments of carbon footprints for the reference case and the new liquefaction facilities confirmed the large emitters of CO<sub>2</sub> and identified the steps needed to minimise emissions under normal operations and during start-up and shut down.

The project investigated an existing design using large, heavy-duty gas turbine compressor drivers and C3MR liquefaction technology.

Alternative configurations included multiple, medium-sized electric motors for the same C3MR train size and midscale trains.

To further decarbonise the facility, renewable power has been contemplated to directly feed the plant grid to reduce the load on power generation and reduce the CO<sub>2</sub> intensity of the produced LNG.

The study for the integration of Blue H<sub>2</sub> production facilities into the LNG complex is ongoing to demonstrate the feasibility of operating gas turbines, to target fuel gas blending and achieving >90% carbon capture efficiency from the hydrogen manufacturing unit, as well as to select the optimum H<sub>2</sub> production technology.

### WIND2SUB

#### Providing green power to offshore facilities

In the framework of our decarbonisation technology initiatives, **Wind2Sub** is our in-house technology (patent-pending) providing local green power and other necessary services to offshore bottom-fixed or floating platforms, subsea production systems or subsea processing stations from an adapted floating wind platform.

To reduce CO<sub>2</sub> emissions from Oil&Gas surface treatment facilities, we are working on the design of topside process modules to capture and export CO<sub>2</sub> from process equipment exhausts and flue gas. These facilities can potentially incorporate Saipem's proprietary CO<sub>2</sub> carbon capture technology to allow export of CO<sub>2</sub> for reinjection.

■ Wind2Sub.



## SUPERCUPS

### Green and profitable urea today. A Saipem proprietary technology for energy efficiency in urea plants

Our SuperCups proprietary technology is an optimal solution for immediate results in energy efficiency and sustainable operations in the fertiliser sector.

Let's see why.

Fertilisers are vital for growing the crops needed to feed billions of people. Fertilisers also play a crucial role in the decarbonisation and sustainability of the agricultural sector. Urea is one of the most widespread fertilisers in the world. It allows farmers to utilise a product rich in nitrogen for the low-cost improvement of agricultural crops while supporting the growth of all developing countries. The element linking fertilisers and decarbonisation is hydrogen, from which fertilisers are ultimately derived. The current methods to produce hydrogen are based on carbon-intensive processes such as steam methane reforming of natural gas or coal gasification. It is then converted into ammonia and ultimately in derivatives such as urea. In this case, a good portion of the carbon dioxide created as a by-product of hydrogen generation is recycled to make urea; however, the residual CO<sub>2</sub> emitted into the atmosphere is still very large.

While many efforts are currently under way to find the most convenient combination of technologies to make green products, a number of proven solutions are available today to improve the sustainability of urea production.

In this context, the SuperCups technology represents a high-end solution to improve the urea process at its core by enhancing the performance of the urea synthesis reactor. SuperCups represents a direct response to the demand for increasingly performing processes, aiming to optimise capital investments for high-pressure equipment, decrease energy consumption and reduce the environmental footprint of urea production.

SuperCups increases the conversion efficiency of urea reactors, boosting production without any changes to the facility or the reduction of energy consumption for the same production capacity. Fuel savings mean fewer CO<sub>2</sub> emissions without the need for any carbon capture system thus avoiding any issues related to the storage and utilisation of captured CO<sub>2</sub>.

The innovation of SuperCups lies in the creation of a confined reaction space within the reactor tray geometry, namely the cups.

SuperCups was first tested in 2016 in cooperation with the Austrian company Borealis and the Pakistani company

FFC and is now commercialised by Saipem as proprietary equipment for urea units. The technology has been effectively applied to design a new generation of urea reactors and to enhance the performance of existing units through design retrofits.

The Supercups innovation has been implemented in several projects contributing to environmental benefits such as the reduction of carbon intensity of urea plants and the reduction of CO<sub>2</sub> equivalent emissions. The results include:

- a 6-8% estimated reduction in hourly emissions of CO<sub>2</sub> eq (in t CO<sub>2</sub> eq/h);
- >5-10% estimated reduction of carbon intensity (in t CO<sub>2</sub> eq/t prod).

The case study is relevant to the modernisation of a urea reactor for an Indian client operating a medium-small size plant.

To give a simple but effective idea of the importance of such contributions, suffice it to say that the mentioned reduction of carbon intensity of urea production is estimated to be equivalent to the greenhouse gas emissions of about 3,000 cars.

3,000 cars out of circulation in one single shot!

## UREA GOES DIGITAL



### Virtual reality to optimise real-world urea production

A further effort in this context is represented by the agreement signed with Honeywell for the product development and commercialisation of a "Digital Twin" as part of Saipem's Snamprogetti™ Urea technology. The solution will be developed on Honeywell Forge, Honeywell's enterprise performance management solution, to enable clients to improve the production of urea through virtual simulation of key processes.

The new service will be commercialised with our brand and powered by Honeywell Forge. We will be responsible for the management and technical support of the digital tool, involving Honeywell on a demand basis. Honeywell's digital twin solution will also be used as a virtual model to guide engineers with actionable insights into machine performance and maintenance needs in order to optimise plant production of urea.

The Honeywell Forge solution, deployed in more than 60 process units worldwide, will enable us to provide real-time response on plant operational management, collect data for monitoring and predictive maintenance, contribute to the optimisation of our clients' operations and deliver more value to stakeholders. The solution will allow us to remain in close contact with our clients even after plant delivery, modernise the offering as a licensor and collect feedback regarding plant performance.

We contribute to the production process with our in-house technology, a specific proprietary solution that allows the crystallisation of liquid urea to form spherical grains ("prills") for direct use in agricultural fertilisation.

## DRILLING

### Exploring unconventional angles

Innovation in this field focuses on assets and processes, including the exploration of new business models in the geothermal market and the automation of certain activities by introducing the latest generation of technologies. Technological innovation related to condition-based maintenance is aimed at improving the performance

of equipment and reducing maintenance costs and non-productive time.

Our goal is to operate Green Rigs through technological innovations such as:

- power optimisation, managing plant generators to reduce emissions and increase efficiency;
- storage systems and battery systems, optimising power management when using generators;
- renewables (used to meet the energy needs of certain functions);
- GHG monitoring to detect the rig's CO<sub>2</sub> emissions value in real time and intervening where there are inefficiencies or waste.

## DIGITAL TRANSFORMATION

### Managing core activities in the era of big data for better efficiency and safety

In addition to the competitive advantages of shortening lead times and virtually cancelling distances, digital transformation is a strategic lever for switching energy efficiency efforts into concrete results. Acting as an Energy Efficiency enabler for work processes, digitalisation often helps significantly reduce CO<sub>2</sub> emissions. This is particularly true in the industry in which we operate: fast-track digital technologies can transform what we do today and the way our industry will work in the future, increasing productivity, lowering costs and expanding our offerings to clients, in addition to minimising our personnel's exposure to hazardous conditions.

In 2021, we kept our focus on:

- the EPC Integration initiative, aiming at a transversal integration of EPC (Engineering, Procurement and Construction) processes, and addressing areas such as the integration and standardisation of the engineering and procurement processes, remote control of inspection and expediting activities, creation of a dedicated portal for interaction with our clients, etc.;
- continuing to develop and industrialize the technological components to support the digital transformation of our assets, such as the design and implementation of our IoT and Data Platform to obtain a greater level of centricity and control of data coming from our assets, or the industrialization of digital solutions such as Extended and Predictive Maintenance and Fuel Consumption Monitoring, etc.;
- developing and putting into production various digital solutions to support staff functions and enabling the transition to our new headquarter and working remotely.

Some examples of initiatives within this framework and across our business areas are listed below.

Offshore operations, for instance, are complex and potentially dangerous. Being able to simulate and operate offshore equipment remotely allows better monitoring of live operations and makes communications easier with office-based engineering teams. That can help identify and solve technical issues more quickly, preventing operational risks and minimising emissions associated with sending numerous personnel offshore. In this respect, we are working on crane simulation and remote-control operations based on virtual reality.

We are also pursuing the digitalisation of pipelaying equipment onboard our vessels. Following non-destructive testing, field joint coating operations are now being digitalised through the introduction of robotic stations and multiple sensors, allowing real-time cycle time management monitoring.

In addition, we are testing onboard some of our offshore assets, software and hardware solutions so that experts located anywhere in the world can assist on board personnel perform highly specialised or critical tasks without leaving their desks. Technicians and engineers will be able to see in real time through the eyes of offshore operators and interact with them with different aids (audio, graphic, documents). These solutions are expected to increase the expertise, safety and support of our colleagues offshore while reducing the number of people on board, along with costs and exposure to hazards. The testing phase will move to the adoption phase in 2022 with the dispatch of kits to most of our fleet vessels.

## FOCUS ON

# ROBOTICS



The market is seeing an increasing introduction of innovative digital and automation technologies. Solutions that until only a few years ago were considered in the research stage are now mature enough for industrial deployment, enabling a deep transformation of our industry.

It is critical for the energy sector and offshore projects to fully benefit from this technology trend to optimise costs, safety and environmental impacts. In this context, unmanaging underwater interventions through advanced, underwater robotics solutions, capable of automatically executing complex inspection tasks, represents an exciting technology frontier. With some of the more disruptive subsea robotics of the offshore energy market, Saipem wants to play an active role in this deep technology transformation.

In this framework, the development and industrialisation programmes of our Hydrone subsea robotic platform is continuing with the new Hydrone-R, Hydrone-W and FlatFish.

On the one hand, the Hydrone-R won the Spotlight on New Technology award at the Offshore Technology Conference in May 2021, recognising the latest and most innovative technologies that are advancing and revolutionizing the future of offshore energy.

On the other hand, Hydrone-W, a fully electric



Drilling activities are part of Saipem's history. Over the years, we have gone on to hone our skills and technologies, offering high standards of reliability, flexibility and safety, focusing on the importance of innovation.

We have started the digital transformation of several processes to improve the overall performance of our drilling fleet, always tackling new market and technological evolution challenges.

work-class ROV, will be equipped with a revolutionary powertrain and power management system, that minimises the energy consumption during operations. It is designed to operate also from unmanned platforms, controlled from land.

**FlatFish** is Saipem's underwater drone, conceived to accomplish complex, autonomous subsea asset inspections without vessel support. This subsea robot can be launched by a topside facility or could reside on the seabed inside a subsea garage. The drone is fully remotely operated: a mission is downloaded by a remotely controlled unit inside the vehicle, instructing the vehicle to perform a complex survey and automatically come back to the launching point to upload inspection data. This operative paradigm represents an effective alternative to conventional offshore inspection campaigns carried out by vessels fitted with ROV: FlatFish will reduce the CO<sub>2</sub> footprint of this type of operation by +90% and decrease manning requirements by approximately 70% offering clients a more cost-effective solution.

FlatFish will operate in a total darkness scenario, i.e., with poor/no communication link, facing conditions and challenges similar to the ones space rovers encounter. Drones will be able to accomplish complex navigation tasks, automatically adapting their mission to environmental conditions and newly acquired inspection data. All these capabilities require advanced control and communications techniques informed by artificial intelligence (AI).

FlatFish has been designed, manufactured and tested in Italy leveraging our Subsea Robotics know-how, in close collaboration with Italian research and academic centres, with the steering and contribution of Shell, and more recently TotalEnergies and Petrobras. The system is now completing an endurance testing campaign at Saipem's naval base in Trieste where we have set up a dedicated subsea robotics testing facility.

The FlatFish testing programme followed a structured validation plan in line with the API and DNV-GL standards for Oil&Gas new technology qualification; we should fully achieve Technology Readiness Level (TRL) 5 by early 2022, enabling deployment of FlatFish in a real operative scenario. The first FlatFish project is planned for mid-2022 in the deep water of the Brazilian Oil&Gas field.

Similar to FlatFish, **Remote ROV Technologies** represent our answer to the increasing need to efficiently support the installation and construction offshore projects. The idea is to upgrade ROVs so they can be operated from an onshore, remote-control unit. Benefits consist

Here are some of the challenges we met in 2021:  
a) Saipem 12000, one of the most complex vessels within our drilling fleet, was chosen as a pilot for the first digitalisation project of the **Permit to Work**

**system (PTW)**. The benefits of this new electronic system are a clearer collection of data, faster and more effective communications among personnel and more reliable control of all the steps of the PTW process. Operationally, the system can be accessed everywhere



of de-manning and de-risking offshore operations; additionally, the overall CO<sub>2</sub> footprint will be significantly improved.

Remote ROV Technologies are tested in Italy and developed with the steering of Equinor and some other Offshore Energy Companies. The technology is now fully mature, field-proven and it is already being used in several offshore projects. In 2022, we will set-up a remote-control centre in either the Middle East or Norway to support ROV operations worldwide. In these control centres the use of different robots will be centralised further reducing project costs and risks. The Hydrone subsea robotic platform is developed in Trieste, where Saipem's centre of excellence for submarine technology innovation is located. In August 2021, during the G20 Digital Ministers' Meeting, an institutional visit was organised to present to the Italian institutional delegation the logistical and operational headquarters of Saipem's main technological development activities in Italy.

### The use of drones in biodiversity monitoring

Over the years monitoring has gone from hand-drawn paper charts to high-resolution aerial photography. The systems that capture and process environmental monitoring data continued to evolve, providing more accurate and precise data.

With the using of drone technology, it is now possible to map and survey a variety of environmental factors such as land erosion, wildfire risk, invasive species growth, endangered species populations, and more.

In other words, drone technology creates digital environments to help better understand natural environments and gather accurate, actionable environmental information, combining aerial images with geolocation data.

For example, drone technology can help with coastal erosion monitoring or studying endangered species

onboard the vessel. Overall activities and the PTW process are always under control as the information can be viewed by everyone onboard, making the crew aware of ongoing operations, avoiding issues due to simultaneous operations and reducing risks. The new digital system avoids printing more than 300 pages per day on Saipem 12000. The pilot reported very positive results so we decided to implement the same digital strategy for our whole drilling fleet, continuing with the Santorini drilling

conservation and with ecosystem health assessments in general.

Drone technology also allows for gathering environmental information without putting humans (or the environment itself) in harm's way:

- in fragile ecosystems, human disturbance can do unintentional damage. Drones avoid this potential damage by putting distance between humans and the environment being examined;
- without drones, humans often have to navigate dangerous terrain to gather data. Some areas are virtually impossible to reach on foot, and drones offer an alternative way to study them without putting people in danger.

At Saipem drones have been used to monitor biodiversity by specific environmental engineering departments that have been committed to this field for many years, but the most recent topographic surveys carried out using drone technology for specific projects are:

- "SGO Project (Spence Growth Option)" in Chile - The topographic survey of the RoW of the aqueduct, about 150 km-long (October 2017-April 2020);
- "Livorno Piombino methane pipeline reconstruction" project - The topographic survey of the RoW of the methane pipeline, for a stretch of about 30 km (March 2021-March 2022);
- "Baleine phase-1" project - pre-engineering for EPC in Ivory Coast - The topographic survey of the RoW of the pipeline, for a stretch of about 10 km (the survey will be carried out starting in early March 2022).

Moreover, we have recently developed a study related to the use and application of drones in biodiversity surveys as a starting point for future application and field development.

Furthermore, the study also highlights the use of drone technology related to all the phases of a project Life Cycle Assessment, becoming a sort of Life Site Management tool, enabling the control and verification of any phase of construction of a site, from characterisation to construction and management, up to restoration.

Finally, it is worth mentioning an activity carried out in 2017 for the Val d'Agri Strengthening and Development Project of Eni showing how drone technology can contribute to monitoring specific KPIs related to biodiversity in the area object of the survey, obtaining for this specific project a mosaic of vegetation index values of the areas of study.

ships in 2021 and planning the digital transformation of Saipem 10000 for 2022.

- b) The **Digital Twin** is a platform that allows the integration of all data related to our assets and operations, bringing us into the future of the drilling business where asset management can be better planned and operations can be scheduled in advance thus reducing onboard personnel, increasing safety and reducing our carbon footprint.

## Smart warehouse: our successful collaboration with an Italian start-up



As a platform, we live for and create business connections with different ecosystems and stakeholders, making innovation, and therefore sustainability, one of our foundations, projecting ourselves over wide territorial horizons, from the shorter to the longer term. One of these connections led to MYPART Meccanica, an Italian innovative start-up that deals with production efficiency through rapid manufacturing. This consists of industrial 3D printing and its services that integrate additive and subtractive manufacturing technologies to minimise waste. We found a meeting point with MYPART Meccanica for applying digital manufacturing to digital inventory. This can help make our, and potentially our client's, warehouses more efficient, combining it with just-in-time production, whereby what is needed is produced where it is needed, reducing the carbon footprint.

In this ongoing transformation, we need our larger partners to lever their strength and experience and we need our smaller partners to benefit from their innovativeness and advanced technologies. We also benefit from small companies, in cultural terms and in terms of accelerating our transformation process, from them being natively sustainable and already projected into the future. By putting ourselves in the shoes of a start-up, we can offer opportunities for validation, integration, amplification, concreteness and scalability to their value propositions and innovativeness, helping them open new markets and create new business connections.

Along the same lines, we developed our Virtual Rig to improve management, familiarisation with realistic virtual scenes for training, and the presentation of our plants to stakeholders. In 2021, we started to integrate the Virtual Rig with our IoT data platform, which will allow the real-time visualisation of operational performance parameters of plants and equipment.

### c) Remote Collaboration & Extended Maintenance

projects are important to support our personnel and better manage the operations on our assets (drilling rigs and vessels). Our projects are comprised of different streams:

- hardware: devices (i.e. headsets, smart glasses) to be used onboard vessels and on rigs will be as unobtrusive as possible, to reduce the non-productive time;
- infrastructure: satellite connection and wireless network on assets will be adjusted for the task thanks to the utilization of new technologies. We are improving our edge computing thanks to creation of new data rooms on our assets;
- software: our new platform will guarantee interconnection with the equipment and bandwidth minimisation while providing all relevant tools for collaboration and to the digitalisation of the operation process. We can be closer to our colleagues on the assets and we can perform inspections, audits or remotely help out without moving personnel.

d) **Red zone monitoring** aims to monitor hazardous areas and prevent unauthorised access to them. The system checks in real time the position of the moving equipment on the drilling surface and in the dynamic red zone defined by the supervisors, preventing dangerous situations.

e) **Smart Warehouse** introduces a completely digital system that, thanks to the Artificial Intelligence, allows the complete traceability of spares, the optimisation of purchases and the reduction of warehouse stock.

f) The use of technology contributes to **monitoring and processing plant operations**, as well as the detailed analysis and comparison of all operations on each rig. The system is composed of sensors installed on the rig and control rooms where all data are displayed and analysed. The goal is to optimise both the safety and operational performance of the rigs.

## INNOVATION FACTORY



Back in 2016, we launched Saipem's Innovation Factory as an experiment to kick-off the digital innovation in our company.

In the following 5 years, it has turned into Saipem's "hub of intrapreneurial talent development and new value origination". Let us elaborate on this journey.

Some of the top rising talents and most experienced colleagues were put at the centre of the process and empowered to apply their innovative thinking to carefully selected strategic challenges and opportunities. Thus, a new culture started to emerge, based on agility and smart risk-taking, working across organisational silos, ultimately focusing on value before any specific solution. Working backwards from the value and discussing proof-of-concept projects in an open dialogue with the company's top management allowed us to design many new products, services or even business models. Let us share some examples.

The early initiatives were predominantly digital. For instance, the intuition of creating an integrated digital platform for the lifecycle management of EPC projects has produced fundamental internal competencies and external partnerships, contributing significantly to the launch of a full-scale digital transformation programme. A broad investigation of augmented and virtual reality (AR/VR) technology potential has led to the creation of virtual replicas of Saipem's assets, which have been extensively used for remote training and familiarisation of personnel, and even formed the foundation on which comprehensive digital twins are built today. Other successful examples include enhanced digital track & tracing of bulk construction materials, application of artificial intelligence for improving efficiency of the tendering process, or machine learning algorithms for value-optimisation of the stocks in our warehouses. These projects demonstrated significant cost reduction opportunities in their pilot applications and have moved to the scaling up phase.

Starting from 2018, innovators from our foreign offices in France, UK, Norway, India and Indonesia participated in the programme. In addition, a structured approach to open innovation was deployed, with the support of trusted external partners: AsterFab, Mind The Bridge and Politecnico di Milano. Many hundreds of start-ups have been scouted since. Examples of early success cases include collaboration with additive manufacturing start-up My Part Meccanica (see the "Smart warehouse: our successful collaboration with an Italian start-up" box on page 36) or AI start-up Arundo, which deploys computer vision for more efficient interpretation of process & instrumentation diagrams. We also implemented a rather new approach for Saipem, validation of new ideas with clients at the early stages of the proof-of-concept development. Despite a fair number of challenges and failures, typical and essential for innovation, some great ideas were conceived and made ready for scaling up.

Examples include: a "design for a low carbon" digital tool to estimate and optimise GHG emissions from clients' assets at the feasibility and feed stage (now EmiRed™, see page 28); "XH2UB" concept of a floating facility to produce, store and distribute green hydrogen; the application of additive manufacturing for time and cost-effective production of special equipment and spare parts.

The advancing energy transition is presenting multiple challenges and opportunities for our industry. In these times of rapid change, the Innovation Factory is undoubtedly contributing to shaping Saipem's new vision, culture and capabilities by having formed nearly 300 "innovators" so far by constantly testing and applying the best-in-class innovation frameworks and methodologies, by making thousands of new connections, and by fusing economic, social and environmental sustainability in each of our initiatives.

### Main Open Innovation activities within the Innovation Factory

Through 2020 and first half of 2021 the fourth round of PoC was launched, concerning key issues such as artificial intelligence, data transmission from remote sites, future world's infrastructures, plastic recycling, green hydrogen, collaborative contracting, construction progress management and additive manufacturing. Since June 2021, a new wave of PoC has been developed: addressing topics such as offshore electricity transmission networks, long-distance transportation of new energy carriers, biorefining. In addition, two promising technological areas of CO<sub>2</sub> utilisation and large-scale energy storage were addressed with startups scouting vertical and internal observatories respectively. Water neutrality was selected as a "moon-shot" – a wide theme with the longer-term horizon. Finally, since we have embarked on a strategic transformation, it will be essential to have the right talent. To help the company envision how our workforce may look like in ten years from now, a dedicated transversal project called "Saipem Future Talents" was launched. In the open innovation domain, we continue our collaboration with AsterFab and Politecnico di Milano. Finally, two collaboration channels have been opened with the Embassies of Canada and Israel in Italy, who proactively cooperate with the Factory in the scouting and introductions to the most promising startups in their respective countries, both well-known for innovation.

## RENEWABLES

### Building on present technologies, planting the seeds for future solutions

Renewable energy will be treated more in detail in the next stage of our decarbonisation journey, in the Vision section of this report, starting on page 40. But we want to include in this section a few examples of renewable energy projects we have already started. We will show some of the seeds we are planting now for the next few years and that will come to fruition more fully in the coming decades, as we update our engineering and adapt our assets to the energy transition and the need for renewable energies.

#### WIND ENERGY

Wind energy plays a key role in the Energy Transition because it's renewable, clean and available worldwide. The estimation of wind energy production has become a crucial aspect for energy producers concerning financial matters. We have the expertise to develop Wind energy projects at every stage, from the early assessment and engagement phase to its final take-over.

One example is the development of the HexaFloat™ floating pendulum concept for offshore wind turbine installations, allowing the installation of floating wind turbines in those marine areas where the wind is usually stronger, but the water is too deep for a traditional fixed foundation.

Complementary to HexaFloat™, we are developing two other distinct semi-submersible floater design concepts to address all the different market conditions: the X-Base off-centred design, and the centred STAR-1 design. X-Base addresses offshore wind project requirements at water depths greater than 50 m, uniquely offering a 4,000 m<sup>2</sup> deck space for ancillary utilisation (solar panels or electrolyzers ideal for green hydrogen production integration).

Meanwhile, in June 2021, we acquired Naval Energies' activities in the floating wind energy sector, namely the engineering know-how for floating wind-unit design with its intellectual property rights, specifically the STAR-1 semi-submersible floating foundation technology. We have also integrated a specialised team of Naval Energies with expertise in modelling and simulation. STAR-1 still displays a 3-column generic semi-submersible foundation but with the turbine centred. The solution is technologically mature and has already qualified for a commercial project in France.

Unlike wind turbines installed on pylons a few miles from the coast where the seabed is shallower, floating platforms can be anchored further offshore, where the wind is

stronger. This technology opens new opportunities in the Mediterranean, where winds near the shores do not have the same average intensity as in the North Sea or the Atlantic.

#### A Saipem EU Taxonomy eligible project

The EU taxonomy for sustainable activities is a classification system established by the European Union to identify which activities and investments are environmentally sustainable, and 18 activities are considered eligible as part of Saipem's portfolio of activities (actual and potential).

*For further information on the Taxonomy implementation project in Saipem and on Saipem taxonomy eligible projects, please refer to the 2021 Consolidated Non-Financial Statement, page 95.*

Among the main Taxonomy eligible projects, it is worth mentioning the Fécamp Offshore Wind Farm Foundations Project.

Fécamp wind farm is a 500 MW offshore wind farm being developed off the coast of Fécamp in the Normandy region of northwest France. 71 wind turbines will be located between 13 km and 22 km off the coast of Fécamp. The site has strong and regular wind and a shallow depth of 30 m. The project partners are EDF Renewables and Enbridge who own 35% each through Éolien Maritime France, while wpd offshore owns the remaining 30%. In Consortium partnership with Bouygues Travaux Publics and Boskalis, we are executing the Engineering, Procurement, Construction and offshore Installation of the 71 Gravity-Based Structure (GBS) foundations.

Each of the GBS foundations weighs up to 5,000 tonnes and they are necessary to stabilise the 7 MW wind turbines. BS Consortium's joint venture with Boskalis is tasked with the design and preparation of the seabed rock foundation prior to GBS installation, the scour protection and ballasting of the GBS after installation on the seabed.

At present, the GBS foundations are under construction in the Bougainville maritime works yard in the Grand Port Maritime of Le Havre and will be transported by barge to the offshore wind farm site where they will be installed using the S7000 vessel. The works are expected to be completed by the end of 2022. The commissioning and operational start-up of the wind farm are planned for 2023. With a total power output of some 500 MW, the Fécamp offshore wind farm should produce the equivalent of the domestic electricity consumption of approximately 770,000 people, representing more than 60% of the inhabitants of the Seine-Maritime department in France.



**FOCUS ON**

# HEXAFLOAT™

## Anchoring offshore wind turbines

This new proprietary technology allows the installation of wind turbines in marine areas where the wind is usually stronger but the water is too deep for a traditional fixed foundation.

This solution consists of a floater stabilised by a counterweight thanks to tendons connecting the two. The HexaFloat™ substructure aims to be a one-size-fits-all foundation for a range of turbine sizes thanks to a hanging counterweight that can be lowered to stabilise heavier loads. To accommodate different turbine sizes, the diameter of the tubular structure can be slightly adapted and the ballast depth adjusted. The structure will be attached to the seabed via mooring lines with drag anchors and export cables will be attached in a lazy-wave configuration, minimising the need for seabed preparation.

## The HexaFloat™ journey

In November 2020, Saipem and Italy's National Research Council (CNR) signed a cooperation agreement to develop HexaFloat™.

In July 2021, we installed a 1/6.8 scale prototype in the MaRELAB test site, in the open sea off the Bay of Naples, in Italy (9.9 kW WTG, water depth: 26 m).

This achievement is advancing the Technology Readiness Level (TRL) of floating foundations, helping to improve design criteria and accelerating the cost

reduction curve of floating wind technology.

This first open-sea demonstration will be followed by the development of the HexaFloat™ full scale demonstrator in the French Mediterranean Sea at the Mistral test site as part of the AFLOWT (Accelerating market uptake of Floating Offshore Wind Technology) project in 2024. The European Marine Energy Centre (EMEC) is the project's lead and it is supported by Interreg North West Europe.

The deployment of this 3 MW demonstrator will be carried out thanks to a partnership between Saipem (as technology owner and EPCI contractor), Valeco/EnBW (a German energy utility developer) and École Centrale de Nantes (as future site owner through the OpenSea foundation).

In addition to the Interreg NorthWest Europe funding, the deployment of the HexaFloat demonstrator will benefit from national and regional support through ADEME (Agence de l'environnement et de la maîtrise de l'énergie - the French Environment and Energy Management Agency). The detailed engineering of the floater will start in 2022.

This demonstrator project is fundamental for accelerating the industrialisation of floating offshore wind energy, not only at the prototype level but on a large scale, with the potential for leaner manufacturing, assembly and installation processes.

■ HexaFloat™ in the Bay of Naples.







# FULFILLING OUR VISION OF DECARBONISATION



# FULFILLING OUR VISION OF DECARBONISATION



Continuing with our ideal travel journal, in the second part of this report we will share our "**Vision**" of where we would like to be by 2050 and how we are planning to get there.

**The map of the future we are envisioning for ourselves and our stakeholders has four main areas of development and innovation: Renewables, Hydrogen, the CO<sub>2</sub> value chain and the Circular Economy.**

The first three areas will cover the spectrum of decarbonisation solutions for many different needs, ranging from easier-to-electrify projects to harder-to-abate activities. The fourth will provide the economic, environmental and climate-sustainability framework within which we will carry out our activities, with the aim of reducing, reusing, recycling and reintroducing as many resources as possible in the production cycle.

**€22 MLN**

AMOUNT SPENT ON DECARBONISATION R&D AND TECHNOLOGY APPLICATIONS

**18**

SIGNED COOPERATION/LICENCE AGREEMENTS, OF WHICH

**15**

ENERGY DECARBONISATION PROJECTS AND 2 DIVERSIFICATION PROJECTS

**2,827**

PATENTS AND PATENT APPLICATIONS IN FORCE

**16**

NEW PATENT APPLICATIONS, OF WHICH 3 FILED FOR ENERGY DECARBONISATION TECHNOLOGIES

**32**

PARENT PATENTS (ABOUT 70 PATENT TITLES) ACHIEVED THROUGH THE ACQUISITION OF NAVAL ENERGIES

## RENEWABLES AND GREEN HYDROGEN

**Connecting the dots of today's solutions with tomorrow's applications**

Our investments in renewables and the development of technologies to produce renewable energy show our commitment for the future. Worldwide, renewable energy production is expected to grow by about 2.3% each year through 2040, and we want to play our part in this trend. Renewables are the most relevant transition drivers for our business model, and to this end we are working to develop new innovative projects through collaborations with players in different corners of the world, focusing especially on wind energy, as well as solar and marine technologies.

### SOLAR ENERGY

Photovoltaic (PV) solar energy is the most affordable and abundant renewable energy source available worldwide and can be easily implemented. We carry out complex projects, with the full integration of traditional technologies and PV power plants, contributing to the decarbonisation of the manufacturing sector.

Leveraging the expertise of our Norwegian company Moss Maritime, we have the skills to develop floating photovoltaic plants in onshore, nearshore and offshore environments. We have also signed a collaboration agreement with Equinor to develop a floating PV system for harsh offshore environments.

Our patented solution allows:

- > modular design that facilitates construction and repair;
- > customisation to fit various locations and power demands;
- > operation among waves without damage to solar panels.

### MARINE ENERGY

We have been dedicated for quite some time to studying the tides and sea waves. Such research has allowed Sabella, our group company, to develop and promote initiatives in the marine energy sector with the aim of testing innovative technologies and helping them grow. We have various partnerships with third-party technology providers; furthermore, we are jointly developing an innovative prototype with KiteGen Research that generates electricity from high altitude winds by using special "kites" that will also have offshore applications.

### HYDROGEN

Hydrogen has caught the attention of public opinion as a possible "guiding star" that will progressively free the world from fossil fuels and the "carbon" economy. Decarbonising hydrogen production is necessary if hydrogen is to remain in business in the energy transition as an energy carrier and a chemical reagent. We are considering both Blue Hydrogen (hydrogen from fossil fuel



■ Hydrogen station.

with carbon capture) and Green Hydrogen (hydrogen from water electrolysis with renewable power). Green Hydrogen is the final goal, but Blue Hydrogen might be a compatible opportunity for providing this option to the market more quickly in the next two decades.

Our experience in hydrogen production plants, the syngas-based industry and onshore and offshore renewable technologies allows us to use renewables for green hydrogen production, integrating offshore wind with solar plants and electrolyzers.

## GREEN HYDROGEN VALLEY



The Italian energy companies, Edison and Snam, signed a Memorandum of Understanding (MoU) with Saipem and Alboran Hydrogen for the joint development of the Puglia Green Hydrogen Valley project, one of the first initiatives for the production and large-scale transport of green hydrogen in Italy.

The project endeavours to accelerate the adoption of green hydrogen, one of the protagonists of the European decarbonisation strategy, helping both Italy and the European Union reach their climate neutrality targets by 2050.

The Puglia Green Hydrogen Valley intends to build three green hydrogen production plants in Brindisi, Taranto and Cerignola (Foggia) for a total capacity of 220 MW, powered by a 380 MW solar PV park.

Once fully operational, we estimate the three plants will be able to produce up to about 300 million cubic metres of renewable hydrogen per year.

Green hydrogen will be used mainly by industries in the areas, including the injection – or blending – of hydrogen into Snam's local gas network and/or used for sustainable mobility.

The Brindisi project has already started the authorisation process for a 60 MW green hydrogen production plant.

The entire Puglia Green Hydrogen Valley project will include such important regional entities as the Apulian Aqueduct, the Appulo Lucane Railways, the Apulian technological and production districts, Politecnico of Bari, the University of Bari, Foggia and Salento.

In addition, investments in research and development will favour the local development of skills and create a production chain for the hydrogen industry in Puglia.

## ELEMANTA

### A hydrogen-based, cutting-edge solution to reduce carbon emissions in ports

Elemanta is a cutting-edge solution capable of reducing carbon footprints in ports, a technological platform to be implemented in ports or remote locations that provides an extensive range of services: electricity for ships at berth, heating and cooling, drinking water, hot water, plastic collection and recycling solutions, as well as storage and use of hydrogen. Built as a floating barge and easily transportable, this system makes it possible to significantly reduce electrical infrastructures. Elemanta can also be sent to supply energy and treated water to specific areas in the event of natural disasters.

The emissions from ships are designed and regulated for navigation conditions, hence their emission level is much higher than what is typically permitted in proximity of heavily inhabited areas. Cold ironing provides shoreside electrical power to emergency equipment, refrigeration, cooling, heating, lighting and other equipment while the ship loads or unloads its cargo.

Shutting down the main engines while in port is a widespread practice. However, auxiliary diesel generators that power cargo handling equipment and other ship services while in port are the primary source of emissions from ships in ports today, as auxiliaries run on heavy fuel oil or bunkers. The EU now requires the use of cold ironing. However, this can cause a huge peak in power demand, which is not normally supported by the existing electricity grid and vast changes should be anticipated to comply with the latest regulations.

Elemanta was originally developed to run on Liquefied Natural Gas (LNG). The concept has now evolved with the goal of changing the energy vector from LNG to Green Hydrogen and the power system from Turbogenerators to Fuel Cells. Its plug-and-play design allows for flexible sizing and functionalities, which can help to:

- meet variable demand dependent on the number of ships in the port;
- satisfy the occasional need of ships when located by the banks of a river, or in other remote areas far from the grid;
- adapt to the specifics of each infrastructure;
- facilitate the decarbonation of harbours.

## FOCUS ON

## THE AGNES PROJECT - A NEW ENERGY HUB IN THE ADRIATIC SEA: RENEWABLES AND GREEN HYDROGEN FROM OFFSHORE WIND AND FLOATING SOLAR PV



The AGNES project is an integrated marine district in the renewable energy sector off the coast of Ravenna, Italy, converting parts of the Oil&Gas infrastructure and creating synergies between natural green sources of energy, such as sun and wind, with an innovative energy vector and chemical reagent such as hydrogen ( $H_2$ ). The project stems from the fact that many Oil&Gas platforms have reached the end of their lifespan and need to be decommissioned just as numerous gas pipelines as well.

These infrastructures could have a second life before being permanently disposed of, hosting offshore renewable energy plants and exploiting marine aquaculture thanks to the lattice structure of the platforms that can host an abundance of marine life. AGNES is an innovative company that was created in 2019 to develop renewable energy projects in the Italian Adriatic Sea. The company is the result of Qint'X's twenty year's experience in the renewable

energy sector. In 2020, Saipem and Qint'X signed a memorandum of understanding (MOU) with the aim of developing and building the Agnes Project.

Additionally, green hydrogen production facilities may extend the life of installations, deferring decommissioning costs. These platforms commonly have pipelines providing a tie-in point to the gas market, and, provided they are suitable for hydrogen service, they may be re-purposed to transport hydrogen, either blended with natural gas or as a pure component. To this end, we developed a technology for  $H_2$  generation and utilisation, namely SUISO, a modular electrolyser concept for repurposing disused offshore assets, which will find its first application in the AGNES project.

SUISO combines various renewable energy sources such as floating wind, floating solar and marine energy into a single system. The aim is to power electrolyzers

■ Suiso technology.



INNOVATIVE ENERGY  
HUB IN THE HIGH  
ADRIATIC SEA

**750 MW**

INSTALLED CAPACITY BETWEEN WIND AND SOLAR  
75 WIND TURBINES, 1 FLOATING SOLAR FARM, BATTERY STORAGE

**1.6 TWH**

ELECTRICITY PRODUCED YEARLY BY WIND AND SOLAR POWER  
ENOUGH PLANTS TO AVOID UP TO 680,000 TONNE/Y OF  $CO_2$

**UP TO 16 TONNES**

HYDROGEN PRODUCED DAILY CONSIDERING

**50 MW**

OF ELECTROLYSERS



installed on existing offshore platforms to produce green hydrogen. This technology responds to the growing demand for green hydrogen production, and, at the same time, it allows the conversion of Oil&Gas offshore facilities that have reached the end of their life cycle. The oxygen resulting from this process can be used in various areas such as aquaculture or seaweed production.

#### SUISO in a nutshell:

- Creates modular and replicable H<sub>2</sub> and O<sub>2</sub> hubs
- Avoids platform decommissioning costs and enhances green footprints
- Represents a second life for Oil&Gas platforms
- Is Carbon neutral
- Promotes the circular economy (ex. Fish farms, aquaculture, seaweed)

The AGNES project will receive Italian state support thanks to a decree which provides for a series of complementary measures and investments to those already outlined in the Piano di Ripresa e Resilienza (PNRR - the Italian Recovery and Resilience Plan). In fact, a loan of 70 million has been established to support a concept design for an offshore renewable energy hub with attached production of green hydrogen off the coast of Ravenna that also involves AGNES.

The project, unique in the Italian and international energy landscape, met with a favourable response from both Italian institutions and civil society for its strategic nature, non-invasiveness on the surrounding environment, and alignment with European, national and regional decarbonisation objectives.

*It's the first energy hub  
in the world where the  
integration of offshore wind  
and floating photovoltaics  
will generate electricity  
used also to power  
the production of green  
hydrogen.*





## THE CO<sub>2</sub> VALUE CHAIN

### Capturing, storing and utilising carbon dioxide from Oil&Gas operations

Carbon capture, use and storage can provide a key contribution to tackling emissions in the "hard-to-abate" sector.

In the European framework, the CCS Directive (Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide) has established a legal framework for the environmentally safe geological storage of CO<sub>2</sub> since 2009 to contribute to the fight against climate change. It covers all CO<sub>2</sub> storage in geological formations in the EU and the entire lifetime of storage sites, and provisions on the capture and transport components of CCS. On December 15, 2021, the EU Commission published the "Sustainable Carbon Cycles" Communication, which sets the long-term objective to restore sustainable and climate-resilient carbon cycles.

We can master the whole Carbon Capture, Utilisation & Storage (CCUS) chain thanks to a solid background in pipeline fluid transportation over long distances, onshore and offshore, and drilling for CO<sub>2</sub> injection. We have executed EPC projects involving not only CO<sub>2</sub> removal and Acid Gas Reinjection, but also CO<sub>2</sub> pipelines.

### ENZYMIC CARBON CAPTURE

We own the proprietary "CO<sub>2</sub> Solutions by Saipem" technology, based on an innovative enzymatic process to capture CO<sub>2</sub>. The technology has been tested in a small-capacity commercial plant in operation at the Resolute Forest Products pulp paper mill in St. Félicien (Québec, Canada). The recovered CO<sub>2</sub> is purified and used in the greenhouses of a near-by farm.

Enzymatic carbon capture is more environmentally sustainable and cost-effective than traditional CO<sub>2</sub> capture processes. It's based on enzymes that require lower heat and fewer chemicals and energy, cutting down on harmful waste. Furthermore, this process is more reliable, as carbonates and enzymes are low corrosion materials, minimising equipment deterioration.

In this respect, Saipem and Novozymes, the world leader in biological solutions, have signed a collaboration agreement for the development of innovative solutions for enzymatic carbon capture.

As part of the agreement, we will be responsible for providing process, mechanical and equipment design, while Novozymes will provide enzymes and further optimise the process through enzyme innovation.

This agreement constitutes an important step towards finding innovative solutions that reduce greenhouse gas emissions. Thanks to our expertise in CO<sub>2</sub> capture and storage technologies and Novozymes' cutting-edge enzyme solutions, together we can make the enzymatic carbon capture process highly competitive on the market of traditional amine processes.

### ACCSESS PROJECT

#### Technology to capture CO<sub>2</sub> from industry is supposed to be widely deployed across Europe

The innovative ACCSESS project, being carried out by 18 European partners, will demonstrate CO<sub>2</sub> capture from flue gases coming from several hard-to-abate industries with an environmentally benign solvent technology. The project will use a modified, portable, small capacity CO<sub>2</sub> capture plant (2 tpd) already in existence.

Hard-to-Abate industries are responsible for a significant amount of total CO<sub>2</sub> emissions. When applied to flue gases from biomasses, CCUS provides a way not only to cut emissions but also to pursue negative CO<sub>2</sub> emissions. This is feasible in several industry sectors including pulp and paper, biomass-fuelled cement production and waste-to-energy applications.

A pilot plant, currently designed to be operated with amine solvent, will be modified with the environmentally benign "CO<sub>2</sub> Solutions by Saipem" capture technology. The modification includes the installation of an innovative solution, called Rotating Packing Bed, replacing existing traditional columns.

Following these modifications and using this Saipem technology, the pilot plant will be tested first at a waste-to-energy plant. Subsequently, test campaigns will be carried out at a paper mill and then at a cement kiln. Another goal of the ACCSESS project is the study and development of CCUS chains, starting from the integration of Carbon Capture plants into hard-to-abate activities in Europe, involving the transport and storage infrastructures being developed in the North Sea (Northern Lights project).

The project also aims to develop viable industrial CCUS business models. ACCSESS will engage with cities and citizens, explaining how CCUS can contribute to the production of climate neutral or climate positive end-products in the context of sustainable cities.

## ABATING EMISSIONS FROM STEEL PRODUCTION

Saipem and the Italian companies Danieli and Leonardo are collaborating to supply technologies and services aimed at reducing carbon dioxide emissions in steel production. The process they propose seeks to create an innovative and sustainable steel manufacturing model, respectful of the most stringent environmental regulations on CO<sub>2</sub> emissions, as set by the COP participants in the Paris Agreement.

The three companies have signed a framework agreement to work together on projects both in Italy – particularly in the South – and abroad, for the sustainable conversion of energy-intensive primary plants in the steel sector. The consortium aims to create a world-class, Italy-based, technological and production chain in the steel sector. Their new technological solution replaces conventional

steel production methods based on blast furnaces with a new process. This will use hybrid electric-powered furnaces within direct iron ore reduction plants by applying a methane and hydrogen mixture to obtain green steel with limited Green House Gas emissions.

A proprietary technology jointly developed by Danieli and Tenova, an Italian company specialising in sustainable metals and mining, will also be integrated into the new solution. Their technology is called Energiron and is based on the direct reduction of iron ore using natural gas on its own or enriched with hydrogen.

We will manage plant construction, integrating technologies and competences required for the natural gas, hydrogen and CO<sub>2</sub> capture chains.



## BIOMASS CONVERSION AND THE CIRCULAR ECONOMY



Biofuel production processes and technologies, with a focus on second generation bioethanol, have been extensively investigated. In this frame we have signed an agreement with Versalis to promote PROESA® technology used to produce sustainable bioethanol and chemicals from lignocellulosic biomass.

Saipem and Versalis will provide integrated and technologically advanced solutions for the sustainable production of bioethanol. The PROESA® process does not use crops intended for human consumption as raw materials, but rather produces second generation bioethanol through a process of hydrolysis and subsequent fermentation of agricultural biomasses

available in abundance, such as agricultural waste, wood chips and energy crops.

In addition, we are also active in the bioplastic technologies where it is pursuing partnerships and business opportunities for PLA (PolyLactic Acid). An in-depth investigation has been also developed in the biodegradable and biobased Plastic technologies and we are currently developing a feasibility study in order to realise a 30 ktA PLA plant in the North of Italy.

PLA is a thermoplastic polyester not derived from petroleum but rather from organic raw materials through sugar fermentation.

### FOCUS ON

#### FROM OXYGEN TO FOOD: OCEAN-BASED AQUACULTURE



#### Pure oxygen for the world's food needs

Following a circular-economy approach, the oxygen resulting from the green hydrogen production process can be used in various areas such as aquaculture or seaweed production.

Aquaculture has enormous potential for solving many global sustainability problems, for example the ocean has great potential to help feed the world's population with a much lower environmental footprint than any other food source.

Globally, there are considerable opportunities within aquaculture, especially in countries with a long fishing and salmon tradition like Norway, where we have started developing a farming project.

#### Spidercage

Ensuring a sustainable supply of food for the world's fast-growing population is a major challenge and food production is a key area of action. As a result, in cooperation with the Norwegian company Viewpoint, Moss Maritime (Saipem's Norwegian company) has developed the Spidercage fish-farm concept, focusing on circular economy principles and reducing the carbon footprint through solar and wind energy systems, which will power part of the operations.

Traditional aquaculture near the coast and in fjords has limited growth potential and faces several problems such as disease, build-up of waste and faeces on the



seabed, as well as conflicting interests with ship traffic, fisheries, tourism, local populations, etc.

As the open ocean offers more space, deeper waters and stronger currents, offshore solutions will help solve some of these problems by minimising the environmental footprint, improving the welfare of fish and avoiding space constraints.

The Spidercage concept provides an outer barrier protecting an inner ring, which supports the fish cage and provides suitable conditions for fish farming even in extreme weather conditions. A heave-compensation system connects the inner net cage to the barrier. Moving relative to each other they create kinetic energy which can be used to generate electricity for energy consumption on board the facility. Together with wind turbines and solar panels, the facility can be energy-neutral and produce seafood with low CO<sub>2</sub> emissions.

Among the biopolymers, PLA shows performances comparable to fossil-based fibres but offers a wide range of end-of-life options related to its inherent biodegradability. Its end-of-life options contribute to circularity through carbon and mineral nutrient recycling, by the application of compost in agriculture soils. In particular it can be used individually or mixed with other materials such as cotton, wool and others. Despite that biobased polymers have been developed only recently and are still making use of less mature technologies, the PLA lifecycle shows a significant reduction in CO<sub>2</sub> emissions if compared to fossil-based plastics lifecycles.

As regards the Circular Economy, the capacity to develop innovative solutions to sustainably treat waste (including plastics waste) with its consequent valorisation into energy and/or valuable products is becoming an important asset. In this regard, we promote circular economy models for plastic waste seeking possible partnerships with collectors (waste sorting companies), technology providers (in particular in the field of plastics pyrolysis and depolymerisation) and final offtakers in order to build holistic chemical recycling plants enhancing Saipem's value proposition.

### Seafarm offshore fish-farming

The Seafarm concept is an offshore aquaculture solution based on a proven semi-submersible technology suitable for operations in the harshest environmental conditions. The main objectives are to apply the principles of the circular economy and reduce CO<sub>2</sub> emissions from aquaculture to their lowest possible level. This solution repurposes existing drilling or accommodation units that are no longer used for

their original function. The large deck space available in these units is ideal to host other parts of the aquaculture value chain, further improving its CO<sub>2</sub> footprint. In addition, it can accommodate wind turbines and solar panels, making the facility energy-neutral or supporting other loads.

In addition to Norway, we have already identified several similar project opportunities in Iceland, Holland and Canada.







**ADDED VALUE  
AT OUR CORE**

# ADDED VALUE AT OUR CORE



Time to come home.

As mentioned in the introduction of this ideal travel journal about our sustainability voyage, the final chapter is where we come full circle, back to our engineering roots.

## **Back to our "Core" business and especially those attitudes, soft skills and highly specialised engineering know-how that are our added value for managing complex projects.**

These technical and human dimensions are crucial today and will remain a constant throughout the energy transition, as well as in a fully decarbonised world.

We have grouped our core values in three thematic areas: **People, Connections and Reliability.**

## PEOPLE

### A human dimension permeates all our activities.

The anthropogenic era we live in, by definition, places human beings at the crossroad of environmental, climatic and economic sustainability. That's why taking care of the environment, climate and the economy necessarily involves taking care of people.

People who feel part of a community, valued in their diversity, respected in their rights, included in the innermost fabric of social relationships and work environments is what we strive for. Safe, content, educated, healthy, gratified and energized people are key in this long journey, both for us as a company and the good outcome of the energy transition as a historic endeavour.

Taking care of people is both a daily practice and an ongoing aspiration, and these are some of the ways we do it, starting from initiatives related to Saipem employees.

**+11%**

EMPLOYEES IN 2021 COMPARED TO 2020

**776,113**

TRAINING MAN-HOURS DELIVERED TO SAIPEM PEOPLE

**20**

AVERAGE TRAINING MAN-HOURS ATTENDED BY EACH EMPLOYEE

### Digital Academy

Digital competencies are becoming more and more critical for the achievement of our new business objectives.

The goal of the Academy is to develop a comprehensive training offer to improve both technical competencies and soft skills required for a digital mindset. To this end we have mapped the relevant competencies to be developed during an ad hoc skill assessment.

The Digital assessment campaign involved about 14,000 employees and highlighted the need to better develop

competencies in the areas of Cybersecurity and ICT security, Digital Technologies and Methodologies and ICT application & infrastructure, while other competencies such as Demand & Project Portfolio Management, ICT Digital strategy & management and Project information management were already well developed. The training paths will start in 2022. The Digital Academy is designed to become a continuous updating experience and to accompany the digital transformation, the Academy is going to create a Digital Community with the aim of knowledge sharing and network creation.

### Internal Saipem Academy

Our Internal Academy was launched in 2020 with the aim of promoting and enhancing internal know how. The training catalogues were greatly expanded in 2021 and a growing number of employees are involved in these kinds of initiatives to further consolidate transversal technical skills and to stimulate skills and knowledge sharing. The initiatives focused on several topics such as: Procurement process, Financial Risk, Intellectual property, SAP tool, Recruiting process, Virtual facilitation skills.

**19,704**

TRAINING HOURS DELIVERED IN 2020-2021

### Deep in Saipem

Deep in Saipem is a historic initiative of seminars launched in 2014, initially addressed just to the Saipem SpA population; since April 2020, we have promoted online seminars addressed for the worldwide population. These seminars focus on developing a broader vision and knowledge of our company. Most of the time topics revolve around a particular project or technology, thus allowing people from different functions to acquire a general understanding of different issues and subject matters. In 2021, we delivered 15 Deep Ins involving more than 5,000 employees and showcased the KPIC project (Kuwait), Offshore Engineering technologies, Artificial Intelligence and business transformation, and Saipem Innovation Factory activities. The last 2021 Deep In was organised in collaboration with Valore D, the first

Italian business association committed to gender equality, on the topic of unconscious biases, the stereotypes and prejudices to which we are all unconsciously subject, with the ultimate objective of enhancing diversity within companies.

### **Focus on Project Management**

Project Management skills are crucial for the achievement of our business objectives: for this reason, in 2021 we implemented a series of internal initiatives.

In the Spring we launched the PM Academy developed with MIP-Politecnico di Milano and Animp (Associazione Italiana di Impiantistica Industriale), in collaboration with an internal technical committee representing Saipem's main businesses.

Despite the constraints imposed by the COVID-19 pandemic, we launched the programme with 47 employees involved, 20 of whom are about to achieve their official PMI certification in 2022.

A second programme carried out with MIP-Politecnico di Milano was an Intercultural Project Management course with 27 employees. It was created to foster interaction among people with different cultural and personal backgrounds, both in the commercial and in the Project Management phases.

Striving to offer our people the best opportunities to learn, both in a classroom setting and on-the-job, in 2022 we will carry out an important training initiative called PM Leading in Action.

PM Leading in Action is an excellent example of a training initiative based on action learning methods, immersing participants in role-playing situations based on business case studies to improve the leadership, managerial and technical skills of our Project Managers. To strengthen and consolidate the company's ability to lead Offshore Projects safely and effectively, we offer trainees involved in real projects the possibility to experience different types of problems and approaches related to a project, receiving structured feedback, as well as the opportunity to assess and improve their capabilities.

The course will be conducted at our Schiedam Training Centre in 15 sessions.

### **Saipem Training Centres**

In order to achieve the highest level of safety and competency among our people and those working with us, we can count on 3 training centres all over the world. We do that by constantly looking for innovative methodologies and tools that can maximise the learning process, making it an experience that is enjoyable, meaningful and easy to be translated into behaviours.

The **Schiedam Training Centre** is the competence and training hub located in Schiedam, in the Netherlands.

Its portfolio includes HSE, technical, operational and soft-skill courses which follow internationally accredited training standards, and are designed and customised for our stakeholders' needs. Courses can be delivered either by mobilising trainers to the work sites or at the Training Centre facilities which are equipped with both virtual (DNV Certified Offshore Crane) and real simulators (working at height and confined spaces). The centre can count on its ability to design and develop new training initiatives using the latest innovate methodology.

In the spirit of continuous improvement and to elevate the effectiveness of the transfer and assessment of critical skills, the centre is in the process of acquiring a new virtual reality offshore simulator for crane and deck operations. Based on the digital twin vessel of the Saipem 7000, the new simulator will be the first VR simulator for cranes in the industry to be certified by DNV, and its use will not be limited only to crane operators as it will allow projects to perform complex lifting simulations, even remotely. The potentialities of this tool are diverse and include vessel familiarisation, emergency evacuation and several HSE Scenarios that can be practiced in an authentic vessel replica.

# **2,017**

EMPLOYEES AND SUBCONTRACTORS TRAINED ONBOARD  
15 VESSELS AND AT 5 ONSHORE SITES

# **21,326**

TRAINING HOURS DELIVERED

In Saudi Arabia, employees can rely on the **Saudi Arabian Saipem Training Centre** established in 2002. Its training offer has been expanded and upgraded to internationally accredited training standards. Today the centre provides multiple HSE and technical training courses strengthening the safety and efficiency of our personnel and business operations. The Training Centre recently obtained the IADC Rig Pass HSE Accreditation Certificate, IADC Wellsharp Accreditation Certificate and IWCF Membership and Accreditation.

# **3,326**

EMPLOYEES TRAINED

# **58,010**

TRAINING HOURS DELIVERED

To boost skills and competencies across the workforce, the Training Centre can also count on the Drilling Simulator.

Thanks to its 3D graphics and modelling software, it can be programmed to simulate operative conditions and specific scenarios that create an immersive learning environment where employees can practice advanced drilling operations. In 2021, 384 employees trained with this technological tool, achieving 14,879 training hours.

The **Pipeline Technologies Academy** is Saipem's permanent training centre specialised in pipeline production, inspection and NDT (non-destructive testing) technologies. It is located in Ploiesti, Romania, and it has offered both basic and advanced classroom training and practical demonstrations since 2019.

The training offer focuses on improving personnel skills, vessel efficiency and work quality, creating a place for information exchange and familiarisation with technologies. The Academy portfolio covers topics such as welding, field joint coating, non-destructive testing, materials, coating, cathodic protection, equipment automation and maintenance, and inspection and testing. Additionally, if need be, we can offer courses for clients on project demands. HSE courses dedicated to the above-mentioned technologies are delivered together with technical courses to prevent any risks that may occur.

Because of the pandemic situation, in 2021 the Academy suspended its activities. The renovated facility will be ready for its training courses to start up in 2022.

### Focus on Saudi Arabia

Due to the growth of the local market in Saudi Arabia, we have implemented a series of initiatives to improve the competencies and know-how of employees, contribute to the employment and development of local people, ensure operational performance standards are maintained and guarantee a high level of safety.

In 2021, we decided to launch a challenging pilot project focused on the recruitment process in the framework of the Competence Assessment and Assurance Programme. The new recruiting methodology, based on International Association of Drilling Contractors (IADC) guidelines, consists of the submission of written multiple choices questionnaires as an assessment method to evaluate candidates' skills allowing to more precisely and systematically screen candidates, selecting only those that fit our standards. The goal for the next year is to implement the programme for the competence assessment of employees, investing in the growth of local people and aiming to develop their skills through training initiatives.

The **Rising Talent Programme** was launched this year to motivate local employees to think about their careers and prepare them to make the next step in their professional growth.

## 13

CANDIDATES INVOLVED

### EMPOWERING FUTURE GENERATIONS



At Saipem, we know how important it is to nurture tomorrow's talent. The development of specific skills and an innovative mindset is key to addressing the challenges of the energy transition and is an essential lever in creating value for clients and future generations.

### Partnering with universities

One example is our collaboration with Politecnico di Milano (PoliMi) and the MIP (its Graduate School of Business): for years we have established partnerships divided into different areas of collaboration ranging from attraction to training, learning and research paths. Politecnico di Milano represents for Saipem a strategic pool of talents and the collaborations in place are proof of our commitment to supporting teaching paths and carrying out ad-hoc initiatives to nurture soft and hard skills for the future of young talent. Some of the initiatives developed for PoliMI students include:

**Data Scientist Academy** - An innovative teaching path where 30 students can tackle Data Science issues with business managers showing them real-life applications in the corporate world. Among the themes we presented, the most appreciated by the students was the presentation of our Hydrone-R technology.

The goal of the Academy is to address digital issues, attract young talent and promote our journey along digital innovation.

**Guess my task: women in technical roles** - This event started at the end of April 2021 and involved about 100 participants. It was an excellent opportunity to focus on the skills of specific roles and assess differences among companies on issues of gender equality and diversity. The aim was to support the development of technical and soft skills to facilitate the professional journey of young talent, especially among women engineering graduates.

**Round table with companies on winning skills in the energy world** - This initiative was carried out in mid-September and involved 78 participants. Key issues such as the energy transition, sustainability, planning and flexibility were addressed during this event where we took part in a round table with companies on winning skills (hard and soft) in the energy world.

The aim was to support the development of technical and soft skills to facilitate the professional journey of young talents through the energy transition.

## FOCUS ON

### OUR COMPETENCE FOR SUSTAINABLE INFRASTRUCTURES:

# BRESCIA-VERONA HIGH SPEED RAIL



Competence in the realisation of infrastructures has always been part of our DNA. Ranked first among Italian companies in the Engineering News-Record (Enr) rankings, we boast completed projects worth about 10 billion dollars with the construction of 450 km of roads, over 40 km of viaducts and bridges and more than 1,000 km of tracks, both in the High Speed/High-Capacity segment (AS/AC) and servicing energy plants.

In Italy, we can boast the completion of both the Milan-Bologna high-speed/high-capacity rail link, built through the CEPAV Uno consortium and the Treviglio-consortium. Moreover, the AS/AC Brescia Est - Verona railway link is currently under construction, again through the "CEPAV Due" consortium. The consortium is composed of Saipem (59%), Impresa Pizzarotti (around 27%) and Gruppo ICM (around 14%). The work was commissioned by Rete Ferroviaria Italiana, while the High Surveillance and Works Management were entrusted to Italferr.

Completion of the railway line will make it possible to reduce interference between different transport flows, making circulation more fluid and increasing traffic capacity at the Milan, Brescia and Verona railway junctions, with benefits for the regularity and punctuality of both long-distance and regional services, as well as freight transport.

The new HS/HC Brescia East - Verona railway line runs for about 48 km, starting its route in the municipality of Mazzano, in the province of Brescia, reaching the municipality of Verona on the western side with new HS tracks and the new interconnection of Verona Merci. The railway route crosses 2 Regions, 3 Provinces, 11 Municipalities and runs mostly alongside existing infrastructures, for about 30 km parallel to the A4 freeway and about 8 km along the railway line. The Milan-Verona HS/HC line has a total length of 150 km and the section between Milan and Brescia is already in operation, while the railway lot between Brescia and Verona has been under construction since 2018.

The railway line passes through the Lonato tunnel under the A4 Milan-Venice motorway, whose excavation produced approximately 800,000 m<sup>3</sup> of waste material. The project received the approval of the eco-toxicological study on the additives used for the excavation of the Lonato del Garda tunnel. The tunnel is in the western portion of the Garda morainic Amphitheatre, whose soils are mainly coarse-grained with a reduced presence of fine material, such as silt and clay, and have medium-high permeability levels.

During excavation, the project will use specific additives (foaming agents and bentonite fillers) to meet

environmental protection requirements while also optimising operations and adapting to the geotechnical and hydrogeological complexities of the southern Garda area.

To conduct the eco-toxicological analyses, we contacted the Mario Negri Institute that, in compliance with international regulations, indications, and standards, analysed the mix and the added products to determine their degree of toxicity and the environmental impact on organisms living in water, soil and the interstitial environment, both in the area involved in the excavation and in other contexts.

At the end of the analysis, it was confirmed that the excavated material can be reused in the same infrastructure or in another production cycle, as per circular-economy principles.

### EFFECTIVE ENGAGEMENT OF LOCAL STAKEHOLDERS

The year 2021 marked the full start of construction activities along the 48 km of the entire section of the AVIAC Brescia-Verona link, with progress also in the construction of embankments, tunnels, viaducts and road and cycle/pedestrian paths connected to the HS/HC link. Information-sharing initiatives with national and local stakeholders, including municipal, provincial and regional authorities, trade associations and the press, continued throughout the year.

Among the various initiatives it is worth mentioning a meeting organised with the management of Autostrada A4 Brescia-Verona-Vicenza-Padova. The meeting addressed the main stakeholders of the Lombardy and Veneto regions, aiming to illustrate the organisation and coordination between CEPAV Due and A4 for the management of interfering activities related to the construction of the railway line. The ultimate goal was minimising inconveniences to road and freeway traffic. It is worth mentioning the particular attention paid by Consorzio CEPAV to ensure the maximum protection of the surrounding environment. In addition to the constant dialogue with the Environmental Observatory, CEPAV raised awareness of the entire supply chain with seminars and newsletters dedicated to environmental issues, such as respect for water, the quest for sustainable mobility and waste reduction.

Site visits for groups of students, associations, trade associations and institutions were also organised. Constant communications were also maintained with the national and local trade unions of Brescia and Verona to define and guarantee aspects such as the logistical profiles of the sites, relations with the sector's joint bodies, the labour market, safety, etc.

Another initiative is the **Barcolana Job fair**, aimed at high school and university students, graduates and teachers, organised by the Autonomous Region of Friuli Venezia Giulia (Italy) and that takes place in conjunction with the Barcolana sailing race, offering a wide range of activities in the world of education, training and employment. The 2021 programme included several events focused on job searching, such as educational and interactive workshops for career guidance, talks on youth entrepreneurship and freelancing, as well as international job opportunities. We contributed to the initiative by conducting two days of educational interactive workshops, during which we presented submarine robotics technologies with their relevant professions at the Science Centre Immaginario Scientifico Museum.

The workshop was divided into two parts. The first consisted of a presentation on our world and our cutting-edge technologies in the field of robotics and renewable energy. The second part was more hands-on and gave participants the opportunity to try their hand at replicating the 3 experiments showcased in our area of the museum's exhibits.

The workshop saw the participation of 10 classes from various secondary schools, involving a total of about 90 students.

### Sinergia Project

Since 2011, the Sinergia project has been a bridge between us and four technical institutes in different regions of Italy through training programmes: it fosters the encounter between the world of work and the world of school through an orientation path aimed at the acquisition of knowledge and skills that can be useful for subsequent studies and professional advancement.

The project combines training with experience in the field, creating an important opportunity for growth and development in our areas of operation. In 2021, we updated the Sinergia Programme to a virtual format to meet school needs and overcome limits imposed by the pandemic. All training courses were delivered on an intuitive digital platform, which allowed students to attend real-time online lessons and complete e-learning courses in an asynchronous mode.

Each institute is teamed up with a specific business line, thus contributing to the development of specific training modules to expand the school curriculum and better explain our business.

**338**

STUDENTS

**4**  
INSTITUTES

**309**  
TRAINING HOURS DELIVERED BY SAIPEM TRAINERS

### Scholarship "E. Palliotto"

Our colleague, Egidio Palliotto, died prematurely at the age of 55 and our Management remembers him as an extraordinary professional who, with his strength, managed to soften the most critical situations. To keep the memory of this man and highly skilled professional alive, in 2020 we created a scholarship named after him at the University of Trieste, where he had graduated in Mining Engineering. Starting with the academic year 2020-2021 and for the two following years we aim to award scholarships to 14 brilliant engineering students to support them on their academic path, creating an opportunity for growth in the areas in which we operate and in our country.

### Focus on the Middle East

To develop local resources and further increase local employment in Saudi Arabia, in March 2021, we signed a cooperation agreement with Saudi Petroleum Services Polytechnic (SPSP) for their "24 Month Diploma Programme Intake" programme, attended by 15 Saudi Technical Workforce members, 3 of whom were women, who graduated and who will work for the Petroleum Services Companies operating in the country. SPSP provides 12 to 15 months of Academic & Technical training depending on the trainee's progress. The remaining 8 to 12 months consist of on-the-job training at Saipem's premises in the country. Students specialise in areas such as welding, electrical, pipefitting, scaffolding, crane operation, etc. After completion of the programme, we will consider employing the best graduates using various internship modules already implemented at other projects around the world.

In terms of competence in drilling activities, we collaborated in the following programmes:

➤ **Saudi Arabian Drilling Academy** is a joint venture between all major Drilling & Service providers in the country. The SADA training programme is designed to develop leadership roles in drilling for high school graduates. The first enrolment of Saudi trainees started in 2016 and since then the Saudi Arabian Drilling Academy has produced 31 graduates. In 2021, there were 29 participants.

➤ **Hands-on-Training** is a one-year competence training programme implemented in partnership with Aramco for young Saudis to develop their skills and obtain experience on our rigs. In 2021, the HOT Programme involved 19 trainees on various onshore rigs.

To contribute to local employment in Qatar, we kicked off, together with QATARGAS, the **Training and Development Programme for QATARGAS Engineers** in September. 8 Engineers spent six months training at NFPS (North Field Production Sustainability) Project offices, sites and Saipem's strategic vendor facilities before continuing their training and development at the client's facilities.

Training is in-house and to implement the programme we prepared individual training and development plans for each Qatari National engineer on NFPS Projects. Dedicated Saipem mentors were closely engaged in daily training, working and following up with each engineer.

## DIVERSITY AND INCLUSION



We are committed to supporting people's diversity and inclusion. Actions aimed at promoting the principles of fairness, which are an integral part of the corporate culture, are a priority for the Company and a duty towards the community: as proof of this, gender equality has become part of the company's short-term variable incentive plan. Diversity refers to all our differences, acknowledging a plurality of distinct identities; equity represents the guarantee that all Saipem people are given equal access to opportunities, through the elimination of structural prejudices and barriers, while inclusion means valuing diversity and creating a fair and welcoming environment. We are committed to offering all our people the same job opportunities, making sure everyone can enjoy fair treatment based exclusively on merit and competence criteria, without discrimination.

**20%**

OF WOMEN COVERS MANAGERIAL POSITIONS

**+18%**

OF WOMEN IN MANAGERIAL POSITIONS  
IN 2021 COMPARED TO 2019

**195**

EMPLOYEES WITH DISABILITIES

## Policies supporting and developing female talent

Our Code of Ethics includes principles of equal opportunities and non-discrimination, which, with health and safety and business innovation, are among the core values of our company. In order to give substance to our principles, we constantly translate objectives and strategies into targeted initiatives, the impact of which is assessed through a timely monitoring of a set of strategic indicators for our attraction, development and retention activities.

We strongly believe that the key to an inclusive leadership is to value and develop all of our differences: to this end, it is essential to look both at policies and practices relating to diversity and inclusion. We made it our priority to put in place specific initiatives to retain, develop and support female talent within the company.

Our commitment to promoting a culture that is increasingly inclusive and attentive to Diversity & Inclusion issues is also expressed through training initiatives that raise awareness among its people and feed awareness and knowledge to foster a truly inclusive work environment and break down unconscious prejudices. During 2021, thanks to our partnership with Valore D, we have sponsored training paths and formative events on inclusive leadership for our people.

Another example of our commitment is the constant monitoring of the gender pay gap, which we have been addressing since 2008. We also focus on female STEM graduates who are fundamental for our future development. Other initiatives are mentoring women and the definition of succession plans with explicit criteria for the inclusion of women.

## Mentoring women

Three years ago, we introduced the Reverse Mentoring programme for the first time in the company to encourage interaction, integration and exchange of knowledge and skills between different generations, fostering mutual development.

#SEED - Win with diversity is our mentoring process for the development and growth of an inclusive culture enhancing female leadership. This is a 10-month course strongly supported by our management that involves Senior Mentors across our company with a common goal: to foster knowledge sharing and increase knowledge, networking and career opportunities for the benefit of participating young women.

**12**

WOMEN MENTEES

**12**

MENTORS

**8**

OF WHOM WOMEN

## Succession planning

We are committed to defining succession plans with explicit requirements to include women in the succession tables. We are very confident that the presence of women is a cornerstone of sustainable company growth and resiliency at a time when the entire energy sector is transforming.

We have defined a methodology for identifying successors to managerial positions of strategic interest. The succession planning process for the aforementioned positions is a consolidated activity at Saipem and involves the following phases:

1. Analytical description of the contents of each position with reference to the areas of responsibility, the strategic objectives of the role, the managerial experiences and skills required to cover the position effectively.
2. Evaluation of the position holder and of potential candidates for succession.
3. Definition of the succession planning document containing the names of potential successors and the consequent development plans.
4. Risk Assessment associated with the position in consideration of the hypothesis of succession.

The availability of structured succession plans for positions of strategic interest represents an effective reference in the decision-making processes that accompanies internal mobility and managerial development.

## Diversity & Inclusion Observatory

As a signatory of the Women's Empowerment principles, in 2021, we took part in the Diversity & Inclusion Observatory, whose purpose is bringing together different organisations to reflect and share best practices on Diversity & Inclusion. The observatory lasted 9 months, during which the organisations shared business experiences and case-studies on D&I.

The Women's Empowerment Principles, established by the UN Global Compact and UN Women, guide us in promoting gender equality and the empowerment of women in the workplace, in the market and in the community.

The Women's Empowerment Principles are a seven-point programmatic document that summarises the principles, concrete actions and indicators for ensuring gender equality and strengthening the role of women in companies.

## Diversity and Inclusion in France

As part of our commitment to "la France, one chance - companies are committed" government programme, we launched several initiatives in France in 2021 and we will continue in 2022 and beyond.

## "Mission handicap"

"Mission handicap"'s objective is to integrate employees with disabilities and to train managers in this process. In agreement with AGEFIPH ("association pour l'insertion professionnelle des personnes handicapées" - French institution for the employment of disabled people) we defined a multi-pronged action plan:

- Training programmes and information sessions about what disability at work is (with specific focus on invisible disability), training 130 managers and organising more than 10 group information sessions in 2021.
- Prevent disability discrimination at work by eliminating barriers that create exclusion and rethinking workspace layouts.
- Recruitment and internships for disabled people (especially young graduates): we welcomed 8 young disabled interns in 2021 and we hired 1 person.

## Job Academy - Main dans la Main (Hand in hand) helps vulnerable people in France find jobs

The Hand in Hand "Job Academy" aims to help and guide job seekers, bringing them closer to the business world. The "Job Academy - Main dans la Main" project is part of "La France, une chance, les entreprises s'engagent" - a volunteer government programme of businesses committed to helping job seekers find employment. In collaboration with FACE - Foundation "Agir Contre l'Exclusion" (foundation to act against exclusion), 11 volunteers from Saipem SA (the French Operating Company of the Saipem Group) accompanied a group of 11 job seekers during a 4-month "job academy" programme. Volunteers met job seekers twice a month to guide them and give them advice on their CVs and job search. We organised 4 workshops with internal facilitators on CVs, social networking, how to introduce ourselves in 2 minutes, interview simulation.

A second "Job academy" will be launched in 2022 for young disabled job seekers.

## Training sessions on non-discrimination in recruitment

Because of a collective agreement on professional equality signed in July 2021, we delivered training sessions on non-discrimination in recruitment to everyone involved in the process (HR and managers). In 2021, 3 training sessions involving a total of 75 HR officers and managers were held. The 2-hour "recruter sans discriminer" (recruit without discriminating) training session consists of 4 modules and deal with topics such as understanding the concepts of discrimination, going beyond stereotypes and prejudices, and understanding how these discriminatory biases can impact business and the recruitment process.

Non-discriminatory recruitment training will continue in 2022, involving a total of 50 managers, and a support guide for managers will be published in early 2022.

### Women's empowerment in Oman

The EPC3 Duqm Refinery Project was strongly committed to promoting women's empowerment by developing capabilities, creating opportunities and increasing the presence of women throughout the project's lifespan and across all working areas. The project employs 25 women representing almost all the company's operational, and administrative departments with specialties as Civil Engineer, Quality Inspector, Interface management, Project Control, HSE Engineer, Environmental and Social, Security, Procurement, HR and Administration. It is also important to note that 18 of them are young talented Omani Women who are great role models and add exceptional value to the In-Country Values goals.

### OUR LEADERSHIP IN HEALTH AND SAFETY

Saipem's family of training programmes and information tools supporting the development of Safety Leaders and promotion of safety values are collectively known as 'Leadership in Health and Safety' (LiHS) programme. The LiHS programme, which has already been successfully implemented for 15 years, aims to ingrain a robust organisational safety culture by disseminating safe behaviours throughout the organisation, with a strong focus on leadership development at all management levels. LiHS is a top-down/bottom-up multi-strategy programme with five specific "tools" (LiHS workshop; Cascading events; Five stars training; Leading behaviours; Choose life) designed to engage different levels of personnel. In the last years, the programme has been transformed into

an online experience of equal calibre and effectiveness, stimulating participants' engagement and interaction, even if remotely. The goal is to create safety leaders who will act as ambassadors for Health and Safety within their own organisations and immediate circle, supporting the growth of an excellent safety culture.

This virtual course offers a variety of experiences and aims to foster a sense of a Health and Safety community without borders. It is not a regular webinar, as it is dynamic and interactive, allowing participants to learn from each other in an immersive experience. We conducted online LiHS workshops in several project locations, including Payara Project, SGCP Project, SRU2 Moscow Refinery, Baltic Pipeline Project and Karimun Yard.

From the very beginning of Saipem's LiHS journey, the challenging target of realising our Vision Zero – no workplace fatalities, has been relentlessly pursued by both the management and workforce alike: **for the first time in the last 20 years of operation we can proudly state that we have reached our target and were able to report zero fatal accidents. This presents an incredible achievement, not only for Saipem, but for the whole industry, demonstrating that Vision Zero is possible.**

### Our journey to a safer future

On the occasion of the XXII World Congress on Safety and Health at Work 2021, the largest and most prestigious international conference on health and safety, we were invited to present some of the training tools, communication campaigns and projects that contributed in the last 15 years to shaping our health and safety culture and spreading these values in the community.

Here is a brief summary of the 7 video stories on our journey to a safer future.

### SAFETY PERFORMANCE

Year	Million worked man-hours	LTI Frequency Rate	TRI Frequency Rate	HL Frequency Rate*
2019	235.0	0.22	0.54	-
2020	206.0	0.13	0.36	-
2021	199.7	0.19	0.37	0.76

(\*) The HLFR (High Level Frequency Rate) was introduced in 2021 to measure all near misses that might have caused serious injuries.

## 1. The power of films and storytelling to change behaviours

We produced several award-winning movies over the past 15 years that are used to facilitate our LiHS cultural change journey.

Our mission is to create immersive and engaging learning experiences that inspire people to lead and act safely. Our film trilogy begins with *The Safer, The Better*, a dramatisation of the true events of a fatal accident that occurred within our organisation. The film acts as a device in which our management shares its own personal messages and expresses its vision and expectations for safety. *What Comes First* is the second production and explores the power of informal leadership, the positive outcomes of adopting safe behaviours and the potentially catastrophic consequences that can occur when safe working practices are bypassed or ignored.

The final movie, *Choose Life*, is specifically designed to support a campaign promoting healthy habits and raising awareness of our industry's most significant health issues. More recently, we made our films available externally to help other organisations with their cultural evolution.

## 2. Drops: An emotionally engaging campaign called "choice not chance"

Following an increase in the number of incidents of dropped objects, we decided to launch a new and specific campaign, based not only on technical communication, training and inspections, but designed also to engage our workforce at an emotional level.

The campaign aims to instil a "drive" for personal responsibility and the ability to make a positive choice and takes the name from the title of the short film *Choice Not Chance!* which was produced to emphasise the need to comply with rules and procedures.

At the end of the film, a clear and strong message emerges: safety cannot be left to chance; it should be a choice.

## 3. Life-saving rules: a communication strategy with impact

We have adopted our Life-Saving Rules from the International Association of Oil & Gas Producers (IOGP) and have created a comprehensive communication campaign. Our Life-Saving Rules are presented in a video by Ahmed - a sort of "safety hero".

The overall aim of the campaign is to enhance the knowledge and competence required by personnel to comply with our Life-Saving Rules, specifically that all work must be suitably assessed, planned and executed, with safety as our most important guiding value.

Our target is to continue embracing rules and sharing our knowledge and passion for safety with our colleagues, clients, partners and subcontractors, moving closer

together to our Industry vision of zero fatalities.

After the 2020 update of the Life-Saving Rules, we implemented the 2021 campaign across our world with the LSR "eLearning" tool.

## 4. Belt up or get out: a safe driving campaign that has saved lives

Our Safe Driving Campaign is designed to address a specific Life-Saving Rule and raise awareness about the importance of adopting and maintaining safe driving behaviours of both drivers and passengers.

As drivers are ultimately responsible for the health of passengers, a fundamental aim of the campaign is to empower and support them to intervene and challenge personnel when they fail to wear a seat belt.

We created a short and highly impactful video reinforcing that one must always use a seat belt, respect speed limits and not use a mobile phone while driving.

This campaign has contributed to a reduction in the number and frequency of traffic accidents within our organisation and a positive change in habits and behaviours.

## 5. Supporting your workforce: sharing love for health & safety

Around 10 years ago we started to celebrate the World Day for Health and Safety at Work in a new and unconventional way by launching our "Sharing Love for Health and Safety" contest.

The aim of the campaign is to celebrate World Safety Day held each year on April 28 in an informal, engaging and creative way, by exploiting global communication trends, such as flash mobs, selfies, mannequin challenges and, more recently, Instagram stories.

Over 10,000 people have participated in the contest over the years creating more than 500 items of content. Each contribution expresses local innovation and spirit, transferring them into a universal message about health and safety.

The 2021 edition of the Sharing Love for Health & Safety was dedicated to the importance of taking care of our physical and mental health and making choices that prioritise it every day, while building our resilience through training and reinforcement. This year's format was an Instagram contest, allowing for creativity and self-reflection through positive engagement.

More than 70 colleagues participated sharing their healthy habits and their mental resilience building techniques.

## 6. LHS Foundation: 10 years of cultural revolution

The Leadership in Health and Safety (LHS) Foundation is a non-profit organisation that was created in 2010 with the mission to increase a Health & Safety culture within the industry and society, with a specific focus on non-conventional communication.

The foundation develops training and cultural change programmes, workshops and activities for young people, awareness and communication campaigns, high-impact movies and videos and innovative safety leadership events. In over 10 years of activity, it has involved and engaged with thousands of students, workers, managers and citizens through workshops, training, marathons, videos, streaming and other events.

In 2021, the LHS Foundation decided to take part in the "Credito al Futuro" project, a training and work programme providing growth opportunities for young underserved people from the suburbs of Milan, Italy. The project is realised in collaboration with the *Don Gino Rigoldi Foundation*. In a dedicated LiHS workshop, the young people were encouraged to reflect on the importance of developing the ability to protect their own safety and that of others, among the transversal skills essential for entering the workforce, so that they come out of this experience stronger and able to take their future into their own hands, with awareness and responsibility.

In 2021, the LHS Foundation launched a new edition of the **Safety Leadership Event**, one of the most important Italian health and safety leadership events. We conceived the 2021 edition as an immersive, collective experience that allowed participants to exchange ideas and discuss the future challenges of health and safety. The online event was a great success, with 1,200 participants in 7 hours of live broadcast.

The Safety Leadership Event took 3<sup>rd</sup> place at the Best Event Award, an Italian festival that recognises the best live communication events and initiatives.

## 7. Italia Loves Sicurezza: a movement of passionate safety activists

Italia Loves Sicurezza (ILS) is a social movement and a special project, an attempt to apply in society those cultural change strategies and ideas that have proven successful when implemented inside our organisation. ILS aims to revolutionise the way Health & Safety is communicated in Italy.

After a successful first phase, with thousands of unconventional events held all over Italy, involving more than a million people, this Safety Ambassadors' movement started a second phase with an even sharper focus on behaviour, since, despite efforts, too many people keep dying from preventable accidents.

A fundamental tool in this second phase is the new website whose aim is to inspire more and more people to take concrete action in spreading prevention and wellbeing in every area – at work, at school, at home, on the road – and share their actions with the community.

The presentation of this new tool and of the new path of ILS was the focus of the event held in November, with

the participation of international speakers and experts in leadership and change. Among them was the creator of the Viral Change method, Leandro Herrero, who delved into the scientific basis that inspired the Ambassadors' movement.

With the support of the ILS movement, in 2021, we launched the "**Goal 18" communication campaign**", which symbolically adds an eighteenth element, defined as "safety culture", to the list of 17 Sustainable Development Goals included in the UN Agenda 2030.

The idea is to support, in terms of H&S training and culture, the legislative and regulatory activities that the government and other institutions implement, aiming to improve the safety conditions of workers in Italy, promoting collaboration among all stakeholders.

## 1.5 MLN

TRAINING HOURS ON HSE TOPICS DELIVERED TO EMPLOYEES AND SUBCONTRACTORS

## Examples of safety in operations

In 2021, based on operational lessons learned and best practices implemented at our **onshore drilling projects**, we developed two structured HSE programmes, addressing hand-injury and line-of-fire accidents. We developed the "Hand injury prevention programme" and "Line of Fire programme" with a holistic approach, considering the work environment, the safe use of equipment and tools and employee involvement and accountability. The six steps approach of the two HSE programmes includes HSE training and awareness, identifying hazards in work areas, HSE assessment of tools and equipment, as well as employee consultation and feedback in relation to PPE, tools and work area safety. As a result of these programmes, it's worth mentioning that the severity of accidents significantly diminished at onshore drilling sites and HSE performance trends improved.

Another initiative worth mentioning is the Perfect Days campaign, which offers time off for any events that may affect the health and safety of our personnel, the environment and our assets. The programme has been in force since 2020, relying also on stories about safety achievements or safety completion of a perfect day. In 2021, we published a total of 45 "My perfect day" stories written by supervisors at rig sites and circulated through the company's internal communication systems. In this respect, the key ingredients of a Perfect day are successful teamwork, safety intervention, recognition of safe behaviours, activities planning, communication and feedback.

In terms of **safety onboard vessels**, we carried out a wide review of major accidents on construction vessels.

As part of this review, we identified competency barriers (procedures and devices but also skills and experience of people performing the activity) that would reduce the risk of an incident happening.

To ensure these barriers are effectively in place, we decided to adapt the existing competence assessment procedure to incorporate management of the competency barriers identified in the safety case.

We publicised these new procedures through dedicated vessel sessions for all assessors and internal verifiers. The new assessments carried out from mid-2021 onwards are formally documenting required competency barriers, adding one layer of protection for the prevention of major accidents. The target is to extend the assessment to all personnel with safety-critical roles.

Other examples include the **subcontractors safety forums**, which are yearly meetings organised around the world involving the management of the main subcontractors working in our projects to discuss HSE performances, share lesson learned and commit to specific areas of improvement.

## 5

SUBCONTRACTORS SAFETY FORUM ORGANISED  
IN THAILAND AND NIGERIA

The **Line of Fire campaign** was developed to raise awareness at all levels of a project's organisation about the risks represented by Line of Fire situations with the ultimate target of decreasing the frequency of related incidents. Line of Fire includes several risk subcategories as dropped objects, release of stored energy, moving equipment and vehicles.

## 10

SITES INVOLVED IN THE CAMPAIGN

## 506

EVENTS ORGANISED

## MORE THAN 1,600

PARTICIPANTS

Further initiatives we launched for a step change in terms of behaviours were a workshop in Indonesia to engage the **Site Safety Leaders of Karimun** (a preliminary step

in a larger strategy, setting the foundations for helping leaders identify personal behaviours that are visible and sustainable over time), and the **Be a Safety officer campaign** (enrolling personnel from different departments in a comprehensive HSE induction by Senior HSE staff to prepare them to be involved as junior HSE officer in the HSE day by day activities for few days).

## 2

PROJECTS INVOLVED

## 130

PEOPLE INVOLVED

### Train the HSE Trainers

To facilitate standardisation and the continuous improvement of training delivered by our family of internal HSE trainers, we developed a programme designed to increase competence, effectiveness, knowledge and skills related to training delivery - "**Train the HSE Trainer course**".

The key objectives are to increase the knowledge that the participants have regarding essential internal HSE training resources.

The online programme consists of 2-hour sessions each day for 5 days and a follow-up 12-month Continuous Professional Development (CPD) Programme.

The HSE TTT project has continued to engage the global community of trainers and to align them to a common standard of delivery. Participants are sharing their CPD assignments on a regular basis and receiving individual feedback. In 2021, we conducted 4 sessions for a total of 48 trainers.

### Digitalisation helps Safety

Maintaining our position as a leader in health & safety requires the constant introduction of new technologies to lower the level of risk our personnel is exposed to daily.

The **hands-free lifting beam** is a Saipem solution (patent-pending) to discharge pipeline sections from a pipeline transportation vessel to a pipeline installation vessel. These operations were performed using cranes and manual interventions for decades.

However, experience shows these operations are safety sensitive and that manual operations have induced numerous accidents in the offshore industry. The hands-free lifting beam is a Saipem design to perform these operations without exposing personnel to hazardous

manual operations. Basic engineering was completed in 2021 for a mock-up construction in 2022, to qualify and deploy the technology for future offshore pipelaying projects.

We are also developing a **digital solution that consolidates data about safety barriers** from different systems for the prevention and control of major accident scenarios. The tool will give a graphical and numerical representation of the barrier condition at various levels of detail. The solution will provide management with up-to-date information about the condition of safety critical elements that protect facilities from major accidents and support the prioritisation of corrective actions. This will reduce the risks of major accident events.

### Safety also means Health and Wellbeing

We strongly believe that physical health, mental health, and personal well-being are essential for working safely and for facing the major changes and challenges that occur within our industry, and therefore have become strategic objectives for our company.

This is the reason why we upgraded and relaunched our **Choose Life Programme**, a set of tools that are aimed at provoking participants to critically consider issues relating to health and adoption of healthy behaviours.

The programme aims to tackle four main health risks: cardiovascular disease, malaria, sexually transmitted diseases and mental health, which has become a growing concern within our industry. According to the World Health Organisation, mental illnesses have been on the rise and affect a significant number of people globally.

**Health has always been a priority for us, especially during the COVID-19 pandemic. We regularly set up our own new projects to safeguard health and we often engage in other health-related initiatives as well. Below are several ongoing projects we are contributing to.**



### COVID-19 monitoring and operating solutions

In 2021, COVID-19 continued to pose a major burden on people's health, impacting our employees and operations. The challenges for our company and its stakeholders were many, from the impossibility of changing crews regularly to restrictions imposed by local governments, from new virus variants affecting disease-control management to the emergence of an "infodemia" of fake news, based on easily accessible, not scientifically proven information and data.

Our health and medical department played a leading role in minimising the risks of being infected by the disease and assuring business continuity as much as possible. Monitoring of the worldwide situation and communicating to all our employees through 52 epidemiological bulletins (224 overall since the beginning of the pandemic) assured the continuous update of Health Risk assessments and the implementation of the most appropriate preventive measures.

The dynamic of the COVID-19 mutations in 2021 required two revisions to the document regulating the management of COVID-19 measures implemented at operating sites. The health and medical task force issued 9 communications on actual and emerging issues related to disease prevention. Presentations, leaflets, brochures and other informational material were revised and published in nine languages, making them accessible to all employees. Country-based health information was all updated with details and guidance about COVID-19 and other related health issues. We communicated the information regarding quarantined and COVID-19 positive personnel at operating sites to the Corporate Crisis Unit on a weekly basis. We strongly encouraged employees to get vaccinated without promoting any of the vaccines available on the market that are approved by the local governments. All this ensured that our employees and subcontractors were properly and timely informed about the pandemic and the ways of minimising the risk of getting infected. Clear and precise information on the situation in each country where we operate and on a worldwide scale, together with the availability of rapid diagnostic testing on site (Point of Care) helped us make appropriate decisions and maintain business continuity as much as possible. All communications and documents issued during this period were based only on official and reliable sources, such as the WHO, ECDC, CDC, Mayo Clinic, Italian Ufficio Superiore di Sanità, etc. We also consulted with local governmental institutions, particularly the Ministries of Health, taking joint actions and always taking into considerations our Clients' requirements in our decisions.

### Drug and alcohol prevention programme

The main goals of our Drug and Alcohol Prevention Programme are the protection of the health and safety of employees, the prevention of unwanted events or damage in the workplace and to company property. In light of this, it is absolutely forbidden to use, distribute or trade alcohol and drugs at work.

We issued our Alcohol and Drug Policy in 2021 to provide a clear framework to all stakeholders on how the Company



manages Alcohol and Drug abuse and misuse. In this respect, we ran information sessions with employees at each work site on the effect of the misuse of Drugs or Alcohol.

**199**  
TRAINING SESSIONS PERFORMED  
**2,005**  
ATTENDEES

	sites/projects involved	testing
Drug testing	22,470	121
Alcohol testing	16,714	122

Employees who believe they have a substance abuse problem can disclose this voluntarily (prior to any workplace impact or positive test result) and receive support, rehabilitation and employment retention. Employees who are confirmed to be positive for either Drug or Alcohol during testing can also access rehabilitation programmes. Follow up tests and strict monitoring of each positive case are carried out by the local health department.

### Cardiovascular Disease Prevention Programme (CVDPP)

Cardiovascular disease is a major cause of disability and premature death in our industry. Our CVDP programme provides guidance and support to employees on preventing and reducing cardiovascular incidence, as well as minimising repatriation rates resulting from CVD pathologies. An employee-centred approach in terms of healthy diet, exercise, stress management, etc., is the key to our CVDP programme.

The CVDP programme provides an excellent tool for systemic screening of cardiovascular risks/diseases, aiming to identify high-risk groups, who can then access continuous clinical support by both our physicians and specialists from our partner hospitals. Since cardiovascular pathologies have been the single largest reason for repatriation in our company in recent years, this programme's role has become more crucial than ever before.

**56**  
SITES INVOLVED IN CVDPP

**9,492**  
EMPLOYEES SCREENED

**1,138**  
EMPLOYEES IDENTIFIED WITH ELEVATED CARDIOVASCULAR RISK  
**1,077**  
EMPLOYEES WITH ELEVATED CARDIOVASCULAR RISK THAT PARTICIPATED IN TRAINING SESSIONS

### Malaria Control Programme

Malaria is a serious, sometimes fatal, parasitic disease that is transmitted to humans by the bite of an infected female Anopheles mosquito.

Malaria remains among the leading causes of mortality around the world, and early diagnosis and fast-acting treatment prevent unwanted outcomes. It is the most common disease in Sub-Saharan Africa and some countries in Asia, while in the developed world malaria cases are imported from endemic areas.

This is the reason why we are committed to monitoring our worksites. This programme focuses on primary health care, early diagnosis, timely treatment and disease prevention. Our clinics located in malaria-endemic areas have the essential means to tackle this infectious disease. In case of serious complications, the patient is referred to a third-party clinic.

Malaria can often be prevented with prophylactic drugs and taking measures to prevent mosquito bites. There are four main principles of malaria prevention (Awareness, Bite prevention, Chemoprophylaxis, early and prompt Diagnosis) which could assure 100% protection. Chemoprophylaxis, taken when appropriate, can prevent acute malaria attacks. However, employees and their doctors should be aware that no antimalarial

prophylactic regimen gives complete protection, but good chemoprophylaxis (adherence to the recommended drug regimen) significantly reduces the risk of fatal disease. We make sure our employees working in high malaria-risk countries such as Nigeria and Indonesia can attend the Malaria Awareness Course.

For example, in Nigeria we facilitated Malaria awareness lectures and toolbox talks and we performed regular monthly fumigations in offices, workshops, fabrication yards, accommodations, recreation areas and surroundings.

In Indonesia, we launched the Malaria screening programme for employees at the Tangguh LNG Expansion project site from January to November 2021. The blood smear examination test was coordinated by the Project Health Coordinator and Field Health Personnel. This initiative aimed to identify early on malaria infections among potential malaria carriers (employees from endemic areas, both symptomatic and asymptomatic cases). We registered zero on site malaria transmission cases. Using passive case detection, we screened a total of 4,395 cases (symptomatic patients), diagnosing eight positive cases. On the other hand, there were no positive case in the 332 screening tests using the method of active case detection (applicable only to asymptomatic and subclinical or sub-patent infections). All malaria cases were not indigenous cases but imported.

World Malaria Day, which takes place on April 25 each year, is an internationally recognised day highlighting global efforts to control malaria and celebrating the progress that has been made. Since 2000, malaria treatments and prevention have saved millions of lives. However, half the world is still at risk from this preventable, treatable disease, which costs a child's life every two minutes.

## HUMAN RIGHTS



The idea that people are at the core of our activities and company's ethos expresses itself mainly through the respect and promotion of human rights. This has a macro-dimension in advocating, adopting and complying with international and regional codes of human rights. And it also has a micro-dimension, in terms of the daily application of such rights in various small acts within the workplace with colleagues, contractors and clients, as well as in communities at large.

In the context of our company's relationships with employees, external suppliers and other stakeholders, in 2021, we focused on several human rights areas, a few of which stand out: employee welfare at work, ethical conduct of external suppliers and security contractors' training in deescalating possible conflictual situations and avoiding

the use of coercion.

Here is a brief recap of these initiatives on Saipem's promotion and application of human rights.

### Saipem joined *Building Responsibly*

In 2021, we joined *Building Responsibly*, a coalition of leading engineering and construction companies working together to raise the bar in promoting the rights and welfare of workers across the industry.

This decision recognises the importance of collaborating with industry peers to ensure a better work environment for workers in the overall sector.

*Building Responsibly* developed the Worker Welfare Principles to serve as the global standard on worker welfare for the engineering and construction industry. They address key areas of worker vulnerability to raise standards and level the playing field so that competitiveness is not at the expense of the worker. *Building Responsibly* members are committed to acting ethically and with integrity in all their business dealings with respect to worker welfare by supporting and adopting these 10 principles:

1. workers are treated with dignity, respect and fairness;
2. workers are free from forced, trafficked and child labour;
3. recruitment practices are ethical, legal, voluntary and free from discrimination;
4. freedom to change employment is respected;
5. working conditions are safe and healthy;
6. living conditions are safe, clean and habitable;
7. access to documentation and mobility is unrestricted;
8. wage and benefit agreements are respected;
9. worker representation is respected;
10. grievance mechanisms and access to remedy are readily available.

As a new member, we participated in the BR meetings, collaborating and sharing experiences and discussing the main efforts and obstacles. Further, BR working groups are aimed at developing strategies and tools to promote their principles and establish a common, global baseline on safety, security and welfare for all people working in the engineering and construction industry.

We are committed to continuing to collaborate with BR and its member companies and to including the Worker Welfare Principles in our company procedures and practices to decrease human rights risks in the company and along the supply chain.

### Assessing Human Rights Risks at our operational sites

The Human Rights risk register was created to analyse the potential risks associated with activities in our projects



that may have an impact on human rights of internal and external stakeholders. In 2020, we tested the tool in Kuwait. In 2021, we applied the "Human Rights risk register" at the relevant company sites to identify and address potential human rights risks in our operations: 23 countries completed the risks assessment for human rights and a total of more than 250 potential risks were assessed. The human rights risks were identified by type:

- Security 31%;
- Labour and employment 26%;
- Supply chain 18%;
- Country/systemic 17%;
- Local communities 8%.

For each human rights risk, we defined and implemented a number of mitigating actions, which may include, among others, the training of personnel, including subcontractors, on ethics and human rights and the improvement of internal monitoring and auditing activities.

As an example, in Peru, we set up human rights workshops to train 26 security guards in 4 class sessions about their responsibility to support, respect, promote and observe fundamental human rights when carrying out their activities. Another training goal was to reinforce, among employees, the concept of the importance of treating with dignity all colleagues and those with whom they interact on behalf of the company, minimising the use of force in the event of a threat to personnel and/or assets.

### A year later: the worker welfare action plan in Kuwait

Following the successful test of the Human Rights risk register in Kuwait in 2020, we generated a specific worker welfare action plan to cover risks associated both with rig operations and specific welfare activities (HSE audits of subcontractors, training of the workforce on human and labour rights, periodic hygiene inspections, meetings on share expectations regarding human and labour rights, etc.).

To spread awareness among employees impacted by these issues in their activities, we prepared and distributed an "Employee Handbook" for 55 Saipem personnel and 33 subcontractor personnel. The handbook, a guide to rules and procedures, includes general information about Kuwait, local security guidelines, local work-related rules and regulations, worker rights, labour laws and applicable project-related HSE procedures.

2-hour training sessions on grievance procedures and human and labour rights were delivered to the entire workforce, including subcontractor personnel.

Two meetings with the management of the main subcontractors were organised to share Saipem's and its

client's expectations for the implementation of personnel welfare procedures and of a planned monitoring system.

### Promoting a Whistleblowing system for human and labour rights

We defined the protection and promotion of human rights as founding principles of our Code of Ethics, and all Saipem's directors, statutory auditors, managers and employees, as well as all those who operate in Italy and abroad to achieve our objectives, shall comply with these principles. They shall also report any conduct that is not in line with these principles, in accordance with the Whistleblowing Reports procedure.

In order to reinforce information on these principles and the whistleblowing system in place for all workers, including subcontractor personnel, we included specific content in the induction training given to anyone who enters Saipem's operational sites. This will allow us to reach all workers, including those of our subcontractors, making them aware of our basic principles on human and labour rights and the system for reporting any possible violations. In addition, specific posters were posted on project sites in selected, accessible locations.

In 2021, this activity was implemented in some Onshore E&C projects involving 11 countries.

### Training on Human Rights and the Supply Chain

Starting in 2016, we implemented a training programme on "human rights and the supply chain" to train all Saipem procurement functions involved, mainly Vendor Management and the Post Order Functions. The training includes a focus on international standards and our policies, the actions that can be implemented and the role of employees on these critical issues. Training aims to instruct employees who interact directly with vendors on the importance of reporting serious situations they may observe during visits to vendors. The training is delivered mainly via an e-learning platform to reach all Saipem sites worldwide. A total of 804 employees were trained between 2016-2021, covering the entire population of post Order Functions.

Starting in 2020, training has been made available to all new employees entering the Functions involved.

### Training on Security and Human Rights

We are committed to adopting preventive measures aimed at minimising the need for a response from public/private security forces in the event of any threats to the safety of its people and the integrity of its assets. We liaise with local security forces to ensure a shared

commitment to human rights, as well as the adoption of rules of engagement that limit the use of force and the impact on local communities. Before signing a contract, due diligence is performed on suppliers of security systems and services to also verify any potential violation of human rights. We introduced clauses regarding the respect of human rights in our contracts with these suppliers starting in 2010 and failure to observe these clauses leads to the termination of the contract.

In order to further reinforce the importance of respecting human rights in managing security, we launched an e-learning training programme in 2020, specifically dedicated to people operating in Security functions. Training includes a specific focus on ethics and compliance, including the respect and promotion of human rights. In 2021, a total of 51 people completed training, which is expected to be continued in 2022 for the rest of the population involved.



## CONNECTIONS

### Strengthening all the links of the value chain, locally, nationally, internationally.

Connecting in the right way with all our stakeholders gives us the chance to be more accountable and successful as a company over time. Be it vendors in our global supply chain, local communities hosting our plants, regional administrations our services interface with, natural environments we explore and tap into, establishing healthy, sustainable, mutually beneficial connections is what we depend on, and these are the main areas in which we seek to strengthen our connections.

### SHARING VALUE ALONG OUR SUPPLY CHAIN



We believe that relationships with vendors are built on ethical behaviour and mutual trust, and together with the Saipem Ethical Supply Chain Management System, highly increase our chances for success in every endeavour.

The ongoing update of Saipem's Vendor Management System adds value ensuring that our partners abide by our

Code of Ethics, whose principles are based on the United Nations' Universal Declaration of Human Rights and the Fundamental Conventions of the ILO (International Labour Organisation) on the respect of human and labour rights, the protection of employees' health and safety and the environment. This is especially important given that we work with many vendors in countries that are considered critical when it comes to human and labour rights. We evaluate vendors on crucial topics like child and forced labour, freedom of association and the right to collective bargaining, remuneration, discrimination, disciplinary practices and legal working hours. Assessment visits are also conducted to monitor these aspects and guarantee that workers' rights are being respected.

We also perform specific assessments for services that perform "high risk" operations in terms of health and safety by analysing our vendors' ability to manage HSE concerns. All these sustainable aspects are integrated in the Vendor Management System and, more broadly, in our Supply Chain processes in three interrelated phases, which can be summarised as follows:

1. Vendor qualification.
2. Contract award and execution.
3. Vendor performance monitoring and feedback.

### KEY PROCESSES AND INSTRUMENTS IMPLEMENTED TO MANAGE SUSTAINABILITY ISSUES IN THE PROCUREMENT CHAIN

#### 1. QUALIFICATION

#### 2. CONTRACT AWARD AND EXECUTION

#### 3. FEEDBACK



#### 1. Qualification

During the qualification process, the analysis of vendor information is the first step to get to know and understand their capacities. This phase involves gathering data and information, as well as vendor documentation, to evaluate:

- > their technical capabilities, including their alignment with quality standards
- > their financial, reputational and ethical reliability
- > their ability to manage sustainability issues.

The level of risk linked to sustainability issues is determined by the country of origin of each vendor and the industrial sector and/or importance of the supply. The vendors identified with a high sustainability risk level undergo more in-depth investigations.

Depending on the type of goods or services, vendors are subjected to a Counterparty Risk Assessment, aimed at verifying their ethical conduct in terms of anti-corruption, unlawful conduct and human rights, as well as any other aspect that could directly damage the reputation of the vendor, and indirectly the reputation of Saipem.

Depending on the level of risk of exposure linked to human rights and/or health and safety and environmental management, vendors are assessed during the qualification phase to check compliance with our principles and the vendor's ability to manage these issues.

**595**

SUPPLIERS ASSESSED ON HSE ISSUES

**598**SUPPLIERS ASSESSED ON LABOUR RIGHTS ISSUES  
IN HIGH-RISK COUNTRIES**144**QUALIFICATION AUDITS ON HUMAN AND LABOUR ISSUES  
IN HIGH-RISK COUNTRIES SINCE 2011**2,627**VENDOR QUALIFICATION QUESTIONNAIRES ON LABOUR RIGHTS  
IN HIGH-RISK COUNTRIES ANALYSED SINCE 2013

### 2. Award and execution

During the bid and contract execution phases, the process foresees further controls, including a counterparty risk assessment based on the total value of the supply. For goods and services deemed to be at high risk regarding HSE issues, specific assessments to check the vendor's ability to perform the contract in accordance with international and Saipem standards are performed verifying the capacity to manage HSE aspects. Furthermore, the contractual conditions applied to all vendors include specific requirements to strictly comply with Saipem's Code of Ethics and to respect human rights. We organise specific events for vendors before and during qualification to train them also on HSE issues.

### 3. Feedback

Vendor performance and compliance with contractual provisions are constantly monitored: a multi-disciplinary feedback process is implemented across the various phases of the supply chain to evaluate vendor conduct, including sustainability aspects, such as any incidents occurring during the execution of work, conformity with local HSE or labour legislation, or evidence collected during site inspections and audits. This feedback guarantees the assessment of the vendor's overall reliability and, in the case of serious breaches, the possibility to terminate the contract or suspend the vendor's qualification.

**2,167**FEEDBACK QUESTIONNAIRES ON VENDOR PERFORMANCE  
COMPLETED**86%**

OF WHICH WERE POSITIVE AND

**8%**

NEUTRAL

With over 60 years of operations across the globe and throughout various industrial sectors, we have created a consistent network of partners and vendors. We have more than 23,000 active vendors, 7,226 of which qualified in 2021. More than 26% of them have worked regularly with Saipem for more than 10 years. We work with local vendors contributing to their know how development and to local economies. About 68% of total purchases are from local vendors, i.e. vendors working in the same geographical area where we execute the project.

*Vendors, subcontractors and partners are asked to comply fully with the principles stated in the Code of Ethics and to respect Human Rights in accordance with Saipem's Sustainability Policy.*

### Supply Chain - Green Procurement

Before the pandemic, supply practices had already been deeply influenced by the growing focus of markets, institutions and investors on environmental sustainability issues. COVID-19 has accelerated changes in Supply Chain management, highlighting the weaknesses in global supply chains. Designed to optimise costs and efficiency, supply chains have a global footprint and are complex to govern. That's why more and more companies are deciding to relocate their supplies through "reshoring", facilitating the achievement of carbon neutrality targets thanks to shorter Supply Chains located in countries with higher environmental standards. European Union institutions have approved a resolution making industrial companies responsible for the sustainability of their operations, requiring more detailed due diligence of their supply chain. Digitalisation and technological evolution provide new tools to comply with environmental impact reduction targets and the constraints imposed by regulations. As a result, we are drawing a Roadmap on Green Procurement to guide us through a rapidly evolving landscape whose horizons are not yet fully defined. This Roadmap will bolster a more sustainable management of our Supply Chain flows, strengthening our procurement's leading role in reducing global emissions. In order to achieve the objectives of the Supply Chain



- Green Procurement Roadmap, we have launched a Supply Chain - Green Procurement task force (dedicated Workstream) as part of the broader Net-Zero Programme, involving about 30 resources across our Company, from Supply Chain, HSE, Digital, Sustainability and other teams. One of the biggest challenges in reducing our carbon footprint is related to indirect (Scope 3) emissions, which relate mostly to our supply chain, on which we do not have direct control.

While engaging on this journey there are some challenges to be addressed:

1. Supply Chain - Green Procurement involves all three emission Scopes:

- Scope 1 and 2: procurement is involved in the purchase of materials and products needed for new projects and to retrofit and renew initiatives, therefore impacting on Scope 1 and 2 emissions due to their energy consumption.
- Scope 3: the Supply Chain impacts heavily on indirect emissions from suppliers and freighting as an example.

2. With regard to Scope 3, there is a great variety and number of commodities to be monitored that must be available on our construction sites all over the world with impacts on both manufacturing and logistics and therefore on the overall carbon footprint.

The Supply Chain - Green Procurement Workstream's ambitions include:

- The adoption of an ESG platform to monitor the sustainability performance of our vendors at an even more advanced level. That's why during 2021, we signed the agreement to enter into the Open-es initiative and adopt the ESG digital platform for the Supply Chain. We will carry out the onboarding of our Supply Chain starting from 2022 through targeted engagement initiatives of our Vendors.
- The definition of methodologies and tools for monitoring emissions for more accurate traceability of the carbon footprint. During 2022, we aim to strongly engage key vendors in order to collaborate for the collection of the technical information necessary to refine the calculation model of Scope 3 emissions.
- The strengthening of the sustainability requirements in the procurement of products and services from a life cycle perspective to prevent environmental impacts from being unintentionally shifted elsewhere within the life cycle. This is relevant also in the supply process

for identifying and selecting materials, products and services with a lower impact on the environment and on human health. Green procurement is a fundamental step of this approach, through the definition of specific requirements for the purchase of products and services that can ensure the reduction of environmental impacts deriving from its production and utilisation.

These ambitions are detailed in a structured framework built to meet the short and long-term objectives of the overall Green Procurement Roadmap.

In the short term, our goal is to improve monitoring of emissions related to Commodity Codes, and to evaluate the possible impact of ESG requirements on our Vendors. In the long term, we expect to start enforcing these requirements by the end of 2022.

### Open-es

Sustainable development is one of the main competitiveness levers for companies that are gradually integrating sustainability into business models and along the entire Supply Chain.

Open-es is a systemic initiative and an alliance between industrial and financial players that, through a digital platform powered by Eni, the Italian multinational Oil&Gas and energy player, and open to all companies and industrial sectors, aims to support the sustainable development of businesses.

Open-es is an open and collaborative ecosystem where all the players in the Supply Chain can undertake a path of growth and sharing on the pillars of sustainability on which the Platform is based: Principles of the Planet, People, Economic Prosperity and Corporate Governance.

This allows each player to:

- check their sustainability score compared to the other players in the sector;
- access the Development/Improvement Plan generated by the Platform to improve the sustainability score;
- access services offered by other companies in the Development Hub area to receive support in the implementation of improvement actions.

Through Open-es, we aim to have visibility on the sustainability performance of our vendors in order to refine the internal Vendor Qualification processes.

## PARTNERING AT THE LOCAL LEVEL TO CREATE VALUE

With over 60 years' experience, we are present in more than 70 countries and in almost every energy market in the world, through a decentralised structure that can respond to local needs and sustainability challenges.

We play an active role in the local community in different ways, but always contributing to the social, economic and environmental life of each area, mainly in terms of local

employment and long-term value creation. On the one hand, when there is a construction yard, a long-term presence brings with it a long-term commitment through direct investments. On the other hand, in case of project activities, a short-to-medium-term presence requires that our value creation approach adapts to different operational contexts, observing national, local or client requirements.

We have always been actively engaged in the development of relationships with local stakeholders, both in the communities where we have been historically present and in areas where we have recently initiated contact. We strive to act responsibly in all areas where we operate. Not only does this mean being responsible in terms of human and labour rights (see page 65), but it also means being committed to promoting positive behaviour outside of our operational boundaries.

We consider our business model sustainable: significant evidence can be seen in the real change we bring about in the communities where we develop our activities and in our interactions. We generate new jobs and spur demand for local goods and services, all the while building and improving infrastructure, contributing to the education system and developing professional skills. During our journey, we have had the opportunity to build and strengthen our relationships with communities around the world, forging the socio-economic conditions needed for the effective enjoyment of fundamental human rights and the promotion of growth.



**€398,000**

TOTAL SPENT

**28**

INITIATIVES IMPLEMENTED

**15**

COUNTRIES INVOLVED

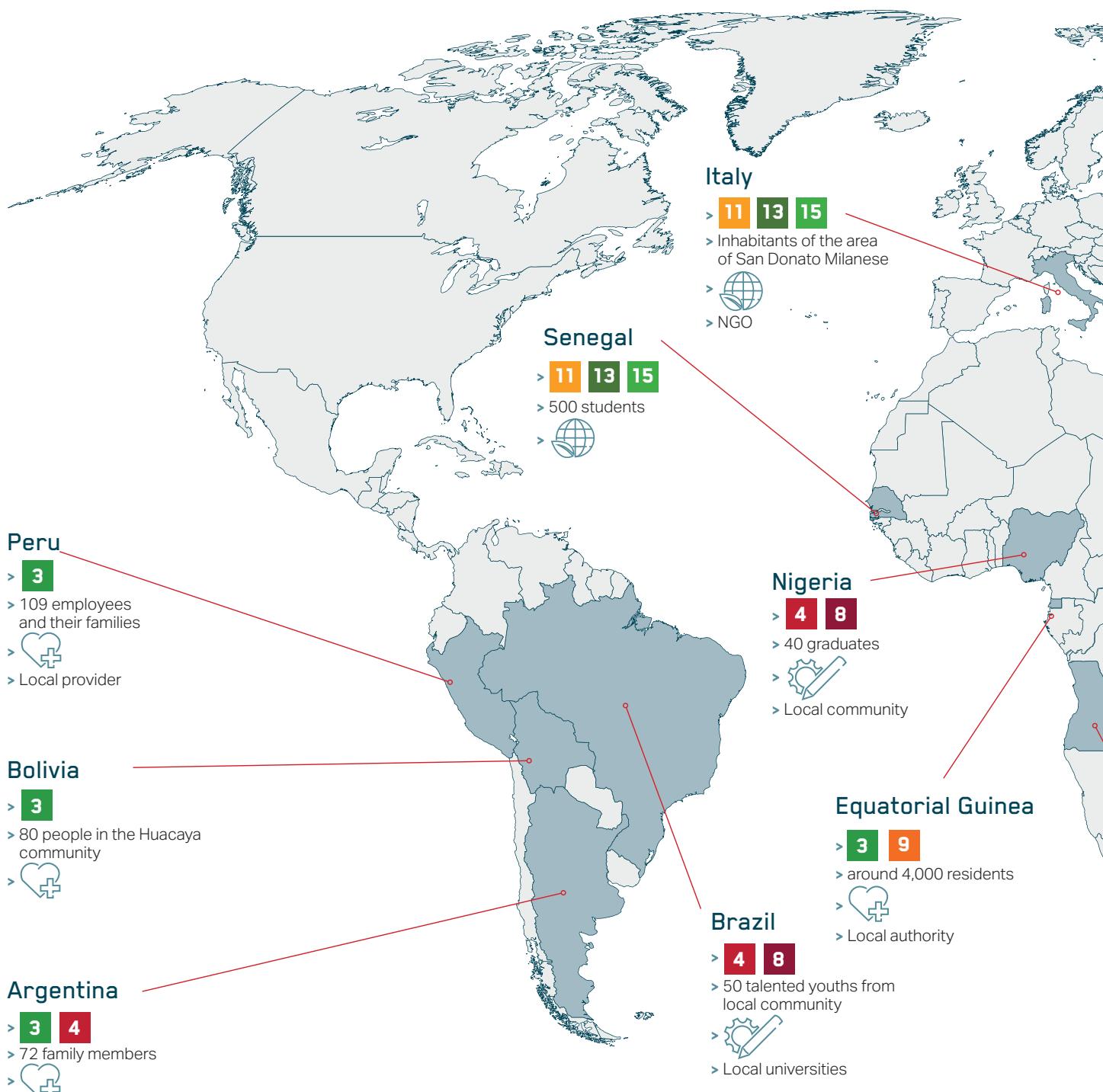
**>33,000**

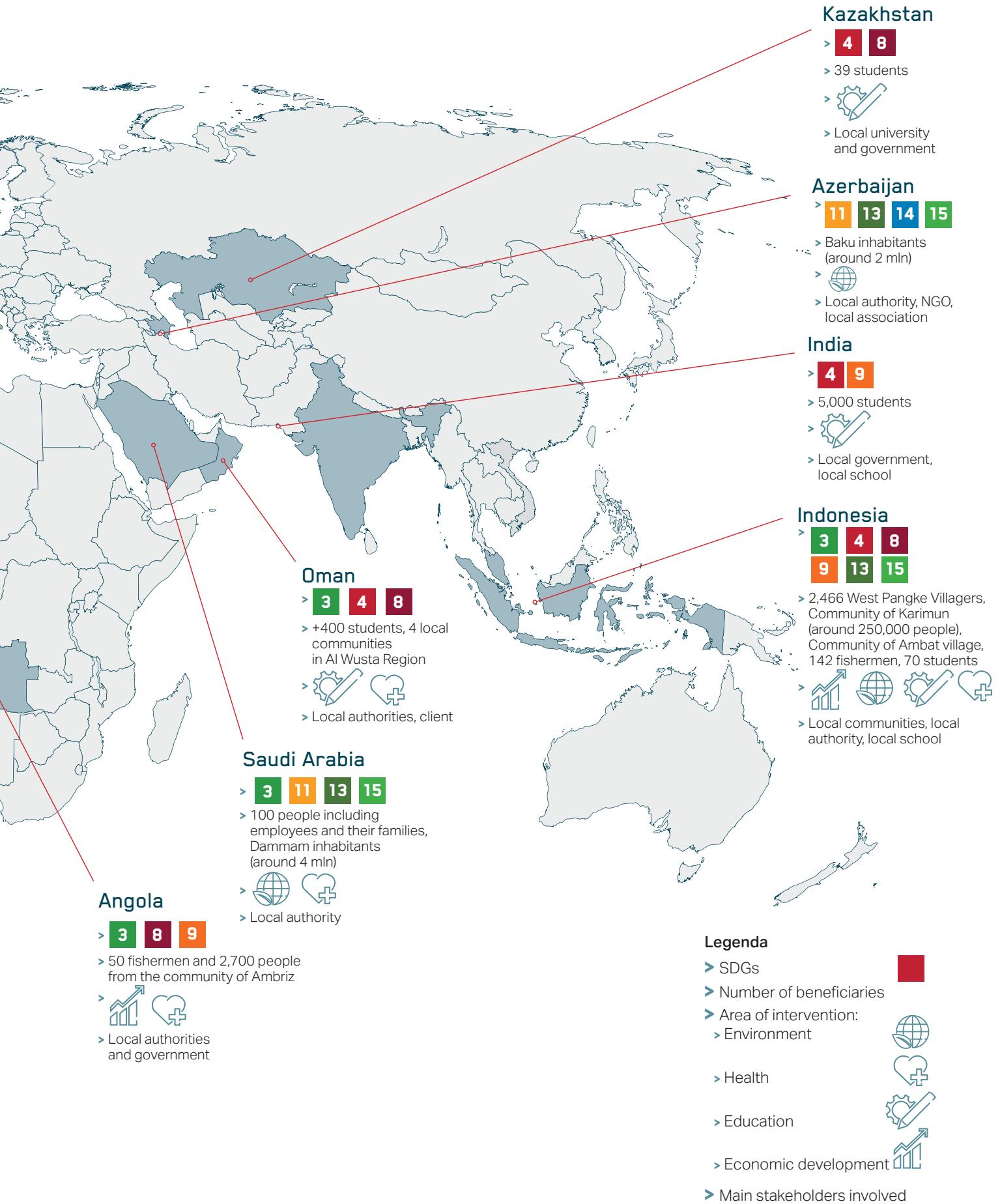
BENEFICIARIES

**8**

SDGS COVERED

## OVERVIEW OF SDG-DRIVEN INITIATIVES AT LOCAL LEVEL





## A summary of initiatives implemented at local level for area of intervention. Some focuses are included.

### Economic development

#### ANGOLA

##### **Support for a fisherman cooperative in Ambriz:**

reorganise the fishermen's cooperative to improve the income of 50 fishermen families and to promote the growth of fishery activities. Involvement of local authorities and government.



#### INDONESIA

**Pelawan Beach Improvement:** support the improvement of public spaces to increase the tourism prospects and create economic opportunities. Involvement of the local community.

**Ambat Fisheries Development:** strengthen fishing and fisheries, driving 142 fishermen to become entrepreneurs in the Pangke and Wet Pangke community, on Karimun island. Involvement of local authorities.

### Education

#### BRAZIL

**Archimedes Project:** support 50 talented youths from a poor community in Rio de Janeiro to develop their potential capabilities and drive them to much better-quality employment. Involvement of local universities.



#### INDIA

**School Infrastructure Programme:** develop school infrastructure supporting 5,000 students from low-income families in Chennai. Involvement of local government and a local NGO.

#### INDONESIA

**Reconstruction of a Village Library:** improve the education quality of the 2,466 West Pangke villagers and support the development of public facilities. Involvement of the local community.

**Karimun English Workshop:** improve the English communication skills of 70 students from the Karimun community to increase the prospects for job opportunities. Involvement of local authorities and school.

#### KAZAKHSTAN

**ERSAI Scholarship:** support 39 students from low-income families of Kuryk village to study at universities. Involvement of the local university and government.

#### NIGERIA

**Rumuorlumeni Community Training Programme:** develop industrial skills and competence of 40 undergraduates to increase chances of employability of

youths from the Rumuorlumeni community. Involvement of the local community.

### Environment

#### INDONESIA



**Gotong Royong Green Cleaning Programme:** promote environmental awareness and the importance of environmental preservation and pollution reduction with the involvement of the community of Ambat village.

#### SENEGAL

**Waste management awareness for schools:** raising awareness among 500 students of waste management and for the adoption of eco-responsible practices to reduce pollution caused by waste in Dakar.

### Health

#### ANGOLA



**Malaria Prevention Programme** for the rural community of Ambriz (around 16k people) to reduce risk and improve protection from malaria. Involvement of local authorities.

**Community Health Promotion Programme in Ambriz:** improve public health system by reducing the risk of diseases related to water sanitation hygiene. Involvement of local authorities.

**Mobile vaccination programme** to protect 2,700 children in Ambriz against preventable diseases. Involvement of local authorities.

#### ARGENTINA

**FamiLiHS & Choose life:** promote Health and Safety culture, providing information about the safety behaviours to adopt at home and at work, information on health awareness during the COVID-19 pandemic isolation and healthy lifestyle. Initiatives carried out for 72 people, with the participation of workers' families. Based on the country's health statistical data, medical studies, national programmes and the Saipem Choose life programme, we organised "Move for a Healthy day" sessions, explaining the benefits of practicing regular physical activity to reduce weight, lower the risk of non-communicable diseases, improve mental health, reduce stress and anxiety. We showed "First Aid techniques at Home" to participants. Parents especially received information and techniques on how to intervene in case of an emergency at home, with cardiopulmonary resuscitation in children and babies, preventing burns, etc.

#### BOLIVIA

**Provision of personal protective equipment against COVID-19:** prevent the spread of COVID-19 among 80 people in the Huacaya community by providing medical protective materials.

## FOCUS ON

# VOLUNTEERING INITIATIVES AND EMPLOYEE ENGAGEMENT



## The very first corporate volunteering initiative

In 2021, we launched the **corporate volunteering programme**: the first initiative conducted in collaboration with Legambiente, an Italian environmental association, to collect abandoned waste and support habitat restoration in a green area of San Donato Milanese (Italy), where our headquarters are located, along the bend of the Lambro River.

The area is part of the ReLambro SE Project (Southeast Ecological Lambro Metropolitan Network Ecosystem Services), a redevelopment project in the eastern area of the city of Milan aimed at enhancing the river's ecosystem and rediscovering its natural capital. The feedback received from the 46 volunteers who took part in the initiative was very positive: in addition to the satisfaction of helping redevelop a green area with a rich ecosystem and a considerable landscape value, carrying out a series of activities under safe conditions and in compliance with COVID rules also contributed to the success of the experience. Volunteers managed to collect 329 kilos of waste in just two hours. Considering the success of the initiative, we want to keep promoting the culture of volunteering by involving other sites in Italy and abroad.

## Together for the environment in Saudi Arabia

In Saudi Arabia, we took part in the "Saudi Green Initiative" and "Eastern Province Green Initiative", a green campaign launched by the Saudi authorities to increase vegetation cover and combat desertification by planting 10 million trees across the country. The Saudi Government "Let's make it green campaign" included sustainable development projects, memoranda of

understanding with government entities, private sector initiatives and active participation from all community members.

As participants in this campaign, we organised the "Let's make it green" event, which consisted of planting 350 trees of local species in collaboration with the Municipality of Dhahran. A second environmental initiative organised in collaboration with the Municipality of Dhahran was the clean-up of Half Moon Beach to help raise awareness of the impact that plastic pollution has on marine life.

Both environmental events were sponsored and supported by our management and employees.

## Caspian Beach Clean-up

The initiative consisted in the manual clean-up of Caspian beaches (Azerbaijan) with the participation of Saipem employees and their families, with the aim of supporting local municipalities and NGOs in cleaning up polluted beaches. The clean-up activity involved removing solid litter, dense chemicals and organic debris deposited on beaches or coastlines. The initiative is an example of an activity that will increase Environmental awareness among personnel and future generations.

## Support in planting trees in Baku

A "Tree Planting" campaign was arranged by the Saipem Shah Deniz 2 Project in Azerbaijan to contribute to protecting the environment by improving air quality, supporting wildlife and also bringing people together. Tree planting in fact is a very effective way to improve local air quality and biodiversity, improving shading and wellbeing, making areas healthier places to live in. 35 trees (firs) were planted around the Baku Deep Water Jackets Factory.

18 Saipem employees participated in this event.

During an event organised in collaboration with Repsol, we delivered medical materials to fight COVID-19 to the Huacaya community. The Huacaya community authorities took part in the event, expressing their satisfaction and gratitude for the medical support offered by our company, which through this type of local engagement contributes to the health awareness and wellbeing of communities in the areas of its operations. We delivered surgical facemasks, disposable latex gloves, dispensers of alcohol gel, hand sanitizer alcohol gel, containers of liquid gel soap and containers of liquid bleach to the Huacaya community.

## EQUATORIAL GUINEA

**Co-financing the construction of the district hospital in Kogo:** support social work as part of "National Content Plan Legislation" to reinforce the capability of the local health system. Involvement of local authorities.

## INDONESIA

**Little LiHSE workshop:** improve knowledge and awareness of health, safety and environment among 40 children of Saipem employees in Jakarta.



## OMAN

**We will support You:** contributing to reducing contagion of 4 local communities in Al Wusta Region from COVID-19, ensuring the proper application of recommendations from Health entities and facilitating the distribution of essential material.

The initiative was achieved through five campaigns carried out in the communities around a project area where many families are located, as well as the local hospital. A total of 187,500 face masks 2,950 sanitizers and hundreds of informative brochures were distributed to the communities such as Wadi Say, Daha, Raz Markaz and Raz Madraka and surrounding Bedouin Villages, as well as to the Duqm Hospital and Omani Woman Association, benefiting four communities from the Al Wusta Region.

Initiatives were implemented in full coordination with the main stakeholders, such as WALI, the local authority of Al Wusta Region, Duqm Hospital, OQ8 as Project client and Saipem people.

WALI also delivered a recognition letter to us for our social responsibility, engagement and continuous support with community needs in several different areas, including health, environment, water access, cultural and community service during the execution of EPC3 Duqm Refinery Project.

**Welcome back to School:** support local schools providing safe conditions against COVID-19.

The initiative was planned in three phases:

- 1) awareness workshops to reinforce health awareness and reduce the factors of the spread of infection.
- 2) designed protection materials to motivate the children to use them.
- 3) disinfection cabins were installed.

To guarantee that students, teachers and visitors were correctly sanitized before their entry inside the building, we installed two disinfection cabins at the main gate of the school. This allowed everyone to sanitize their hands and other vulnerable parts of their body to get rid of any microbes, bacteria or viruses, before entering the school. The initiative took place in two schools in Duqm involving more than 400 students.

## PERU

**Improving mental health through the management of work stress in times of COVID-19:** disseminate techniques for stress management and healthy habits among 109 employees and their families.

## SAUDI ARABIA

**LiHS for families workshop:** promote safety behaviour skills and improve safety attitudes among 100 people including employees and their families.

### Focus on Oman

We are firmly committed to creating In Country Value (ICV) in Oman, through both our operations and local value generation in terms of employment opportunities, development of competencies, training programmes, know-how transfer and collaborating with Small and Medium Enterprises.

The ICV Plan of the EPC3 Duqm Refinery Project has achieved remarkable results, positioning Saipem as an important contributor to the sustainable socio-economic development of Oman.

Overview of some initiatives involving local communities:

- Omanisation and Employment Opportunities - the project achieved 28% Omanisation, strengthening local workforce, hiring local people and offering training programmes developed to enhance their know-how, expertise, and competence.
- Training for Employment - a technical training programme aimed at developing the workforce on vocational and professional competencies on 5 essential labour market topics. A total of 70 trainees participated in HSE, English and technical programmes for 18-20 months, getting a national vocational qualification certificate.
- Training for Development - an 18-month highly qualified skills and training programme for 20 trainees. The training programme is completed by 6 months of on the job training.
- International and National Scholarship Programmes - an enrichment programme and international scholarships for 11<sup>th</sup>-12<sup>th</sup> grade students whose academic and personal accomplishments are already noteworthy.
- Local Sourcing of Goods and Services - a large portion of the project procurement was purchased and manufactured in Oman with an estimated 330 million USD spent on local procurement of "Made in Oman" goods and local services.
- SME Development - we organised several workshops to increase the competencies and productivity of Small and Medium Enterprises (SMEs.) 75% of the Project's subcontractors were represented by SMEs.

# BIODIVERSITY COMMITMENT

The protection and conservation of biodiversity and natural capital is an essential component of Saipem's sustainability policy, integrated in the Company's strategy and in project operations, establishing objectives to ensure a responsible management of potential impacts.

These are Saipem's strategy pillars:

- as an advanced engineering platform, Saipem is committed to developing technological solutions to protect biodiversity;
- it systematically integrates the management of risks and impacts related to biodiversity in its environmental management system;
- as a multinational Company operating worldwide, Saipem is aware of the interconnections between climate change and biodiversity and is committed to carrying out programmes in the areas in which it operates involving clients and suppliers, as well as elsewhere and beyond its value chain, in order to improve climate resilience, by means of partnerships with organisations, governments, institutions;
- while creating value in the areas in which it operates, it is committed to addressing community-based initiatives aimed at biodiversity protection.

In line with these pillars and following the principles that are consistent with internationally recognised guidelines and standards on biodiversity, Saipem focuses on:

- the identification and evaluation of all potential impacts on biodiversity and ecosystem services deriving from its operations, implementing

*Saipem is committed to protecting biodiversity and ecosystems and to minimising impacts on biodiversity in the areas where the Company operates.*

- appropriate mitigation actions to minimise any adverse effects and respecting the mitigation hierarchy principle (avoiding and preventing the occurrence of negative impacts on biodiversity and, when the impacts cannot be avoided, reducing damage and remedying their effects and finally, compensating for any residual negative impacts);
- in the case of residual impacts, implementing compensatory works that respect the "no net loss" principle of biodiversity and, where applicable, have a net positive balance;
- the promotion of research, development and technological innovation aimed at reducing the impacts on the environment and biodiversity;
- the promotion of training and awareness in biodiversity protection and impact minimisation;
- the implementation of initiatives, together with local communities, organisations and authorities, to create awareness and reinforce the concept of biodiversity and ecosystems as an opportunity for local socio-economic development;
- reporting regularly on its performance in the field of biodiversity.

## BIODIVERSITY AND SENSITIVE AREAS

*Biodiversity refers to the variety of living species on Earth, including plants, animals, bacteria and fungi. Each species, no matter how small, all have an important role to play, as every species depends on the services provided by other species to ensure survival. In February 2022, the Italian parliament approved the bill amending Articles 9 and 41 of the Italian Constitution, mandating the safeguard of the environment, biodiversity and natural ecosystems in the interest of future generations.*

More than half of the world's economic output – USD 44 tn of economic value generation – is moderately or highly dependent on nature\*.

The importance for companies to understand how nature impacts their financial performance and how they impact nature, whether positively or negatively, is rapidly growing, along with the longer-term financial risks that this may pose. Better information will allow companies to incorporate nature-related risks and opportunities into their strategic planning, risk management and asset allocation decisions.

The Taskforce on Nature-related Financial Disclosures (TNFD) was officially launched in June 2021 by 75 institutions comprised of banks, investors, companies, governments and regulatory bodies to advance nature and biodiversity related measurements and reporting. The Taskforce works to develop a risk management and disclosure framework for organisations to report and act

(\* ) Source: Taskforce on Nature-related Financial Disclosures (TNFD).

on evolving nature-related risks, aiming to shift global financial flows away from nature-negative outcomes and toward nature-positive outcomes.

Biodiversity loss is currently a top global issue together with climate change. Biodiversity loss also poses the third-highest existential long-term risk, only behind a potential use of nuclear weapons and the collapse of nation-states, according to the World Economic Forum. In the wake of COP26, a Nature positive vision for global biodiversity is set to become a key component of Net-Zero programmes.

Saipem is taking action on the issue of Biodiversity. Ongoing biodiversity conservation and environmental protection are the only sustainable ways of doing business. In our long-standing commitment to the "Protection of the Environment and Ecosystems", we joined the TNFD in 2021.

In 2021, we were involved in various projects for the protection of biodiversity and ecosystems.

We operate in different natural environments, many of which may be sensitive. That's why we always strive to **guarantee safe and responsible operations, minimising impacts on biodiversity and protecting the natural environment and local communities.**

Biodiversity preservation is **integrated into Saipem's**

**projects along their entire life cycle.** Our approach to managing biodiversity during our activities and projects is based on the following principles:

- identification;
- implementation & mitigation;
- R&D promotion;
- awareness.

These principles are consistent with internationally recognised guidelines and Standards, and by applying them we aim to be a leading company for Biodiversity & Ecosystem Services management.

# 5

COUNTRIES IN WHICH SAIPEM DID BIODIVERSITY ACTIVITIES

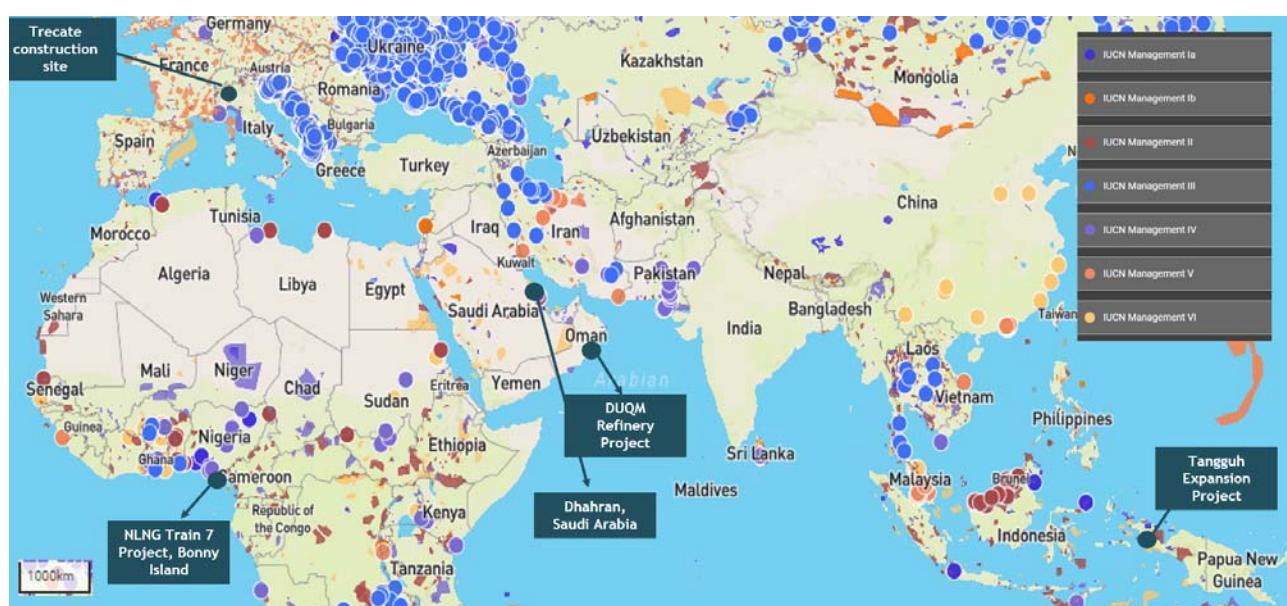
# 13

BIODIVERSITY PROJECTS

# 118

SENSITIVE AREAS INVOLVED (WITHIN 50 KM)

## Recent Saipem Projects and Biodiversity Sensitive areas



Key Biodiversity Areas (KBA) are "sites contributing significantly to the global persistence of biodiversity", in terrestrial, freshwater and marine ecosystems. Sites qualify as global KBAs if they meet one or more of 11 criteria, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and, irreplaceability.

Notes: the tool used to generate the sensitivity analysis map: <https://www.ibat-alliance.org/>



Following are recent Saipem Projects, located in various biodiversity sensitive areas around the world.

#### **Tangguh Expansion Project, Indonesia**

The Tangguh Expansion Project (TEP) is in Papua Barat Province, Indonesia, which has extremely high biodiversity. According to the IUCN (International Union for Conservation of Nature) Red List, approximately 3,400 threatened species, including 17 species classified as Critically Endangered, 36 as Endangered, 202 as Vulnerable and 178 as Near Threatened occur around the project location.

#### **Saipem Actions**

Biodiversity protection efforts began during the early stages of the project within an area of about 190 hectares, involving tree cutting and land clearing activities. Efforts to protect flora and fauna continue to date.

- Seven priority flora species were targeted to be relocated to a new area through seeding or replanting.

- Several types of fauna such as birds, snakes, other reptiles, etc., are also relocated at every stage.
- Marine creatures such as dolphins, turtles and crocodiles, which are often trapped in fishing nets, are saved by an Emergency Rescue Team in the project area.

#### **Duqm Refinery Project, Oman**

The project is located in a coastal plain within ecologically sensitive areas where endemic flora and fauna are present. The 80-km Sub-package B pipeline was the most challenging, as it is located close to the Al Wusta Wildlife Reserve, where there are interactions with endemic species such as the Omani Spiny-tailed Lizard (*Uromastyx thomasi*). According to the IUCN Red List, approximately 1,200 threatened species including 13 species classified as Critically Endangered, 30 as Endangered, 60 as Vulnerable and 57 as Near Threatened occur around the project location.

The Al Wusta Wildlife Reserve is a protected area, and



## Biodiversity in 2021

Saipem Project/ Site	Country	N. of biodiversity initiatives (of which voluntary, %)	Type of initiative	Sensitive areas involved (within 50 km)
Tangguh Expansion Project	Indonesia	3 (33%)	> Restoration (habitat) > Conservation (species)	4 Protected Areas (National)  Within 50 km are included as example: > Kaimana Locally Managed Marine Area (IUCN category VI) > Wagura Kote Natural reserve (IUCN category Ia) > Pegunungan Fakfak Natural reserve (IUCN category Ia) > Teluk Bintuni Nature Reserve (IUCN category Ia)
Duqm Refinery Project	Oman	1 (0%)	> Monitoring > Conservation (species)	1 Protected Area (National) 3 Important Bird And Biodiversity Areas  Within 50 km are included as example: > Al Wusta Wildlife Reserve Natural reserve (IUCN category IV) > Al Wusta Wetland Reserve Natural reserve (IUCN category VI) > Al-'Uruq al-Mu'taridah Resource Use Reserve (IUCN category VI)
NLNG Train 7 Project, Bonny Island	Nigeria	7 (14%)	> Restoration (habitat) > Conservation (species)	2 Protected Areas (National)  Within 50 km are included as example: > Korup National Park (IUCN category II) > Cross River National Park (IUCN category II)
Trecate construction site	Italy	1 (100%)	> Restoration (habitat) > Conservation (species)	71 Protected Areas (National) 24 Natura 2000 sites 1 Ramsar Protected Area (Wetland)  Within 50 km are included as example: > Parco Naturale lombardo della Valle del Ticino (IUCN category V) > Riserva Naturale della palude di Casalbeltrame (IUCN category IV) > Riserva Naturale Orientata Bosco Solivo (IUCN category IV)
Saudi Arabia Saipem (Dammam base)  See page 75.	Saudi Arabia	1 (100%)	> Restoration (habitat) > Conservation (species)	6 Protected Areas (National) 1 Ramsar Protected Area (Wetland) 5 Important Bird And Biodiversity Areas  Within 50 km are included as example: > Khalij Tarut Eco-Park (IUCN category IV) > Dhahran Nature Preserve Eco-Park (IUCN category IV) > Khalij Salwa Resource Use Reserve (IUCN category VI) > Jubail Marine Wildlife Sanctuary Reserve (IUCN category VI)

<b>Species concerned</b>	<b>Ecosystems</b>	<b>N. of species at risk</b>						<b>LC</b>
			<b>CR</b>	<b>EN</b>	<b>VU</b>	<b>NT</b>		
Terrestrial fauna, aquatic fauna, Avifauna, Ichthyofauna, terrestrial flora, marine flora	Terrestrial, Coastal Marine and Aquatic	3,241	17	36	202	178		2,808
Terrestrial fauna, aquatic fauna, Avifauna, Ichthyofauna, terrestrial flora, marine flora	Terrestrial, Coastal Marine and Aquatic	1,196	13	30	60	57		1,036
Terrestrial fauna, aquatic fauna, Avifauna, Ichthyofauna, terrestrial flora, marine flora	Terrestrial, Coastal Marine and Aquatic	1,740	26	45	50	55		1,564
Terrestrial fauna, Avifauna, terrestrial flora	Terrestrial	1,117	7	18	56	73		963
Terrestrial fauna, Avifauna, terrestrial flora	Terrestrial	820	11	18	46	55		690

Legend:  
 CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern.



according to IUCN Management Categories, this is an IUCN Management IV area. Protected areas aim to safeguard particular species or habitats and management reflects this priority. Many category-IV Protected Areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

#### **Saipem Actions**

Saipem performed an Ecological survey through a 3<sup>rd</sup> party professional specialist to complement the existing Ecological Management Plan. A "5 km Ecological Map" was drawn to show the location of species and sensitive areas, providing a useful guide for construction activities in these sensitive areas.

Here are some examples of fauna detected during the construction phase:

- Oman Spiny-tailed Lizard - considered endemic;
- 1 Lizard with pigmented back;
- 1 Lizard with a blue head.

In 2020, while supervising archaeological sites at KM 60, we found two lizards with a light blue coloured body and a long tail. As they could belong to the *Pseudotrapelus dhufarensis* species, they were left untouched and allowed to move on their own within the site area.

#### **NLNG Train 7 Project, Bonny Island, Nigeria**

The project is located on Bonny Island in the Niger Delta, in the vicinity of nationally reserved forest areas comprising rain forests and mangrove swamps, as well as an ecologically important area of sandy soil with freshwater ponds and tall timber between the swamps and the beach. The reserve is home to wildlife species of high conservation value, a variety of mammals, bird species and reptiles.

According to the IUCN Red List, approximately 1,800 threatened species including 26 species classified as Critically Endangered, 45 as Endangered, 50 as Vulnerable and 55 as Near Threatened occur around the project location.

#### **Saipem Actions**

- Implementation of Antipoaching & Biodiversity Preservation policy.
- Implementation of Biodiversity Management Plan.
- Preservation and replanting of identified Native Species.
- Implementation of Invasive Species Management plan.
- Rescue, Relocation & Rehabilitation of encountered wildlife.

- Reduction of our construction footprint during site preparation.

We carried out a biodiversity awareness campaign at the Bonny Island NLNG Train 7 Project to sensitise the workforce to the need to protect biodiversity. Our goal was to raise awareness of the problems facing animal and plant species ranging from the biggest elephants to the smallest microorganisms.

The sessions offered an opportunity to reflect and renew our resolve to overcome the environmental challenges facing the world. Biodiversity posters were displayed at the TCF.

#### **Fawns and Photovoltaics**

At the Trecate construction site (Italy), where we will build an electricity generation plant from photovoltaic solar energy, our colleagues who began the preparatory works found two small fawns near the protected area of the Ticino Valley natural park.

As this species normally does, the mother deer gave birth to her babies hidden in the bushes. As we could not have predicted this event right then and there, we found them alone, without their mother, fragile and frightened, with their lives in danger during topsoil removal operations.

After alerting the authorities, we entrusted the fawns to the care of volunteers at Rifugio Miletta, a local wildlife rescue association that welcomes more than 175 animals from different species in a state of semi-freedom.

## RELIABILITY

### Ensuring ethical integrity inside our structure, data-integrity from outside attacks.

Different types of integrity are necessary inside and outside an organisation.

Ethical procedures, principled governance, checks and balances in internal structures, redundancy in sensitive operations are necessary to ensure the long-term viability of any large company. But in the digital age, internal governance safeguards and operational best practices are not sufficient if they are not accompanied by measures to protect data, software and hardware from potential external threats. In the world of energy infrastructure and services, numberless Internet-of-Things sensors and big-data generating software can provide as many attack surfaces for malicious actors, which must be kept out.

These are the ways in which we make sure we remain sound inside and smart versus outside cyber-threats.

### OUR COMMITMENT TO ETHICAL BUSINESS

Respect for corporate values and integrity are a constant commitment in company activities. In all our business relationships, we are committed to always respecting and promoting the principles of loyalty, fairness, transparency, efficiency and openness to the market.

We operate within the framework of the Universal Declaration of Human Rights adopted by the United Nations, the fundamental conventions of the ILO (International Labour Organisation) and the OECD Guidelines for Multinational Enterprises. We stand up for the protection and promotion of human rights, inalienable and fundamental prerogatives of human beings, and strongly condemn any form of discrimination, corruption, and forced or child labour.

In 2017, as part of our commitment to promoting human and labour rights in our activities, we published our first Human Rights Policy. Furthermore, since 2016, the Saipem Group has published its Modern Slavery Statement every year, in compliance with the United Kingdom Modern Slavery Act 2015.

#### Code of Ethics

Saipem's Code of Ethics forms an integral and substantial part of the organisational model pursuant to Italian Legislative Decree 231/2001. It defines the values that the Company recognises, accepts and shares, as well as the

responsibilities that it assumes with regard to both internal and external stakeholders.

Everyone at Saipem must respect the principles and contents of the Code of Ethics, as well as all third parties involved in business relations with us.

A "Saipem Business Integrity Guide", updated in 2021, was published internally as a further tool for employees to better understand our internal rules and share Saipem's ethical values. The Guide provides an overview of the relevant principles and concrete examples to facilitate their understanding.

#### Whistleblowing

We have put in place a robust and effective system to deter, detect, investigate and report any illegal behaviour in the company, also through a whistleblowing system. Whistle-blowers are guaranteed against any form of retaliation, discrimination or from being penalised, for reasons connected directly or indirectly to the report, without prejudice to the legal obligations and the protection of the rights of the Company or of the people accused by wilful misconduct or gross negligence. In any case, the confidentiality of the whistle-blower's identity is always assured; sanctions are also imposed on those who violate provisions adopted to guarantee the protection of the whistle-blower.

#### Anti-Corruption Compliance Programme

At Saipem, we have always conducted our business with loyalty and integrity and in full compliance with laws and regulations. In this context, corruption is an intolerable obstacle to an efficient business and a fair competition. We have designed an "Anti-corruption Compliance Programme", consisting of a detailed system of rules and controls aimed at preventing corruption, in line with international best practices and the "zero tolerance" principle expressed in the Code of Ethics.

Saipem SpA is one of the first Italian companies to obtain the international certification according to the ISO 37001:2016 "Antibribery Management Systems" standard. The certification, awarded by an independent third party, defines requirements and provides a guideline to help organisations prevent, detect and address corruption, to comply with the anti-bribery legislation and any other voluntary commitments applicable to their own activities. The certification process, consisting of an audit phase that lasted from January to April 2018, considered factors such as the organisational structure, local presence, processes and services. Subsequently, the audit activities necessary for the recertification were carried out and on April 28, 2021, the new ISO 37001:2016 certificate was issued with a three-year validity and expiring on April 27, 2024.

## Training

We are aware that the first step for the development of an effective strategy to fight corruption is the maturation of a comprehensive knowledge of the tools for the prevention of corruptive behaviours. Strong commitment and constant attention are required from Saipem's personnel in understanding and implementing the control mechanisms of Saipem's internal anti-corruption regulations envisaged in carrying out daily business activities.

In this respect, our people are committed to undergoing a mandatory training in order to have the appropriate knowledge of anti-corruption laws, ethics and compliance provisions and internal anti-corruption regulations.

The training activities are usually related to Model 231, as required by the Model 231 and to the Anti-corruption regulations, as required by the MSG Anti-Corruption. In addition, specific tailored trainings focused on sensitive matters are organised for the Procurement Department, Managing Directors of the subsidiaries, etc.

The training is organised in relation to the geographical area and is carried out through the use of specific e-learning courses, as well as in classrooms and tailored also considering the nature of the trainees.

# 11,700

TRAINING MAN-HOURS ON COMPLIANCE AND GOVERNANCE  
DELIVERED TO

# 4,267

EMPLOYEES

## CYBERSECURITY

The security of our people and the company's tangible and intangible assets are a top priority at Saipem. We adopt an integrated approach to the daily management of security risks, as we view security as an enabling factor that positively affects the economic and social value of Saipem, increasing the company's finances and resilience.

We are committed to building and developing an integrated Security Model that is fully embedded in company processes and in line with our values and national and international legislation in order to:

- ensure a safe, secure workplace and protect employees, contract workers and third parties;
- protect all company information and know-how whose confidentiality, integrity and availability are critical for ensuring Saipem's competitive advantage;
- protect the integrity and reputation of management and stakeholders.

We proactively seek to achieve security objectives by designing a preventive strategy that minimises physical and cybersecurity risks. Our strategy supports company decision-making processes, ensuring that risks are assessed, monitored and managed by implementing mitigation measures to minimise the impact and probability of negative events.

Saipem's *cyber security model* is designed to secure company IT/OT systems, networks and data management, as well as external communications with third parties such as clients, suppliers and authorities.

The protection of the information assets managed through our IT infrastructure is an essential prerequisite for the competitiveness and positive image of our Company. Since Information Security is of strategic importance, we make sure to put in place all the necessary resources and actions to guarantee the full protection, confidentiality, integrity and availability of information.

To achieve these objectives, we have implemented an Information Security Management System compliant with ISO/IEC 27001.

We also obtained the CCC+ certification (Third Party Cybersecurity Compliance Certificate), which is necessary to work in Saudi Arabia. Our level of cybersecurity readiness is continuously monitored by BitSight, an independent rating company that provides us with an impartial assessment of any potential weaknesses, which we promptly address, and with a score related to our overall cybersecurity posture (730/900 pt, better than 80% of our peers). A UK insurance broker also assesses and confirms the validity of the cybersecurity measures we implement to cover residual risks that could have an impact on third parties.

A further external push has come from the International Maritime Organization (IMO), which has asked shipowners and ship operators to include cyber-risk in the map of the risks assessed and managed on board. As a result, in 2021, we deployed a cyber security model onboard our fleet supplementing the existing Safety Management Model, that meets the cybersecurity requirements set by the IMO for the certification of vessels. Among the measures we implemented, the creation of a new Cyber Security Officer role on board and specific training for offshore personnel stand out.

We are dedicated to continuously improving our security model, increasing security awareness and personnel skills, promoting a positive "security culture" at all company levels and supporting a comprehensive approach to security risk management.

# 4,947

TRAINING MAN-HOURS ON CYBERSECURITY DELIVERED TO

# 1,994

EMPLOYEES

Within our 2019-2021 Master Plan, we implemented the following cybersecurity measures:

- formalisation of the processes relating to Vulnerability Management, Classification of Corporate Information, Cyber Security Requirements for Joint Ventures;
- update of security requirements: Security by Design, Network Security, Device Security, Cyber Security Requirements for Teleworking, Credential Management, Methods for Assigning ICT Resources and Rules for Their Proper Use;
- release of the Zero-Trust solution. Adopting a zero-trust approach is a long and complex path that we took last year. Since then, we have selected, purchased and started to implement this solution to protect Saipem resources, both at the application and endpoint level;
- Digital Identity project: this initiative will allow us to better manage digital identities by ensuring that employees have access to all and only the resources they need, improving security and user experiences. In 2021, we laid the foundations to populate this system with data from HR and some other key functions;
- a Privileged Identity Management (PIM) solution to better secure the most powerful ID accounts that are often exploited by attackers;
- removal of administrative rights on user computers to prevent insider threats, both malicious and unintentional;
- strengthening security measures aimed at protecting our data, e.g., blockage of USB ports and release of a labelling tool for data classification;
- completion of the installation of firewalls to segregate IT and OT on vessels;
- awareness initiatives: Cyber Security training and tabletop cyber exercises on vessels.

At the same time, we launched periodic reviews with Microsoft of the security configurations of the Office 365 software environment, implementing the most current best practices.

To address any possible risk of system interruptions or suspensions, we improved the emergency and response structure, consisting of a Security Operation Centre (SOC) and a Cyber Emergency Response Team (CERT) that liaise with the Italian Cyber Security National Agency (ANC). Saipem's ISO 27001 certification, issued in March 2021,

confirmed the validity of the systems we adopted for our "Cyber Detection & Response" process, also allowing the structured and continuous improvement of Saipem's information security management.

In 2022, we will keep integrating systems like the Identity Governance solution and the PIM solution into our new security platform.

We have also planned a set of new initiatives, including:

- implementation of a Breach Attack Simulation solution to better understand and remediate weaknesses in our systems from the outside before attackers find them;
- selection and implementation of a Network Behaviour Analysis solution on vessels to better protect the OT environment;
- integration of a Hardware Security Module to protect keys and certificates used for the encryption of data.

Furthermore, we will enforce cybersecurity requirements on our Supply Chain and verify supplier compliance through dedicated audits.

We will also simulate phishing campaigns to test user awareness of cyber risks and their ability to report suspicious emails.



# APPENDICES

## METHODOLOGY AND REPORTING CRITERIA

### REPORTING PRINCIPLES

The "2021 Sustainability Report" provides complete and detailed information about the matters of greatest interest to our stakeholders. This report has been prepared in accordance with the GRI Standards: Core option. The following principles have been used to identify the contents of the document: stakeholder inclusiveness, sustainability context, materiality and completeness. To guarantee the quality of the information contained in the report, the principles of accuracy, balance, clarity, comparability, reliability and timeliness were followed, again as per GRI guidelines. More details on the management approach are included in the 2021 Consolidated Non-Financial Statement and in the Management Report of the 2021 Annual Report.

The report is published annually and is shared with the Sustainability, Scenarios and Governance Committee and approved by the Board of Directors. It is distributed at the Shareholders' Meeting convened to approve the Annual Report.

### MATERIALITY ANALYSIS

In sustainability reporting, materiality is the principle that determines which relevant topics are sufficiently important that it is essential to report on them. In order to define the topics that reflect the Company's economic, environmental and social impacts or that may influence the assessment and decisions of stakeholders, a materiality analysis was once again carried out in 2021 for the eleventh year running. The materiality analysis process is divided into four main phases:

1. Framing: a pool of 49 possible material issues from 7 macro topics was created based on industry benchmarks, emerging topics, and global trends analysis (a more in-depth benchmark analysis was conducted to better identify emerging issues); stakeholders involved in the assessment were identified depending on their relevance and degree of influence on our business and its success.

**For the first time in the Saipem materiality assessment history, we decided not to include the "Employee Health & Safety" topic in the 2021 list of the possible ESG material topics. Safety (and health) are much more than a priority, indeed they are a prerequisite, a foundation for any sustainable development that we embark on. Safety first is our core business.**

2. Involvement: external stakeholders were involved through an online survey. Specifically we reached: 10 Trade associations and international organisations, 172 Vendors and business partners, 19 Clients, 6 representatives from academia and local communities, 8 Institutions/Government/Regulators/Authorities, 9 Bondholders/Banks/Credit rating agencies, 6 Insurance partners, 17 Investors/Research analysts, 100 University students, and 3,915 employees.  
Internal interest was assessed through an online survey by involving 269 Senior Managers and the 9 members of the Board of Directors.
3. Analysis: the analysis phase focuses on assessing the priorities identified by the more than 4,500 stakeholders involved in the materiality assessment and the stakeholder engagement processes.  
In addition, we extended our analysis using a cloud-based data analytics platform to take into consideration further contextual elements arising from over 80 Saipem peers, around 4,500 regulations (voluntary and mandatory), about 70,000 news reports/updates, and more than 500 mln tweets.  
For the third year in a row, the Saipem materiality analysis received a score of 100/100 points in the framework of the RobecoSAM assessment for the Dow Jones Sustainability Index (DJSI).
4. Validation: the analysis identified 15 material topics, that were included in the materiality matrix represented in this document on page 15. It was submitted for validation and for verification to the Board Sustainability, Scenarios and Governance Committee. Finally, it is up to the Board of Directors to endorse the outcome of the materiality analysis.

<b>Macro topics</b>	<b>Material topics</b>	<b>Corresponding GRI Standards aspects</b>
Climate change transition to low-carbon and energy use	Energy use and efficiency Renewables Use of alternative fuels GHG emissions control & reduction Climate change adaptation & mitigation	GRI 201: Economic Performance 2016 GRI 302: Energy 2016 GRI 305: Emissions 2016
Governance and business ethics	Anti-corruption & bribery Partnership, stakeholder engagement and satisfaction	GRI 205: Anti-corruption 2016 GRI 415: Public policy 2016
Human capital	Employee attraction, talent management & retention Diversity and inclusion	GRI 401: Employment 2016 GRI 404: Training and Education 2016 GRI 405: Diversity and equal opportunity 2016
Natural capital management and environmental preservation (non-climate related)	Air emissions control & reduction (non-GHG)	GRI 305: Emissions 2016
Research and innovation	Digital transformation	n.a.
Safe operations	Cybersecurity Safety leadership and culture Safety along the supply chain	GRI 403: Occupational Health and Safety 2018
Societal issues and local presence	Human labour rights along the supply chain	GRI 308: Supplier Environmental Assessment 2016 GRI 406: Non-discrimination 2016 GRI 407: Freedom of Association and Collective Bargaining 2016 GRI 408: Child Labour 2016 GRI 409: Forced or Compulsory Labour 2016 GRI 410: Security Practices 2016 GRI 412: Human Rights Assessment 2016 GRI 414: Supplier Social Assessment 2016

## INTERNAL BOUNDARY

The above topics are material for all business units. As regards financial data, in line with the drafting of the financial statements, the reference perimeter corresponds to the area of consolidation. Alongside financial performance, sustainability reporting also describes social and environmental performances and thus includes numerous topics for which perimeters differing from those used in financial reporting are applied. For HSE data, the reporting perimeter includes all activities in which

Saipem is responsible for setting HSE standards and for ensuring and overseeing their application. As regards other thematic areas, Saipem reports 100% of operations in which Saipem SpA or one of its subsidiaries exercises operational control. Companies included in the reporting boundary are listed in the "Saipem Group Structure" in the Annual Report.



[Further details are available in the Annual Report 2021.](#)

## EXTERNAL BOUNDARY

For some material topics, the impact of our activities occurs beyond organisation boundaries. The stakeholder categories impacted by our operations are specified for

each material issue in the "External boundaries" column. The limitations that arose which refer to the boundaries of each material issue were also reported (when needed) in the table below under the "Limitations" column.

Material topics	External boundaries	Limitations
Air emissions control & reduction (non-GHG)	Vendors and subcontractors	Vendors
Anti-corruption & bribery	Business partners, vendors and subcontractors	-
Climate change adaptation and mitigation	Vendors and subcontractors	Vendors
Cybersecurity	-	-
Digital transformation	Business partners, vendors and subcontractors	Partial for vendors
Diversity and inclusion	-	-
Employee attraction, talent management & retention	-	-
Energy use and efficiency	Vendors and subcontractors	Vendors
GHG emissions control & reduction	Vendors and subcontractors	Vendors
Human and labour rights along the supply chain	Vendors and subcontractors	Partial for vendors
Partnership, stakeholder engagement and satisfaction	Business partners, vendors and subcontractors	-
Renewables	Vendors and subcontractors	Partial for vendors
Safety along the supply chain	Vendors, subcontractors and a group of local communities	Partial for vendors
Safety leadership and culture	Vendors, subcontractors and a group of local communities	Partial for vendors
Use of alternative fuels	Vendors and subcontractors	Vendors

With regard to the material topics for which reporting has not been extended to the external scope (GRI Standards - limitations), we will assess the feasibility of increasing the reporting boundary. More details are described in the GRI and UN Global Compact Content Index.

## ASSURANCE STATEMENT

To ensure the reliability of the information provided and to improve the reporting process, the "2021 Sustainability Report" is subject to limited assurance by KPMG SpA.

## ANNEX

The GRI and UN Global Compact Content Index Annex is attached to the "2021 Sustainability Report" and can be found here.



 [Annex I can be also found in the Sustainability Documents section on the Saipem website.](#)

# ASSURANCE STATEMENT



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## Independent auditors' report on the sustainability report

*To the board of directors of  
 Saipem S.p.A.*

We have been engaged to perform a limited assurance engagement on the 2021 Sustainability report (the "sustainability report") of the Saipem Group (the "group").

### *Directors' responsibility for the sustainability report*

The directors of Saipem S.p.A. (the "parent") are responsible for the preparation of a sustainability report in accordance with the "Global Reporting Initiative Sustainability Reporting Standards" issued by GRI - Global Reporting Initiative (the "GRI Standards"), as described in the "Methodology and Reporting Criteria" section of the sustainability report.

The directors are also responsible for such internal control as they determine is necessary to enable the preparation of a sustainability report that is free from material misstatement, whether due to fraud or error.

They are also responsible for defining the parent's objectives regarding its sustainability performance and the identification of the stakeholders and the significant aspects to report.

### *Auditors' independence and quality control*

We are independent in compliance with the independence and all other ethical requirements of the Code of Ethics for Professional Accountants (including International Independence Standards, the IESBA Code) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our company applies International Standard on Quality Control 1 (ISQC Italia 1) and, accordingly, maintains a system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG S.p.A. è una società per azioni di diritto italiano e fa parte del network KPMG di entità indipendenti affiliate a KPMG International Limited, società di diritto inglese.

Società per azioni  
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**Saipem Group**  
Independent auditors' report  
31 December 2021

### ***Auditors' responsibility***

Our responsibility is to express a conclusion, based on the procedures performed, about the compliance of the sustainability report with the requirements of the GRI Standards. We carried out our work in accordance with the criteria established by "International Standard on Assurance Engagements 3000 (Revised) - Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000 revised"), issued by the International Auditing and Assurance Standards Board applicable to limited assurance engagements. This standard requires that we plan and perform the engagement to obtain limited assurance about whether the sustainability report is free from material misstatement.

A limited assurance engagement is less in scope than a reasonable assurance engagement carried out in accordance with ISAE 3000 revised, and consequently does not enable us to obtain assurance that we would become aware of all significant matters and events that might be identified in a reasonable assurance engagement.

The procedures we performed on the sustainability report are based on our professional judgement and include inquiries, primarily of the parent's personnel responsible for the preparation of the information presented in the sustainability report, documental analyses, recalculations and other evidence gathering procedures, as appropriate.

Specifically, we carried out the following procedures:

- 1 Assessing the reasons for preparing both the consolidated non-financial statement required by articles 3, 4 and 7 of Legislative decree no. 254/2016 and the sustainability report and the elements differentiating the two documents.
- 2 Analysing the reporting of material aspects process, specifically how these aspects are identified and prioritised for each stakeholder category and how the process outcome is validated internally.
- 3 Comparing the financial disclosures presented in the sustainability report with those included in the group's consolidated financial statements.
- 4 Understanding the processes underlying the generation, recording and management of the significant qualitative and quantitative information disclosed in the sustainability report.

Specifically, we held interviews and discussions with the parent's management personnel. We also performed selected procedures on documentation to gather information on the processes and procedures used to gather, combine, process and transmit non-financial data and information to the office that prepares the sustainability report.

Furthermore, with respect to significant information, considering the group's business and characteristics, we carried out the following procedures:

- at group level,
  - a) we held interviews and obtained supporting documentation to check the qualitative information presented in the sustainability report,
  - b) we carried out analytical and limited procedures to check, on a sample basis, the correct aggregation of data in the quantitative information;



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- through remote communication tools, we held discussions with personnel of the CastorONE (port of Cyprus), Tangguh (Indonesia) and Hawiyah (Kingdom of Saudi Arabia) sites, which we have selected on the basis of their business, contribution to the key performance indicators at consolidated level and location, to obtain documentary evidence supporting the correct application of the procedures and methods used to calculate the indicators.

#### ***Conclusion***

Based on the procedures performed, nothing has come to our attention that causes us to believe that the 2021 Sustainability report of the Saipem Group has not been prepared, in all material respects, in accordance with the requirements of the GRI Standards, as described in the "Methodology and Reporting Criteria" section of the sustainability report.

Milan, 22 April 2022

KPMG S.p.A.

A handwritten signature in black ink that reads 'Cristina Quarleri'.

Cristina Quarleri  
Director of Audit



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 and Milan, Monza-Brianza, Lodi  
Companies' Register No. 00825790157

**Feedback**

What you think of the Saipem Sustainability Report matters to us.  
As we are constantly striving to improve our reporting, we would very  
much welcome your feedback. We will also be pleased to answer any  
questions you may have.  
You can submit your comments by email to:  
[sustainability@saipem.com](mailto:sustainability@saipem.com).

Special thanks to all those who contributed to the drafting of this  
report.

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