

# SAIPEM SUSTAINABILITY 2016



## MISSION

We approach each challenge with innovative, reliable and secure solutions to meet the needs of our clients.

Through multicultural working groups we are able to provide sustainable development for our Company and for the communities in which we operate.

## **GOING BEYOND**

## SHAPING SAIPEM'S ROLE AND RESPONSIBILITY IN A COMPLEX MARKET ENVIRONMENT THROUGH INNOVATION, HUMAN CAPITAL DEVELOPMENT AND HUMAN RIGHTS

### **INNOVATION AND BUSINESS STRATEGY**

A talk between Stefano Cao, Saipem CEO, and Davide Vassallo, Global Managing Director, DuPont Sustainable Solutions

### Davide Vassallo

In the current market context, the question that international players are asking is: how can we continue to offer high value-added products and services? In order to maintain a competitive advantage, it is essential to have a specific and distinctive innovation strategy that acts as a driver for all of the company's business.

### Stefano Cao

Saipem's ability to design and realise vessels and projects in a way that often goes beyond expectations is the main value we bring to the market.

Now, more than ever, innovation plays a key role, because the ability to offer cost-effective solutions and faster and safer operations to our clients has become an essential condition for success. For us, the business segment with the greatest technological drive is certainly deep water hydrocarbon production. We are increasing our investments to develop original and distinctive solutions that allow us to stay at the forefront of technology in this sector.

### Davide Vassallo

Cyclical industries, like mining and Oil & Gas, are subject to instabilities related to the price of commodities. Historically speaking, they have always been tied to short-term investments and to the development of incremental innovative solutions. Looking at innovation within a greater time frame, and linking investment strategy to what we define as mega-trends relevant to our business, is certainly a winning approach.

### Stefano Cao

In this regard, where gas continues to be a predominant benchmark commodity, we are also focusing on further developing and leveraging the various technologies and processes for its transportation,

### transformation and use.

As far as process innovation is concerned, digitalisation emerges as an important theme that we, as a company, see as an opportunity to be exploited.

### Davide Vassallo

Digitalisation is often associated with the concept of internal efficiency but is also a component that must provide efficiency to our clients. I think that the way forward is to capture market segments through the evolution and expansion of the business model, offering high value-added services.

### Stefano Cao

Data must become an asset that allows us to create and offer value to our clients. However, this requires a cultural change that is important to promote throughout our organisation.

In this regard, and to set in motion innovative ideas using unstructured methodologies, we have launched an experiment called 'Fabbrica dell'Innovazione' (Innovation Factory). Digitalisation is one of the elements central to this 'incubator of ideas' where our young talents are bringing new energy to our creative and problem solving attitude.

### Davide Vassallo

Partnership is another important aspect when discussing innovation, given that it is difficult to find all the abilities, resources and skills in a single subject. Does Saipem's innovation model include the possibility of identifying a key partner with whom to invest? After all, identifying partnerships is a crucial step in any stakeholder engagement strategy.

### Stefano Cao

We are defining new value propositions through innovation. To this end, we have created the new High Value Services Division. The goal is for Saipem to be perceived not only as an excellent EPC (Engineering, Procurement, Construction) contractor, but also as a player capable of meeting the future needs of our clients (as their partner) and of other parties involved or interested in our activities.

### COMPETENCE AND ITS CONTRIBUTION TO THE CREATION OF BUSINESS AND SOCIAL VALUE A talk between Stefano Cao, Saipem CEO, and Martyn Rademakers, Managing Director of Center for Strategy & Leadership and Adjunct Professor of Corporate Strategy at Amsterdam Business School, University of Amsterdam.

### Martyn Rademakers

Human capital development is of paramount importance as a contributing factor to the achievement of sustainability goals. How does Saipem contribute to human capital development in the communities where it operates?

### Stefano Cao

Saipem has responded to the environmental, territorial, social and economic challenges with a sustainable business model which, even in periods when rules were less stringent, went beyond what was demanded.

We did this by forging relationships in local communities that were so solid that many countries proudly claimed Saipem as their own. We stand out in this regard due to the constant attention we pay to the development of human capital – a strategic asset for us – and because we contribute to the creation of value by employing and training local people and by providing opportunities for professional development.

### Martyn Rademakers

Current and potential human resources should not only be talented, but should also be capable of learning to adapt constantly to changes in their job, company or community. This requires time and space for education that is not limited merely to offering courses. At this advanced level, human capital development drives flexibility and responsibility, as well as talent attraction and retention. What does Saipem do to enable employees to develop and share their talents for the benefit of both themselves and the company?

### Stefano Cao

Let me mention some specific features which can make a significant difference to the characteristics of human capital and which, at the same time, can have a more sustainable impact in the delivery of our business services. I am chiefly referring to the integration between technical and managerial aspects, an interdisciplinary attitude, and a correct understanding of what we call 'business integrity'. This is not a philosophy, but rather the practice of holding everyone in the Company to the highest ethical standards while also protecting the Company's reputation. I am convinced that it is becoming increasingly necessary to make use of this integrated approach to develop the mindsets, competences and skills of our people in such a way as to nurture a new generation of leaders.

The skills and talents of our people are the key factors that make this possible. For this reason, the theme of talent retention is a strategic one.

#### Martyn Rademakers

High-performing organisations develop leadership agility among their key people. They help their people to broaden their repertoire of leadership styles. Agile leaders can swiftly adapt their style to different challenges in teams, communities or the company as a whole. What does Saipem do to develop leadership agility?

### Stefano Cao

We have developed a new Leadership Model which blends the company's core values with the fundamental aspects of running a business. This is still work in progress, consisting of highly customised training and cultural programmes for all employees. It is not possible for a company to be successful unless the organisation and the people who are part of it are properly geared to developments in the external environment.

### **RESPECT FOR HUMAN RIGHTS IN CHALLENGING BUSINESS CONTEXTS**

Over the past decade there has been a profound debate concerning the role of multinational companies in respecting human rights.

There has been a great deal of international debate regarding the implementation of the UN Guiding Principles on Business and human rights, written by John Ruggie, Special Representative of the UN Secretary-General, and published in 2011. We can identify four main subjects that, due to their sphere of influence, contribute actively to achieving the objectives of promoting human rights. The first of these are businesses, who in their role as important economic actors contribute to promoting human rights in the countries where they operate. Then there are the international organisations that define regulatory frameworks and promote compliance by everyone involved. Add to that the academic world which has contributed to defining the areas of responsibility of each actor. Finally, there is the financial community, which has a growing interest in these issues and considers them a risk factor that must be evaluated when making investment decisions.

As far as multinational companies are concerned, they have been associated with human rights violations both because of their responsibility in the supply chain (especially manufacturing industries) and due to their complicity in establishing non-democratic governments in natural resource-owning countries.

University of Lausanne Professor, Guido Palazzo, sums it up well in these words:

'It has become a more or less undisputed societal expectation that multinational corporations engage to abolish, alleviate, remediate or compensate for those problems.'

('Foreword', Politeia, XXVIII, 106, 2012)

'Granted that many corporations have made strides in adopting and implementing CSR programmes, but such efforts arguably only scratch the surface of a more profound role of agents of justice. Besides the conceptual differences between conventional CSR perspectives and the focus of justice, the empirical impact as well as the content of most prominent CSR standards today fall short of such a role. Most importantly, the approaches to CSR, which are reflected in such standards, tend to put little emphasis on the political dimension of corporate responsibility.'

(F. Wettstein, 'Waiting for the Mountain to Move: The Role of Multinational Corporations in the Quest for Global Justice', Politeia, XXIX, 111, 2013)

### How Saipem meets the challenge of respecting human rights is explained by Stefano Cao, Saipem CEO

Human rights are individual intangible assets that belong to every human being from birth until death, in every part of the world. So why should companies not be responsible for respecting them?

Saipem is committed to recognising, protecting and promoting human rights in all its operations and along its entire supply chain. But we strive to go beyond this by contributing also to the creation of the best conditions possible for the practical implementation of those rights.

Saipem undertakes to work only with those suppliers that share the principles and contents of our Code of Ethics. Moreover, we firmly believe that fostering long-lasting relations with our suppliers is the only way to promote and guarantee progressive improvement in performances all along the value chain. We are making a two-fold effort to advance conscious and proactive respect for human rights, namely, by further strengthening the control system over all phases of our supply chain and by actively promoting awareness

among our vendors. Saipem is committed to human rights in all of the over 60 countries where it operates, even when this implies a high level of discrepancy in terms of legislative frameworks and risk levels for potential human rights violations. But this does not in any way undermine our firm refusal to compromise over fundamental human rights. The creation of a context of reciprocal respect and trust between the Company, its employees and local stakeholders is a core element of our business model. Respecting local cultures, customs and social rights, creating legitimate expectations, and promoting diversity within and outside the workplace are some of the methods we are adopting to ensure an open and transparent dialogue, prevent conflicts and work together for everyone's mutual benefit.

A few of our first practical implementations of this point of view are described in this Sustainability Report as evidence of how we work to translate our principles into real value for society.

This is what I think should be the role of Saipem, a company that I personally believe is capable of performing its operations while promoting social development through the adoption of advanced management practices in every country where it operates.

## SCENARIOS, BUSINESS ENVIRONMENT AND MARKET OUTLOOK

Many factors have changed the current global scenario. These changes are a consequence of macro-economic and social drivers and an energy revolution focused on innovation, cost reduction and a heightened bearing on renewable energies. In this difficult context, the Oil & Gas markets have been characterised by low oil prices and reduced activity all across the sector. Global oil price trends are shaped, first and foremost by OPEC and the US shale role, as well as by the balance of supply and demand, macroeconomic and geopolitical situations, US dollar exchange rate dynamics and global financial market conditions. The price of oil has remained depressed for too long and although a recovery was recorded during the last two months of 2016, producers have been pushed to further improve the efficiency of their operations and to reduce capital investments. Saipem is aware that in order to remain competitive, a radical shift in its organisation is required.

Saipem has significantly reduced the cost base, worked alongside clients to improve efficiency and refined the operating structure to enhance client delivery.

Important changes have been made to the organisational structure, segmenting the company into five divisions that will enable Saipem once again to be more efficient and facilitate faster decision-making processes. The main strategic objectives are centred on optimising the cost structure and process efficiency (through the project 'Fit for the Future 2.0') by streamlining the organisational and operational structure at global level and by implementing a strict financial policy aimed at rebalancing the financial structure and refinancing the current debt.

### MARKET TRENDS

Starting in 2014 with increased production in North America (US shale), and international sanctions on the Iranian government having been lifted recently, along with the decision to not cut Saudi Arabian production, caused an oversupply of oil over and above demand. The decision of OPEC countries not to regulate the overcapacity of global supply has brought on the collapse of the price of oil. Towards the end of 2016, a slow oil price recovery was registered, reaching a Brent price of 55 USD/bbl after the OPEC cut decision. As a consequence of the low price, oil companies have reduced their future investment plans and they have been forced to restructure in order to improve internal efficiency and reduce operating costs. Today, market sources agree on a price recovery continuing in 2017 and 2018, revitalising expectations for the Oil & Gas spending trend over the next few years.

Nowadays, Saipem operates in a complex scenario that is influenced by significant macro-factors:

- During the meeting of the OPEC Conference in late November, an agreement was reached to reduce production.
- After the initial shock of the Brexit vote, markets do not expect the global supply and demand outlook to change significantly as a consequence.
- Recent evolution of US foreign policy has impacted the oil market and has raised questions for the energy sector and the broader political economy.
- General persistence of political risks, and especially those impacted by ISIS terrorism, in the beginning concentrated only in just a few countries particularly in North Africa and the Middle East (MENA), that have now started to broaden the field of action within Europe.
- The deep recessions in Brazil and Russia seem close to ending, while China's economic growth will further slow down because of imbalances in credit, housing and industrial markets.
- Collective support for an effective global climate change agreement with a 'joint collaborative declaration' was expressed by the member companies of the Oil and Gas Climate initiative (OGCI), recognising climate change and the role of current emissions. Still, the global agreement on climate change action at the Paris COP21 meeting does not seem to be sufficient to alter world carbon dioxide (CO<sub>2</sub>) emissions. US government expressed the intention to eliminate policies such as the Climate Action Plan and the 'Waters of the US' rule.
- Investments in clean energy have remained quite stable since 2011 and have generated one-third more electricity on an annual basis thanks to technological progress and unit cost reductions. The main driver of renewable energy investment is related to energy diversification, growing power demand and security of supply. Commitment to diversifying the generation mix is boosting large-scale renewable energy investment across the region. According to the BP Energy Outlook, renewables will grow from a share of 3% in 2015 to 10% in 2035.

### OIL AND GAS CONTRACTOR BUSINESS ENVIRONMENT

On a global level, investment in the **Onshore Engineering & Construction (E&C)** market has registered a negative trend that had repercussions especially in the upstream sector. In the last few years, the main investments in the Onshore E&C market were made in North America (mainly in the USA and Mexico), sustained by the abundance of non-conventional resources, and in the Middle East (Kuwait, Iraq, Saudi Arabia and the United Arab Emirates) which remains a strategic area given the current context. A significant amount of EPC projects have been awarded in the Asia-Pacific (China, South Korea, Cambodia, Indonesia, Pakistan, Bangladesh, Australia and India), where economic growth has driven the strengthening of the local infrastructure.

The volume of investment in the **Offshore E&C** market recorded a negative trend particularly in the Gulf of Mexico, in the Asia-Pacific area and West Africa, while the Middle East has maintained a stable level of investments compared to 2015. Overall, a lower number of contracts have been awarded. To face the recession, many players have also decided to cancel or to adjourn the construction of new vessels, contributing to the onset of a rebalancing in the Offshore E&C market. As a response to the context, many contractors have signed partnerships and mergers in order to remain competitive and share knowledge and technological know-how.

During the year, the volume of investment from oil companies in **Onshore Drilling** has registered a decrease from 2015. Among all the geographic areas, North America was the most affected with a negative trend of minus 40% on investment, followed by Latin America which registered a negative impact on activities of around 40% referred to 2015. On the other side of the world, Saudi Arabia remains stable in investments and has implemented an investment programme, especially in Kuwait.

The trend is the same for **Offshore Drilling**, with a conspicuous decrease in investments, starting from the end of 2014 recording a negative trend of minus 30% on investment in reference to 2015. As a consequence, there have been several cases of reduction or postponement of previously planned drilling activities and while at the same time, cases of fleet retirement and scrapping and a significant reduction in day rates.

Saipem has pre-set a long process of refocusing on its portfolio, through the revitalisation of leadership and, in particular, by reorganising the four core business areas and a new High Value Engineering division.

The main driver to recover the economic and financial performance is based on technology development with technology advances through large scale automation. Simultaneously, a de-risking process is under way with the goal of reducing the risk profile of the businesses in which the company currently operates.

### MARKET OUTLOOK

The current outlook is shaped by a complex confluence of ongoing realignments, long-term trends and new

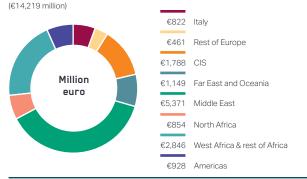
shocks. The world's wealth is growing at a slower pace than expected and global growth is projected to register a decline at 3.1% for 2016 and to rebound in 2017 to 3.4%. While growth in Asia's emerging markets, India especially, continues to be resilient, the largest economies in the Sub-Saharan Region (Nigeria, South Africa and Angola) are experiencing sharp downturns or recessions as lower commodity prices interact with difficult political and economic conditions. Brazil and Russia continue to face challenging macroeconomic conditions, but it seems that they are closer to exiting from recession.

Following two years of double declines, the results indicate a depressed decrease in upstream spending, observing a reduction in total investment of around \$135 billion between 2015 and 2016, main drivers from onshore spending, in particular with a serious decline in North America (around -40%) and the Asia-Pacific. Global spending is expected to start to recover in 2017, recording a global growth of 8% concentrated in North American unconventional plays.

### NEW CONTRACTS BY GEOGRAPHIC AREA (68,349 million)



### **ORDER BACKLOG BY GEOGRAPHIC AREA**



## MATERIALITY ASSESSMENT: IDENTIFYING SUSTAINABILITY PRIORITIES

A strong and focused materiality assessment is the cornerstone of a sustainability strategy that is consistent with the core business, meets stakeholder expectations, and produces high-impact results for Saipem and for society. Materiality is about identifying the issues that are meaningful for Saipem and its stakeholders, and that are within its capacity to create long-term value to support the company's strategy. Saipem plots the issues that are considered important for its long-term business success against those that pose risks or opportunities to the Company.

### MATERIALITY ASSESSMENT PROCESS



stakeholders

involved

of Management

involved

involved

## SAIPEM SUSTAINABILITY 2016

'Saipem Sustainability 2016' provides an in-depth analysis of the most significant issues for business sustainability identified by way of the materiality analysis (see page 6 and pages 82-85). Those topics are the cornerstone of Saipem's Sustainability strategy. Furthermore, a specific section that focuses on three key and representative Saipem projects describes the business activities and their contribution to the local socio-economic development.

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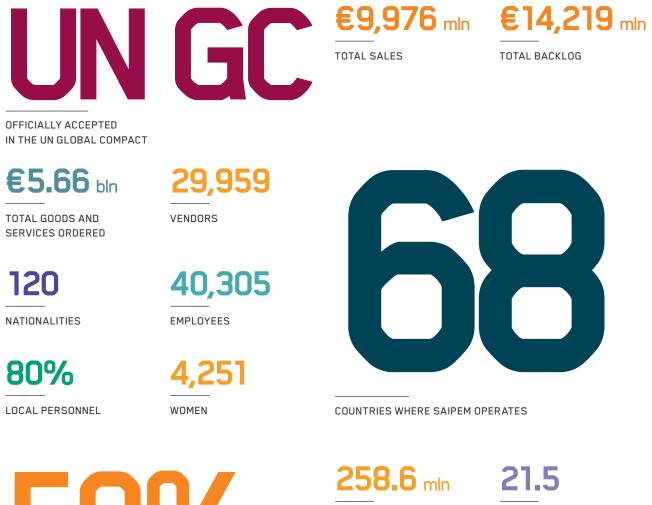


This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

# SAIPEM AT A GLANCE

Saipem is one of the world leaders in drilling services, as well as in the Engineering, Procurement, Construction and Installation (EPCI) of pipelines and complex onshore and offshore projects in the Oil & Gas market. The Company has distinctive competences in harsh environments, remote areas and deep water. Saipem provides a full range of services with turn-key EPC and EPCI contracts and has distinctive capabilities and unique assets with a high technological content. Saipem has been listed on the Milan Stock Exchange since 1984.



WORKED MAN-HOURS

AVERAGE TRAINING HOURS ATTENDED BY EMPLOYEES

# FTSE4G00D

INCLUDED IN THE FTSE4GOOD SERIES INDEX FOR THE  $7^{\mbox{\tiny TH}}$  YEAR RUNNING

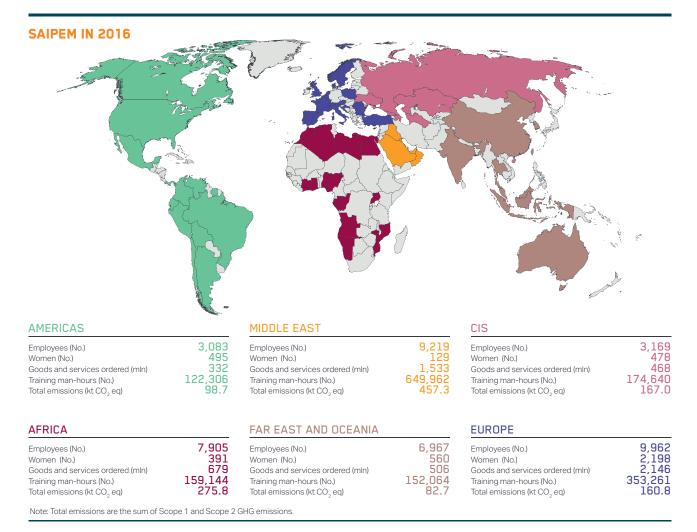
SCOPE 1 EMISSION (KT  $CO_2 EQ$ )

4 38.9 SCOPE 2 EMISSION (KT CO, EQ)

LOST TIME INJURY FREQUENCY RATE

PERCENTAGE OF EMPLOYEES COVERED

BY COLLECTIVE BARGAINING CONTRACTS

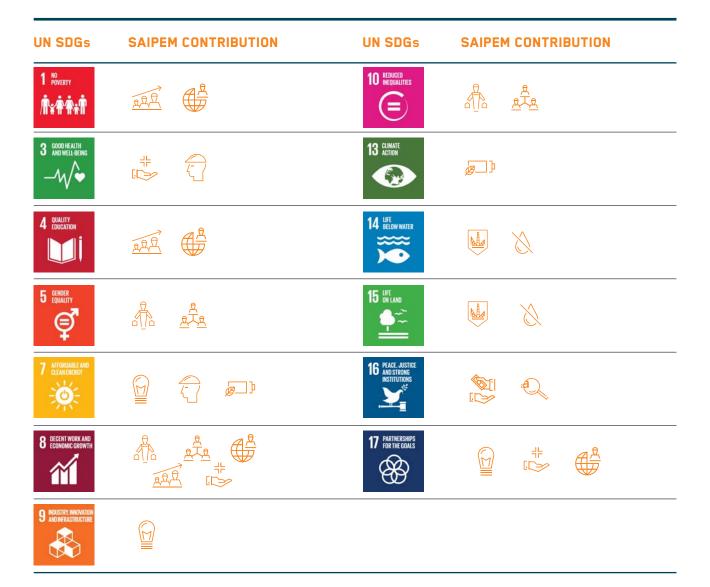


## SAIPEM AND ITS COMMITMENT TO THE UNITED NATIONS GLOBAL COMPACT

In October 2016, Saipem officially joined the United Nations (UN) Global Compact, from whose principles of environmental protection, respect for human and labour rights and the fight against corruption the company draws inspiration to manage an ethical and sustainable business that creates value for its stakeholders. By joining the initiative, Saipem committed itself to respecting and promoting the Ten Principles of the UN Global Compact, by integrating them in the Company's values, business strategy and operations: Saipem's commitment to protecting and promoting **human and labour rights** is evidenced by its responsibility towards its people as well as by the attention it places on having an ethical and reliable supply chain; **environmental responsibility** is demonstrated by the continuous technological development that also minimises environmental impacts and by Saipem's promotion of an 'environmentally friendly' culture among its stakeholders; Saipem is equipped with an advanced Corporate Governance system and actively takes part in the **fight against corruption**.

At the same time, Saipem does contribute to achieving the 17 Sustainable Development Goals (SDGs). In September 2015, all 193 Member States of the United Nations adopted the 2030 Agenda for Sustainable Development, a 15-year plan to end extreme poverty, fight inequality and injustice, and protect the planet. The 17 Sustainable Development Goals are at the heart of the agenda.

In working towards these goals, Saipem has specifically focused on the ones that relate directly to its core business and its ability to create value in the areas where it operates.



In 2016, Saipem officially joined the UN Global Compact. We are truly committed to making this initiative and its principles an integral part of our business strategy, day-today operations and organisational culture.

Therefore we will also continue to incorporate the Ten Principles in our decision-making processes in 2017 with the genuine conviction that an important global economic actor such as Saipem shall play its part in contributing to advancing sustainable development in all its spheres of influence.

This renewed commitment is tangible proof of our willingness to continuously improve our company and strive for constant progress while meeting the expectations of our stakeholders.

### Stefano Cao, Saipem CEO

Saipem Sustainability 2016 serves as the Company's UN Global Compact COP (Communication on Progress), reporting implementation of the principles and Saipem's contribution towards advancing the SDGs. Throughout the report, reference to and evidence of Saipem's commitment to both the Ten Principles and the Sustainable Development Goals are identified by distinct icons that represent each of the goals and principles.

AREA	PRINCIPLE	MATERIAL ISSUE		
Human Rights	<ol> <li>Businesses should support and respect the protection of internationally proclaimed human rights; and</li> <li>make sure that they are not complicit in human rights abuses.</li> </ol>			
Labour	<ol> <li>Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;</li> <li>the elimination of all forms of forced and compulsory labour;</li> <li>the effective abolition of child labour; and</li> <li>the elimination of discrimination in respect of employment and occupation.</li> </ol>			
Environment	<ul> <li>7. Businesses should support a precautionary approach to environmental challenges;</li> <li>8. undertake initiatives to promote greater environmental responsibility; and</li> <li>9. encourage the development and diffusion of environmentally friendly technologies.</li> </ul>			
Anti-Corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery.			

## **STAKEHOLDER ENGAGEMENT PROCESS**

The identification and involvement of all bearers of legitimate interests are fundamental aspects of the Company's sustainability strategy. Pursuing a constant dialogue and sharing objectives with all stakeholders are the tools through which it is possible to create reciprocal value.

In 2014, Saipem published a Management System Guideline (MSG) entitled 'Sustainability stakeholder engagement and community relations', defining the methods to be followed in the process aimed at taking into account stakeholders' interests on matters regarding sustainability. This method includes the ability both to listen to stakeholders and engage them with a customised approach with a view to strengthening the relationship and reinforcing Saipem's licence to operate in local areas.

This general approach was developed to guarantee open and transparent relations with the parties involved, tending to promote positive and reciprocally advantageous interactions. This has also enabled Saipem to build successful relations with its stakeholders in many parts of the world over the years, thereby ensuring a lasting presence and effective implementation of its activities in the areas where the Company operates.

### STAKEHOLDER ENGAGEMENT



FINANCIAL STAKEHOLDERS	<ul> <li>Continuous dialogue with the financial community (i.e. roadshows).</li> <li>Compliance with the rules and regulations designed to ensure full transparency and equal access to the disclosure of confidential information.</li> <li>Periodic disclosure of information through press releases, presentations and the documentation available on the Company website, as well as periodic meetings with institutional investors and financial analysts.</li> <li>Individual shareholders may interface directly with the Company Secretary function.</li> </ul>
CLIENTS	<ul> <li>Constant reporting and meetings on operating projects.</li> <li>Meetings with clients or potential clients are organised also including Sustainability aspects.</li> <li>Proactive engagement in HSE initiatives, such as environmental awareness campaigns or the LiHS (Leadership in Health and Safety) programmes.</li> </ul>
EMPLOYEES	<ul> <li>Committed to recruiting and retaining talented personnel and promoting their development, their motivation and their skills.</li> <li>Guarantee of a safe, healthy working environment and a stable relationship with trade unions so as to ensure an open dialogue based on cooperation.</li> </ul>
LOCAL AUTHORITIES AND GOVERNMENTS	<ul> <li>Customised engagement with governments and local authorities.</li> <li>Institutional and official relations with the authorities as well as cooperation with public bodies to launch initiatives in favour of local development programmes.</li> </ul>
LOCAL COMMUNITIES	<ul> <li>Contribution to progress in local communities in terms of social and economic development and improvement of living conditions. Each operating company or project has a specific approach that takes the Company's role and the specific context into account.</li> <li>Active involvement of local communities in the implementation of development projects.</li> </ul>
LOCAL ORGANISATIONS AND NGOS	<ul> <li>Regular publication of information, objectives and performance through Saipem institutional channels.</li> <li>Identification of organisations of proven experience with which to establish short or medium-term relations in order to facilitate the implementation of specific projects.</li> </ul>
VENDORS	<ul> <li>Commitment to developing and maintaining long-standing relations with vendors. The process of Vendor Management makes it possible to assess their reliability in terms of technical, financial and organisational capabilities.</li> <li>Proactive engagement in HSE initiatives, such as environmental awareness campaigns or LiHS programmes.</li> </ul>

### STAKEHOLDER APPROACH

## **STAKEHOLDER ENGAGEMENT IN 2016**

Identifying stakeholders and understanding their needs and expectations is an essential step for defining an effective engagement strategy in every location where Saipem operates.

	ENGAGEMENT	FEEDBACK	KEY INTERESTS
FINANCIAL STAKEHOLDERS	<ul> <li>3 main events: the <i>rights issue</i> roadshow, the <i>bond deal</i> roadshow and the <i>strategy update</i> presentation.</li> <li>Organisation of 24 road show days and attendance at 5 international investor conferences.</li> <li>3 reverse-road show days hosted in Milan.</li> <li>Over 800 individuals, including portfolio managers and buy/sell side analysts, contacted.</li> <li>More than 1,150 people attended the four quarterly financial results conference calls and webcast.</li> <li>11 financial stakeholders involved in Saipem's Materiality Assessment.</li> <li>Engagement regarding sustainability aspects with 11 organisations.</li> </ul>	High interest in the Company's management practices, particularly in corporate governance, internal control system, Anti-Corruption procedures, whistleblowing process and integrated risk management. Another topic considered highly significant concerns the management of human resources and training, as well as the management incentive plan. Stakeholders who responded to the questionnaire assessing materiality issues said that sustainability is already, or will soon become, a factor affecting investment decisions.	
	<ul> <li>Clients asked for feedback at the end of the project using the 'Customer Satisfaction' tool (59 questionnaires).</li> <li>Implementation of the HOPE programme in Azerbaijan involving client representatives.</li> <li>24 clients involved in Saipem's Materiality Assessment.</li> <li>Direct involvement in development programmes, especially in Angola and Indonesia.</li> </ul>	Clients provided their feedback through the Customer Satisfaction questionnaires, providing positive feedback on Saipem's performance. In addition, the questionnaire for the materiality assessment was used to indicate their expectations from a contractor like Saipem (mainly concerning project management and operational efficiency and flexibility).	
	<ul> <li>Implementation of the 3<sup>rd</sup> Strategy LineUp, a cascade-type process to communicate strategic priorities and corporate goals to all Company employees.</li> <li>More than 800 employees and senior managers involved in Saipem's Materiality Assessment.</li> <li>Involvement of local employees in several countries in local development programmes.</li> </ul>	The majority of employees show strong attention to sustainability themes and recognise their importance in Saipem's economic performance and future strategy. Safety and Safe operations, People Management and Business Ethics were the most important issues.	
LOCAL AUTHORITIES AND GOVERNMENTS	<ul> <li>Institutional relations and proactive cooperation to implement joint local development programmes.</li> <li>Cooperation with health ministries, hospitals or local medical centres for awareness raising projects concerning diseases such as Malaria or AIDS, for example in Angola, the Republic of Congo (hereafter 'the Congo') and Nigeria. Cooperation projects on different issues undertaken in Angola, Azerbaijan, Italy, Kazakhstan, Nigeria and Venezuela.</li> <li>9 representatives of local authorities involved in Saipem's Materiality Assessment.</li> </ul>	Observance of local laws and cooperation are priority requirements for the local authorities and governments. The opportunity to cooperate proactively on matters that are important for the country is always considered constructive and beneficial to both parties. All representatives believe that Saipem contributes to create value locally (mainly by know-how transfer, support for the local economy, transparent communication and effective engagement).	

### ENGAGEMENT cont.

### LOCAL **COMMUNITIES**



- Public and one-to-one meetings held with the population of the Kuryk village (Kazakhstan) and with local and Aboriginal community representatives in Canada.
- · Initiatives and projects for cooperation with local communities implemented in Angola, Azerbaijan, Bolivia, Brazil, the Congo, Indonesia, Kazakhstan, Nigeria and Venezuela.
- Cooperation in many countries with local schools and universities to encourage the development of human capital (i.e. internship, research projects), the distribution of scholarships and the provision of training courses.
- 16 representatives from universities and other local institutions and associations involved in Saipem's Materiality Assessment.

### FEEDBACK cont.

Representatives from local communities believe Saipem contributes to create local value mainly by know-how transfer, support for the local economy and local development projects. Feedback obtained from the local communities is monitored and in some countries, such as Nigeria and Azerbaijan, the Company has also implemented grievance monitoring systems for local communities.

### **KEY INTERESTS** cont.



## LOCAL COMMUNITY PROJECTS

**Projects implemented** 

training & education

**Projects implemented** 

ANGOLA

Spent on

professional

**INDONESIA** 

Beneficiaries

in HSE projects









**AZERBAIJAN** 

**Beneficiaries** 

**THE CONGO Projects implemented** 



of socio-economic projects

NIGERIA **Projects implemented** 

**Meetings with** local community representatives



bUU



BRAZIL **Projects implemented** People engaged



COUNTRIES **Projects implemented** 

**OTHER SOUTH AMERICAN** 



	ENGAGEMENT cont.	FEEDBACK cont.	KEY INTERESTS cont.
LOCAL ORGANISATIONS AND NGOS	<ul> <li>Several initiatives for communities developed through partnerships and cooperation with non-governmental organisations (i.e. Eurasia Foundation of Central Asia-EFCA in Kazakhstan for an educational programme; Junior Achievement Azerbaijan- JAA to reinforce the technical skills of university students; Actions de Solidarité Internationale-ASI for a women's empowerment initiative in the Congo).</li> <li>2 representatives of non-governmental organisations involved in Saipem's Materiality Assessment.</li> </ul>	Non-governmental organisations can express interest in one or more specific topics on which they focus their attention and mission. In general, the issues that appeared most important to these stakeholders concerned education, environmental protection and biodiversity, and respect for human rights with particular attention to the subject of diversity. Generally speaking, the possibility of cooperating directly with Saipem on issues of interest is considered positive and advantageous.	
	<ul> <li>Audits on social responsibility at vendor sites in China, India and Indonesia.</li> <li>HSE forum for local vendors in the United Arab Emirates.</li> <li>Engagement of local vendors to participate in development programmes in Chile, the Congo and Kazakhstan.</li> <li>72 suppliers and business partners involved in Saipem's Materiality Assessment.</li> <li>Implementation of the HOPE programme in Azerbaijan involving business partner representatives.</li> </ul>	The suppliers involved in the training sessions provided positive feedback on the activities organised. The results of Saipem's Materiality Assessment highlighted the attention of the suppliers to issues of personnel development and protecting their safety, security of assets and business ethics.	

## **HOW SAIPEM CREATES SHARED VALUE**

Saipem has grown from being an Italian-based company established almost 60 years ago to a global leader in the Oil & Gas contracting services sector specialising in onshore, offshore and drilling services. Since the beginning of its operations, the focus on working responsibly, collaborating with local stakeholders, creating long-term value, and providing innovative solutions for its clients have been key drivers of Saipem's business strategy and have generated success and recognition worldwide.

### SHARED VALUE FOR SOCIETY

Creating shared value implies embedding sustainability in the corporate culture, adopting an inclusive business model and pursuing opportunities to generate long-term positive value for society.

Strengthening the competitive context in key regions where Saipem operates is a way of contributing to the country's growth, as well as to the Company's effectiveness and productivity.

The Company's inclusive business model aims to reinforce market opportunities for local suppliers and subcontractors, including by strengthening their competitiveness and capabilities. Complementary strategies are focused on the creation of employment opportunities and a robust and widespread capacity-building effort aimed at know-how transfer for local workers, the most important legacy Saipem leaves in the countries where it operates.

In order to measure the effectiveness of its efforts,

in 2009 Saipem developed the Saipem Externalities Local Content Evaluation (SELCE) Model, to quantify the comprehensive footprint of its operations in a certain area.

The Saipem SELCE Model analyses and measures three categories of output: economic, employment and human capital development.

The Model has been applied to several countries where Saipem operates as well as to projects Saipem is executing. In each of these cases, the study demonstrates how the overall value generated locally by Saipem is larger than the mere direct contribution (i.e. local salaries, taxes and local purchases directly spent by Saipem). Every dollar invested in the local economy generates a multiplier effect.

The Human Capital Development impact is measured including the direct economic effect of training (calculated as the costs of training in the country), the indirect effect (the increased lifetime earning expectancy<sup>1</sup> associated with training), and the induced effect (calculated as the overall effect in the country of the increased earning expectancies, household consumption and taxes).

Similarly, the economic value generated in the local economy by Saipem's activities and operations is calculated by considering the multiplier effect of each

(1) Calculated over a 5-year timeframe.

### SAIPEM VALUE CREATION MODEL



**Innovation, Research** & Development

Develop innovative solutions to strengthen competitive positioning

### 2,308 patents



## Local hiring and supply and Human

· Generate profit through a competent and committed workforce

· Simplify the supply logistic

24,144 performance evaluations

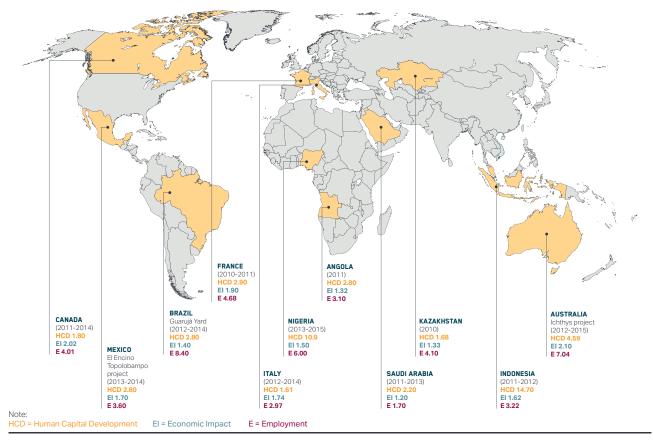
### Value for Society

- Enable the industry to meet the global energy demand
- Spread innovation culture

+85 joint and collaborative projects

- Create job opportunities and increase skills for local development
- Support the local market
- 80% of local employees 69% of goods and services ordered locally





dollar introduced into the economy by Saipem through local spending, local wages and taxes paid. The **Employment** impact is measured by the total number of jobs associated with Saipem's operations, including direct employment (direct effect), jobs generated along Saipem's supply chain (indirect effect), and the overall value generated as a contribution to the increase in household consumption levels thanks to job opportunities promoted by Saipem and its vendors (induced effect).

The multipliers achieved for a selection of representative countries/projects are listed in the graph above.



## **COMMITMENT, RESULTS AND OBJECTIVES**

ISSUES	COMMITMENTS	2016 RESULTS	2017 OBJECTIVES	UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs)
Safe operations, asset integrity and process safety	Run safe operations for people and the environment and ensure integrity of assets.	Activities to reduce risks of accidents such as developing a library of the Safety Critical Competences.	Continuation of activities to strengthen the asset integrity management system such as specific KPIs definition.	14 HE DOWNAUTER 15 DE DATA
Safety	Reinforce safety processes and people competences, including those of vendors.	<ul> <li>Implementation of safety promotion campaign for a multi-stakeholder audience.</li> <li>Training on HSE topics.</li> </ul>	Pursuing continuous improvement: • promotion and development of a safety culture; • strengthening the HSE audit planning system.	3 соорналия лачинанана Соорналия В иссля иноскано исонкони соорнан Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорналия Соорнали Соорнали
Energy efficiency	Optimise energy consumption and investigate clean technologies.	<ul> <li>Continuation of energy saving initiatives and application of new solutions.</li> </ul>	Actions to identify and implement energy saving such as realisation of energy assessments and energy saving initiatives.	7 ATTRODUCES AND COMPARENT COMPARENT 13 CLIMATE
Spill prevention and response	Reduce the environmental risks associated with the handling, storage and use of hazardous substances during operations.	<ul> <li>405 spill drills performed.</li> <li>Continuous development of innovative technologies.</li> </ul>	<ul> <li>Reduction of frequency and volume of spills.</li> <li>Spill response measures and systems improvement.</li> </ul>	14 LETEN MATER
Technological and business innovation	Align Saipem's business offer to business needs and the market scenario.	<ul> <li>Focus on subsea and SURF technologies.</li> <li>Joint-ownership and marketing agreement with Total and Veolia for SPRINGS® technology.</li> <li>Completed sea trials of the new ROVs (Remotely Operated Vehicles).</li> <li>Launch of an in-house programme to boost innovative practices ('Innovation Factory').</li> </ul>	<ul> <li>Identification or anticipation what is needed to maintain a competitive edge.</li> <li>Investment increase in technology innovation.</li> </ul>	7 AFFORMENT AN ISAN UNDER 17 PARTNERSHIPS ISAN UNDER ISAN UNDE
Anti-Corruption and ethical business practices	Run operations in compliance with ethical business best practices.	<ul> <li>Provision of training and refresher courses.</li> <li>Delivery of training on human rights.</li> <li>Issue of the Saipem Business Integrity Guide.</li> </ul>	<ul> <li>Employee awareness promotion.</li> <li>Implementation and maintenance of an adequate system of internal control and risk management.</li> </ul>	
Transparency	Provide complete information that meets stakeholder expectations and current regulations.	Prompt management of all stakeholder information requests and implementation of a customised approach to engagement.	Strengthening transparency in communications and relations with stakeholders.	16 PRACE JUSTICE INDITIONS

ISSUES	COMMITMENTS	2016 RESULTS	2017 OBJECTIVES	UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs)
Labour rights	Comply with international best practices on labour rights and monitor actual compliance.	<ul> <li>Country-level risk mapping.</li> <li>Monitoring compliance with the labour rights of International Labour Agencies.</li> </ul>	<ul> <li>Actions to develop and promote labour rights risk management and awareness among suppliers, subcontractors and employees.</li> </ul>	5       RENORF         Image: Strategy of the strategy of th
Ethical supply chain 윤국도	Promote a sustainable supply chain.	<ul> <li>Continuation of supply chain social responsibility campaign.</li> <li>Reinforcement of internal know-how on labour rights along the supply chain.</li> </ul>	<ul> <li>Implementation of a more systematic assessment of compliance with labour rights in vendor management.</li> <li>Strengthening employee awareness and competency on this issue.</li> </ul>	8 BECONT WORK AND STORE CONSIST STORE CONSIST ST
Training and development	Bring employee skills in line with business needs.	<ul> <li>Finalisation of the new Leadership Model.</li> <li>Implementation of several programmes to map, assess and enhance personnel competence.</li> </ul>	<ul> <li>Launch and continuation of training and development programmes for Saipem people.</li> <li>Dissemination and application of the newly developed Leadership Model.</li> </ul>	1 POVERTY A CONCERNMENT A CONCERNE
Local employment	Attract and develop local skills.	Promotion of local content including several specific training and career programmes to reinforce local employment.	Continuation of specific training and career programmes in countries of operation.	1       Powery         Image: Second weak weak       4         8       DECEMBENT GROWTH         Image: Second weak weak       17         Image: Second weak weak       Image: Second weak         Image: Second weak weak       Image: Second weak weak         Image: Second weak weak weak       Image: Second weak weak         Image: Second weak weak weak weak weak weak weak weak
Health and well-being	Guarantee a healthy workplace.	Consolidation of the activities regarding the protection of workers' health including those that travel.	<ul> <li>Strengthening Saipem's Occupational Health System.</li> <li>Spreading a positive health culture in all Saipem worksites.</li> </ul>	3 GOOD HEALTH 

# PROTECTING PEOPLE, ASSETS AND THE ENVIRONMENT

Being a global leader carries with it the duty to operate responsibly towards stakeholders and society. This has always been a clear and explicit commitment of Saipem and likewise has always been integrated in its business model. Conducting safe operations in order to avoid negative impacts on people, assets and the environment is a top priority: the safety of its people, its partners, local communities, together with integrity in operations are fundamental and non-negotiable values for Saipem.

This chapter describes Saipem's commitment to:

A comprehensive asset integrity management system page 22
Safety first
Safeguarding the environment while operating



21

## A COMPREHENSIVE ASSET INTEGRITY MANAGEMENT SYSTEM

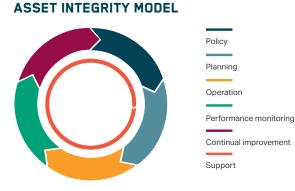
Managing Saipem assets efficiently, from R&D to the design of new vessels, equipment and yards from a maintenance perspective to operating in accordance with the highest HSE standards, is a key element of the Company's success.



Saipem strongly pursues the effective implementation of its asset integrity management system as an outcome of good design, construction and operating practices adopting the integrated management of barriers in order to reduce the risks associated with Major Accident Events (MAE).

Asset integrity refers to the prevention and control of events with low frequency and high/severe consequences on people, the environment, assets or project performance.

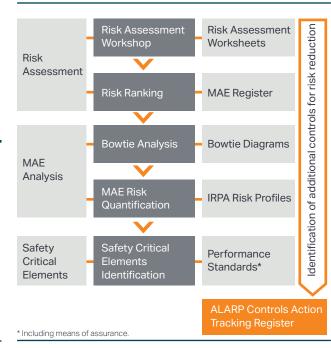
The assets involved include offshore construction vessels, leased FPSO, offshore yards and both onshore and offshore drilling units. A team has been set up to develop an Asset Integrity Management System Model in line with the best industrial practices, such as ISO 55001:2014 'Asset management' and PAS BS 55-1:2008 'Specification for the optimised management of physical Assets'. The Asset Integrity Model follows a typical Deming cycle, also commonly known as a PDCA (Plan-Do-Check-Act) cycle.



The planning phase includes the development of a Safety Case (a document that identifies the hazards and risks; describes how the risks are controlled and the safety management system in place) and the definition of consistent Key Performance Indicators (KPI) for Asset Integrity.

The Safety Case, traditionally developed for offshore production and drilling units, has been extended by Saipem also to offshore construction vessels in order to:

- assess the risks of all activities and create a unique risk management database for each business unit;
- identify potential Major Accident Events and perform a detailed analysis on relevant preventive and mitigative barriers;
- reduce risks to a level that is As Low As Reasonably Practicable (ALARP).



### TYPICAL VESSEL SAFETY CASE WORKFLOW

### ASSET LIFE CYCLE MANAGEMENT

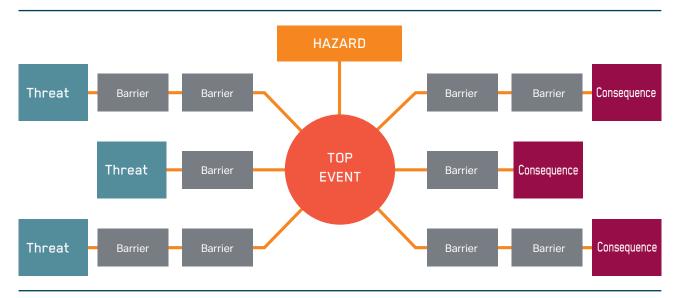
Saipem has a specific department within its organisational structure committed to ensuring the optimal comprehensive management of assets that also includes asset investments and maintenance.

The main mission of the Asset Department is to ensure that company assets are properly operated and maintained in order to reduce, as low as reasonably possible, the risk level to people, the environment, and in general to the company. This is achieved by implementing industry best practices and solutions and building strategic core competences and capabilities.

	MAIN OBJECTIVES	
Asset Investment	<ul> <li>Prepare an investment plan technically and financially in line with the business needs and development strategy.</li> <li>Efficiently manage investment projects, satisfying defined technical and schedule requirements.</li> </ul>	International Safety Management (ISM) Code for Vessels The significant impact
Asset Management Engineering	<ul> <li>Plan asset allocation in order to optimise and maximise asset use.</li> <li>Guarantee asset technical availability for the operating projects.</li> </ul>	of management practices on the safe operation of vessels has been recognised internationally. To provide the maritime community with an internationally recognised standard for the safe management and operation of ships and pollution prevention, the IMO (International Maritime Organisation) developed the ISM code.
Asset Maintenance	<ul> <li>Guarantee the safety of personnel and avoid any environmental impact.</li> <li>Improve the effectiveness of maintenance activities, prepare a maintenance plan and continuously monitor its progress.</li> <li>Minimise life cycle costs and the efficient use of resources and optimise the use of spare parts and their management costs.</li> <li>Operate in line with the standards outlined by International Organisations.</li> </ul>	

All the potential Major Accident Events identified in the Safety Case are further analysed using Bowtie methodology. The Bowtie approach is based on the idea of combining the analysis of the causes (fault tree) and the analysis of the consequences (event tree) into a single chart in order to show the full range of initiating events, identify safeguards (barriers), have an overall view of barrier relationships on both sides of the Top Event, and identify all possible consequent outcomes of Major Accident Events.

Barriers are functional groupings of safeguards and controls, selected to prevent or limit the effect of a Major Accident Event, generally made by a combination of Safety Critical Elements (SCE).



### SAMPLE OF BOWTIE DIAGRAM

### FOCUS ON OFFSHORE CONSTRUCTION VESSELS

Specifically, for offshore construction vessels, the analysis of the international standards has clearly shown that traditional KPI addressing occupational health and safety are not adequate for monitoring the key elements of the Asset Integrity Management System.

The peculiarity of the activities performed by offshore construction vessels has made it necessary to develop a customised set of KPI, both lagging and leading, to ensure adequate monitoring of the Asset Integrity Management System. All key information will be made available as a decision-making tool for continual improvement.

Safety Critical Elements can be classified into three families: Safety Critical Equipment; Safety Critical Procedures; Safety Critical Competences. Each SCE is supposed to work according to specific requirements, called Performance Standards. Performance Standards for Equipment are well defined in the literature. Maintenance, considered a key activity for Asset Management System, is carefully monitored and verified in particular for any equipment identified as Safety Critical. An ad-hoc IT system is used to manage the whole process in order to guarantee compliance with manufacturers' requirements for equipment. On the contrary, there is no international reference to define Performance Standards for Safety Critical Procedures and for Safety Critical Competences on which definition Saipem has worked, identifying key parameters.

According to the Asset Integrity Management System, assets operate within their limits and in such a way as to ensure that barriers are not compromised and carry out their function according to Performance Standards. To guarantee assurance and assessment of the Barriers, activities such as inspection and maintenance, monitoring of failures/incidents, management of change, management of overdue work orders related to maintenance and Competence Assurance & Assessment (see pages 57-58) are performed.

Change management is of paramount importance, therefore, the procedures that regulate management of change and management of overdue work orders have been reviewed, in order to further guarantee that: (i) any modification affecting Safety Critical Elements does not jeopardise Asset Integrity; and (ii) any maintenance overdue on Safety Critical Equipment is carefully monitored, risk assessed and mitigated.

Saipem has also worked on the development of a library of the Safety Critical Competences associated with the barriers of Vessel Safety Cases, starting with a case study on Saipem 7000. A link between the job roles and the Safety Critical Competences has been created in order to ensure that all Saipem personnel assigned to Key Roles undergo a Competence Assurance and Assessment process, in line with International Marine Contractors Association (IMCA) requirements.

Continuous monitoring is performed through the analysis of KPI and Internal Audits. Specific tools are being developed to address safety critical elements during auditing activities.

### FOCUS ON SAIPEM DRILLING BUSINESS UNIT

The Unit has developed a safety campaign called 'Know Your Barriers' with the aim of increasing knowledge of the contents of Vessel HSE Cases, analysing major risks, improving the understanding of SCE and their monitoring activities given the relevant roles and responsibilities onboard. The Safety Campaign was launched on several offshore drilling rigs (Scarabeo 5, Scarabeo 8, Scarabeo 6 and planned for the Saipem 10000 in 2017) and the benefit of these activities is clearly evident especially with regard to employee knowledge (around 400 employees where involved) and the understanding of their roles and responsibilities in managing 'barriers' onboard offshore rigs and the impact of maintenance and verification with regard to major accident prevention and mitigation.

### MAIN RESULTS AND OBJECTIVES

Saipem has been analysing its Document Management System and working to align all processes relevant to Asset Integrity, already existing in Saipem, in a comprehensive model that will be described in a dedicated operating procedure.

A specific plan is being developed to cover any gaps identified in the Saipem Management System, as a result of the above mentioned analysis.



Safety is a real value at Saipem and an integral and key part of its business model. Saipem seeks to be a global leader in Health, Safety & Environment performance, just as it is in the management and delivery of EPC(I) and drilling projects for the Oil & Gas industry and in the design and construction of chemical plants, energy production facilities and infrastructures.



To guarantee the safety of all people – whether Saipem people, local communities or partners – Saipem has developed a comprehensive HSE Management System based on four principles: 'No injury to people nor the environment' is everyone's aim; manage employee, subcontractor, client and environmental risks in order to mitigate the impact of activities; promote and develop a safety culture; pursue continuous improvement.

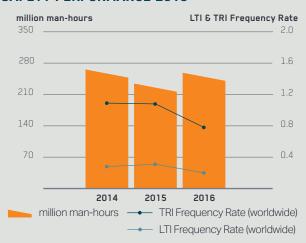
The Risk Assessment process, one of the most important HSE system processes, consists of different steps and aims to manage risks whose significance cannot be considered negligible. Since this process is dynamic, each risk assessment is reviewed periodically (at least every year) or in the event of any changes, new legal requirements or significant incidents. The HSE Management System Saipem has developed meets the requirements of all applicable laws and is certified to international standards ISO 14001 and OHSAS 18001. Saipem companies with an HSE significance assessed as 'high' employs about 32,000 people, of which more than 80% work for companies covered by third party issued ISO 14001 and OHSAS 18001 certifications. In order to manage such a comprehensive HSE

Management System, Saipem has:

- issued a formal corporate **HSE policy** (it defines strategic guidelines and reference principles);
- identified clear **responsibilities** (three levels of responsibilities identified, considering the proximity to the sources of risks);
- developed **training programmes** (they are an important part of the HSE system implementation and an important preventive action to reduce risks);
- implemented a **feedback collection system** (since safety performance includes feedback from contractor personnel, the HSE&S function contributes to the vendor feedback collection system by supporting the relevant procurement function).

Q For further information on Vendor feedback see page 51.

### SAFETY PERFORMANCE 2016



It should be noted that safety data, including project based HSE training, also includes Saipem's subcontractors operating within the work perimeter (not necessarily geographic) in which Saipem is responsible for designing, implementing and monitoring HSE standards.

A value of 0.78 TRIFR was recorded in 2016, significantly better compared to previous years, the annual target (1.04) and industry benchmark data. This result is definitely connected to the many initiatives aimed at maintaining occupational safety standards at the highest levels at all Saipem locations. Unfortunately one fatal injury occurred in 2016 to one of Saipem's subcontractors in an outdoor fabrication yard (located in the UAE) during the installation of pyramid supports required to support different structures and systems.

Q Further details on this performance can be found in the 'Sustainability Statements' of the Annual Report 2016.



### THE 5 LIHS PROGRAMME PHASES



### A CONTINUOUS IMPROVEMENT APPROACH

The Management Review completes the continuous improvement cycle and lays the groundwork for the next planning cycle, drawing on the data and information made available by the HSE control system through monitoring, reporting and audit activities.

The HSE Review:

- analyses results with regard to defined objectives;
- verifies the execution, or progress, of any corrective or preventive actions defined in the previous Review;
- identifies improvement objectives for the subsequent period;
- records any changes which have occurred in the regulatory, internal or external context that affect HSE activities.

### LIHS PROGRAMME OVERVIEW

Leadership in Health and Safety (LiHS) is a cultural change programme whose aim has been, since its launch in 2007, to continuously improve Saipem's safety culture. LiHS is rooted in the strong belief that leadership is the key to achieving a cultural change within an organisation since leaders are the ones who direct others in the organisation to follow and represent the commitment to change. The methods used are innovative, based on interactive participation instead of lectures. The participants are driven through discussions, group exercises and role-playing games by expert facilitators and together reach shared conclusions and answers. The movie 'The safer the better' which is shown to participants helps to focus on the LiHS messages. Saipem leaders, starting from top management down to department and unit managers, are the first target of the LiHS programme which consists of 5 phases. Over the years the LiHS programme has evolved considerably and today projects and sites are encouraged to adapt the programme, tailoring the phases to match their specific practical needs, with the support of pools of LiHS facilitators and local LiHS teams. Furthermore, the programme sees the participation of clients and subcontractors.

### Leadership in Health & Safety Offshore 'Re-boot'

As an outcome from the 'We Want Zero' campaign (WWZ, an initiative launched in 2014 that aims to reduce fatal accidents to zero within the organisation) and starting from 2015, a robust strategy was developed to 're-boot' the LiHS campaign within the fleet to strenghten the level of engagement. Saipem Offshore Business Unit managers expressed their own personal commitment to lead the process. To support vessel management in the implementation, a 2-day workshop was developed around the fundamental questions relating to safety leadership and organisational safety culture, and the provision of tools to enable participants to return to their respective work locations with the knowledge and skills to allow a very real 'move to action'.

Based on the lessons learned in previous experiences, Vessel Management Teams (VMT) and their first line supervisors were directly involved to positively influence the majority of the personnel on-board their vessel. First line supervisors are often young, energetic and as such, the perfect target for creating and spreading a new generation of 'conscious' Safety Leaders.

### Workshops delivered between October 2015-December 2016

Following the workshop, the second phase of the LiHS process saw the 'cascade' of the VMT's personalised Safety message to their front-line supervisors as well as delivery of the Leading Behaviours campaign (LiHS Phase 4).

Leading behaviour events

3,223

Personnel involved

Supervisors' workshop was developed in line with the Saipem safety culture, 5 Stars intervention (LiHS Phase 3) and the Leading Behaviours (LiHS Phase 4). While all Saipem vessels were engaged in the first part of

Since the role of the front-line supervisor is critical

to the success of the campaign, a one day 'LiHS for

While all Salpem Vessels were engaged in the first part of the re-boot process, a maintenance phase with the aim of supporting the vessels with their current campaigns (LiHS phase 2, 3 and 4 activities) is ongoing. Furthermore, the delivery of the Choose Life campaign (LiHS Phase 5) will start in 2017 after a series of *Choose Life train the trainer* workshops were performed in 2016 in order to train doctors from Saipem vessels to be aligned with Choose Life tools and methodology.

### LIFE SAVING RULES CAMPAIGN

Saipem's process towards the goal of achieving zero accidents started by implementing LiHS in phases and continued with the introduction of the Life Saving Rules (LSR), the 'gold standards' for safety compliance within

## SAFETY LEADERS CHAMPIONSHIP IN THE DRILLING BUSINESS UNIT

As a We Want Zero initiative, the 'Safety Leaders Championship' was developed to increase individual and collective leadership, rewarding initiatives promoting operational safety and operational improvements performed by personnel, empowering the crew to intervene and stop unsafe acts and stimulating participation in HSE training courses. While in 2015 the contest was organised on board the Saipem 12000, in 2016 it involved management and crew personnel of Saipem 10000 and Perro Negro 8.

### Saipem 10000

The Campaign was presented on June 20, 2016 with a meeting that saw the participation of the entire management on board and in which the guidelines of the campaign, methods and aims of the project were defined. Once defined, the initiative was presented to the crew in two training sessions and during the General Safety Meeting. The 22 teams involved got into the spirit of the initiative right from the start, observing and reporting unsafe situations and conditions, sharing information and giving way to a correction, improvement and prevention process.

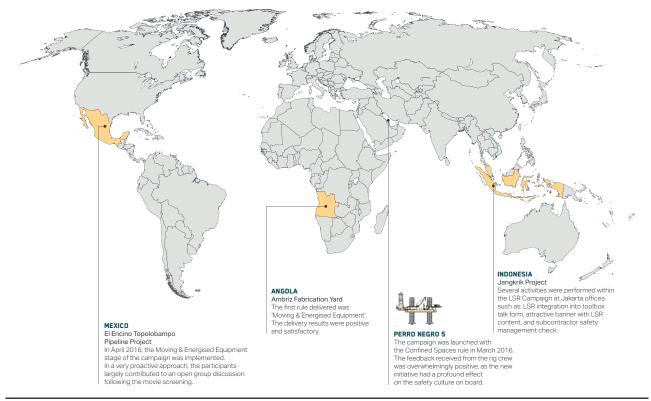
On September 25, 2016, the Saipem 10000 celebrated its second LTI-free year: an excellent goal to which the Safety Leaders Championship also contributed.

### Perro Negro 8

Managing safety effectively on board an offshore rig is not an easy task. For this reason the Safety Leaders Championship programme was launched on Perro Negro 8 at the beginning of 2016. The initiative was fully supported by the Rig Management and it involved the entire rig crew: 12 teams from 3 departments (drilling, technical and marine) actively participated in the 6-month programme. Each team was led by a Safety leader, changed on a bi-weekly basis, who provided support and encouraged team members to work safely to achieve good operational and safety performance results. One of the outcomes of the Championship was the increased number of the Safety Hazard Observation Cards (SHOC) submitted compared to the previous period, with an average of 1,500 submissions per month. 10% of SHOC were about workforce personnel interventions to correct an unsafe act or condition.

On October 24, 2016, Perro Negro 8 celebrated 1 year without a Lost Time Injury.





the Saipem industry implemented by the 'Institute of Oil & Gas Producers' Association (IOGP).

To ensure companywide awareness of the rules and considering its high level of multiculturalism, Saipem's challenge was to unify its personnel in embracing a common safety vision. To adapt the campaign to its specific context, being more efficient and effective, Saipem has developed its own campaign, based on the IOGP guidance but more accessible to its people, increasing the awareness of the rules, their scope and individual personal expectations.

Out of a total of 18 Life Saving Rules, Saipem selected its own key rules based on an analysis of its safety performance and risk profile which resulted in the identification of 3 core rules (Safe Working at Height, Confined Spaces and Moving & Energised Equipment) and 3 supplementary rules (Personal responsibilities, Vehicle operations, Operation specific rules). To stress the importance and safety message of the campaign, videos on Saipem core and supplementary rules were recorded, inviting all the viewers to critically consider a fundamental and common question: *what extra effort can you make for this process to be even safer*? The campaign was launched by Saipem's CEO at the end of 2015 and, via cascade meetings, communicated to business unit managers, who 'kicked-off' the campaign within their own respective units by organising events with their reporting management teams. At local level, campaigns have been implemented since 2016.

People reached by the LSR campaign launch, including clients and subcontractors*	+5,500
LSR campaigns launched since the beginning*	108
People reached by each stage of LSR campaign since the beginning*	+24,000

(\*) Figures as at January 10, 2017.

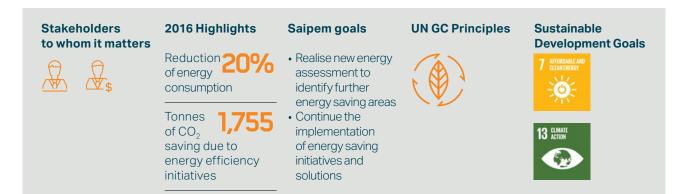
## SAFEGUARDING THE ENVIRONMENT WHILE OPERATING

Saipem has adopted an Environmental Management System certified in accordance with the international standard ISO 14001, a tool for minimising and keeping any environmental impact arising from its activities under control, as well as for regularly striving for continuous improvement. Environmental aspects pertaining to all activities performed both directly by Saipem and by its subcontractors are systematically identified and assessed.

Saipem pursues continuous improvement for its environmental performances. A key element of this strategy is promoting a well spread environmental awareness and the implementation of best practices at all Saipem construction sites and projects. These also include pollution prevention, energy and water saving, and promoting waste reutilisation and recycling. As an official member of the UN Global Compact from whose Ten Principles it draws inspiration, Saipem's commitment to the environment also falls within its adherence to Principles 7, 8 and 9.

# **SAIPEM'S APPROACH TO ENERGY EFFICIENCY**

Saipem is constantly committed to the containment of greenhouse gas (GHG) emissions resulting from its activities. Growing attention to climate change issues represents not only a commitment for Saipem but also an opportunity.



Saipem's approach to energy efficiency (and consequently emissions) has become increasingly more structured over the years, developing a method for estimating emissions for each specific source of emissions. All Saipem projects and sites monitor and communicate energy consumption and air emission data on a quarterly basis.

Energy assessments have been carried out since 2013 on a number of offices, vessels, work sites and drilling vessels. Over the years, Saipem has implemented many initiatives aimed at increasing the energy efficiency of its operations, for example the optimisation of the shipping routes for its vessels. It has also structured several training tools to increase knowledge and raise awareness on environmental issues, such as participation in international campaigns, organising events and drafting and disseminating communication tools. Saipem has answered the 'Carbon Disclosure Project' questionnaire relative to the Company's approach to climate change since 2009.

### **ENERGY EFFICIENCY ASSESSMENTS**

In recent years Saipem performed energy efficiency assessments at 14 sites, 4 of which were performed in

2015: Karimun Construction Yard (Indonesia), Arbatax Construction Yard (Italy) and two Italian office buildings. The choice of assets to be analysed is decided based on criticality in terms of consumption, level of control, real possibility of intervention, and need for regulatory compliance.

In 2016, Saipem implemented all the most cost effective measures identified during the previous years' audits in order to reduce energy consumption,  $CO_2$  emissions and operational costs.

The measures implemented include:

- Diesel generator power management improvement (utilisation of diesel generators at their most efficient load of work);
- Limitation of equipment stand-by power consumption (best practice of turning off equipment instead of leaving it in stand-by);
- · Limitation of artificial light usage during daytime;
- Repair of damaged pressurised air lines;
- Implementation of VFDs (Variable Frequency Drivers);
- Implementation of more efficient lighting systems (substitution of neon with led).

### **GOALS AND TARGETS**

Saipem constantly strives to improve energy efficiency and reduce GHG emissions. This process is expected to be carried out throughout 2017 by implementing the following steps:

- extending the energy assessments to 5 more vessels chosen considering their expected lifetime and workload;
- extending the use of the route optimisation software to the offshore drilling fleet;
- utilising the study 'Technologies for the Energy Efficiency and for the Minimisation of the Environmental Impact for new Accommodation Camps in Onshore Projects and for Other Assets' to implement environmentally friendly technologies in different accommodation camps;
- issuing the standard procedure 'Identification of significant environmental and social aspects'.

In 2017, Saipem will evaluate the effectiveness of the measures implemented by tracking the energy consumption of the sites involved.

545,681

### ESTIMATED SAVINGS AT KARIMUN AND ARBATAX YARDS IN 2016

litres of diesel

MWh of electric energy

tonnes CO<sub>2</sub> emission

### OPTIMISING ENERGY SAVING IN OFFICE BUILDINGS

Saipem at the end of 2015 moved the offices of the Ravenna logistic base (Italy) from the old prefabricated building to a newer building where several energy efficiency systems were adopted:

- walls and windows with high thermal insulation;
- high efficiency HVAC (Heating, Ventilating and Air Conditioning) units and water boilers;
- automatic lighting activated by photocell in common toilet;
- autonomous temperature management system for each room.

### **SAVINGS AT RAVENNA LOGISTIC BASE IN 2016**

### MWh

114

### tonnes CO<sub>2</sub> emission

A photovoltaic system comprising 56 modules was installed on the roof (16.8 kW peak in total), that went on line in January 2016.

In contributing to the above mentioned savings, the photovoltaic panels led to a saving of 7 tonnes of  $CO_2$  emissions and produced 18.5 MWh.

### **ROUTE OPTIMISATION**

In 2016, Saipem continued the initiative of voyage optimisation for offshore vessels through the use of Route optimisation software. The software was applied to Bar Protector, FDS and FDS2.

Route optimisation consists of the identification, through real time satellite evaluation, of the optimal route a vessel should follow in order to reduce navigation time and therefore fuel consumption. The best route is detected each day by taking weather conditions and marine currents into consideration. Starting from 2017 route optimisation will be standardised for every long route.

### **SAVINGS BY ROUTE OPTIMISATION IN 2016**

tonnes of fuel	<b>58</b>
tonnes of CO <sub>2</sub> emission	181

### REDUCTION OF ENVIRONMENTAL IMPACT OF ACCOMMODATION CAMPS

Saipem onshore projects are usually located in remote areas, often requiring temporary camps for Saipem workers. These camps represent a significant part of energy consumption.

Therefore, in 2016 Saipem developed the study 'Technologies for the Energy Efficiency and for the Minimisation of the Environmental Impact for new Accommodation Camps in Onshore Projects and for Other Assets' to identify technologies that could bring savings in energy and water consumption and improve waste management.

In addition, operative tools were developed that could support the choice of the best technologies to implement.



### FOCUS ON REDUCING CO<sub>2</sub> EMISSIONS (ENERGY EFFICIENCY, CO<sub>2</sub> MANAGEMENT AND RENEWABLES)

The conclusions of COP-21, targeting containment of the mean temperature increase to 'well below 2 °C' by the end of the century, will require extensive deployment of measures to reduce  $CO_2$  emissions into the atmosphere. Saipem is building a technology portfolio to address different options:

- technologies to improve energy efficiency;
- CO<sub>2</sub> management: i.e. purification of natural gas from reservoirs with a high CO<sub>2</sub> content or directly capturing CO<sub>2</sub> from combustion flue gas in power generation and industrial processes;
- · technologies in the field of renewables.

### Technologies for improving energy efficiency

The development of a novel process scheme for the re-gasification of LNG with reduced energy consumption was completed in collaboration with *Politecnico di Milano*.

*Q* For further information see the chapter 'Innovation: the key to competitiveness'.

### CO<sub>2</sub> management

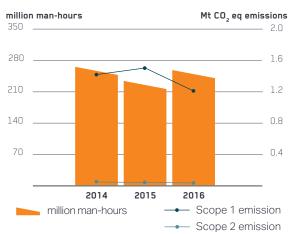
There is considerable promise for power generation from natural gas in this field, including the capture

of CO<sub>2</sub>, while maintaining high transformation efficiency. Novel cycles using supercritical CO<sub>2</sub> as a working fluid appear to be an interesting solution. Worldwide deployment of Carbon Capture, transportation and geological Storage (CCS) will be necessary to hit the targets of global warming mitigation set by the COP-21 agreement. By taking advantage of this trend, Saipem can master the whole chain of CCS thanks to its solid background in process technology (particularly in the field of Urea, where management of  $CO_2$  is a standard feature), pipeline fluid transportation over long distances and onshore and offshore drilling Exploitation of gas fields with a high CO<sub>2</sub> content may be an early step in applying CCS techniques. In addition, other technologies are being studied

such as cryogenic separation which may be a flexible approach for application to different situations.

### Technologies in the renewables field

Efforts are mostly concentrated in offshore wind, the most synergic source with Saipem's characteristic core activities: several new solutions are being developed in the field.

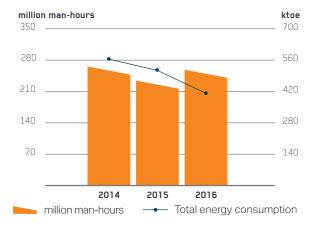


### **TOTAL GHG EMISSIONS**

In 2016, the total value of Saipem Scope 1 emission was 1,203.4 kt  $Co_2$  eq (1,504.2 in 2015 and 1,420.1 in 2014). Regarding the scope 2 emissions the total value was 38.9 kt  $CO_2$  eq.

Q Further details on this performance can be found in the 'Sustainability Statements' of the Annual Report 2016.

### TOTAL ENERGY CONSUMPTION

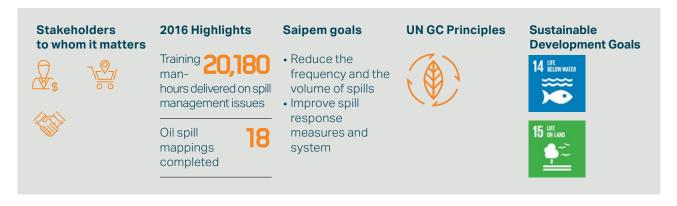


In 2016, Saipem consumed 411.7 ktoe of energy (514.0 in 2015 and 564.3 in 2014). Energy consumption by worked-man hours decreased significantly in 2016 (1.59) compared to 2015 (2.19) and 2014 (2.12).

Q Further details on this performance can be found in the 'Sustainability Statements' of the Annual Report 2016.

## SAIPEM'S APPROACH TO SPILL PREVENTION AND RESPONSE

In line with its HSE Policy and Corporate Standards, Saipem adopted a pollution prevention approach as a guiding principle for all of its activities, using its best efforts to prevent and take all reasonable precautions to avoid pollution or contamination of the land, air or water.



Given the results of risk analysis on Saipem operations, spill prevention and preparedness are a top priority. Saipem performs its operational activities to avoid the risk of a spill or, whenever a contingency occurs, to implement measures and actions to prevent its escalation.

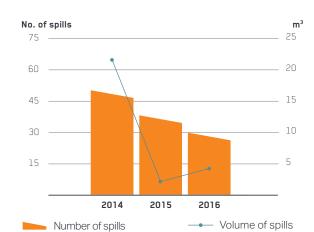
Saipem's strategy to prevent and manage spills is based on the following cornerstones:

- 1. **Prevention**: action has been taken to harmonise and improve processes and the operational control of those sites and vessels most at risk.
- 2. **Training and preparedness**: specific training packages are periodically delivered on spill prevention and spill drills to strengthen emergency management skills.
- 3. **Emergency response**: all Saipem sites have the necessary equipment to tackle any emergency which may arise.
- 4. Reporting: the data concerning spills and 'near misses' are monitored and subsequently analysed to assess the causes and prevent recurrence. Each quarter, environmental bulletins and reports are disseminated throughout the Group in order to share the 'lessons learned'.

Fully aware that even under the best conditions emergency response and recovery may only be partially effective, Saipem is strongly committed to improving 'Prevention' and 'Preparedness'. This means that prevention is by far the most important area to be taken into account as well as being the most cost effective. Starting from the identification of the main situations in which a spill of pollutants may occur, specific procedures define systems to control and avoid any release. All personnel involved in spill responses are duly trained in emergency drills carried out regularly as part of annual drill plans, also in collaboration with clients and other entities involved. Drills take into account various scenario types in order to foresee all possible kinds of spills.

## Spill drills performed

# 405



### SPILL NUMBER AND VOLUME

The spill number (30) decreased in 2016 compared to 2015 (38) and 2014 (50). Although the spill volume increased compared to 2015, the value is still contained.

All incidents are reported and investigated appropriately in order to establish the causes and identify corrective actions to prevent such events from happening in the future.

Q Further details on this performance can be found in the 'Sustainability Statements' of the Annual Report 2016.

### **OIL SPILL RISK ASSESSMENT**

In 2015, Saipem started to plan performing spill risk assessments for all its assets. Through a rigorous and consistent method, the assessments assigned a risk level for every piece of equipment on site in order to evaluate

## FOCUS ON OIL SPILL PREVENTION

Saipem has a very important tradition in the field of Oil Spill Response and has been involved in different and significant experiences such as the deepwater oil recovery loss from the Prestige oil tanker in Spain in 2004, plus other experiences in the Far East between 2007 and 2010. In addition, Saipem has also offered a comprehensive Oil Spill Response service to Eni over the years, including related training activities. The continuous development of innovative methodologies and solutions for 'oil spill response preparedness' has recently resulted in the acquisition of a major project ('Subsea Well Response Project' - SWRP) for a consortium of oil companies.

• Offset Installation System in the framework of SWRP: SWRP is a non-profit joint initiative of a few major Oil & Gas companies, aimed at developing solutions to respond quickly and efficiently to future subsea well-control incidents. SWRP has assigned a contract to Saipem for the engineering, procurement, fabrication and testing of the Offset Installation Equipment, a tool designed to install a capping stack on a blowout well without requiring direct vertical access. This will allow support vessels to stay outside the zone in which it is unsafe to operate.

More in general, an extensive and unified endeavour in the field of 'oil spill monitoring & intervention', involving all of Saipem's offshore, onshore and drilling businesses, is currently underway:

- Early Warning Integrated System (EWIS): this system, developed with an Italian aerospace company, will be an innovative data collection and decisional support platform for a very early and effective response to oil spills. It is a well-known fact that the best way to minimise environmental damage in the event of an incident is to take proper action in the shortest possible time. It is estimated that oil spills should be secured within 72 hours of their occurrence to avoid major negative consequences. EWIS will collect, integrate and elaborate data from different sources (satellite, aerial, radars, fixed observational structures, etc.) related to the detection, movement and degradation of oil slicks.
- Intervention Tool for cleaning Oil spills: the current response service generally relies on technologies that are mainly based on contaminated water containment, oil particles breaking-up by use of chemicals and shipment of the recovered oil to shore for dedicated treatment. The aim of Saipem's proprietary solution would be to provide worldwide availability of modular and containerised 'plug and play' units for easy transport and lifting/installation onto offshore vessels.

wherever the risk is unacceptable and to provide a priority order for the implementation of risk reduction measures. This consists of 3 different steps:

- 1. Mapping all the equipment capable of generating oil spills or other substances hazardous to the environment;
- 2. Assessing the risk through a qualitative evaluation of: a. Probability of release;
  - b. Magnitude of the consequences for the environment;

3. Implementing prevention and mitigation measures. In 2016, Saipem completed the mapping for almost the entire offshore construction fleet (15 vessels mapped), of 2 offshore drilling rigs (Scarabeo 9 and Saipem 12000) and of one drilling barge (TAD).

Moreover, in 2017 Saipem plans to complete the Oil spill mapping of all the offshore drilling rigs, perform several Oil spill risk assessments and start the implementation of risk reduction measures.

# A BUSINESS EQUIPPED FOR THE LONG-TERM

For Saipem, sustainability means being competitive in the long-term. This is achieved through the continuous development of innovative solutions and by conducting business in accordance with the highest integrity standard. Taking into account the complexity and competitiveness of the market context, and the need to consider and fulfil all the interests and expectations of stakeholders, it is vital for Saipem to clearly define the values and principles it accepts, shares and promotes. Saipem is a responsible employer and is aware of its influence and impacts. For this reason Saipem is committed to promoting positive behaviour even outside its own operative boundaries.

This chapter focuses on:

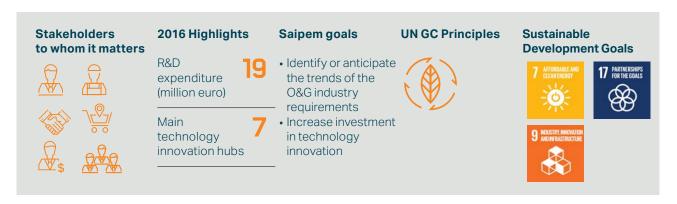
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# saipem

INNOVATION: THE KEY TO COMPETITIVENESS

Due to changes in the global scenario of energy sources and increased exploitation costs, the Oil & Gas industry needs to continue to focus on pursuing innovation to cope with challenges in the near-future. Saipem has a long tradition in innovation driven mostly by frontier operations; however, a step-change impulse and a new innovation strategy is now necessary, both in scope and intensity, to cope with the current market scenario.



It is clear that in the current low oil price environment, innovation and technology development are expected to be even more of an effective and strategic leverage to support the restructuring phase of the Oil & Gas industry and this view has been fully endorsed also at Saipem. A strong propensity to change, continuous technological development, adapting new instruments and successful operating methods is in Saipem's DNA. However, the general figure of the Oil & Gas industry has pushed Saipem to do even more than in the past, considering Technology Innovation as one of the founding bases of the new Strategic Plan. In this frame, Saipem has recently decided to renew its

own technology innovation strategy based on three main pillars: • Technology Development: applied to tools, equipment

- Iechnology Development: applied to tools, equipment and technologies for commercial project execution, integrated systems with a high technological content, technologies licensed by Saipem, etc.;
- Transformative Innovation: to change processes and how Saipem works to boost productivity and chase new value propositions, all the while being even more open to the 'ecosystem' and taking advantage of digitalisation technologies;
- **Technology Intelligence**: to scout new technologies within and outside of the Oil & Gas industry to identify disruptive emerging technologies as opportunities to have a high impact on Saipem business.

### SAIPEM'S INNOVATION MODEL

The success of many of Saipem's projects, as well as one of the main sources of the Company's competitiveness, is driven by technological advances. Saipem's technology approach is strongly oriented to projects/services execution. As a consequence of the proximity to the business of most of Saipem's innovation activities, two main types of technology innovation are currently being realised:

- Research and Development: activities with a higher innovative content and medium-term target (only these activities are explicitly reported in the balance sheet of the Company);
- **Technology Applications**: internal development activities close to final deployment and technologically more mature, directly developed in projects/assets and also with clients.

It is essential to consider both the innovation categories in order to clearly picture Saipem's innovation effort.

### The overall 2011-2016 portfolio

In 2017, in relation to the new innovation strategy, overall innovation investments will at least double with respect to the average of the last few years.

The main general drivers are cost reduction and/or productivity increase; improved safety and/or operability and environmental protection.

### MAIN TECHNOLOGY CENTRES AND RESOURCES

As Saipem's Technology Innovation is strongly focused on projects and services execution, several centres, close to engineering hubs and operations, are responsible for the execution of most of the activities in different locations.

People involved on R&D activities\*

Main Technology Innovation Centres -100 7

(\*) As Full Time Equivalent.

### **INTELLECTUAL PROPERTY (IP)**

Technological know-how is a strategic and fundamental asset for Saipem and, as such, must be suitably managed, developed and protected. As a consequence, the strategic aim is to address the company's ability to generate commercial and competitive value from IP, more specifically by:

- stimulating the generation of innovative ideas (and developing most of the consequent IP);
- strategically managing the portfolio in order to guarantee the best trade-off between the generation of new intellectual property and containment of the dedicated IP budget;
- using Saipem's IP to gain advantages in operating commercial projects, licensing and establishing technology alliances.

### Patents in force

2,308

#### New patents filed in 2016

As a broad strategy, IP is generally developed for internal use in commercial projects in the offshore business, while it is mostly licensed out to third parties in the onshore business.

# TECHNOLOGY INNOVATION IN THE ONSHORE BUSINESS

The focus in the onshore business is on improving overall sustainability of projects through the capacity to design plants with higher performances and availability while integrating them with the surrounding environment. This is reflected in Saipem's innovation effort in the following areas: in gas monetisation, leveraging the strong competences to maximise the efficiency of the complete value chain, in refineries, focusing on the total conversion of oil's bottom of the barrel, and thoroughly

### **EXTERNAL COLLABORATIVE EFFORTS**

Saipem actively cooperates with several external entities both within and outside the Oil & Gas industry. This allows Saipem to be receptive to crossover technologies. Therefore, increasing efforts in 'Technology Scouting' have been implemented. In this general frame, Saipem has always demonstrated a collaborative approach, leveraging on a broad network of technology suppliers, universities (such as Politecnico di Milano, Universities of Padova, Bologna, Pisa, Urbino, Rijeka, Tulsa, etc.), research centres (i.e. Fraunhofer IKTS), university spin-offs, start-ups, commercial partners, as can be seen by the number of collaborations and Joint Industry Projects (JIPs) between oil majors and field service providers or contractors, activated in the last few years.

# Joint Industry Projects since 2013

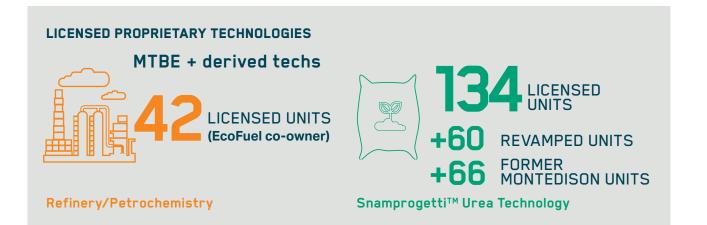
+60

Collaborations with universities, spin-offs, research centres

investigating the management of CO<sub>2</sub>. More specifically, implementation is proceeding for a multi-year plan to keep the proprietary fertiliser production technology '**Snamprogetti™ Urea**' at the highest level of competitiveness. After completion of the development of the novel '**Supercups™**' trays, ongoing activities include:

- improving resistance to corrosion and cost reduction through the development of novel construction materials;
- decreasing energy consumption through optimisation of utility systems;
- reducing the environmental impact ('Urea Zero Emission') through highly innovative solutions is under development.

As regards LNG Regasification, the final step of the LNG value chain, Saipem, in cooperation with the 'Politecnico di Milano' university, has explored ways to reduce the consumption of this high energy consuming process. The schemes assessed as viable are mainly based on Direct Expansion, Cogeneration and Organic Rankine Cycle technologies; results achieved show that a significant



### FOCUS ON ASSET INTEGRITY MONITORING (AIM)

Asset Integrity Monitoring is a broad term for many different applications, methods, technologies and practices, that participate in the life cycle management of any asset.

One of the historical applications at Saipem was in Pipeline Integrity Management (PIM) activities, starting from onshore trunklines transporting oil or gas, typically in the presence of hazardous conditions and then moving towards offshore applications. Saipem's application covers from the early engineering phases (conceptual, pre-FEED) throughout the entire value chain (EPCI, commissioning, operation & maintenance). Technologies for pipeline monitoring went from punctual monitoring (extensimeter, vibrating wires, Fibre Bragg Grating sensors, etc.) to distributed monitoring, with Fiber Optic (FO) techniques as DAS (Distributed Acoustic Sensing), DTS (Distributed Temperature Sensing) and DSTS (Distributed Strain-Temperature Sensing). Other recent applications occurred in LNG plants and in maritime infrastructures.

Distributed pipeline monitoring represents the new frontier for the remote maintenance and operation

energy consumption reduction is achievable and these schemes are now available for industrial applications. With a view to reinforcing the traditional Company business of pipeline EPC, a comprehensive programme is in force to improve and optimise several different aspects of the design and construction procedure. A notable achievement in this field in 2016 was the **trenchless solution (Raise Boring)** adopted for the Chinipas slope pipeline crossing (Mexico). of pipelines, allowing operators to manage the asset in the safest conditions and making it more efficient, even avoiding expensive and sometime dangerous visual inspections, by monitoring structural strains, displacements, loads, temperatures, pressures, vibrations, flow conditions, pig tracking, gas and oil leakages, intrusions, etc.

For onshore pipelines, Saipem is therefore developing an integrated system for DSTS. The work programme also includes the development of a robotised system for the application of sensors during pipe laying and the definition of the cable containing optic fibres to maximise information on reliability and quality. Similarly, for offshore flowlines and risers, Saipem has developed a DSTS device currently applied on its heat traced Pipe-in-Pipe system, together with a device to install the FO during the prefabrication of line pipes.

Other applications of FO techniques are currently ongoing also in the fields of FLNG, SURF, Subsea Factory, ROV systems and others.

Integrity monitoring of assets will generate a huge amount of data that will need to be gathered, acquired, analysed and used for diagnostic purposes by means of the new emerging Big Data techniques, helping Saipem to extract information of greater insight and value.

### TECHNOLOGY INNOVATION IN THE OFFSHORE BUSINESS

For the Offshore Engineering & Construction Business Unit, development has focused on subsea fields that are becoming more and more complex and expensive. To make subsea field exploitation economically viable for clients, Saipem has been working on innovative solutions

### RAISE BORING: A TWO-TIME AWARD-WINNING INNOVATION

Since 2003, with the institution of the Innovation Trophy, Saipem has sought to reward employees who bring their innovative spirit, advantages and concrete results to the Company. Since its inception, attention was mostly directed towards technology development. Some of the employee proposals over the years led to Saipem's most important recent successes. Innovation developed outside of the traditional R&D/technology development efforts was targeted in the last few years by awarding Process Innovations (work tools, work flows, management practices, etc.), in line with the new innovation strategy.

Finally, in 2015, a new special award was introduced for technology innovation to acknowledge the Sustainability value of Company operations. In 2016, the Sustainability prize was awarded for

the innovations achieved in the trenchless solution adopted for the Chinipas slope pipeline crossing in Mexico.

This innovation also resulted in the IPLOCA (International Pipe Line & Offshore Contractors Association) 2<sup>nd</sup> place Environmental Award. The grounds of the recognition were 'the design and construction of the Chinipas Slope pipeline crossing. Based on a geomechanical study, Saipem decided to use a raise borer to avoid a huge visual impact, earth moving, and a steep slope installation'.



A vital part of our updated strategy will be an enhanced role for technology and innovation in underpinning Saipem's competitiveness and future growth opportunities. Stefano Cao, Saipem CEO that can be combined into new Field Architectures, making brownfield debottlenecking, stranded field exploitation and even greenfield developments technically and economically viable, also in deeper water. Indeed, new technologies are moving topside operations onto the seabed and are increasing the distances of subsea production wells from the main infrastructures, heading to the so-called 'Subsea Processing', 'Long Tie-Back' solutions and 'All Electric fields', resulting in an additional reduction in tubular and umbilical items installed subsea and creating significant savings in investment and operating costs (Q see the focus below). But costs can be saved also acting more traditionally on technologies along the operators' supply chain, by innovating the existing products, installation methods and materials.

As an example, the use of Corrosion Resistant Alloys (CRA) or other 'exotic materials' for pipes, spools, valves and ancillary equipment, requires long, cumbersome and expensive welding operations to the extent that they require new joining methods, as was for the 'Internal Plasma Welding' of clad pipes, developed, qualified and successfully used by Saipem on projects in Asia, the Middle East and the Caspian area. Furthermore, the Fusion Bonded Joint is a new joining method for plastic lined pipes fully qualified by Saipem, that restores the continuity of the internal liner during the construction and installation phases of a subsea line, without affecting the laying vessel's productivity.

Saipem is very active also in developing and proposing subsea solutions integrating the new, disruptive Thermoplastic Composite Pipe products, which can face

### COMBINING TECHNOLOGIES IN NEW SUBSEA FIELD ARCHITECTURES Subsea Processing

'Subsea Processing' means moving surface operations and equipment to the seabed, bringing semi-finished products to the surface. The challenge requires rethinking the industrial structure and supply chain to achieve maturation for standardisation and modularity. The levers are technology and process, and Saipem is getting ready to offer a set of fit-for-purpose subsea solutions called SPRINGS®, Multipipe and Spoolsep.

In 2016, Saipem, Total and Veolia entered into a co-ownership and commercialisation agreement to develop, industrialise and commercialise SPRINGS®, a viable alternative to conventional topside water treatment and injection units by bringing nano-filtration membranes subsea to remove sulphates from seawater. This enhances the economics of oil recovery by eliminating water injection sealines, by saving on topside weight and deck space, easing retrofit in brownfields, especially in FPSOs, and making distant, deep injection wells economical. A pilot unit had been tested subsea. The industrialisation phase and commercialisation programme are ongoing under the leadership of Saipem.

In 2016, Saipem also completed a joint development project on its Spoolsep technology, for the gravity separation of water produced from oil. This solution is characterised by a modular design of the process equipment, making it fit for use with high pressure fluids, ultra-deep waters and its maintenance can be ensured by smaller and less expensive ships.



### Long Tie-Back Solution

To ensure transportation of multiphase fluids in long flowlines and risers, Saipem has industrialised and qualified a new electrical Heat Traced Pipe-in-Pipe fabrication and installation system for rigid J-Lay, that extends the application of the most efficient active heating technology to larger diameter pipes, for even longer tie-back lines. Similarly, Saipem is developing and testing a new, low-cost solution, consisting in a subsea station that can electrically warm up the fluid passing through the pipe, efficiently solving flow assurance problems during production.

### TRANSFORMATIVE INNOVATION 'THE INNOVATION FACTORY'

In June 2016, Saipem launched an innovation lab called 'The Innovation Factory'. Strategic themes defined by management, an agile approach, fast-prototyping, digital enablement, cross-industry open-innovation and, most of all, enhancement of internal innovative thinkers, are the keys to its success. The 'Innovation Factory' is an idea incubator aimed at testing solutions to address the challenges of the energy sector, by adopting new technologies and methodologies, and at gaining a boost in terms of productivity with the final goal of earning a competitive advantage. Through the 'Innovation Factory' cross-functional collaboration is constantly at work since the incubator currently hosts 30 young Saipem talents, representing different professional backgrounds, who are developing strategic topics identified by the top management.

# Projects of the programme in 2016

The 'Innovation Factory's' agile approach requires the company management to decide quickly whether to implement a prototype presented by project groups or to abandon it, thus avoiding endless studies and economic efforts. A few proof of concepts have already been conceived and checked directly in the field with

h

the combined requirements of hot, corrosive and highly pressurised fluids and reduce the total cost of ownership of some tubular subsea equipment.

Material technologies play a master role also in unlocking subsea field development projects in ultra-deep waters. Composite materials, and nano-materials in the future, can be the answer in case of high pressure inside and/or outside the production facilities, especially if combined with a change in design to the overall subsea systems. In this direction, Saipem's 'Single Independent Riser' (SIR) is a qualified technology designed to improve fatigue behaviour and to extend the application range of a riser far beyond a water depth of 3,000 metres, also by making use of new materials. In addition to these efforts, Saipem has recently established a new milestone in the oil service industry with the installation of two gas export Free Standing Hybrid Risers (FSHR), measuring 19 inches and 20 inches at a water depth of 2,200 metres. The increased scope of work of seabed equipment and operations is leading subsea fields to a higher complexity and the consequent need to inspect, monitor, maintain and repair the subsea facilities. By extending the life of the fields, operating costs will be as important as capital expenditure; this means that subsea systems and infrastructures with high availability will be rewarded. Client operations will also benefit from another Saipem innovative solution called 'Hydrone': a permanent subsea infrastructure mainly composed of a new hybrid ROV/ AUV for 'Life of Field' (LoF) management services as an extension of Saipem's EPCI offering.

interesting results. The monitoring progress within the Factory is entrusted to senior sponsors who are aware of the needs of the company and its strategic guidelines.

The goal of the Innovation Factory is to collaborate with universities, research centres, start-ups and cross industry players, all the while adapting the best practices already successfully implemented in other sector domains at Saipem where Industry 4.0 is already in place and producing good results.

### **IDEA INNOVATION CHALLENGE**

As another new initiative in the field of Transformative Innovation, the 'Idea Innovation Challenge' (IIC) was launched in 2016 seeking to create new innovative ideas through collaboration and knowledge sharing with people, by adopting typical crowd-sourcing tools. The IIC aims to involve all Saipem people in the innovation process asking them to propose their own ideas for the resolution of real and precise business challenges.

The launch of the first Idea Innovation Challenge, sponsored by the Drilling Business Unit, proved to be very successful: several new ideas were proposed involving innovators from around 20 countries. Some ideas are now under development at the company and after this pilot test further challenges will be launched in the near future.

All subsea intervention technologies developed by Saipem (i.e. Innovator ROV, SiRCoS sealine repair system, ultra-deep and ultra-shallow trenching systems, etc.) have benefited from the experience gained in executing challenging subsea intervention works. In particular, the new Innovator 2.0, delivered in 2016, is based on 20 years of continuous design improvement and it sets the highest standard in the industry in terms of technology development for a Work Class ROV system. On this basis, the new 'Hydrone' concept, now subject to a development and industrialisation programme, evolved from such a system, integrating AUV (Autonomous Underwater Vehicles) functionalities and innovative automation advanced features, suitable for performing all types of inspection and light intervention operations for long durations without any MSV (Multi Service Vessel) support.

As LoF service covers all the ages of a field, Saipem is continuously conceiving and delivering subsea engineered solutions for the installation, commissioning, operation, maintenance, repair and decommissioning of 'Subsea Production System' (SPS) and SURF equipment. A clear example is the 'Emergency Pipeline Repair System' (EPRS) service, a comprehensive LoF approach 'in order to be prepared' to repair damaged sea lines. Another example is the 'Asset Integrity Monitoring' service that requires new monitoring technologies and equipment, currently under development at Saipem, based mainly on fibre optic sensors, to be applied to SURF and 'Subsea Factory' equipment.

# BUSINESS ETHICS AS THE ONLY ACCEPTABLE OPTION

Saipem undertakes to maintain and strengthen its corporate governance system in line with international best practice standards that can withstand both the complex situations in which Saipem operates and the challenges it faces for sustainable development. It is the duty of all Saipem people to comply with the law, regulations, statutory provisions, self-regulatory codes and embody ethical integrity and fairness; the company strives with alacrity and determination to ensure that these principles and values characterise the conduct of the whole organisation.



The integration of an advanced Corporate Governance system with a structured risk management system, is a cornerstone for the management of a sustainable business. Integrity and transparency are the principles that inspire Saipem in defining its Corporate Governance system, a founding element of the Company's business model. Saipem's organisational structure is characterised by the presence of a **Board of Directors (BoD)**, a pivotal body in the governance system, to which management of the Company is exclusively entrusted.

(\*) Organisation, Management and Control Model adopted by Saipem subsidiaries and Model 231 adopted by Saipem SpA.

### **RISK MANAGEMENT AND BUSINESS INTEGRITY**

To reinforce the role of independent development of the company business integrity system and to greater concentrate the company structure on the analysis of activities and continuous improvement of the compliance system of Saipem through integrated management of the wider company Risk Management ('RM') system, on January 27, 2017 the Board of Directors resolved to:

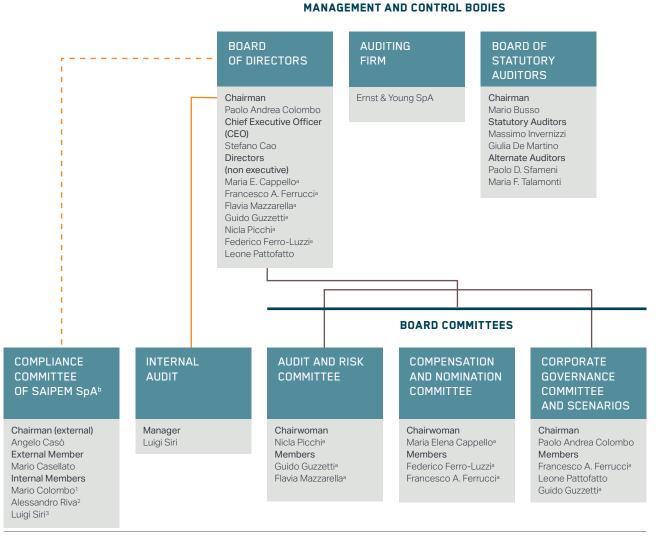
- create the Risk Management and Business Integrity function and with regard to compliance issues, assigning this function the responsibility to:
  - provide legal advice and assistance to Saipem and its subsidiaries on administrative/corporate social responsibility and on Anti-Corruption laws/policies;
  - perform the duties of the Anti-Corruption Legal Support Unit in accordance with relevant corporate procedures;
  - ensure, for issues within its remit (administrative/ corporate social responsibility and Anti-Corruption laws/policies), the monitoring of the overall system aimed at guaranteeing compliance with applicable national and international laws on administrative/

corporate social responsibility and on Anti-Corruption laws/policies;

- define, for issues within its remit, guidelines, operational standards and approaches in order to guarantee homogeneous development of legal activities within Saipem and its subsidiaries, optimising the system for sharing and dissemination of documents;
- ensure the development and availability of appropriate professional skills and contribute to the definition and management of Saipem policies and those of its subsidiaries, with references to relevant subjects;
- ensure the Technical Secretariat of the Compliance Committee of Saipem SpA and performance of Team 231 duties in order to update the Model;
- ensure methodological guidelines and assistance to the Compliance Committee of Saipem Group subsidiaries;
- confirm assignment to the General Counsel Department of activities aimed at 'Ensuring legal representation and defence of Saipem and its subsidiaries during disputes and monitoring and assessing the quality of work performed from external consultants.'
- Q More details can be found in the 'Corporate Governance and Shareholding Structure Report 2016'.

### **CORPORATE GOVERNANCE STRUCTURE**

### SHAREHOLDERS' MEETING



#### (a) Independent.

(b) The Compliance Committee includes two external members, one of them appointed as Chairman, and three internal members of the following functions: (1) General Counsel, Company Affairs and Governance; (2) Risk Management and Business Integrity (Alessandro Riva from the January 27, 2017 substituted Dario Gallinari - Human Resources Organisation and Services for Personnel) and (3) Internal Audit.

As of January 27, 2017.

Information on the Internal Control and Risk Management System can be found in the Corporate Governance and Shareholding Structure Report 2016. The **Board of Statutory Auditors** has supervisory functions, whereas external

auditors are in charge of the legal auditing of accounts. 3 committees with advisory and consulting functions have been set up within the BoD: the **Audit and Risk Committee**, the **Compensation and Nomination Committee** and the **Corporate Governance Committee and Scenarios**.

# Saipem rejects any form of corruption.

#### FIGHTING CORRUPTION

As a multinational organisation that conducts business in over 60 countries and jurisdictions around the world, Saipem and its personnel are subject to the laws of these countries, including any laws that ratify international conventions, and prohibit the corruption of Public Officials and private parties, such as:

- the OECD Convention on Combating Bribery of Foreign Officials in International Business Transactions;
- the United Nations Convention Against Corruption;
- the Foreign Corrupt Practices Act (FCPA) issued in the United States;
- the UK Bribery Act issued in the United Kingdom.

### WHISTLEBLOWING

All Saipem employees and stakeholders must report any violations (or alleged violations) of the OM&C Model. Saipem has a Corporate standard that describes the process of managing reports. The term 'report' refers to any information regarding possible violations, behaviours and practices not in line with the Code of Ethics and/or which may cause damage or injury to Saipem SpA (even if only to its image) or any of its subsidiaries.

Saipem has prepared various channels of communication in order to facilitate sending reports, including, but not necessarily limited to, regular post, fax numbers, e-mail, yellow box and communication tools on the Intranet/Internet sites of Saipem SpA and its subsidiaries.

The Internal Audit function ensures that appropriate

controls are carried out for facts that have been reported. *Further details on this performance can be found in the 'Sustainability Statements' of the Annual Report 2016.* 

	2014	2015	2016
Number of files*, of which:	67	78	125
- founded or partially founded	16	20	17
- unfounded	51	56	72
- open	0	2	39**

(\*) The data for the three-year period is updated as of December 31, 2016. (\*\*) This number includes 3 files which resulted partially open.

Furthermore, since Saipem SpA has its headquarters in Italy, both the Company and its personnel are subject to Italian law and, in particular, to the provisions of Legislative Decree No. 231/2001 and subsequent amendments, which regulates the administrative liability of legal entities deriving from offences, such as internal and international bribery, committed by their directors, employees or associates, in Italy or abroad, in the interest or to the advantage of said legal entities.

As an official member of the UN Global Compact from whose Ten Principles it draws inspiration, Saipem's commitment also falls within its adherence to the 10<sup>th</sup> principle, which concerns the fight against corruption.

### Business should work against corruption in all its forms, including extortion and bribery.

Principle 10 - United Nations Global Compact

In accordance with the principle of 'zero tolerance' for corruption expressed in the Code of Ethics, Saipem implemented the **Anti-Corruption Compliance Programme** to face other risks head-on which may be encountered by the Company in its business activities. The programme is a detailed system of rules and controls to prevent corruption-related crimes, characterised by its dynamism and constant attention to evolving national and international legislation and best practices.

Saipem's Compliance Programme was introduced in accordance with applicable anti-corruption provisions in force and with international conventions (including the United Nations Convention Against Corruption, the Organisation for Economic Cooperation and Development Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the US Foreign Corrupt Practices Act and Italian Legislative Decree No. 231 of June 8, 2001). Subsequently, Saipem updated this Compliance Programme by approving the 'Anti-Corruption' Management System Guideline (MSG), with the objective of prohibiting any form of active or passive bribery involving not only Public Officials but also private parties.

As part of the continuous improvement of the Anti-Corruption Compliance Programme, the 'Anti-Corruption' MSG, which must be fully applied and complied with, was updated in June 2015 on the basis of experience gained by Saipem over the years and the need to represent an increasingly clear framework of reference to identify areas at risk of corruption, the tools the Company makes available to Saipem personnel and the rules of conduct with which Saipem personnel must comply in order to prevent and combat this risk.

The 'Anti-Corruption' MSG provides a systematic framework to the long-established Anti-Corruption Regulations that Saipem has designed and implemented over time and is reviewed and approved by the Board of Directors of Saipem SpA. Its adoption and enforcement is mandatory for Saipem SpA and all its subsidiaries.

### BUSINESS ETHICS TRAINING PROGRAMMES

Saipem personnel are regularly informed of and trained in the Company's Compliance and Governance systems, as well as in the importance of compliance with legislation Anti-Corruption procedures can be found in the 'Corporate Governance and Shareholding Structure Report 2016'. and related procedures, so that they clearly understand the different crimes, risks and relevant personal and corporate responsibilities, and the actions to implement in order to avoid being penalised for violating them.

Given the criticality of these issues, a training matrix on Compliance and Governance topics was defined. In particular, it takes legal requirements and Company standards into consideration, as well as the jobs and responsibilities of the resources to whom the training is addressed.

With the goal of consolidating everyone's knowledge and awareness of Compliance and Governance and providing greater clarity and consistency as regards the numerous training initiatives launched over the last years, the matrix is a comprehensive tool for planning, executing and monitoring Compliance and Governance training. Participation in mandatory training programmes is a contractual obligation for Saipem personnel.

The training matrix on Compliance and Governance topics is not a static tool. Rather, even after it was issued, its updating and development will continue with the design phase (where necessary) and the delivery of training initiatives to offer a vast, uniform and systematic training catalogue (including both classroom and e-learning courses). Within the framework of the matrix, Anti-Corruption themes play a central role by offering:

- courses on the 'Legal, contractual and insurance aspects of projects' for employees with a more advanced level of seniority and expertise, especially for personnel working in the Procurement and Project Management areas. These courses provide the tools needed to assess the impact of national and international regulations on contractual provisions and the precautions required to mitigate any associated risks;
- specific training sessions for At-Risk Personnel (employees who have contacts with public officials or who may enter into contracts with third parties on Saipem's behalf) working in the countries where Saipem operates;
- a specific e-learning module on the 'Internal Control System over Corporate Reporting' delivered to Saipem personnel in Italy and abroad.

In the framework of the OM&C model, Code of Ethics and Anti-Corruption training, Saipem organised numerous training sessions in 2016.

# Number of countries where training sessions were held

23

**Employees trained** 

2,813

### HUMAN RIGHTS AT OPERATIONAL LEVEL: HOPE®

The HOPE® (Human OPerational Environment) Training Programme has been implemented since 2014 in order to fulfil international and local stakeholder expectations and requests, address the challenges arising from the peculiarity of Oil & Gas operation areas, disseminate awareness of the local contexts where Saipem operates, gain an in-depth knowledge and understanding of the issues surrounding a human rights culture and promote an on-the-ground approach.

It consists of theoretical and practical training to develop a better management understanding of the key human rights risks and issues for the Oil & Gas industry and become familiar with Saipem's existing framework, resources and behaviours in the specific areas of operations (including cultural/ sustainability factors). The programme is specifically targeted at people working in community relations, Human Resources, Operations, HSE and Security to help identify appropriate solutions in the event of human rights issues. The last two years also saw the participation of the representatives of clients and business partners.

Countries where the programme	•
was delivered	•

Participants

Q For further information on the HOPE workshop for SCPX Project see page 73.

### FOSTERING A BUSINESS INTEGRITY CULTURE

Over the last few decades the concept of Business Integrity has become a key element in running a business, especially in light of the significant impact on the reputation and performance of companies.

Business Integrity is a business imperative. By 'Business Integrity' we generally mean respect for all the values and principles of integrity in the implementation of work activities.

### Stefano Cao, Saipem CEO

Senior managers were asked to take an internal Survey on Integrity in 2014. Since they recognised its importance, further actions have aimed to spread and consolidate a culture of Integrity, increase awareness, improve knowledge and understanding of the Integrity Management System, and emphasise top management's commitment to Integrity.

Furthermore, the outcomes of the Saipem annual Materiality Assessment confirmed that 'Anti-Corruption and ethical business practices' is one of the most relevant issues that should be considered and managed according to the majority of all the stakeholders involved (both internal and external).

In order to foster integrity awareness the 'Saipem Business Integrity Guide' was issued in 2016. The document takes into account the complexity of Saipem's world and is addressed to all Saipem employees, regardless of their function or position.

The Guide, written in an informal style, seeks to promote everyone's knowledge and understanding of Saipem's procedures and standards on Integrity-related issues (such as gifts and hospitality, diversity, discrimination, conflict of interest, confidential information, health and safety). The Guide includes a 'Q&A' and an 'Ethical dilemmas' section and reminds every one of the relevant procedures. The document was published on the Intranet and was disseminated directly by Saipem's CEO. In order to further promote the dissemination of the Guide several awareness sessions were organised. In the first part of these meetings, the world of Integrity was explored (what it is, why it is important, examples of corporate misconduct, peer benchmark). The second part focused on the correct way to use this Guide: after that the decision-making process in critical situations was explained, examples of potentially ambiguous and complex situations were given and suggestions included in the Guide are shown.

### THE GUIDE IN FIGURES

Topics addressed	17
Awareness sessions in 2016	18
Awareness session participants	+200



# PROTECTING AND PROMOTING LABOUR RIGHTS

Saipem is committed to protecting and promoting labour rights in running its business. Saipem takes into account both internationally recognised labour standards and the local legislation in the countries in which Group companies operate. With specific reference to the management of employment relations worldwide, Saipem is bound by the principles of the UN Universal Declaration of Human Rights, the OECD Guidelines for Multinational Enterprises, as well as the formal commitment taken by Saipem's CEO to promote and abide by the tenets set forth in the UN Global Compact.



In protecting and promoting labour rights, due attention is given to the core International Labour Organisation (ILO) conventions encompassing protection against forced and child labour, the promotion of non-discrimination in employment and occupation, as well as freedom of association and collective bargaining.

Especially with reference to the latter, Saipem has a sound record of relations with trade union organisations in a variety of locations and covering several segments of its business.

The management of potential conflicts with trade unions is preferably pursued through grievance procedures agreed on with the union in the industrial regulations which are negotiated from time to time.

A great effort has been made in the past two years to: (i) consolidate relations with local union representative; and (ii) strengthen the existing provisions in the industrial regulations already in force.

Saipem's attention to labour rights extends also to offshore personnel with full compliance with the principles and the rights recognised to Seafarers promoted under the ILO Maritime Labour Convention (MLC) of 2006.

### SAIPEM ACTION PLAN ON HUMAN AND LABOUR RIGHTS

Saipem developed an action plan on human and labour rights in 2016. A short description of the main initiatives identified is provided below.

### Human and labour rights training

A training programme on human and labour rights is planned to be held in 2017 for HR personnel, general and branch managers, as well as project directors and managers.

The objective of the training course is twofold by looking at rights that must be recognised in the workplace both from a global and local perspective. On one hand, it will reiterate the approach pursued by Saipem in the global management of employment relations. On the other hand, the training will focus on the main employment issues in each country by analysing how international labour standards have been translated into local legislation. The training course has been divided in four distinct steps.

### TRAINING PROGRAMME ON HUMAN AND LABOUR RIGHTS

HUMAN RIGHTS RISK ASSESSMENT



TRAINING SET-UP

TRAINING DELIVERY

Saipem in 2016 performed a thorough country based risk assessment encompassing several labour rights related indicators provided by international organisations, international NGOs and trade unions.

The risk assessment has led to the distribution of the countries in which Saipem operates into three distinct categories related to the risk of abuse of human/labour rights, thus identifying high, medium and low risk countries. An in-depth analysis of legislation in force has been carried out for each country for four distinct labour rights domains (i.e. non-discrimination in employment and occupation, child labour, forced labour, freedom of association and collective bargaining).

The training programme will be delivered through an e-learning platform to maximise coverage. It will be divided into a general and a country-specific section for those countries characterised as at a high risk of labour/human rights abuses, while a single module focusing on the main labour issues shall be delivered in the locations considered with a medium and low risk of abuse.

The training programme will be delivered twice in 2017 to Saipem personnel employed in high risk countries and once in the remaining areas.

### Strengthening communication channels for employees

Saipem is in the process of exploring ways to strengthen the management of employee grievances taking into account the different national and operative contexts. This initiative builds on existing regulatory instruments encompassing both internal and external stakeholders.

#### Recruiting and managing international personnel

Global Petroprojects Services (GPS AG) is a subsidiary of the Saipem Group. Established in 1964, it has been licensed for international recruitment and manpower

### ELECTION OF THE SPECIAL NEGOTIATING BODY

Saipem is in the process of starting the necessary procedure for the election of the Special Negotiating Body in advance of the establishment of the **European Works Councils (EWC)**, bodies representing the European employees of a company or groups of companies operating in the European Economic Area.

The definition of a procedure for the election of the Special Negotiating Body and the protections reserved to the elected representatives determined by local legislation in each country is under definition.

supply since 1994. GPS AG is a human resources centre of excellence which provides a complex spectrum of onshore and offshore HR related services to Saipem worldwide, in addition to other auxiliary services. It operates combining business peculiarities with the evolution of the market. In 2013, the Swiss Navigation Office certified GPS AG as a Seafarer's Recruitment and Placement Services agent in compliance with the ILO MLC 2006. GPS AG, for certain specific contexts, mainly to

comply with domestic legislation, is supported by local manpower agencies to recruit skilled blue collars and manage specific logistic duties (i.e. visa, travel). In the framework of its human and labour rights commitment, Saipem has in place a rigorous process in the selection of manpower suppliers which are

### MANAGEMENT OF ONBOARD COMPLAINTS

Seafarers have the right to file a complaint should any breaches of their rights occur. Saipem issued a standard procedure entitled 'Management of onboard complaints', which describes how the process is structured, complaint resolutions are managed and records are kept.

The main principle is that seafarers have the right to be represented by the onboard seafarers' representative, or any other external entity.

To guarantee that every seafarer is aware of his/her rights, in addition to a copy of their employment agreement, all seafarers shall be provided with a copy of the standard procedure and all the forms that make up the complaint procedure. The seafarer shall acknowledge receipt of the above mentioned documents.

Whenever a seafarer wishes to submit a complaint, he/she should address the complaint to the seafarer representatives available on board.

The main role of the seafarer representative is to confidentially provide seafarers with impartial advice on their complaint and assist in implementing the onboard complaint procedure. Seafarer representatives act, as much as possible, as an effective buffer for preventing the escalation of complaints and to solve any related issues. Any claim of victimisation should be investigated by the master and/or company, and any instances of victimisation must be dealt with under the company's disciplinary procedures.

considered strategic partners in order to identify and properly manage highly skilled Oil & Gas professionals. With a view to promoting fruitful cooperation, GPS AG proactively engages these important stakeholders. In addition to day-to-day interactions, starting in 2013, GPS AG organised 2 workshops (1 in the Middle East and 1 in Europe) for representatives of qualified manpower agencies to further strengthen their understanding of Saipem's expectations and policies.

In order to maximise the targeted audience, GPS AG has recently developed a tailored e-learning programme. Its training modules cover themes, such as fighting corruption, social responsibility, integrity, ethical supply chain, health and safety, etc.

GPS AG constantly monitors how manpower agencies manage sensitive processes such as recruitment practices. This is performed through audits at the vendor's premises and phone interviews to GPS AG's international personnel.

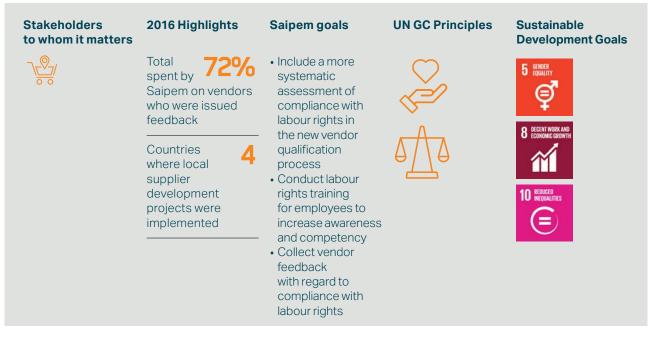
Said ad-hoc audits are carried out to verify compliance with ISO 9001, MLC 2006 and the Code of Ethics' requirements, while personnel interviews are conducted by phone when the employees are in their off-duty period. This multi-purposed engagement:

- ensures that people management is handled in accordance with the highest ethical standards and local regulations. In particular, GPS AG verifies that manpower agencies do not require payment of any placement fees or other compensation to access Saipem employment proposals; or that each employee is provided with the Security Booklet for his/her most recent country of assignment. The Security Booklet is a key tool for understanding the risks and customs of the country in which the person is deployed;
- checks the knowledge of English in order to evaluate the ability to understand basic safety instructions;
- as a member of the Organisation, assesses recruited personnel's satisfaction with overall professionalism, work environment and the job.

Feedback collected demonstrated a good level of people's satisfaction and confirmed that manpower agencies meet Saipem's requirements.



Vendors are key players for Saipem's business and its success. While providing equal business opportunities, suppliers and subcontractors are selected based on the principle of open competition. Vendor reliability is evaluated also from a sustainable and ethical point of view.



The Saipem Ethical Supply Chain Management System consists of different interrelated phases which can be summarised as following:

- 1. Vendor qualification;
- 2. Purchase Document preparation and award;
- 3. Vendor performance monitoring and feedback.

### **VENDOR QUALIFICATION**

As part of the entire procurement cycle, the vendor qualification process aims to evaluate third party technical/organisational capability, ethical practices and economic and financial reliability to enable vendor acceptance within the Saipem Group.

Taking into account specific drivers such as the types of services provided and country of operation, vendors

must undergo document verification including also:

- Health and Safety;
- human rights (child labour, forced or compulsory labour, freedom of association and the right to collective bargaining, discrimination, working hours and remuneration);
- Compliance and Anti-Corruption (Code of Ethics).

### QUALIFICATION QUESTIONNAIRES ON LABOUR RIGHTS ANALYSED

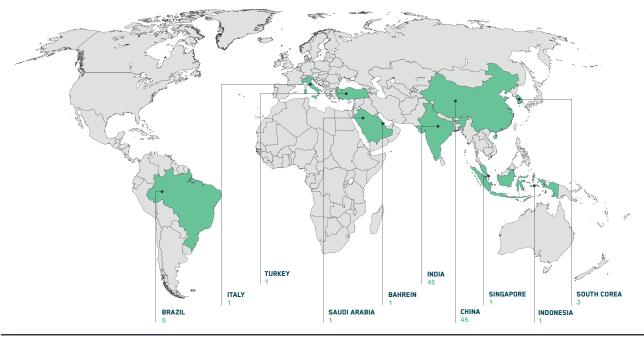
ln 2016	106
Since 2013	1,192

### SAIPEM ETHICAL SUPPLY CHAIN MANAGEMENT SYSTEM



The graph provides a comprehensive overview of the process. Not all points described are mandatory for every commodity code or vendor country.

### AUDITS ON LABOUR RIGHTS (2011-2016)



For the specific commodity codes, vendors are subjected to a counterparty risk evaluation process which entails the analysis of economic, financial, technical, HSE, and organisational capabilities, in addition to the assessment of Anti-Corruption and reputational risks for Saipem. The above evaluation aims to identify and prevent potential risks for Saipem. Protecting Saipem's reputation is guaranteed through in-depth relevant controls on, but not limited to, anti-corruption, involvement in any type of penal offences or terrorism activities by the vendor, its control chain structure, top management and the Board of Directors. Depending on the supplier's criticality, the qualification process may require an assessment visit which consists of an on-site verification of the vendor's activities. as well as of its technological, managerial, production, quality, HSE and logistics capabilities.

# Total qualification audits performed in 2016

**46** 

For specific geographic areas, selected as a result of a human rights risk assessment, the assessment visit may also include labour rights aspects.

# A sustainable supply chain starting from the supplier qualification phase

With the ultimate objective of assessing the alignment of suppliers with human and labour rights standards and Saipem's principles and following up on the project started in 2011, Saipem organised its sixth audit campaign in 2016 for selected vendor operating sites. The audits sought to collect information on the performance of suppliers with regard to major social responsibility issues such as child and forced labour, freedom of association and the right to collective bargaining, remuneration, working hours, discrimination and disciplinary practices, and health and safety.

The results of the visits are condensed into audit reports that are then submitted to the Sustainability Committee. As in previous campaigns, improvement actions are proposed where appropriate.

As in past years, the overall results showed no major problems in terms of sensitive issues such as child or forced labour, nevertheless main improvement options were identified in employee management both in terms of health and safety and working hours while positive observations were related to the efforts to improve women's conditions in the workplace and to favour union activities.

### Audits on labour rights and HSE in 2016

11

Audits on labour rights since 2011

# PURCHASE DOCUMENT PREPARATION AND AWARD

Saipem is committed to conducting relations with vendors in accordance with the highest standards of ethics, complying with all applicable legislation and the Code of Ethics and safeguarding Saipem's image and that of its affiliates in the market. Environmental, social and governance factors and requirements are dealt with in Saipem's General Terms and Conditions for purchase documents.

Activation of the procurement process is related to the following activities:

- Tender phase;
- Purchase document award.

Prior to any purchase document award, checks are performed to verify that vendors are compliant with technical requirements, integrity aspects and all authorisations as per applicable health, environmental and safety legislation. Tender documents always include HSE requirements for vendors and Saipem's Code of Ethics.

As per Saipem standard templates, vendors shall declare receipt and acknowledgement of contents of the 'Sustainability Policy' whereby Saipem is committed to acting as a sustainable Company, to contributing to long-term growth and value creation through the effective involvement of all legitimate stakeholders. Each party declares that its activities under the purchase order shall, in no event, imply unacceptable risks to people or the environment, and undertakes to manage and mitigate these risks in its everyday operating activities. If local requirements and standards do not exist or are inadequate for managing the above risks, the parties agree to operate in accordance with relevant internationally accepted best practices. Moreover vendors, when dealing with Saipem SpA, are requested to accept Model 231 which includes the Saipem Code of Ethics. In the same way, when dealing with Saipem SpA affiliates, vendors are requested to accept the OM&C Model and the Code of Ethics.

For specific activities, services and materials, when the value of the supply is above a predetermined amount, the specific vendor is subject to a counterparty risk evaluation (the same process is also performed during the vendor qualification phase). When necessary, the Anti-Corruption Legal Department is also involved.

### **VENDOR MONITORING AND FEEDBACK**

Vendor performance is continuously monitored and Saipem's relevant functions are asked to provide feedback regarding the performances of vendors in terms of labour and safety (e.g. occurrence of accidents/injuries during work execution, compliance with applicable HSE legislation and contractual specifications, existence of legal proceedings for serious violations/offences).

In 2016, 47 vendors were disqualified because they were no longer considered compliant with Saipem's standards (due to negative performance, financial instability or breach of regulations).

# Vendors with feedback (issued and ongoing)

3,533

The feedback evaluation questionnaire for materials was revised in 2016 and specific sustainability sections were included, relating in particular to labour rights, working conditions and in compliance with the Code of Ethics principles. The revision of the feedback service module is ongoing.

Vendor feedback modules	,475
issued in 2016	,4/ J

### HUMAN RIGHTS AND THE SUPPLY CHAIN

An **internal training programme on human rights and the supply chain** has been implemented since June 2016 for different functions involved in the supply chain control system, such as Vendor Management, Post Order and Health, Safety & Environment.

In conducting both its activities as an international company and those with its partners, Saipem stands up for the protection and promotion of human rights – inalienable and fundamental prerogatives of human beings.

### Saipem's Code of Ethics

Saipem has set its principle for the protection and promotion of human rights at the highest level in the Saipem Code of Ethics and in the Sustainability Policy. In line with these, the programme reiterates Saipem's commitment to respecting human rights and to promoting respect for human rights by its suppliers and subcontractors. The training is targeted at both Saipem employees directly involved in audit activities on suppliers and subcontractors, and at employees who know and interact with suppliers.

The central part of the programme deals with relevant Saipem topics, the same as those addressed in the ILO Fundamental Conventions: discrimination, forced/compulsory labour, child labour, safeguarding dignity (remuneration, working hours, disciplinary practices), freedom of association/collective bargaining and the protection of health and safety.

Training highlighted the role each employee can play in order to report or provide feedback on serious situations where human rights are not guaranteed and respected. So far training sessions have been implemented in Italy for employees in San Donato Milanese, Fano and Marghera. The training programme will soon be available in an e-learning format to reach employees all over the world.

### **TRAINING IN FIGURES**

Participants since June 2016	147
Training sessions	13
Training man-hours	245



### STRENGHTENING THE LOCAL SUPPLY CHAIN

Knowledge transfer to Chilean vendors The Codelco Project, which consists of a water pipeline and all related facilities development in Chile, is the first onshore project in Chile for Saipem. For this reason massive local market scouting was conducted.

### Local vendors qualified in 2016

Furthermore, the vendors involved in site activities were subjected to specific training sessions to make them aware of the project's HSE rules and procedures.

# Local vendor representatives that 27

In addition, a LiHS (Leadership in Health & Safety) workshop was performed also with the participation of the client.

### Participants in the LiHS workshop

A three-week training session on 3D Modelling with a specific software was arranged for Saipem local engineering suppliers in order to align work methodologies and tools. The session focused on a number of topics such as design utilities, equipment modelling, pipework modelling, structural modelling, cableway & cable modelling, etc.

3D Modelling training participants





# Partnering with local businesses to create local value

Ersai (Saipem's local company in Kazakhstan) contributes to the development and growth of the local economy by also involving local businesses in its activities. In September, the company organised a Sustainability Forum among its potential suppliers and subcontractors to achieve the different goals of:

- developing potential partnerships with local suppliers and subcontractors for the implementation of future projects;
- introducing the main principles of Ersai's Sustainability Policy;
- involving suppliers and subcontractors in the social life of the community where they operate;



- making suppliers and subcontractors aware of Ersai initiatives, the sustainability plan and presenting the projects;
- maintaining good relationships with suppliers and subcontractors.

As a result, some local suppliers and subcontractors were actively involved in different Ersai programmes to promote socio-economic development (such as the project to open a psycho-educational centre in Aktau; the realisation of the 'Mentors' project for orphaned children; support for the Youth Football League in the Mangystau region, etc.).

### Promoting an HSE culture among subcontractors

Cooperation and engagement in HSE-related issues contribute to fostering the win-win strategy Saipem has established with its subcontractors. Over the past few years, HSE forums were delivered in different countries to subcontractors to help improve their knowledge and culture in the field. For the third year running, the Middle East area hosted an HSE forum. Following previously organised forums in Saudi Arabia in 2014 and 2015, one was organised at the Saipem logistics base in Sharjah on December 6, 2016. It was attended by local Saipem personnel as well as by the top management of the subcontractors involved in project operations.

The first part of the event focused on Saipem, Saipem presence in the UAE and commitment to HSE topics. Saipem safety performances and programmes (such as the 'We Want Zero' and the 'Leadership in Health & Safety') were presented. The requirements Saipem expects to be fulfilled by subcontractors were then explained to participants, including health, general and industrial hygiene requirements; offshore vessel safety requirements; applicable International standards; lessons learned from incidents; environmental requirements and best practices. The second part of the forum gave subcontractors the opportunity to introduce themselves and present their areas of expertise and activities. The day ended with questions and answers and a final discussion. A common commitment to health and safety will allow significant benefits to be obtained from all project activities in terms of results, levels of integration and team work. Achieving improvements in the HSE culture of subcontractors represents a concrete investment in the local economy and will be of direct benefit to Saipem.

# Subcontractors who participated in the forum in 2016



### Making local vendors aware of business opportunities

Saipem electronically manages the bid process and collects all the bids using the Web. To help vendors take full advantage of this service, Saipem organised a number of workshops on 'e-procurement' in the Congo in 2016, as was previously organised in Nigeria in 2015.

The online bidding system, known as e-Bidding Service, allows on-line communication with bidders, an on-line document exchange, complete tracking of bid receipts & openings, and overall, simplifies the secure-bid procedure. The aim of the training workshop was to explain to vendors the use of the e-Bidding Service as bidders. Vendors learned about the entire process starting from Saipem's tender publication to their response, in addition to general information about the portal structure. During the workshop, vendors could watch sample simulations; furthermore, they received the Bidder Manual, a tool that details all the relevant information presented during the day.

### Vendors participating in the workshops

**Participants** 





# PEOPLE AS A STRATEGIC ASSET

Saipem is aware that its people represent the Company's main asset and that business success starts with them. The Company has always been committed to building and maintaining a healthy organisation, employing talented people and investing in their growth and development. This approach is a cornerstone of Saipem's pursuit of long-term sustainable growth, together with the enhancement of the diversity of its workforce. As a multinational company present in almost every Oil & Gas market around the world, Saipem plays a central role in the local economy, contributing to its development also by investing in the local workforce.

This chapter illustrates Saipem's approach to:

Nurturing competence and know-how page 56
Creating value by employing locally page 60
Guaranteeing a healthy workplace



In

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12



Skills and know-how are considered a key asset and as such are duly monitored and developed through continuous analysis and the definition of a specially-focused investment plan.



# Saipem believes that the secret to its success lies in each person.

In a challenging and competitive industry, where professionalism, reliability and expertise are milestones for operations, human capital and its development are indeed key elements for lasting competitive success.

On the one hand, Saipem offers a reliable and stimulating work environment that guarantees equal opportunities for all on the basis of merit and without discrimination.

On the other hand, training and people development represent key levers in the Company's business strategy: learning programmes are promoted to ensure the development of professional know-how and behavioural competences.

To get the highest level of professional qualification, Saipem people are constantly engaged in different activities such as induction plans and training programmes with particular regard for young talented resources and specific on-the-job training programmes aimed at enhancing key technical competences. Operating worldwide, Saipem applies its integrated development model while respecting local needs.



### Leadership Model

Saipem completed the update of the Leadership Model in 2016 with the dual aim of supporting new business strategies and further strengthening the dissemination

and knowledge of the values that characterise Saipem people.

The Model is based on six principles: People, Integrity, Vision, Decision-Making, Knowledge and Communication. The approach takes into account the diversity of organisational levels and the difference between managerial or professional careers.

The Model, developed through a participatory process, is closely connected with the needs and performance expectations of the people and the business. The Model is a reference point for professional growth, identifying both behavioural skills and essential leadership aspects within Saipem.

In collaboration with MIP - Politecnico di Milano, Saipem developed a specific training programme in 2016 for the managing directors and the senior managers of the Group's operating companies in order to provide concrete guidance on the application of the new Model. The blended training will begin in 2017 combining various methods consisting of distance learning with classroom teaching.

# The Leadership Model is the basis of all human resource management processes.

The assessment process of leadership potential takes on a vital role today at Saipem with particular regard for people management, facilitating the planning of possible organisational changes, allowing better visibility of internal skills and their potential, thus allowing the right placement and development of individual abilities.

### Skills as a competitive driver

The skills of the people are fundamental for achieving the company's goals. Therefore it is crucial to constantly monitor the level required to meet the needs of an evolving market as well as the level of expertise of the people in order to ensure the highest level of professional skills available in the company, also with a view to minimising risk. In this framework, in 2014 the K-Factor project was launched. Its main initiatives are the K-Map and the K-Model. In 2016, the **K-Map** campaign continued mapping the professional skills and experiences of the Company's crucial roles allowing the identification of eventual skill gaps.

With the objective of strengthening the development and knowledge-transfer processes, the implementation of the **K-Model** included a set of initiatives.

In 2016, the training matrices were updated. This resulted in a further customisation of training courses related to specific professional roles. Finally, Saipem further strengthened its on-the-job training model in order to monitor and evaluate from a structured perspective the effectiveness of the knowledge-transfer. After an analysis phase of the experiences already in place in the various business units was completed, the initiative led to the construction of a reference model and the launch of a pilot project in the offshore area.

Moreover, the 'Career Paths' were revised in order to develop professional/technical and managerial careers by boosting geographic and functional mobility. Saipem carries out in-depth potential evaluation processes for both junior and expert profiles. Each assessment makes it possible to identify managerial skills while highlighting any strong points and areas for improvement, motivational drivers, growth potential and functional or inter-functional mobility. These tools allow for individual development and career paths to be directed, identifying any training needs.

### Technical training man-hours delivered

# 200,626

### Skills as a way to minimise risks

From this point of view the **succession planning process** has a twofold objective focusing on developing talents in the medium-long term and minimising the risk of losing key competences. Succession plans in fact allow the identification of a list of candidates likely to cover strategic positions both in terms of their expertise and leadership skills. The succession tables make it possible to map risk areas on which to implement development, organisational or management mitigation actions. These actions are directed at the preparation of monitoring and development activities of internal candidates: in particular a total of 45 development plans were prepared taking into account mobility as well as growth toward more responsible roles, and training initiatives.

### Investing in developing skills

In line with other corporate programmes aimed at increasing internal skills, the '**Job Rotation Programme**' was launched in 2016 aimed at developing the inter-functional mobility of resources.



The initiative was prompted by the identification of the resources to be involved that would respond to a series of stringent requirements; through the feedback of their managers it was then expanded to a detailed analysis of the skills gap that needed to be filled. After the analysis, synchronised with the business needs, scheduling of the rotations was carried out.

These rotations can range from 12 to 18 months and the experience in the other function may vary for participants depending on the degree of training required. At the end of the experience, the person will return to his or her function with a wealth of skills even more structured and targeted at carrying out the company's business functions.

All managers involved are committed to ensuring the experiences are enriching and educational from the perspective of human capital development. Saipem believes this initiative is a very important investment and will monitor it closely focusing on the effectiveness of the results.

A second programme called '**Fast Track**' for young talented employees with high-potential was also structured in 2016. Development paths have been designed to create a new generation of managers with a profile that is in line with the new leadership model. In order to ensure truly widespread management turnover, the 'Fast Track' involved three types of company populations: young graduates, up and coming middle managers and young talented senior managers.

### Assessing and rewarding performance

Saipem bases its Group compensation policies on the principle of fairness and merit. Saipem in fact defines its policies in full consistency with the results of the skills and performance assessments and identifies reward strategies through a local approach that intercepts the specificities of the labour market and the local labour law context. Saipem also confirms its commitment to affirming the principle of 'equal pay for equal work' having monitored for years the gender pay gap in its totality of the local environments in which it operates.

Percentage of employees whose performance was evaluated





### FOCUS ON CA&A PROGRAMME IN THE DRILLING BUSINESS UNIT

Personnel competence constitutes one of the main areas of concern identified during the 'We Want Zero' campaign and therefore several initiatives were developed with the clear purpose of improvement. Significant examples are the 'Know Your Barriers' campaign on board Scarabeo 5 and 8 (see page 24), and 'Human Factors Training' targeted at area managers.

The design and development of the CA&A Process for the Drilling Business Unit started in early 2016. The process is designed to be developed and

implemented in four steps, presented as follows: 1) revision of Saipem drilling job roles; 2) definition of assessment tools, assessor and verifiers; 3) programme roll-out and 4) definition of clear training and development strategies.

The first workshop on CA&A Process implementation in the Drilling Business Unit was organised in September 2016 with several representatives of the offshore drilling management to review and fine tune the programme jointly.

The CA&A Programme was rolled out in late 2016 in Saudi Arabia.

The programme will continue in 2017 with the objective of involving the rigs presently operating in the country. Moreover, it is planned to extend the programme to offshore drilling vessels.

### **RESULTS IN NUMBERS**

### **Onshore rigs visited**

Personnel assessed



### FOCUS ON CA&A PROGRAMME IN THE OFFSHORE BUSINESS UNIT

The 'Offshore Competence Assurance & Assessment' is in line with international guidelines (International Maritime Contractor Association-IMCA and International Maritime Organisation-IMO).

Saipem identified 10 professional roles whose competences are strategic for the performance of safe and reliable offshore operations.

A pilot project, launched in 2014 on the S7000, was then fine-tuned and rebooted in 2016, involving the 3 vessels operated by Saipem for the Shah Deniz 2 Project, and then onboard S3000, Castorone, FDS 2 and Castoro 6. A refresher course was organised onboard the S7000. The process, for each vessel, consists of intensive training for the Vessel Management Team (VMT) and the validation of their training by the review of their first assessments by the verifier. The verifier evaluates and validates the quality of the assessment. In case of a positive evaluation, the VMT's member is certified as internal 'assessor'.

Once the VMT members are certified, they are required to periodically evaluate the competences of the selected professional roles.

The training programme will involve additional vessels in 2017 in order to progressively cover the entire offshore fleet. The project target is to cover 100% of personnel in the professional roles identified.

### **RESULTS IN NUMBERS**

4	Assessors trained	53
00	Assessments completed	170

In the framework of the Saipem competence management system, in order to strengthen and further enhance the accountability of internal skills, Saipem developed an in-house methodology for '**Competence Assurance & Assessment**' (CA&A).

CA&A entails integrating the skill mapping process because it is tailored for each specific job title, evaluates micro-skills (both technical and HSE), encompasses the collection of a structured set of evidences and includes a theoretical and practical examination. The application of the CA&A Programme aims to strengthen workplace and process safety and will lead to a series of benefits in various company processes such as: a specific training and coaching strategy, an improved personnel development path as well as local content development objectives and a strong commercial advantage over competitors.

### Developing young talent in Italy

The '**Programma Sinergia**', launched in 2012, aims to create a lasting partnership between Saipem and the world of education. In particular, the company cooperates with two Italian technical institutes, namely 'A. Volta'

### **COMPETENCE ASSURANCE & ASSESSMENT**



in Lodi and 'E. Fermi' in Lecce. The purpose of the programme is to shape the training solutions consistent with the ministerial curricula of the school and ensure participating students with the training in skills aimed at the Oil & Gas industry, creating a ready set of professional skills not easily found on the market.

In addition, Saipem is committed to supporting the school in creating a strong partnership with the corporate world in order to offer students an internship

period or technical classroom training held by industry experts. In this regard, as of 2017, Saipem will support a third school, the 'Liceo Omnicomprensivo' in Amatrice, offering learning experiences to a select group of students. The choice of Amatrice, a town in central Italy, is particularly significant as it is located in an area that was strongly affected by earthquake in 2016 that caused extensive damage and resulted in many victims.

### MOTIVATE, INSPIRE AND LEAD YOUR TEAM

#### Leadership and Communication Workshop for drilling team leaders

The workshop was organised by the drilling senior management as one of the initiatives of the 'We Want Zero' programme.

The workshop was targeted at offshore drilling team leaders from the drilling, marine, and technical departments who, in their role as task managers are responsible for teams and need adequate, non-technical skills to support their professional competences. During the two-day workshop, by carrying out practical exercises in a dynamic atmosphere where theory met the rig operational experience, participants explored the meaning and the importance of communication, leadership and teamwork. The first session of the Leadership & Communication workshop was organised in 2015 involving the team leaders from Saipem 12000 and Scarabeo 9. In 2016, it was implemented on board the Saipem 10000 and Scarabeo 7.

#### Workshop contents and main purposes

The workshop allowed the participants to discover how communication, leadership and teamwork are intrinsically connected. Understanding what communication really is and exploring good communication skills offer the opportunity to better comprehend the implications of inadequate communication at work or in relation with others, and to recognise their strengths as well as their areas of improvement.

Collaboration, communication and coordination are three pillars of good team work, and these elements were put into practice by the drilling team leaders who worked in teams with their offshore managers to build team bridges. The bridge-building exercise highlighted the dynamics that arise between team members when there is a predefined objective to be achieved in a specified time and manner. During the exercise, leadership styles and communication skills were observed among the group members which allowed each team to achieve different results. The 'Leadership styles' theme further highlighted examples of internationally recognised leaders that have influenced the actions of participants and thus their style of communication and behaviour were analysed. Participants explored their leadership styles, how these styles influence the team and workplace climate, and how important it is to continuously adapt to a specific situation in order to obtain the most from team members.

One of the communication skills stimulated and stressed during the workshop was active listening. In operational activities, team leaders are used to giving and receiving directions and acting upon them. The experience demonstrates that providing and receiving feedback and asking questions to check comprehension or to understand the messages helps team leaders to improve active listening skills, especially in a multicultural and challenging environment intrinsic to drilling activities. The learning by doing and the dynamic style adopted during the workshop allowed participants to actively contribute to exercises by adding their experience and integrating their personal style to create the right combination of a competitive and collaborative atmosphere.



Saipem's commitment to ensuring the socio-cultural growth of the area in which it operates takes different forms, one of which is the commitment to develop and employ local people: local employment contributes to providing social benefits in the host countries and is an unquestionable value of the Company's business philosophy.



Providing job opportunities, together with transferring know-how and capabilities, supporting local business and establishing local partnerships, it contributes

to creating local value by building durable win-win relationships with local communities and by providing sustainable benefits for them.

### **CREATING LOCAL VALUE**



To increase employment opportunities for local people and to promote their professional growth and skills, Saipem awards scholarships, sets up apprenticeship programmes and provides onthe-job training. Partnerships with local universities and direct engagement in Saipem's activities are key aspects for the local skills development goal.



A maximisation of local employment on Saipem's projects and activities is a universally valid business principle and a foothold in all operating contexts.



A series of measures (such as medium-to-long-term agreements) contribute to developing forms of multi-year cooperation. Saipem helps local vendors to boost their skills, expand their business and satisfy the Company's requirements.



By employing dedicated tools, techniques and methodologies Saipem forges a tailor-made stakeholder engagement strategy over time rendering local communities inclusive and participatory.

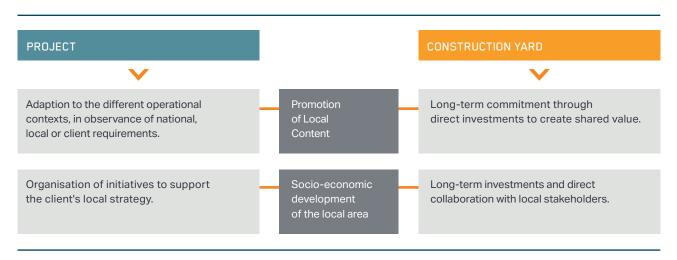
This approach helps Saipem guarantee its licence to operate and brings with it mutual benefits:

- strengthen win-win relationships with all local stakeholders;
- reduce costs and risks associated with projects;
- improve the Company's perception and reputation;
- create the conditions for a climate of mutual trust;
- generate positive effects on local communities, contributing to their social stability and wealth.

In accordance with the nature of its presence, Saipem promotes Local Content and local socio-economic

development in different ways: a long-term presence (when there is a construction yard) brings with it a long-term commitment to Local Content through direct investments. In case of project activities, short-to-medium-term presence requires that Saipem's Local Content promotion adapts to the different operational contexts, in observance of national, local or client requirements. Furthermore, initiatives are organised to support the client's local socio-economic development strategy. In recent years an increasing number of countries owning Oil & Gas reserves have adopted (or are going to adopt) Local Content policies which aim to obtain the greatest

### **SAIPEM'S PRESENCE**



benefits for their economies from the extraction of these exhaustible resources.

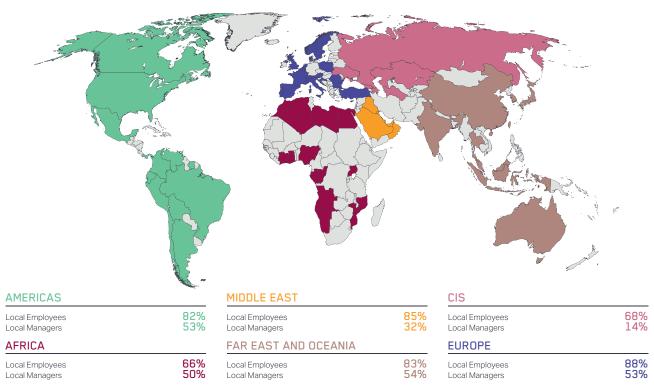
One of the factors that distinguishes Saipem has always been the adoption of a comprehensive Local Content approach. In doing so, Saipem has always proactively supported its clients in achieving their business objectives.

### **EMPLOYMENT OPPORTUNITIES**

Investing and hiring locally allow Saipem to both enter into and maintain ongoing relations with its host

countries, and to enrich the diversity of the workforce, meet the general strategy of efficient and effective human resources management and ensure critical professional skills for future projects. The types of skills necessary in the Oil & Gas industry are highly specialised and require an advanced level of vocational and technical ability. This is why Saipem continuously designs and implements development programmes in the countries where it operates.

The diversity of Saipem people is represented by a pool of young talent from a multitude of countries whose



80% of the Company's 40,305 employees were employed locally, with the highest percentage in Europe, the Middle East, Far East and Oceania, and the Americas. The percentage of local managers (sum of local managers and local senior managers) was 45% a 11% increase compared to 2015. This percentage was calculated by excluding data from France and Italy, since inclusion of those countries would have lead to a figure of 76% of local managers. The methodology used shows, with transparency and without distortion, the constant commitment of Saipern to promoting Local Content, including with regard to management positions.

### LOCAL EMPLOYEES AND MANAGERS

professionalism grows with that of Saipem in the various projects in which they are involved, either in their own countries or abroad.

Saipem helps local people to find job opportunities and to promote their professional growth and skills through different development projects: scholarships, apprenticeship programmes and on-the-job training. The direct, as well the indirect, creation of employment provides social benefits to the host countries: together with hiring locally, socio-economic development is advanced also by sourcing locally. In doing so, Saipem helps local vendors to reinforce their skills and to expand their business.

Locally ordered goods and services for operating projects





# **FOCUS ON NIGERIA**

As part of the company's commitment to invest in reinforcing skills and transferring know-how, Saipem offered both professional and vocational training for locals in 2016 that included:

### RUMUORLUMENI COMMUNITY TRAINING FOR YOUTHS

The Community Training for Youths is a vocational training programme to host community youths with little or no education but a willingness to learn Welding, Fitting, Rigging and Lifting or Scaffolding skills.



Saipem recently diversified the training to include graduates within the community for professional skills like QA/QC (Quality Assurance and Quality Control) and HSE (Health, Safety and Environment).

### Candidates from the Rumuorlumeni Community trained in 2016

The two training categories, vocational and graduate internship, utilise both classroom and on-the-job training. While 7 of the youths were trained in QA/QC (4) and HSE (3), the remaining 33 took part in vocational training.

This initiative aims to broaden their skills and increase their employability, capabilities and competences. The programme will spill into 2017.

### INDUSTRIAL TRAINING FOR UNIVERSITY STUDENTS

The Students Industrial Work Experience Scheme (SIWES) is a training programme initiated by the Federal Government of Nigeria designed to expose and prepare students of tertiary institutions to real work situations they are likely to encounter after graduation. Students are placed in various departments based on their course of study for on-the-job training to enable them to gain relevant experiences that complement their academic work.

The duration varies from 3 to 6 months or 12 months depending on the course of study.

Undergraduate students admitted in 2016

Training man-hours recorded

### SCNL SCHOLARSHIP SCHEME FOR HOST COMMUNITY STUDENTS

As a way of supporting the educational pursuit of community youths willing to further their studies, SCNL (one of Saipem's subsidiaries operating in Nigeria) is committed to assisting a total of 20 undergraduate students from various tertiary institutions on an annual basis by paying tuition fees.

# FOCUS ON AZERBAIJAN

### YOUNG GRADUATES INTERNSHIP

Since 2010, Saipem Azerbaijan has implemented the Young Graduates Internship, whose overall goal is to help undergraduate students with an educational background to set the basis for careers in the Oil & Gas industry.

The training consists of academically-enriching and experiential learning sessions on work-readiness education and career perspectives. Based on their performance during training, Saipem business needs and interviews, students advance to the next stage of the programme to take advantage of the industry induction and internship opportunities at Saipem premises in the country. Since 2014, Saipem has implemented an

Engineering module to develop local youths with a specialisation in this topic: this addition was mainly due to the lack of local engineers on the local market.

Over the years the number of participating universities has increased, reaching and engaging a higher number of students. In March 2016, an Introduction to Saipem training session was organised to provide full information for the new interns about Saipem projects in Azerbaijan, local organisational structure and to deliver guidance on how to cooperate and interact with relevant functions and Saipem decided to continue the programme implementation in the 2017-2018 academic year and expanded the Engineering Module execution.

Students selected for the internship since 2010	61
Programme participants employed with Saipem (offices, onshore activities and on board vessels) since 2010	43
Graduates participating in the internship programme in the 2016-2017 academic year	12
Employed interns in 2016	14

# FOCUS ON KAZAKHSTAN

### **ERSAI SCHOLARSHIP PROGRAMME**

Since 2009, Ersai has successfully implemented its scholarship programme for school-leavers from low-income families in Kuryk village.

The main purpose is to support students from needy families by financing their studies at one of the state universities of Kazakhstan in the specialisations required by the Company (i.e. welding engineers, electricians, mechanical engineers, ecologists, certification engineers, etc.). Ersai provides tuition payment for 5 years, a monthly allowance and transport costs. The annual selection of candidates takes place in two stages: a preliminary test and an interview.

Total students enrolled in the programme	15
Universities involved in the programme	3
Graduate students working in Ersai	11



# FOCUS ON SAUDI ARABIA

### SAUDISATION

Saudisation aims to replace foreign workers with Saudi nationals. In achieving this objective, Saipem has implemented several training programmes for local nationals in collaboration with some of the local technical training institutes.

Local employees trained

Local employees trained in 2016 for Civil Construction Young Saudi engineers trained that will be employed at project sites in 2017

Percentage of training man-hours 740/0 delivered to local nationals of the total hours delivered in Saudi Arabia

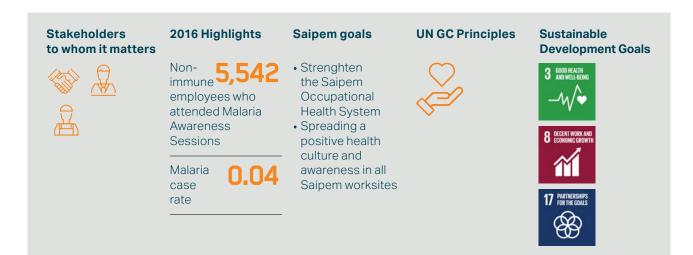
In addition to this, Saipem's commitment to Saudisation also concerned the development of the local drilling senior crews, for whom an internal training programme was specifically designed.







One of Saipem's fundamental values is safeguarding and managing its employees' health during the performance of their work. This goal shall be pursued in accordance with the protection of privacy and according to national and international laws related to the protection of health and prevention of diseases.



Operations in the Oil & Gas industry require the movement of a great number of people from one part of the world to the other and operations are carried out in remote and extremely remote locations.

So it is the Company's duty of care to ensure:
the best possible medical assistance to the employees working in such extreme environments;

- the organisation of periodic and specific medical examinations and the subsequent issue of a valid Medical Fitness Certificate;
- pre-travel training of the employees assigned to prevent workplace risks.

The implementation of the Saipem Health Management System is one essential approach to fulfilling its health mission.

### **HEALTH HIGHLIGHTS**

Employees trained in the Pre-travel Counselling Programme	620
Employees subjected to medical fitness examinations	27,329
Vaccinations	+4,000

### FRAMEWORK

Following the WHO (World Health Organization - Bejing declaration) on 'Global Strategy on Occupational Health for All' (1994), as well as European Legislation and Directive 2000/54/EC on protection of workers from risks related from exposure to biological agents at work, and its application in Italy by Legislative Decree No. 81/2008 and its modifications (called 'Testo Unico' for Health and Safety in Workplace Legislative Decree No. 81/2008), Saipem SpA has developed a Health Management System. This framework provides the strength, flexibility and appropriate basis for the development of a sustainable health culture in the company.

### Health Management System

Saipem developed a health care system that is adaptable to the working environment blending with existing local medical practices and building a dynamic Health Management System that is continuously evolving. This ensures the best quality of health surveillance and medical services to its workforce.

The plan for each work site shall focus mainly on preventive measures and considers all the activities whose execution constitutes a health risk due to operational hygienic, climatic and existing logistic conditions.

The Health Prevention Plan includes, but is not limited to: health risk assessment, medical fitness examination, vaccination and chemoprophylaxis, hygiene and medical surveillance, health prevention programmes and health promotion and training activities.

### MAIN GOALS AND TARGETS

**Occupational Health**: consolidate the activities regarding the protection of worker's health by adapting the process to the new current applicable regulations.

**Management of travellers health**: the dissemination of the 'Pre-Travel Counselling' programme for personnel assigned abroad will proceed in line with changes and updates from developed international health bulletins. Since its debut in 2008, the programme has allowed the company to inform approximately 8,250 employees of the risks related to their destination as required by current legislation.

Starting in November 2016 this programme became available as an e-learning course: the new tool, called Time Management System (TMS3), allows the company to reach and inform all employees (starting from 2017 the programme will cover 100% of Saipem people), before they leave for their assignments abroad or foreign contracts.

Updating of the travel app 'Si Viaggiare' proceeds as an integral part of the Travel Medicine training process in line with worldwide health bulletins (i.e. Ebola. Zika, MERS). As of today there have been more than 15,000 downloads of the app. **Awareness**: it is the company's goal to intensify leadership in health by applying the Occupational Health System and spreading a positive health culture and awareness in all Saipem worksites to develop and encourage healthy lifestyles among Saipem employees and contractors.

Health programmes pursue development, innovation, research and recognition of all conditions that create and influence people's health and well-being in order to achieve personal welfare and satisfaction, as well as to achieve high performance and to work efficiently. A structured process is in place and a well-defined chain of responsibility is defined in order to promptly manage any possible medical emergencies.

Depending on operational requirements and health risk assessments, medical facilities (i.e. clinics, transportation vehicles, laboratories and other diagnostic equipment) shall be in place during operations.

No. of medical personnel

### WORKPLACE HEALTH PROMOTION AND DISEASE PREVENTION

An important part of the Health Prevention Plan is represented by the assessment and control of specific hazards which may have a negative effect on the health of employees during their site assignment. In order to perform this assessment, Saipem developed an in-house programme. The scope is to make employees aware of all the health risks and consequently, help employees to address them as well as improve their general health culture.

The expected results included a decrease in individual and group cardiovascular risks and other non-communicable diseases as well as a decrease in absenteeism, emergencies and repatriations resulting from the onset of preventable diseases.

Numerous programmes and initiatives were successfully implemented at different worksites.

### **Cardiovascular Disease Prevention Programme**

Cardiovascular diseases remain a leading cause of morbidity and mortality across the globe and Saipem has not been spared. A quarter of the repatriation cases of Saipem employees in 2016 was attributed to cardiovascular diseases.

The 'Cardiovascular Disease Prevention' (CVDP) Programme is based on the promotion of a healthy lifestyle and on risk assessment through overall monitoring of employee health. Employees considered to be at risk for circulatory diseases are included in the 'Risk Factor Followup' (RFF). This year, special attention was given to diabetes awareness and prevention as one of main cardiovascular risks. Specific training sessions were organised.

### Sites involved in the programme

103 1 800

#### **Employees screened**

In 2007, Saipem launched the 'Telecardiology programme' to provide assistance to remote sites.

#### Sites covered

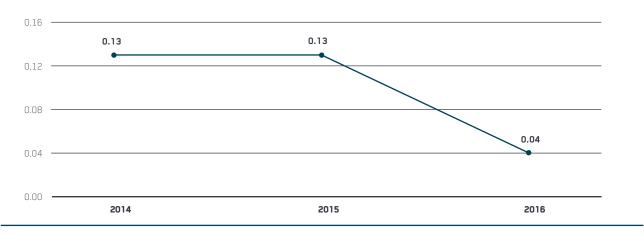
57 .448

EKGs (electrocardiograms) transmitted

### THE 'WORKPLACE HEALTH PROMOTION' (WHP) PROGRAMME

This programme is the result of the joint efforts of employers, workers and local institutions and its aim is to improve health and well-being in the workplace by adopting best practices in the field of health promotion. The three-year WHP Programme introduces the development of activities in 6 thematic areas: promotion of a proper diet, anti-smoking campaigns, promotion of physical activity, road safety and sustainable mobility, alcohol and addictions, personal and social well-being and work/family balance. In 2016, for the third year running, Saipem was awarded for reaching the programme's goals by the regional government of Lombardy.

### OVERALL MALARIA CASE RATE



Of these EKGs transmitted, 119 were considered as potential cardiac emergencies and were therefore swiftly analysed by specialists. The other EKGs performed supported the CVDP Programme in the global monitoring of circulatory risks of employees.

### **Promoting healthy lifestyles**

The main programmes implemented to promote healthy lifestyles included:

• weight control and obesity prevention, which involved measuring the Body Mass Index (BMI) and waist circumference of employees and identifying if employees were overweight or obese. The programme consisted of 2 seminars.

### Participants in the seminars



• The 'Healthy Food' Programme was implemented with the collaboration of the food catering companies that provide service for Saipem and with the support of the Company's medical department.

### Sites where the programme was implemented

18

• The 'Stop Smoking' Campaign was structured into 4 phases delivered over 4 weeks. Each phase consisted of lectures, activities and counselling delivered in 2-hour workshops.

Worksites where the campaign was implemented

### SAIPEM'S 'STOP MALARIA' CAMPAIGN

Even if malaria morbidity and mortality rates are falling, the African Region, as defined by the WHO, continues to bear the brunt of the global burden given that in 2015, 88% of global malaria cases and 90% of global deaths occurred in this region.

Malaria continues to have a severe socio-economic impact on local populations. It is one of the causes of household poverty because it results in absenteeism from daily activities of productive living and income generation. As long as there is no vaccine against malaria and natural immunity is acquired only partially and only by local people, those living and/or working in and/or travelling to Sub-Saharan Africa have the greatest risk of both acquiring malaria and dying from this infection.

# Saipem is strongly committed to fighting malaria.

In 2016, 35 worksites located in high malaria risk areas were involved in the Saipem Malaria Control Programme. The overall Malaria Case Rate (MCR), defined as the incidence of stewardable malaria cases per 200,000 exposure-hours, was 0.04 in 2016 (0.13 in 2015). The MCR declined also among non-immune personnel (0.10 vs. 0.64). The difference is due to the dramatic decrease in malaria stewardable cases (18 cases in 2016 vs. 36 in 2015) and by the significant variation in worked man-hours (84.7 mln in 2016 vs. 54.6 mln in 2015). No malaria-related deaths among Saipem workers and subcontractors were reported.

The 'Stop Malaria!' Campaign was launched this year to cover the entire non-immune workforce in Nigeria, the Congo and Angola and successfully reached more than 2,300 employees, including both Saipem and subcontractor employees.

The campaign package contains the Malaria Control Programme video and new posters that focused on the 'ABCD' strategy (Awareness, Bite Prevention, Chemoprophylaxis and prompt Diagnosis and Treatment).



# Malaria awareness campaign in Angola

As part of its sustainability programme Saipem continued to implement malaria prevention initiatives addressed to local communities in Angola. The Memorandum of Understanding (MOU) regarding malaria control programme initiatives was signed in



September 2016 with the Ambriz Health Direction. Further to the discussion with the municipal supervisor, a series of awareness programmes were initiated at community and institutional levels in Ambriz.

### **Communities covered**

2,000

### People involved

As part of vector control activities, 10 local community workers were selected and trained in fogging and indoor spraying. They are now certified as indoor residual spraying technicians. Equipment for indoor spraying and fogging was provided to the local communities to sustain vector control.

Malaria test kits were distributed to various health posts for the early detection and prompt treatment of malaria infections. With the aim of improving basic medical infrastructure needs of the health posts, various medical equipment and consumables (stethoscope, sphygmomanometer, microscope, weighing scales, uniforms, malaria test kits, etc.) will be provided in early 2017.

In order to strengthen local healthcare personnel skills, Saipem plans to train 20 nurses from Ambriz and the surroundings in early 2017. The training programme will focus on 7 important subjects such as 'Epidemiology and prevention of malaria' and 'Medical evaluation of the patient'.



### Laboratory technician training

Malaria is still among the leading causes of death in the Congo. Thus a training course for laboratory technicians was successfully completed: in the framework of the national health programme, Boscongo (Saipem's subsidiary in the Congo) decided to sponsor a training programme to increase the skills of health personnel in the Loango village to ensure a more accurate diagnosis of malaria and the optimum treatment of patients. This initiative comes as a result of a lack in medical personnel qualified in malaria diagnosis in local hospitals which are likewise improperly equipped. 4 health professionals working in rural areas of Kouilou were trained in malaria diagnostic techniques using the microscope provided by Boscongo. The total duration of this training course was 50 days.

With regard to prevention, the following activities were carried out in the area:

- continuous awareness, especially on World Malaria Day when specific meetings were organised at 3 worksites;
- regular fumigation;
- malaria induction for all non-immune employees newly assigned to the area: 46 malaria induction sessions were organised and 61 non-immune employees attended. Additionally 1 refresher session for 31 non-immune employees was organised;
- more than 200 DEET repellents and approximately 80 long-sleeved clothing items impregnated with permethrin were distributed to the expatriate workforce.



### Malaria initiatives in Nigeria

In 2016, Saipem came up with a set of practical measures aimed at increasing malaria awareness and improving indoor residual spraying as well as outdoor space fumigation. After an in-depth analysis, Saipem selected a new insecticide in line with the WHO's recommended list to boost the effectiveness of prevention

actions.

Hot fogging external fumigation machines were also reinstated. The procedure for indoor residual spraying was reviewed. This amendment is expected to extend the span of effectiveness of up to 6 months after each fumigation.

The energy spent fighting malaria is reflected in the current statistics. In 2016, there were a total of 16 malaria cases at SCNL compared with 29 in 2015, with no fatalities.

# THREE CURRENT MILESTONES OF SAIPEM PROJECTS

Saipem excels in all steps of the Oil & Gas value chain, onshore and offshore, upstream and downstream, as well as in selected diversified businesses. The Company carries out its activities in remote areas and deep-waters, providing engineering, procurement, project management and construction services, with distinctive skills and capabilities in the design and execution of large-scale offshore and onshore projects. Together with this technology footprint, Saipem always plays an active role in the areas in which it operates also by contributing to promoting the socio-economic development of local communities.

This chapter provides an all-around view of the:

South Caucasus Pipeline Expansion (SCPX) Project page 70
Egina UFR Project
Kaombo FPSO Project







# SOUTH CAUCASUS PIPELINE EXPANSION (SCPX) PROJECT

Peak of personnel engaged in

project activities

Including SAJV<sup>1</sup>

subcontractors

New diameter pipeline through Azerbaijan and Georgia

the overall number reached up to



Field location: Azerbaijan and Georgia

### **PROJECT DESCRIPTION**

The South Caucasus Pipeline (SCP) is a gas pipeline that transports gas from Sangachal Terminal to the Georgian-Turkish border. The construction process commenced in 2004 and was completed by the end of 2006. The South Caucasus Pipeline Expansion (SCPX) Project, along with the Shah Deniz Stage 2 (SD2), are part of the Shah Deniz Full Field Development (FFD), which aims to bring gas from Azerbaijan to Europe and Turkey. The objective of the SCPX Project is to expand the capacity of the existing SCP system to accommodate additional gas throughput from the SD2 expansion development in the Caspian. The Project base-case design is to facilitate an increase in gas transmission capacity in the existing SCP pipeline system by an additional 16 bcma to create a total system capacity of 23 bcma. This expansion will be achieved by the installation of two new compressor stations and two pipeline loops.

The project is also linked with the initial section of the TANAP (Trans Anatolian Pipeline) on the border between Georgia and Turkey. The completion of the project is scheduled for 2018.

and Georgia

**Total system** 

capacity

Pipeline through Azerbaijan 487 km

23 bcma<sup>2</sup>

SCPX is the first stretch of the so-called Southern Gas Corridor, the system that is designed to export gas from the offshore field of Shah Deniz from Azerbaijan to Puglia (Italy), via the TANAP and TAP (Trans Adriatic Pipeline), also to be constructed in the future.

A final investment decision on the SCPX project was taken on December 17, 2013, coinciding with SD2.





(1) SAJV is a joint venture formed by Saipem and Azfen, a local Oil & Gas contractor.(2) Billion cubic metres of natural gas per annum.

On May 15, 2014, BP Exploration (Shah Deniz) Ltd awarded Saipem, in joint venture with Azfen JV, a major Azerbaijani local contractor, its first onshore E&C contract in the Caucasus on behalf of the South Caucasus Pipeline Company Ltd.

The contract itself involves detailed engineering for crossings, construction and commissioning support of 487 km of a 48" pipeline, 424 km of which is in Azerbaijan and 63 km in Georgia. It also includes the installation of block valves, pigging facilities, tie-ins, horizontal directionally drilled crossings and two microtunnels, all forming part of the SCPX Project.

## **PROJECT STATUS**

In 2016, SCPX activities continued successfully along the pipeline route across Azerbaijan and Georgia.

In Azerbaijan, mainline construction continued with approximately 247 km of pipe welded, 217 km of pipe coated and 207 km of pipe lowered into trenches. Trenching, lowering, laying and backfilling activities are progressing.

In Georgia, trenching, lowering and laying activities continued during the third quarter. Mainline construction continued with nearly 62 km of pipe welded and coated, and about 61 km of pipe lowered into trenches. As part of the tunnelling activities at the Kura East location the pipe installation was completed and other activities were planned to be finalised by May 2017.

## **HSE INITIATIVES**

#### Frontend Essential Workers (FEW)

Translated and rolled out in Azerbaijan and Georgia in cooperation with BP, the Frontend Essential Workers (FEW) initiative eliminates unnecessary or unauthorised workers from entering the danger zones during preparation and welding stages of the pipeline, therefore reducing the risk of Line of Fire associated incidents (Line Of Fire persons are the individuals placing themselves between the pipeline and moving equipment). This is done by: 1. marking hazardous zones with red and white boxes; 2. not permitting anyone during plant movement; 3. allowing only nominated FEW inside the chalk line

during plant movement.

#### 'One team' campaign

SAJV together with BP, have rolled out a 'One team' approach, a system of joint communication and site visits.

The aim is to ensure that all health & safety information and required work standards are agreed and implemented by all Project Personnel.

The 'One team' campaign culminated in a joint celebration for achieving a project with 10,000,000 worked man-hours without incurring a Lost Time Incident (LTI).

Safety is not the effort of just one person, it is the focus and determination of the entire team working towards a common goal. SAJV HSS Coordinator - Tabriz Davudov

## Performing in different temperature conditions

In Azerbaijan and Georgia temperatures vary from +38 °C in the summer months to -2/3 °C in the winter months. For this reason both Heat and Cold stress awareness campaigns are organised. These campaigns aim to inform of the hazards and detrimental health effects of working in high heat index or cold conditions. During summer months, HSE teams are equipped with portable weather monitoring stations to ensure workers are not exposed to working excessive hours in extreme heat. Likewise in winter months, medical teams provide information to workers on the importance of wearing correct clothing, keeping warm and eating the right food. Furthermore, additional winter PPE is issued to site workers.

#### Promoting safety among school children

One of the main risks the SCPX Project-Affected Communities (PACs) have to face is truck and car traffic and, consequently, potential accidents. The School Safety Project, organised in coordination with the Ministry of Education of Azerbaijan and Georgia, school administration and local municipalities, aims to increase safety knowledge in the communities, especially among pupils and students from primary and secondary schools, providing awareness, basic skills and knowledge on safety issues to avoid potential accidents and other negative impacts during the project execution. The project uses interactive and 'learn through art' approaches that stimulate learning, concluding in the submission of artwork in a safety-themed competition highlighting what the school children learned.

Number of schools involved	86
Number of regions involved	14
Number of participated pupils	+1,600

#### **Environmental Awareness Sessions**

Project teams were involved in different environmental awareness sessions throughout 2016 on sensitive project issues. Some examples of awareness sessions addressed to all project teams include: waste management; spill response; sediment erosion control/flume crossings; protection measures from poisonous animals; soil erosion and control mitigation measures.

Pre-construction surveys out of 85 planned	85
Number of spill drills out of 13 planned	13
Social initiatives (engagement of the Client and the national authorities and institution	<b>184</b>
Reduction of waste generated in the camps after equipment installation	-90%

Up to the end of November 2016

### **REUSE OF DRILLING CUTTINGS**

The main waste streams arising from the HDD (Horizontal Directional Drilling) works are drilling mud and cuttings. These cuttings include clay and/or sand material obtained from the ground, water and bentonite. Different solutions to reuse the cuttings were proposed but, in the end, it was decided to offer the cuttings to local landowners. The spoil material will be transported, spread and plowed by tractors on agricultural land.

## COMMITTED TO LOCAL DEVELOPMENT

#### **People development**

SAJV can count on a reliable workforce by attracting the most suitable and professional people to perform the job with no limitations to gender and nationality.

#### % of locals in SAJV

Up to the end of November 2016

The combination of a comprehensive training plan, world class experienced professionals and strong commitment by SAJV to develop national content so far has resulted in gaining specific knowledge by a significant number of local staff and in general career growth.

Training sessions and inductions for SAJV and subcontractor employees		47
Workers reached	+15,7	700
Training man-hours	+29,0	000

Up to the end of November 2016

### Local supplier development

With the ultimate aim of enhancing local subcontractors, a significant part of the project activities and services were assigned to local companies. Exceptions concern cases of very complex works that are normally awarded to highly-skilled foreign subcontractors. To guarantee their alignment to project standards and procedures, specific contractual commitments for subcontractors (and their sub-suppliers and subcontractors as well) were included by SAJV. These requirements concern the 'Local Recruitment and Training Plan', 'Grievance Management Procedure' and 'Community Liaison Implementation Plan'.

#### **COMMUNITY RELATIONS**

Among the many different challenges the SCPX project activities have to face, the impact on a high number of local communities plays a crucial role. The overall objective for the community engagement strategy is to build a positive, non-dependent relationship between the SAJV, BP and the local communities. The aims of the community engagement activities are to:

- ensure construction is managed in a way that reduces/minimises impacts to nearby communities;
- ensure that impacted communities are aware of construction activities, possible impacts, and mitigation actions that will be taken to manage impacts;
- provide safety awareness to nearby communities;
- ensure communities are aware of how to contact the project to ask questions or raise grievances;
- ensure grievances are investigated and receive a response in a fair and timely manner.

To guarantee a transparent and open dialogue between project and local stakeholders, Project Information Centres (PICs) were established at defined locations and remain operational during construction. SAJV employed a recruitment officer for each PIC to help process job



#### A HOPE TRAINING SESSION FOR SCPX MANAGEMENT

2016 saw the implementation in Baku (Azerbaijan) of the third HOPE edition, customised this time for two projects with different challenges, peculiarities and contexts.

Following the first workshop involving Shah Deniz 2 project management on November 17, the second one was given to SCPX project management. As a high impact project from a social point of view, it brings along with it many different peculiarities and points worthy of attention which participants had to consider and manage during the workshop.

#### **Participants**

Positive feedback was collected: participants appreciated the right mix of an organic

applications. Dialogue is also guaranteed by the function of the Community Liaison Officer, who maintains regular contacts with community and local authorities, provides adequate information and becomes aware of any concerns or issues they may have.

R

#### Functioning Project Information Centres established

Another way to maintain a dialogue with local communities is the public meeting, organised to provide overall information about the project, key activities, construction schedule, available jobs, inductions and awareness campaigns, HSE issues related to construction activities, social procedures, etc. A constant dialogue is also important when it comes to local job opportunities, since all available job positions are communicated to local communities through public meetings, job announcements and the mass-media. Applications are collected by the Community Liaison Officer and Human Resources representatives. In the same way, also SAJV subcontractors are informed of specific project needs and business opportunities.

#### **Grievance Management**

SAJV provides clear information to local communities about formal grievance mechanisms while liasing with them, during public meetings and on a routine basis. Grievances can either be presented in writing or verbally: in the first case, community members get a copy of a grievance form, fill it in and return it. Complaints can also be received verbally, with the Community Liaison Officer writing the grievance for them. All the forms received are entered and registered in the Grievance Log, analysed and forwarded to the relevant department. Local residents receive an acknowledgment letter within

framework and practical training where real situations were discussed during the group work section.

Furthermore, the focus on the Oil & Gas industry and the close link and interaction between site activities and the surrounding environment gave an added value to the workshop. The workshop was also an occasion to discuss human rights and share knowledge among participants.



7 calendar days while the SAJV response is provided no later than 30 days.

## ENVIRONMENTAL AND SOCIAL GRIEVANCES

Closed	186
Under investigation	3

Up to the end of February 2017

In a proactive approach to contributing to a positive relationship, community activities and their corrective actions or impacts are always monitored. Feedback on SAJV relations with the community is likewise monitored.

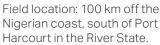




# EGINA UFR PROJECT

Saipem's slogan in Nigeria is 'Here to stay' and its commitment is once again demonstrated through the execution of the Egina UFR project.





### **PROJECT DESCRIPTION**

The Egina Field is located off the coast of Nigeria within OML 130 (Oil Mining Lease), some 200 km from Port Harcourt in a water depth ranging from 1,150 to 1,750 m. The development of the Egina field is based on subsea wells connected to a Floating Production, Storage & Offloading (FPSO) facility and stabilised crude oil for export via oil tankers using an offloading buoy. There is also a gas export pipeline from FPSO to the AKPO gas export pipeline tie-in point.

The scope of work of Saipem's project for the Flowlines, Risers, Offloading Systems and Offshore Works (UFR) for the Egina Main Field is listed below:

• EPCI of umbilicals, flowlines and risers:

- 29 km of 14" production flowlines and top tensioned risers in 2 loops (4 off lines and 4 off risers) combining riser gas lifting in a Pipe-in-Pipe arrangement;
- 23 km of 12" water injection flowlines and top tensioned risers (3 off lines and 3 off risers);
- 20 km of 14" gas export lines and top tensioned risers with subsea tie-ins to the existing AKPO-AMENAM gas-export line;
- 68 km of umbilicals (4 main dynamic and 23 static umbilicals) for subsea control and chemical injection;
- 4.6 km of 18" oil offloading lines (2 lines of Unbounded flexible);
- T&I of subsea production system including 6 subsea production manifolds with 6 slots;
- T&I of offloading buoy moored 2 km from the FPSO;
- EPCI of 16 off FPSO mooring anchors.

Overall project management is centred at the project main office in Lagos and includes engineering, procurement, QA, HSE and project control functions. In consideration of the complexity of the technical elements involved in the Egina UFR contract execution, the engineering project team in Lagos has been supported by a pool of experts located at Saipem's offices in St. Quentin-en-Yvelines, France.

Max water depth1,750 mUmbilicals80 kmOil production and water<br/>injection flow lines52 kmMain worksites<br/>for onshore activities4Gas export pipelines20 kmMain vessels<br/>for offshore activities3

Upon completion of the main system engineering and installation engineering tasks, the project teams were relocated to the relevant work locations (fabrication yard, logistic base, vessels) to support the execution of the subsequent phases of the project in terms of follow up of the fabrication and offshore construction works:

- the main fabrication worksites for onshore fabrication works are:
  - Saipem Contracting Nigeria Ltd (SCNL), located in Port Harcourt, with a fabrication scope of around 15,000 tonnes of structural equipment and 26,000 tonnes of quad joint for flowlines and risers;
  - Energy Works Technology Ltd (EWT), located in Port Harcourt, with a fabrication scope of around 1,100 tonnes for a total of 9 OLT anchor piles and various structures;
  - Pipe Coaters Nigeria Ltd (PCNL), located in Port Harcourt, with a fabrication scope of 48 km WI/GE anti-corrosion coating lines (linepipes) and 36 km production lines of thermal insulation;
  - Intermare Sarda (IMS), located in Arbatax (Italy), with a fabrication scope of around 2,000 tonnes for a total of 4 production buoyancy tanks and 8 top & bottom assemblies;
- the main marine spread for offshore installation works are:
  - Saipem FDS 2 (deepwater pipelaying vessel);
- Saipem 3000 (deepwater construction vessel);
- Normand Maximus (offshore construction vessel).

#### **PROJECT STATUS**

It was decided to divide the offshore campaign into two phases during the first quarter of 2016: an 'Early campaign' (concluded) and a 'Main campaign' planned from March 2017 to early 2018. The EPC scope has been adjusted in line with this split.

With regard to engineering, the detailed design phase is almost complete with only the finalisation of some Installation procedures related to the second offshore campaign remaining. As far as procurement is concerned, all the purchase orders for incorporated items have been issued and concluded.

Construction progress stands at around 70%. The focus has been on the completion of the subsea structures needed for the 'Early campaign'. Spools and jumpers as well as Buoyancy Tank completion will be the main scope and challenges for the 2017 SCNL yard.

The 'Early campaign' installation phase involving the FDS 2, S3000 and an MSV has ended. In addition, the riser piles, manifold piles and 14 FPSO foundation piles are now in place subsea. The 'Main campaign' includes completion of the Egina scope of work in terms of offshore installation. This phase is expected to be completed in January 2018. The project, commissioned by Total, will be completed through a post FPSO arrival campaign in 2018.

# The Egina UFR Project is truly a flagship Nigerian project.

## **HSE INITIATIVES**

#### Confined spaces and Work-at-height simulator

The project employed an innovative approach in the management of confined spaces and work-at-height operations with the development of simulators and corresponding comprehensive training sessions at the SCNL yard. The simulators provided the ability to replicate a variety of scenarios in a controlled environment, allowing employees to learn the proper

#### SAIPEM SA WORLD ENVIRONMENTAL DAY 2014 CHALLENGE

The project participated in the Saipem SA World Environmental Day 2014 Challenge and placed 3<sup>rd</sup> for the energy savings campaign carried out in the offices in Lagos.

techniques when responding to a wide range of situations.

Their use has not only increased the training effectiveness for the Egina UFR Project, but other Egina contractors now have access to these facilities and this training.

## HSE management coaching for subcontractor personnel

In order to improve their HSE Management System, subcontractor HSE personnel were coached by project HSE personnel. Specifically, a gap was noticed in the competence level of the subcontractor's environmental team and environmental training was provided at the SCNL yard for 3 subcontractor resources. The training included classroom sessions, walkabouts, mock scenarios and interactive classroom exercises.

## COMMITTED TO LOCAL DEVELOPMENT

The Egina Project implementation plan confirms Saipem's strong commitment to Local Content in Nigeria. In compliance with all local regulations Saipem reached the targets prioritising the employment of Nigerian Nationals



in the execution of the works and giving first consideration to Nigerian vendors for procurement purposes in order to promote socio-economic development of the country.

For Saipem, Local Content means creating employment, developing local skills and capacity, transferring know-how, collaborating with local suppliers and subcontractors and enhancing local entrepreneurship in its operations.

#### **Training programme for local engineers**

Saipem has established a first class reputation in Nigeria for recruiting and training skilled young locals – spanning from professional roles to blue collar positions, enormously investing in the training and development of its local workforce/host communities on the Egina field development Project.

Saipem conducted an extensive training programme for local engineers to develop the multidisciplinary expertise required for the development of deep water projects. The programme, implemented both in Paris and in-country, covered key areas that included cathodic protection, modelling and analysing subsea structures, and geotechnical, flowline, riser & installation engineering. Also, an in-house succession plan, which focuses on using hands-on experience to bridge in-country capability gaps, has been set in motion and is also helping to improve the skill sets of the local workforce on newer technologies, engineering software applications and managerial development.

#### Young Nigerian engineers recruited and trained to a higher proficiency level in engineering disciplines

Training man-hours

100,000

-200

Furthermore, training and certification programmes were conducted for the local workforce in the following categories: general HSE training sessions, project management, quality management, project interface management, subsea engineering design, fabrication, installation & commissioning and procurement services.

#### National Human Capacity Development (NHCD) Initiative

Alongside training for its employees and within the framework of the Nigerian Oil & Gas Industry Content Development Act, Saipem promotes training for young graduates with a view to equipping them with professional knowledge and increasing their

## ACKNOWLEDGED LOCAL CONTENT CHAMPION

Saipem's commitment to creating local value was officially acknowledged on July 27 when Nigerian Content Development and Monitoring Board (NCDMB) representatives and the House of Representative Committee on Local Content were invited for a Saipem presentation on Local Content achievements and for a yard tour. Saipem presented the landmark Nigerian Content achievements on the Egina Project realised through the intense training of the local workforce, expansion of yard facilities and mentoring subcontractors. The presentation also detailed Saipem's support to the local business with a focus on activities performed for the first time in Nigeria in the areas of Engineering, Procurement of in-country manufactured items, Construction and Subcontracting of specialised services. Thanks to its huge investment in infrastructure and human capacity development, SCNL is able to deliver complex projects in Nigeria executed by Nigerians.

'The delivery of the Egina UFR package by Saipem Contracting Nigeria Ltd was a clear demonstration of how capacity has evolved over the years in Nigerian yards.'

#### The Executive Secretary NCDMB, Patrick Obah

'We are very humbled to say that Saipem is proud of these achievements in Nigeria. Again, this is an example of our Nigerian Project made and executed by Nigerians. We have a lot of technology here which has now become the property of the Nigerian group at Saipem. We have set up a first class yard, and even exporting from Nigeria some of our home grown technology.

It is not by chance that we have been here for 50 years and consistently trying to grow with Nigerians in Nigeria. We are for sure on the right path of growth with Nigerians in Nigeria.'

The Managing Director, Guido D'Aloisio

Messages thanking to the local authorities for allowing Saipem to express this capability.



### HEALTH CARE IN THE SCNL CLINIC

In collaboration with a local non-profit organisation, 'Society of Oncology and Cancer Research of Nigeria' and the SCNL clinic, a health campaign focused on breast cancer (symptoms, early detection and how to do breast self-exams) for SCNL employees was implemented. This campaign is particularly relevant as there are still a lot of misconceptions and myths associated with breast cancer.

employability. This process is monitored by the Nigerian Content Monitoring and Development Board (NCDMB). The training programme within the Egina UFR Project started in 2015 and continued in 2016.

Total number of NHCD trainees assigned to the Egina Project

The 20 NHCD trainees were divided into two groups, the first one rounded off in June 2015 and the second one in November 2015 and May 2016. The training covers key aspects on Saipem operations, subsea design engineering, project planning, HSE, quality, fabrication and installation engineering & operations.

#### **Cultural awareness induction**

The project, addressed to every expatriate mobilised to Lagos, developed and implemented a cultural awareness induction to increase the level of understanding, interest

## Breast cancer awareness sessions conducted

The Egina UFR Project procured 1 x-ray machine and 1 ECG machine to be used in the SCNL Clinic. Not only will these machines improve the Clinic's ability to more accurately diagnose and treat patients, they will also support the Medical Fitness Certification process for project personnel.

in local culture and sensitivity to cultural differences. The goal is to promote greater efficiency, improve communication within the project team and reduce the incidents of cultural missteps.

The cultural awareness information has been integrated into the project HSE induction.

#### Investing in the local supply chain

The entire Egina Project is run from SCNL's premises in Lagos, and most of the engineering is performed in Nigeria.

One of the main goals of the entire project is to prioritise the use of local vendors: the vast majority of fabrication works is performed at the SCNL yard in Port Harcourt, which is also used as a logistics base.

Saipem decided to invest in two main local subcontractors, the first for the fabrication of the offloading buoy mooring anchors and the second for the coating of the line pipes. Through significant coaching, auditing and management commitment, these vendors have been developed to meet the international standard of the oil industry.



# **KAOMBO FPSO PROJECT**

A project to pursue growth opportunities, leverage engineering capabilities and create local value.



## **PROJECT DESCRIPTION**

In 2014, Saipem was awarded two contracts for the Kaombo Field Development Project, located in Block 32 in Angola: the first, for the engineering, procurement, construction, supply and commissioning of two converted VLCCs (Very Large Crude Carrier) into FPSO (Floating Production Storage and Offloading) units; the second, for the field operation and maintenance services of the two vessels (a 7-year contract).

The six fields involved cover an area of 800 km<sup>2</sup> in the central and southeast part of the block, connected via 300 km of subsea pipelines to the two FPSO units, Kaombo Norte and Kaombo Sul.

The Kaombo FPSO Project is an international project with fabrication and installation works spread all around the world, onshore and offshore:

- GPC (Gulf Piping Co) yard, in Abu Dhabi (United Arab Emirates), where the fabrication of the 2 lower turrets started in March 2015 before being delivered to the integration yard of Sembawang, in Singapore (about 2.6 million man-hours were spent on their fabrication, reaching a peak of about 600 workers per day, in Abu Dhabi);
- Sembcorp Marine Admiralty yard (Sembawang), in Singapore, where the conversion works of the two VLCCs, the integration of the modules and the commissioning activities are taking place;
- Saipem Karimun yard (Indonesia), where process and utility modules were fabricated, representing a total of approximately 26,500 tonnes;
- Schneider Wasco yard in Batam (Indonesia), where the P2 modules (technical buildings) for both Kaombo Norte and Kaombo Sul were fabricated;



- Profab/Nov yard in Batam, where the S3 Modules for Kaombo Norte and Kaombo Sul are fabricated under an EPC contact awarded to Siemens;
- Petromar yard in Ambriz (Angola), for the fabrication of the suction pipes, the mooring lines, as well as the crew boat landings and S2 and S5 models for Kaombo Sul;
- the S3000 vessel was used for the offshore installation of the 18 mooring piles (27 m high, 5 m in diameter and 160 tonnes) in offshore Block 32 in Angola;
- the Onshore Logistic base designed, built and operated by Saipem's consortium partner Interoil in Viana (Angola).

## **PROJECT STATUS**

By the first quarter of 2017, all the modules for Kaombo Norte will be fabricated and integrated onto the FPSO in Sembcorp Marine Admiralty Yard.

The various parts of the upper turret have been integrated in sequence. Commissioning activities have started and are expected to increase significantly. Sail away is planned for the second semester of 2017. The preparation for field operation services is ongoing and the Onshore Logistics base is operational.

#### Worked man-hours



As of mid February 2017.

## **HSE INITIATIVES**

#### Health, Safety, Environment: Kaombo FPSO core values

With a view to establishing a collaborative and constructive approach to achieving project objectives, since the beginning the Kaombo FPSO has engaged the top management of project key actors (Saipem, the client Total, partners, subcontractors) in an HSES Charter workshop.



The outcome of this event, held in 2014, was the definition of a common HSES vision, as a platform of agreed values in order to guide action plans, share and integrate lessons learned during project execution, ensure effective implementation of safety leadership programmes, commit to protecting the environment and respecting local communities.

Through clear organisation, an integrated team ensured effective supervision, coordination and improvement of HSE aspects.

From the design phase and throughout the execution of the project on all worksites, the LiHS (Leadership in Health & Safety) Programme was customised and cascaded through joint Saipem/subcontractor sessions in order to spread the safety culture throughout the workforce. At the same time, Health, Safety and Environment awareness campaigns (i.e. Life Saving Rules-LSR Campaign) and training programmes were deployed. A joint contractor/client Health, Safety, Environment & Sustainability (HSES) Incentive Scheme was deployed to encourage and reward the promotion of a safety culture, a proactive attitude to protecting the environment and a respectful and context-specific approach to local communities in the areas where the project is executed. Through this scheme and with client support and participation, Saipem developed initiatives for the neighbouring local communities in Indonesia and Angola.

## COMMITMENT TO LOCAL DEVELOPMENT

#### Training and developing a multicultural workforce

The Kaombo Project is spread over 5 geographic areas and brings together a multicultural, multidisciplinary team with a diverse set of experience, skills and knowledge. At peak, the project will employ over 10,000 people in the different worksites.

To optimise the available resources and to ensure the right profile skills and experience for each targeted position within the offshore phase, a Competence Assurance & Assessment process is in place. The process starts prior to employment and continues throughout the mobilisation period through a series of evaluation tools: each candidate is assessed against the target position to define suitability as well as the training needed and duration. After mobilisation, the evaluation of

skills continues with on-the-job behaviour assessment, performed on a yearly basis. For the operational phase of the project, a training catalogue was developed establishing the necessary training needs.

Recruitment of Angolan personnel follows the same assessment and development strategy and is targeted to meet contractual and legislative requirements in terms of local content. In 2016, 8 Angolans were recruited at control room operator level and were engaged in a comprehensive training programme that will take 9-12 months. The training programme consists of on-the-job training on the existing Gimboa FPSO, additional formal academic courses and familiarisation of the FPSO in Singapore during the commissioning phase.

## Introducing children to health, safety and the environment

Since 2016, 340 children in Karimun (Indonesia) and almost 200 children from Ambriz (Angola) took part in the Little LiHSE (Little Leaders in Health, Safety and Environment). The goal of this programme was to introduce them to the basic attitudes and values of health, safety and environmental protection that they can use daily at school and at home and encourage them to spread this culture to their families and in their local community.

#### Health care for families

In 2015-2016, the Family Health Post located in West Pangke Village, a community in the vicinity of the Saipem Karimun Yard, was expanded and refurbished

## 

#### What is Angolanisation?

Angolanisation is the replacement of an expatriate occupying a key technical, administrative or management position by an Angolan national with equivalent technical competences, academic background and professional experience. Saipem has implemented an Angolanisation Plan to achieve its Angolanisation objectives, implementing several strategies to guarantee that the process occurs in conditions of safety, thus preventing any deviations from the business goals set.

The objectives of the Angolanisation Plan are:

- training and development of Angolan workers;
- facilitating Angolans to have access to the Oil industry with a wide knowledge of the field;
- boosting local involvement in the energy sector facilitated by government activities;
- transferring know-how from expatriates to Angolan Nationals.

For every Angolan hired, a training plan and a coaching plan has been implemented to ensure proper integration of employees into key positions in accordance with the Company's Competence Development Plan and National Human Resources Policy objectives within the framework of the Angolanisation Plan. To make the building of local capabilities effective, each local employee development plan is reviewed annually.

The programme's first step is mapping the knowledge and experience requirements for every position. Once validated, the mapping is followed by interviews



and provided with additional furniture and necessary equipment. The Health Post is targeted at mothers, their children and elderly women, and is visited by doctors and nurses from the local hospital who provide

and tests to determine the existing gaps between the competences held by a specific person, and those required by the job to be filled. Training is then provided in order to fill those gaps. The on-the-job training sessions are held in Paris, India and Angola. In this context, the expatriates are designated as mentors during the entire training stage, coaching and advising the Angolan in the new position. Many activities support the final objectives of the Angolanisation Plan: organisation of technical workshops and programmes, partnerships with local universities, initiatives aimed at local suppliers, etc.

A comparison of the figures of the last four years confirms the success of the Saipem Angolanisation programme:

Percentage of local workforce in 2016	83%
Increase of ratio between local and international staff since 2013	+19%
Total number of trainees since 2013	331
Training man-hours delivered in 2016 (almost doubled compared to 2013)	10,420
Total number of training a man-hours delivered since 2013	24,769

health assistance or improve awareness on certain topics.

#### **Developing young talents**

The Talentissimo programme was firstly launched in Angola in 2015 with the objectives of enhancing Saipem's recognition in universities and engineering schools; developing student technical competences thus enhancing their employability and attracting the best students for potential recruitment. The programme, through different steps (such as preparatory classes, a selection process and an award ceremony), saw the participation of 58 students in 2015 and 60 students in 2016 from two Angolan engineering schools (Agostinho Neto and Catholic universities). The students had the opportunity to use state-of-the-art design tools, becoming familiar with the type of technology that they are likely to find in most Oil & Gas companies. The students worked on a design case study under the supervision of a Saipem engineer in small teams. After the award ceremony, 4 students were selected for the Engineering Internship.

The programme was deployed in 2016 in the Saipem engineering centre in Luanda with the objective of developing student employability.





#### **Fighting malaria**

As malaria is a major health issue in Angola, being the principal cause of morbidity and mortality, Saipem continued to implement a Malaria Prevention Programme. It was developed by a Saipem team in collaboration with the local health authorities in order to complement the National Malaria Control Programme (NMCP). In 2016, the programme saw the implementation of a training course for 10 local technicians in Indoor Residual Spraying (IRS) & Fumigation and an awareness campaign for 140 families and more than 200 people. The programme will continue in 2017 with the organisation of the awareness campaign, the IRS & Fumigation campaigns, the training of nurses and laboratory technicians.

# **METHODOLOGY AND REPORTING CRITERIA**

### **REPORTING PRINCIPLES**

'Saipem Sustainability' provides complete and detailed information about the matters of greatest interest to the Company's stakeholders. The document is prepared in accordance with the Global Reporting Initiative (GRI) guideline version G4 'In Accordance' with the Core option.

The following principles have been used to identify the contents of the document: materiality, stakeholder inclusiveness, sustainability context and completeness. To guarantee the quality of the information contained in the report, the principles of balance, comparability, accuracy, timeliness, clarity and reliability were followed, again as per GRI guidelines. Disclosure on management approach are described in Annex I of this document.

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

#### **MATERIALITY ANALYSIS**

In order to define the sustainability themes considered most significant, both within the Company and in relation to stakeholders, a materiality analysis was once again carried out in 2016, hence for the sixth year running. The first step entailed identifying the significant aspects which are considered in the analysis in order to pinpoint those that are material. Identification is based on the sustainability context and on the analysis of the stakeholders involved. In order to simplify analysis and comparison of results, the 30 topics identified were broken down into 5 macro categories: Environment, Business Management, Employees, Human Rights and Local Presence.

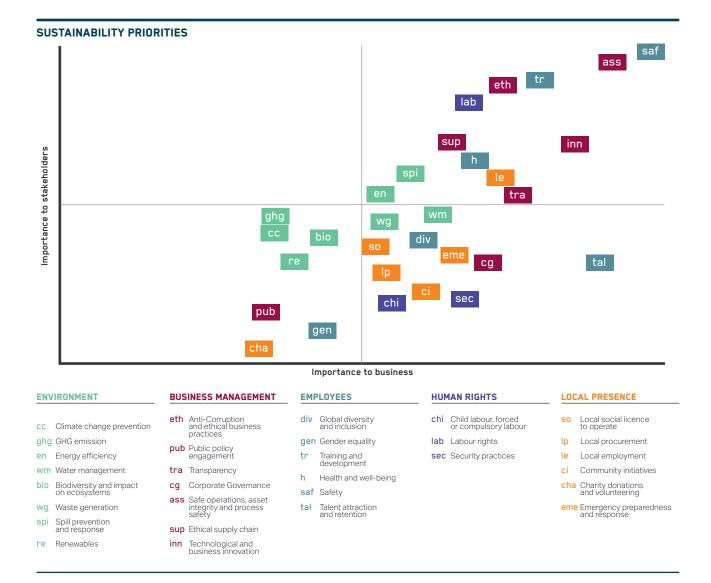
FINAL LONG LIST OF ISSUES	торіс
Environment	Climate change prevention, GHG emissions, Energy efficiency, Water management, Biodiversity and impact on ecosystems, Waste generation, Spill prevention and response, Renewables.
Business Management	Anti-Corruption and ethical business practices, Public policy engagement, Transparency, Corporate governance, Safe operations, asset integrity and process safety, Ethical supply chain, Technological and business innovation.
Employees	Global diversity and inclusion, Gender equality, Training and development, Health and well-being, Safety, Talent attraction and retention.
Human Rights	Child labour, Forced or compulsory labour, Labour rights, Security practices.
Local Presence	Local social licence to operate, Local procurement, Local employment, Community initiatives, Charity, donations and volunteering, Emergency preparedness and response.

The level of external interest was defined by interviewing and surveying a representative mix of external stakeholders, in terms of types of organisation (24 clients, 18 local community/NGO representatives, 72 business partners and vendors, 11 investors and 9 government and regulator representatives) and geographic focus (8% international, 29% from Europe, 18% from CIS and the Middle East area, 18% from Africa, 13.5% from the Americas, and 13.5% from the Asia-Pacific area).

The results were integrated with the outcomes of the surveys delivered to Saipem's employees which involved 792 people respectively. In order to define the level of internal significance, an additional survey was sent to a select panel of Saipem senior managers. Almost 60 senior managers contributed identifying sustainability priorities for the long-term success of the Company. The materiality analysis results were approved by the Sustainability Committee in late 2016.

## MATERIALITY ANALYSIS RESULTS AND REPORT CONTENT

The most significant themes form the basis of this document and provide qualitative and quantitative information on the Company's sustainability performance. They are present in the upper right quadrant of the matrix.



They are: (1) safety; (2) safe operations, asset integrity and process safety; (3) training and development; (4) technological and business innovation; (5) Anti-Corruption and ethical business practices; (6) labour rights; (7) ethical supply chain; (8) health and well-being; (9) spill prevention and response; (10) local employment; (11) transparency; and (12) energy efficiency.

The vertical axis of the matrix represents the 'Importance to stakeholders,' and the horizontal axis represents the 'Importance to business'. The GRI G4 guidelines recommend that reporters define the vertical axis as 'Influence on Stakeholder Assessments and Decisions', which corresponds substantially with the above mentioned definition ('Importance to stakeholders'). The GRI also recommends that reporters define the horizontal axis as 'Significant Economic, Environmental, and Social Impacts'. After internal consideration, it was decided to retain the 'Importance to business' definition for the horizontal axis in order for the materiality matrix to focus on Saipem's overall sustainability strategy, rather than on simply identifying impacts.

Selection of the activities and programmes to be reported in detail in relation to the themes identified as 'material' was carried out with due regard for the sustainability context in which Saipem operates.

Greater weight was assigned to those issues and geographic areas in which the Company has a more significant impact. Where possible, project performance indicators reported were contextualised with reference to detailed information on local conditions.

### **MATERIAL ISSUES**

## **CORRESPONDING GRI G4 ASPECTS**

1) Safety	Occupational Health and Safety
2) Safe operations, asset integrity and process safety	Occupational Health and Safety
3) Training and development	Training and education
4) Technological and business innovation	n.a.
5) Anti-Corruption and ethical business practices	Anti-Corruption, Labour Practices Grievance Mechanism, Human rights Grievance Mechanism, Investments
6) Labour rights	Employment, Freedom of Association and Collective Bargaining, Child Labour, Forced and Compulsory Labour, Non-discrimination, Diversity and equal opportunities
7) Ethical supply chain	Supplier Environment Assessment, Supplier Assessment for Labour Practices, Supplier Human Rights Assessment
8) Health and well-being	n.a.
9) Spill prevention and response	Effluents and waste
10) Local employment	Market presence
11) Transparency	n.a.
12) Energy efficiency	Energy

#### **INTERNAL BOUNDARY**

C Further details are available in the Annual Report. The above issues 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 hence 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.

#### **EXTERNAL BOUNDARY**

For some material issues, the impact of Saipem activities occurs beyond the organisation boundaries. In the 'External boundaries' column the stakeholder categories impacted by Saipem operations are specified for each material issue. The limitations that arose that refer to the boundaries of each material issue were also reported (when needed) in the table below under the 'Limitations' column.

#### **MATERIAL ISSUES**

EXTERNAL BOUNDARIES

LIMITATIONS

1) Safety	Vendors and subcontractors	Partial for vendors
2) Safe operations, asset integrity and process safety	Vendors and subcontractors	Partial for vendors
3) Training and development	-	-
4) Technological and business innovation	-	-
5) Anti-Corruption and ethical business practices	Business partners, vendors and subcontractors	-
6) Labour rights	-	-
7) Ethical supply chain	A group of vendors	Partial for vendors
8) Health and well-being	A group of local communities	-
9) Spill prevention and response	Vendors and subcontractors	Partial for vendors
10) Local employment	Local communities, agency personnel	-
11) Transparency	-	-
12) Energy efficiency	Vendors and subcontractors	Vendors

With regard to the material issues for which reporting has not been extended to the external scope (G4 - omissions), Saipem 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 assure the reliability of the information provided and to improve the reporting process, 'Saipem Sustainability 2016' is subject to limited assurance by Ernst & Young SpA.

#### ANNEXES

Annexes are attached to 'Saipem Sustainability 2016' and can be found at the following link:

#### Annex I

Approach to Sustainability

#### Annex II

GRI and UN Global Compact Content Index

 ${\sf Q}\,$  Annex I and II can be found in the Sustainability Documents section on the Saipem website.

## **ASSURANCE STATEMENT**



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#### Independent auditors' report on the "Saipem Sustainability 2016"

To the Shareholders of Saipem S.p.A.

We have carried out a limited assurance engagement of the document "Saipem Sustainability 2016" (hereinafter "Saipem Sustainability") of Saipem S.p.A. and its subsidiaries (hereinafter "Saipem Group") as of December 31, 2016.

#### Management's responsibility on Saipem Sustainability

The Management is responsible for the preparation of the Saipem Sustainability in accordance with the "G4 Sustainability Reporting Guidelines", issued in 2013 by GRI - Global Reporting Initiative, that are detailed in the paragraph "Methodology and Reporting Criteria" of the Saipem Sustainability, as well as for that part of internal control that they consider necessary in order to allow the preparation of a Sustainability Report that is free from material misstatements, even caused by frauds or not-intentional behaviors or events. The Management is also responsible for defining the Saipem Group's commitments regarding the sustainability performance and for the reporting of the achieved results, as well as for the identification of the stakeholders and of the significant matters to report.

#### Auditors' responsibility

It is our responsibility the preparation of this report on the basis of the procedures carried out. Our work has been conducted in accordance with the criteria established by the principle "International Standard on Assurance Engagements 3000 - Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000"), issued by the International Auditing and Assurance Standards Board for the engagements that consist in a limited assurance. This principle requires the respect of relevant ethical principles, including those related to independence, as well as the planning and the execution of our work in order to obtain a limited assurance that the Saipem Sustainability is free from material misstatements. These procedures included inquiries, primarily with company's personnel responsible for the preparation of the information included in the Saipem Sustainability, documents analysis, recalculations and in other procedures in order to obtain evidences considered appropriate.

The procedures performed on the Saipem Sustainability were related to the compliance with the principles for defining report content and quality, as articulated in the "G4 Sustainability Reporting Guidelines", and are summarized below:

a. Comparison of the economic and financial data and information included in the Saipem Sustainability with those included in the Saipem Group's consolidated financial statements as of December 31, 2016 on which we issued our audit report, pursuant to art. 14 and 16 of Legislative Decree dated January 27, 2010, on April 3, 2017;

ET 3.p.A. ET 3.p.A. Søde Legale: Via Po, 32 - 00198 Roma Capitale Sociale deliberato Euro 3.250.000,00, sottoscritto e versato Euro 2.950.000,00 i.v. Iscritta alla S.O. del Registro dello Imprese presso la C.C.I.A.A. di Roma Codice fiscale e numero di iscrizione 00434000584 - numero R.E.A. 250904 PJ/A 00891231003 Iscritta al Registro Revisori Legali al n. 70945 Pubblicato sulla G.U. Suppl. 13 - IV Serie Speciale del 17/2/1998 Iscritta al Registro Revisori Legali al n. 70945 Pubblicato sulla G.U. Suppl. 13 - IV Serie Speciale del 17/2/1998 Iscritta al Registro Revisori Legali al n. 70945 Pubblicato sulla G.U. Suppl. 13 - IV Serie Speciale del 17/2/1998

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- Analysis, through interviews, of the governance system and management process of the issues related to sustainable development regarding Saipem Group's strategy and operations;
- c. Analysis of the process relating to the definition of material aspects included in the Saipem Sustainability, with reference to the identification modalities in terms of their priority for the different stakeholders' categories and to the internal validation of the process outcome;
- d. Analysis of the operation of the processes that support the generation, recording and management of the quantitative data reported in the Saipem Sustainability. In particular, we have carried out the following procedures:
  - interviews and discussions with personnel of the Management of Saipem S.p.A. to
    obtain an understanding about the information, accounting and reporting system
    in use for the preparation of the Saipem Sustainability, as well as about the
    internal control processes and procedures supporting the collection, aggregation,
    data processing and transmission of data and information to the department
    responsible for preparation of the Saipem Sustainability;
  - on-site verifications at Saipem Global Petroproject Services AG (Zurich, Swiss) and on the vessel Saipem 7000;
  - analysis on a sample basis of the documentation supporting the compilation of the Saipem Sustainability, in order to confirm the processes in use, their adequacy and the operation of the internal control for the correct reliability of data and information in relation to the objectives described in the Saipem Sustainability;
- Analysis of the compliance and internal consistency of the qualitative information included in the Saipem Sustainability to the guidelines identified in paragraph "Management's responsibility on Saipem Sustainability" of the present report;
- f. Analysis of the process relating to the stakeholders engagement, with reference to the procedures applied, through the review of summary minutes or any other existing documentation relating to the main topics emerged from discussions with them;
- g. Obtaining of the representation letter, signed by the legal representative of Saipem S.p.A., relating to the compliance of the Saipem Sustainability with the guidelines indicated in paragraph "Management's responsibility on Saipem Sustainability", as well as to the reliability and completeness of the information and data presented in the Saipem Sustainability.

No procedures have been performed on data and information reported in the paragraph "Shared value for Society", within the section "How Saipem creates shared value" of the "Saipem Sustainability 2016" report.

Our examination has entailed a lower extension of work compared to the work to be performed for a reasonable assurance engagement in accordance with ISAE 3000 and, as consequence, we may not have become aware of all the significant events and circumstances which we could have identified had we performed a reasonable assurance engagement.



#### Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the "Saipem Sustainability 2016" of Saipem Group as of December 31, 2016 is not in compliance, in all material aspects, with the guidelines "G4 Sustainability Reporting Guidelines" issued in 2013 by the GRI - Global Reporting Initiative, as stated in the paragraph "Methodology and Reporting Criteria" of the Saipem Sustainability.

Milan, April 3, 2017

EY S.p.A.

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Headquarters: San Donato Milanese (Milan), Italy Via Martiri di Cefalonia, 67 Branches: Cortemaggiore (PC), Italy Via Enrico Mattei, 20



Società per Azioni Share capital: €2,191,384,693 fully paid up Tax identification and Milan 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

Special thanks to all those who contributed to the drafting of this report.

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Cover picture: F.C. Zingale, Every day we build our tomorrow, Nigeria. Most of the pictures included in this report are the work of Saipem colleagues who participated in the annual in-house Sustainability Award.





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