

# COUNTRY SUSTAINABILITY REPORT ANGOLA



# ABOUT THIS COUNTRY REPORT

This report is part of a series of Local Sustainability Reports that Saipem began publishing in 2003 as 'Sustainability Case Studies' with the purpose of underlining the importance the Company ascribes to local business sustainability.

These Reports are also submitted to the relevant stakeholders, so that they can assess the sustainability approach Saipem adopts in their respective areas.

A Country Report describes the principles, activities and performance of Saipem in relation to sustainable development in the country. It is designed to provide easy access to key indicators and information and is divided into two parts: the first provides an overview of Saipem and its business around the world, while the second introduces the country, and discusses Saipem's presence, sustainability approach and sustainability performance within it.

Along with the annual Sustainability Reports and the Project Sustainability Reports, the Country Sustainability Reports represent the main tools adopted by Saipem to communicate to all stakeholders the Company's commitment and performance with regard to sustainability.

This Report has been drafted in line with the principles of materiality, stakeholder inclusiveness, sustainability context and completeness as defined in the Global Reporting Initiative (GRI) version G3.0.

The document aims to describe Saipem's performance and its engagement with stakeholders in the Country.

A set of Key Performance Indicators (KPIs) was selected to bolster the information provided to stakeholders.

The consolidation perimeter is based on the principles adopted for financial reporting and annual sustainability reporting and refers to all projects conducted by Saipem SpA and its Operating Companies in Angola. Data are calculated according to the operational criterion, meaning that operations in which Saipem SpA or one of its subsidiaries in Angola exercises operational control are reported 100%. Data for the company's performance reported in the document have been drawn from the management and reporting systems used by the various Company

functions involved in the reporting process. Data

appropriate, also for the previous years.

are reported for the 2012 financial year and, when

Published in 2013

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# Message from the CEO



Umberto Vergine

Saipem is an international Oil&Gas contractor with approximately 48,000 employees and operations in more than 50 countries.

Saipem plays a significant role in its market sector and contributes substantially to the economic development of the countries in which it operates.

We consider business sustainability to be an integral part of our strategy. Our commitment is to create long-term value for all our stakeholders, especially locally, by identifying common goals and agreeing on specific initiatives.

Given the wide range and complexity of our activities, our engagement with local stakeholders requires a comprehensive approach to sustainability. Furthermore, the variety of projects undertaken and the differences between countries where these activities are performed demand that a distinctive local approach be developed.

We publish these Reports on our Local Business Sustainability in order to favour open dialogue and enhance the development of local relationships, helping us to ensure that we operate at all times in an increasingly sustainable manner.

### **Mission**

Pursuing the satisfaction of our clients in the energy industry, we tackle each challenge with safe, reliable and innovative solutions. We entrust our competent and multi-local teams to provide sustainable development for our company and the communities in which we operate.



Saipem has been present in Angola since the early 1980s. Today we undertake activities in various areas across the country. Our long-term and deep-rooted presence has been an important aspect in the evolution of the way we work. We have made significant long-term investments in the country through the Soyo Yard and more recently though the rehabilitation of the Ambriz Yard.

Our business model is founded on the promotion of local content, which is a critical component of the success of Company operations in country. Furthermore, our dedicated investments in the training and development of local Saipem personnel are of the uttermost significance where we strive for continual improvement.

Petromar's Nationalisation Development Programme in particular is a major investment for developing and strengthening competency and the transfer of knowledge to our Angolan employees so that they can cover managerial roles within the Company. Indeed, a specific development and training process has been designed for each Angolan resource deemed capable of becoming a manager and substituting international personnel.

Saipem is also actively working together with the local authorities to build a mutually beneficial dialogue and a long lasting and constructive relationship with the host communities to support their long-term socio-economic development, while at the same time contributing to the broader socio-economic development of the country.

Saipem has set up DWET (Deep Water Engineering Technology) jointly owned by an Angolan Partner and the Saipem Group. This new Angolan Engineering and Management Company represents a very strong commitment and is a milestone in terms of boosting local skills and transferring high quality technology for project management, engineering and procurement associated with the performance of EPIC projects in Angola, in both deep and shallow water.

Daniele Menna

**Engineering & Construction BU Country Manager Angola** 

Saipem in Angola - Key figures

Turnover (2012)

622 million USD

Economic output (2011)

472 million USD

(including direct, indirect and induced)

Jobs created in Angola (2011)

10,230

(including direct, indirect and induced)

The Saipem Drilling Business Unit has a consolidated presence in Angola, commencing work in the country's drilling industry in 2005 with the drillship Saipem 10000. It currently operates with three of the most prestigious offshore units in its fleet: the drillship Saipem 12000 and the semisubmersible drilling units Scarabeo 7 and Scarabeo 9.

Drilling is an extremely specialised activity requiring highly qualified personnel. This is why the development of local content has a dedicated strategy focused on creating and reinforcing the technical capabilities of local drilling personnel. To this end, the Saipem Drilling BU recently opened a training centre in Luanda. As of

today, 0.2% of total drilling revenues in the country are channelled into managing and improving this centre.

Over the last few years, Saipem has made significant progress in training and promoting Angolan personnel on its drilling projects and we expect this trend to increase steadily thanks to the new training centre, the execution of the current activities and potential projects in the area.

Saipem's objectives in Angola include development of our national talents and their integration into key positions, as well as the ongoing search on the Angolan market for opportunities to buy locally and use local products as much as possible.

We believe in the continuous growth of Angola, and aim to be participants in and advocates of the Angolan oil&gas industry. In keeping with these aspirations, we are planning to consolidate further our presence as a drilling operator in the country by strengthening our fleet with the introduction of cutting edge offshore drilling units into this dynamic market. We are also evaluating possible partnerships and joint ventures in order to begin and develop onshore drilling activities.

Franco Pandolfi Drilling BU Area Manager East and West Africa

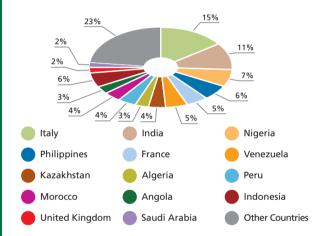
# Introduction to Saipem

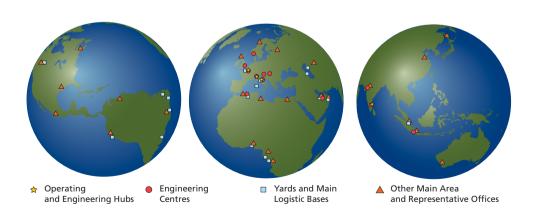
Saipem is an international group with a strong inclination towards oil and gas related activities in remote and deepwater areas. The Company began operations in the 1950s and is now a leader in the provision of engineering, procurement, project management and construction services with distinctive capabilities in the design and execution of large-scale offshore and onshore projects.

Saipem is organised into two Business Units: Engineering & Construction and Drilling. It enjoys a significant competitive position in the provision of EPIC/EPC services to the oil industry both onshore and offshore, with a particular focus on the toughest and most technologically challenging projects, namely, activities in remote areas, deep waters and difficult oil fields. The Group is a truly global contractor, with a strong local presence in strategic and emerging areas such as West Africa, the Americas, Central Asia, the Middle East, North Africa and South East Asia. Saipem is an international company employing over 48,000 people from approximately 124 nationalities (2012). The majority of the Group's human resources (77% in 2012) are locally

employed.

#### Saipem workforce distribution by nationality (2012)





# SAIPEM SUSTAINABILITY APPROACH

Saipem believes that a correct, open and cooperative relationship with all stakeholders is vital for the success of each project.

Saipem is present in many locations around the world and operates with a decentralised organisation in order to respond to local needs and sustainability requirements.

Wherever it works, the Company plays an active role in local communities by offering employment opportunities and personnel training, working effectively with local suppliers and subcontractors, creating economic and social value and, finally, contributing to infrastructures

(e.g. access roads, construction camps with facilities such as hospitals, power generators, etc.).

The breadth of Saipem's international workforce is another facet of sustainability: all personnel are treated with dignity and their rights, cultural values, local customs and traditions, diversity and identity are at all times respected.

For each project, social, economic and environmental impacts are evaluated and continuously monitored in conjunction with the pursuit of customer satisfaction.



# SAIPEM AT A GLANCE

Saipem has world class engineering and project management expertise together with a strong, technologically advanced and highly versatile fleet. The Company is organised into two Business Units:

Engineering & Construction and Drilling, which often operate in synergy for onshore and offshore projects.

# Engineering & Construction

The E&C Business Unit is the outcome of a merger between the previous Onshore and Offshore Business Units. Offshore activities include platforms, marine terminals, pipelines and the development of deepwater fields. Experience in EPIC (Engineering, Procurement, Installation and Construction) projects hinges on trunklines, export pipelines, infield flowlines, pipe-in-pipe systems, bundles, tie-ins and riser systems for the transportation of oil, gas and multi-phase products from depths in excess of 2.000 metres. Saipem is also involved in the construction of marine terminals, mooring systems with conventional buoys, wharfs, jetties and FPSO (Floating Production Storage and Offloading) units. All of this is bolstered by significant fabrication capabilities based in the

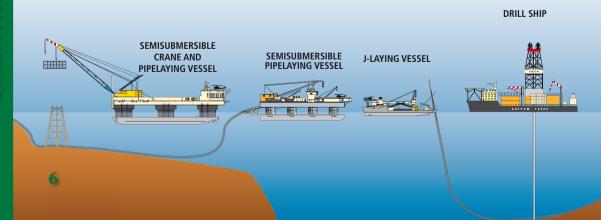
heart of major Oil&Gas provinces such

as Angola, Canada, Republic of the Congo, Kazakhstan, Nigeria, United Arab Emirates, the Mediterranean Sea, Indonesia and Brazil (under construction), with an aggregate in-house fabrication capacity of over 250,000 tonnes per year. With a fleet of over 40 construction vessels, the Company is a leader in deepwater and shallow water pipelaying and platform installation with more than 30,000 km of sealines and more than 2.5 million tonnes of offshore structures installed. The Company has completed more than 90 major EPIC projects, including several challenging large-scale integrated complexes.

Onshore, Saipem mainly serves the Oil&Gas segments, the refining and petrochemical markets, as well as a number of diversified industrial markets such as infrastructures (i.e. high speed railways, port facilities and marine terminals) and environment (especially remediation of soil, ground water and contaminated sites).

Saipem offers a complete range of services, from facilities and front-end

services, from feasibility and front-end studies to design, engineering, procurement and field construction, most often on an EPC (Engineering, Procurement and Construction) and LSTK (Lump Sum Turn Key) contractual basis, for complex Oil&Gas



facilities, including production, treatment, liquefaction, refining and petrochemical plants, as well as for Oil&Gas transportation systems, such as pipelines, pumping and compression stations and terminals.

Saipem's expertise focuses on the design and execution of large projects with a high degree of complexity in terms of engineering, technology and project management, with a strong bias towards challenging projects in the most difficult environments and remote areas.

Saipem has designed and built numerous 'mega' Oil&Gas production facilities, 36 grass-roots refineries and more than 500 individual refining process units, as well as more than 400 plants worldwide to produce chemicals from natural gas, including the world's largest ammonia/urea complexes. In particular, land pipeline design and construction has historically been one of the mainstays of Saipem's business. The Company has laid a record of over 60,000 km of gas pipelines, 30,000 km of oil & product pipelines and 1,400 km of water pipelines on five continents. In recent years, the Company has designed and constructed more than 40 power plants (over 10,000 MW) and four Integrated Gasification Combined Cycle plants, two of which are the world's largest (power output of about 550 MW each).

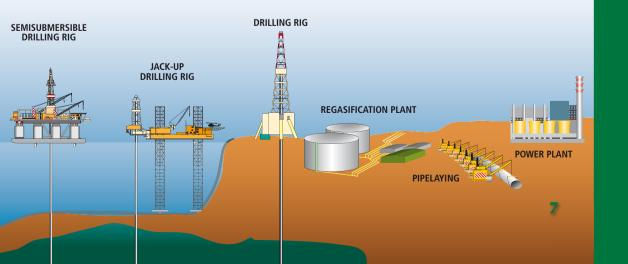
#### DRILLING

As an international drilling contractor operating in some of the harshest onshore and offshore environments, Saipem is presently contracted to major oil companies in many of the Oil&Gas industry's 'hotspots', carrying out important drilling programmes in Europe, the Commonwealth of Independent States (CIS), North and West Africa, the Middle and Far East and the Americas.

Saipem's vast experience in managing drilling activities with an adequate technological and operational level has allowed the Company's capabilities to develop.

In offshore drilling, the Company in fact boasts a rich fleet with seven jackups, a Tender Assisted Drilling Barge, seven semisubmersible drilling rigs and two drillships (the Saipem 10000 and the Saipem 12000) which can operate at depths of up to 10,000 and 12,000 feet, respectively. In the onshore sector, Saipem owns about 100 drill and workover rigs.

Over many decades, Saipem has drilled more than 7,300 wells, 1,800 of which offshore, totalling an overall depth of about 18.5 million metres, and has been involved in the workover of hundreds of wells.



# SAIPEM IN THE WORLD

| Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce         (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84   Investments  Workforce  Local Workforce  Energy consumption  |                    |              |         |         |         |             |         |   |              |               |        |
|--|--------------------|--------------|---------|---------|---------|-------------|---------|---|--------------|---------------|--------|
| Investments  | EUROPE             |              | 2010    | 2011    | 2012    |             |         |   |              |               |        |
| Morkforce  | Revenues           | (€ million)  | 1,931   | 1,938   | 1,781   |             |         |   |              |               |        |
| Regrego consumption   (ktoe)   78   72   98  | Investments        | (€ million)  | 122     | 78      | 31      |             |         |   |              |               |        |
| Finergy consumption   (ktoe)   78   72   98     HSE Training   (hours)   220,360   86,465   129,309     AMERICAS   2010   2011   2012     Revenues   (€ million)   719   1,009   1,808     Horstments   (€ million)   49   158   136     Workforce   (units)   5,122   6,665   7,825     Local Workforce (% of total)   95   87   88     Energy consumption   (ktoe)   72   82   101     HSE Training   (hours)   125,221   204,199   225,351     HSE Training | Workforce          | (units)      | 10,563  | 10,410  | 11,133  |             |         |   |              |               |        |
| AMERICAS   | Local Workforce    | (% of total) | 80      | 81      | 75      | / -         |         |   |              |               |        |
| AMERICAS 2010 2011 2012  Revenues (€million) 719 1,009 1,808  Investments (€million) 49 158 136  Workforce (units) 5,122 6,665 7,825  Local Workforce (% of total) 95 87 88  Energy consumption (ktoe) 72 82 101  HSE Training (hours) 125,221 204,199 225,351   CENTRAL & SOUTH AFRICA 2010 2011 2012  Revenues (€million) 2,678 2,692 2,482  Investments (€million) 38 16 8  Workforce (units) 9,487 8,462 7,586  Local Workforce (% of total) 64 62 64  Energy consumption (ktoe) 75 107 84  Energy consumption (ktoe) 75 107 84  | Energy consumption | on (ktoe)    | 78      | 72      | 98      | The same of |         |   |              |               |        |
| Revenues         (€ million)         719         1,009         1,808           Investments         (€ million)         49         158         136           Workforce         (units)         5,122         6,665         7,825           Local Workforce         (% of total)         95         87         88           Energy consumption         (ktoe)         72         82         101           HSE Training         (hours)         125,221         204,199         225,351           Central & south Africal Revenues           Revenues         (€ million)         2,678         2,692         2,482           Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce         (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84   | HSE Training       | (hours)      | 220,360 | 86,465  | 129,309 | -           |         |   |              | li -          |        |
| Revenues         (€ million)         719         1,009         1,808           Investments         (€ million)         49         158         136           Workforce         (units)         5,122         6,665         7,825           Local Workforce         (% of total)         95         87         88           Energy consumption         (ktoe)         72         82         101           HSE Training         (hours)         125,221         204,199         225,351           Central & SOUTH AFRICA         2010         2011         2012           Revenues         (€ million)         2,678         2,692         2,482           Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce         (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84  |                    |              |         |         | 7,      | Tr.         |         |   |              |               |        |
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| CENTRAL & SOUTH AFRICA         2010         2011         2012           Revenues         (€ million)         2,678         2,692         2,482           Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84   |                    |              |         |         |         |             |         |   |              |               |        |
| CENTRAL & SOUTH AFRICA         2010         2011         2012           Revenues         (€ million)         2,678         2,692         2,482           Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84   |                    | on (ktoe)    |         |         |         |             | and the |   |              |               |        |
| Revenues         (€ million)         2,678         2,692         2,482           Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce         (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84         Energy consumption  | HSE Training       | (hours)      | 125,221 | 204,199 | 225,351 |             |         |   | <b>\</b>     |               |        |
| Revenues         (€ million)         2,678         2,692         2,482           Investments         (€ million)         38         16         8           Workforce         (units)         9,487         8,462         7,586           Local Workforce         (% of total)         64         62         64           Energy consumption         (ktoe)         75         107         84         Energy consumption  |                    |              |         |         |         | 14          |         |   |              |               |        |
| Revenues         (€ million)         2,678         2,692         2,482         Revenues           Investments         (€ million)         38         16         8         Investments           Workforce         (units)         9,487         8,462         7,586         Workforce           Local Workforce         (% of total)         64         62         64         Local Workforce           Energy consumption         (ktoe)         75         107         84         Energy consumption   |                    |              |         |         |         |             |         |   |              |               |        |
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| Workforce(units)9,4878,4627,586WorkforceLocal Workforce (% of total)646264Local WorkforceEnergy consumption (ktoe)7510784Energy consumption  | Revenues           | (€ million)  | 2,678   | 2,692   | 2,482   |             | 1       |   | Revenues     | (€ m          | ıill   |
| Local Workforce (% of total)646264Local WorkforceEnergy consumption (ktoe)7510784Energy consumption  | Investments        | (€ million)  | 38      | 16      | 8       |             |         |   | Investment   | <b>S</b> (€ m | ıill   |
| Energy consumption (ktoe) 75 107 84 Energy consumption   | Workforce          | (units)      | 9,487   | 8,462   | 7,586   |             |         |   | Workforce    |               | (uı    |
|  | Local Workforce    | (% of total) | 64      | 62      | 64      |             |         |   | Local Workf  | orce (% o     | ft     |
| USE Training (1) 172 701 170 216 146 FE1   | Energy consumption | on (ktoe)    | 75      | 107     | 84      |             |         |   | Energy consu | ımption       | (k     |
| HSE Training (hours) 172,701 170,316 146,551 HSE Training  | HSE Training       | (hours)      | 172,701 | 170,316 | 146,551 |             |         |   | HSE Trainin  | .g (          | ho     |

#### Additional data for investments

Further investments not allocated to a specific Area amounted to (in € million) 995 in 2010, 738 in 2011 and 717 in 2012.

| CIS             |                | 2010   | 2011    | 2012    |
|-----------------|----------------|--------|---------|---------|
| Revenues        | (€ million)    | 1,232  | 1,709   | 1,352   |
| Investments     | (€ million)    | 216    | 27      | 13      |
| Workforce       | (units)        | 5,115  | 4,653   | 3,491   |
| Local Workforce | e (% of total) | 74     | 68      | 62      |
| Energy consump  | tion (ktoe)    | 38     | 43      | 37      |
| HSE Training    | (hours)        | 84,671 | 121,081 | 101,054 |

|                | _              |        |        |         |
|----------------|----------------|--------|--------|---------|
| REST OF ASIA   | & OCEANI       | A 2010 | 2011   | 2012    |
| Revenues       | (€ million)    | 382    | 667    | 1,241   |
| Investments    | (€ million)    | 110    | 171    | 107     |
| Workforce      | (units)        | 3,074  | 4,011  | 6,699   |
| Local Workford | e (% of total) | 77     | 74     | 78      |
| Energy consump | otion (ktoe)   | 29     | 22     | 39      |
| HSE Training   | (hours)        | 37,661 | 68,335 | 105,424 |

| MIDDLE EAST     |              | 2010    | 2011    | 2012    |
|-----------------|--------------|---------|---------|---------|
| Revenues        | (€ million)  | 1,672   | 2,047   | 3,211   |
| Investments     | (€ million)  | 6       | -       | -       |
| Workforce       | (units)      | 4,706   | 5,508   | 7,342   |
| Local Workforce | (% of total) | 83      | 78      | 82      |
| Energy consumpt | tion (ktoe)  | 70      | 129     | 168     |
| HSE Training    | (hours)      | 177,109 | 383,856 | 856,456 |
|                 |              |         |         |         |

| 2010    | 2011    | 2012    |
|---------|---------|---------|
| 2,546   | 2,531   | 1,494   |
| 9       | 11      | 3       |
| 3,107   | 4,523   | 4,379   |
| 74      | 83      | 85      |
| 50      | 73      | 66      |
| 106,323 | 155,568 | 123,113 |

# ANGOLA



## COUNTRY OVERVIEW

Angola is rebuilding following the end of a 27-year civil war in 2002. Gradual progress towards a peaceful environment has been made in the country, including the return of millions of refugees and internally displaced people. The key sectors of action for poverty reduction laid down in the government plans are social reintegration, demining, food security, rural development, HIV/AIDS,

education, and health and basic infrastructure. However, the nation is still facing the challenge of reconstructing and rehabilitating the country's infrastructures, which have suffered extensive damage. In fact, despite the impressive ongoing progress being made in road and railway rehabilitation, logistical constraints persist, such as damaged roads and bridges, limited functioning of railways

and the presence of landmines. These infrastructural challenges continue to limit the free movement of goods and people and inhibit socioeconomic recovery. Agricultural production is gradually improving in parallel with road infrastructure rehabilitation, but it is still going to be a long-term process for Angola to return to pre-civil war levels of production. Sources: [1] [2] [3].

### Social Overview

The living conditions of the Angolan people have improved due to the increase in employment, the reintegration of displaced people into the workforce and a renascent agricultural sector. The unemployment rate is estimated to have fallen from 40 per cent in 2002 to 26 per cent in 2011. Growing employment has tended to raise incomes and reduce food insecurity and malnutrition. But human resources remain a key constraint in education and health. Technical and vocational education and

training (TVET) is especially important in post-conflict Angola. Economic reintegration and restoration of sustainable livelihoods for the population depend upon it – particularly for the 3.8 million former displaced people, 450,000 refugees and 280,000 veterans.

As a result of the war, an entire generation has been excluded from any form of formal education or training. The percentage of unskilled labour in the total labour force is estimated to be as high as 94 per cent among the 15-19 age cohort, 74 per cent among those

| Social indicators                         |           |       |       |
|---|-----------|-------|-------|
| Population (est. 2012) (a)                | (million) |       | 18.0  |
| Distribution of the population (2010) (a) | (%)       | Urban | 59    |
|   |           | Rural | 41    |
| Median age (est. 2012) <sup>(a)</sup>     | (years)   |       | 17.7  |
| Life expectancy (est. 2012) (a)           | (years)   |       | 55    |
| HDI-Human development index (2011) (b)    |           |       | 0.486 |

(a) CIA - The World Factbook, Angola (https://www.cia.gov/library/publications/the-world-factbook/geos/ao.html).

(b) UNDP http://hdrstats.undp.org/en/countries/profiles/AGO.html



aged 20-24 and 68 per cent among 25-29 year olds. The situation is also highly gender-biased, with 88 per cent of women unskilled.

Currently, only 30% of the population has access to government health facilities. Recent data shows good progress over the last 10 years in several areas. Life expectancy at birth has been revised upwards to 55 from 46 in 2000 and the under 5 infant mortality rate decreased from 21% to 16%. *Sources: [2] [4].* 

### ECONOMY AND ENERGY OVERVIEW

Angola's high growth rate in previous years (20% in 2007 and 13% in 2008) was driven by the oil sector and high international oil prices. The global recession and lower prices led to a contraction in GDP growth with a rate of 3.4% in 2010 and 3.5% in 2011, but it is expected to expand again starting from 2012.

The post-war reconstruction boom and resettlement of displaced persons has led to high rates of growth in construction, manufacturing and agriculture as well.

Construction is reported to have increased by 16% in 2010 but with a contraction in 2011 (6.8%). The manufacturing sector grew to 6.4% of the country GDP in 2011, from 0.9% in 2006.

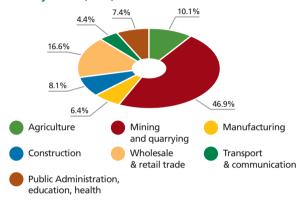
Agriculture is a priority sector for public investment, particularly in irrigation, owing to its importance in employment creation and poverty reduction. However, agricultural production remains constrained by a lack of qualified human resources, high production and transportation costs tied to infrastructure constraints, the need to import intermediary production goods and the continued presence of land mines in the countryside. Subsistence agriculture provides the main livelihood for most of the people, but half of the country's food must still be imported. Sources: [1] [3].

| Economic indicators                                 |                                  |       |
|---|----------------------------------|-------|
| Gross Domestic Product (GDP) (current prices) - est | 2012 <sup>(a)</sup> (billion \$) | 110.6 |
| GDP per capita (current prices) - est. 2012 (a)     | (\$)                             | 5,847 |
| Inflation (average consumer prices) - est. 2012 (a) | (%)                              | 8.7   |
| Labour force - est. 2012 (b)                        | (million units)                  | 8.5   |

(a) International Monetary Fund, World Economic Outlook Database, April 2010 (http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx).

(b) CIA the World Factbook (https://www.cia.gov/library/publications/the-world-factbook/geos/ao.html).

#### GDP by sector (2011)

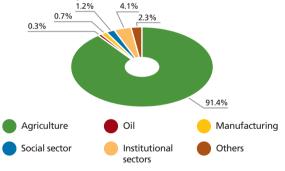


largest crude oil producing country in Africa. Oil plays an important role in the Angolan economy, accounting for over 95 per cent of export revenues. Angola joined the Organisation of Petroleum Exporting Countries (OPEC) in January 2007 and in 2009 held the Organisation's presidency. The national oil company, Sonangol, is the sole concessionaire for exploration and production. Foreign companies can participate via joint ventures and production sharing agreements with Sonangol.

Angola is, together with Nigeria, the

Sources: [4] [5].

### Labour force by sector (2007)



# Environmental Aspects

In Angola, protection of the environment and natural resources is constitutionally recognised as a duty of the State. The Environmental Framework Law provides guiding principles for the prevention and combat of pollution, and standards to protect the environment. Over the last decade Angola has developed comprehensive environmental legislation regarding water resources, petroleum, mines, and land, and has increased engagement with regional and

| Energy data 2010                      |                   |        |
|---------------------------------------|-------------------|--------|
| Energy production                     | (ktoe)            | 98,915 |
| Electricity production                | (GWh)             | 5,256  |
| Energy use                            | (ktoe)            | 13,672 |
| Energy use per capita                 | (ktoe per capita) | 716    |
| Electric power consumption            | (GWh)             | 4,730  |
| Electric power consumption per capita | (kWh per capita)  | 248    |

Source: World Bank (http://data.worldbank.org/country/angola).



international bodies and partners. Main environmental issues in the country include overuse of pastures and subsequent soil erosion, desertification, deforestation of tropical rain forest, resulting in loss of biodiversity, soil erosion contributing to water pollution and siltation of rivers and dams and, finally, inadequate supplies of potable water.

Sources: [1] [6].

#### References:

[1] CIA World Factbook, Angola (https://www.cia.gov/library/publications/the-world-factbook/geos/ao.html). [2] World Food Programmeme - Country overview Angola (http://www.wfp.org/countries/angola). [3] African Economic Outlook Angola (2012) (http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Angola%20Full%20PDF%20Country%20Note.pdf). [4] African Economic Outlook, Angola - AfbB/OECD 2008 (http://www.oecd.org/dataoecd/3/49/4056859p.ddf). [5] Energy Information Administration, Angola Energy Data, Statistics and Analysis - Oil, Gas, Electricity, Coal (http://www.eia.doe.gov/EMEU/cabs/Angola/pdf.pdf). [6] United Nations Development Programme (http://www.

ao.undp.org/Energy%20Environment.htm).

| Environmental indicators                      |                                       |                                       |                |
|---|---------------------------------------|---------------------------------------|----------------|
| Freshwater withdrawal (2011)                  | (billion m³/y)                        |                                       | 0.64           |
| Freshwater withdrawal per sector (2011)       | (%)                                   | Domestic<br>Industrial<br>Agriculture | 38<br>29<br>33 |
| CO <sub>2</sub> emissions (2009)              | (thousand tonnes CO <sub>2 eq</sub> ) |                                       | 26,655         |
| CO <sub>2</sub> emissions per capita (2009)   | (tonnes CO <sub>2 eq</sub> )          |                                       | 1.4            |
| Threatened species (2012)                     | (No.)                                 |                                       | 112            |
| Terrestrial and marine protected areas (2010) | (% of total territorial areas)        |                                       | 12             |

Source: The World Bank Data (http://data.worldbank.org/).

# SAIPEM'S PRESENCE IN ANGOLA

The Saipem Group has been making significant investments in the Oil&Gas contracting sector in Angola for over 30 years. It operates in the country through joint venture companies and local branches organised into two Business Units: Engineering & Construction (E&C) and Drilling. The Group is capable of executing offshore and onshore EPIC projects, performing ultra deepwater offshore drilling projects and managing fabrication and operation activities for all the major oil companies. The Saipem Group is geographically located in Luanda (head office), Soyo and Ambriz (two fabrication yards) and in Malongo (located near Cabinda to support Cabinda Gulf Oil Co (CABGOC) operations). It is present in the country through Petromar Lda, Kwanda Lda, Sagio Lda, DWET and Saipem sa Angolan Branch for the E&C BU, as well as Saipem SpA Branch for the Drilling BU.

Petromar Lda has been operating in Angola since the early 1980s as an Angolan registered company with shareholders Saipem sa (formerly Bouygues Offshore) and Sonangol E.P. It operates in three business lines: offshore, onshore and MMO (Maintenance, Modification and Operations). Petromar Lda activities focus on:



### Introduction to DWET (Deep Water Engineering Technology)

In order to meet the increasing challenges of deepwater activities, in which Saipem has long-standing experience, the Saipem Group has set up a new Engineering and Management company, called DWET (Deep Water Engineering Technology), jointly owned by Angolan partners and the Saipem Group.

This company represents a milestone in terms of boosting local capabilities and transferring high-quality technological know-how for project management, engineering and procurement, associated with the execution of EPIC projects in Angola in both deep and shallow waters.

DWET's product lines are the following:

- Offshore platforms;
- Subsea Field development;
  - Floaters;
- Liquefied Natural Gas Plant (Onshore - Floating);
- High process technology onshore facilities.

Its sectors of activity are: Deepwater Subsea Field Development:

- Field Architecture Design;
- Subsea Systems & Subsea Processing;
- Key Subsea Technologies (Hybrid Risers, Flexible and Steel Catenary Risers Design, Global & Dynamic



Analyses and Material & Welding Technologies). Platform Configuration (Structures

Platform Configuration (Structures & Layout Design); Fabrication drivers and sequences;

Fabrication drivers and sequences; Transportation and installation drivers

- construction of offshore platforms and subsea structures;
- construction of deep water equipment and structures;
- construction of Oil&Gas onshore facilities:
  - onshore and offshore Oil&Gas platform maintenance;

 offshore hook-up. The Petromar Lda head office is located in Luanda, with fabrication and maintenance activities mainly concentrated in Soyo in the Kwanda logistic base, in Ambriz within the fabrication yard and in Malongo (located near Cabinda) in support of CABGOC operations. In 2012, Saipem, together with Sonangol and other Angolan partners, created a new company call DWET (Deep Water Engineering Technology). This new Saipem entity is based in Talatona, in southern Luanda, and focuses on engineering, procurement and project management activities for

the offshore oil and gas market. **Kwanda Lda** is a joint venture between Delong Hersent Lda (a wholly owned subsidiary of Saipem sa), Sonangol E.P., Songemetal and Angolan partners. Kwanda Lda was established in 1982 and is responsible for managing and operating the logistic base in Soyo. It is ideally situated to provide support to Oil & Gas companies operating throughout Angola (Cabinda) and the Congo Basin. With a total surface of 160 ha, the main services it provides include:

- port services (3 quays, access channel, bulk plants), with daily flights to/from Luanda, and direct sea freights to/ from the US, South Africa and Europe;
- logistic and fabrication services (industrial area of 70 hectares of quay-side stabilised warehousing and workshop, heliport and storage area);
- accommodation, catering and medical assistance.



### MAIN PROJECTS (LAST 5 YEARS)

| Year      | Client  | Name  | Description  |
|-----------|---|---|--|
|           |   | Engineering & C                               | Construction   |
| 2013-2014 | Total Angola E&P                                      | Girri FPSO 2<br>Module                        | EPCI - FPSO/Modules: Integration of a Top Lifting<br>Module (140 t) and prefabrication of structural steels,<br>piping spools and seafastening.                                  |
| 2013-2015 | Cabinda Gulf Oil<br>Co Ltd (CABGOC)                   | Mafumeira Sul<br>EPCI 2 Offshore<br>Pipelines | EPCI: Fabrication of 2 Tie-In Skids (89 t) and 48 spools (149 t).  |
| 2012-2014 | CABGOC  | Mafumeira Sul<br>EPCI 3 Modification<br>Works | EPCI: Norte Wellhead platform modified and tied back<br>to the Production Processing Platform. Structures: 27 t.<br>Pre-Fabrication Piping: 329 t.                               |
| 2012-2014 | CABGOC  | Mafumeira Sul<br>EPCI 4 Onshore<br>Pipeline   | EPCI: Onshore pipeline of 18" for 0.6 miles.   |
| 2012-2013 | CABGOC  | Congo River<br>Crossing (CRX)                 | EPCI: Fabrication of 4 Valves/Sled Skid Assemblies (848 t) and 19 Spools (169 t).  |
| 2012-2013 | Destin Trading Inc<br>(Under Sonangol<br>Subcontract) | Canuku Wells<br>Abandonment<br>Project        | Decommissioning (plugging and abandonment) of 8 subsea wells on Block 3.   |
| 2010-2012 | ВР  | Block 31 Spools                               | Fabrication of 21 Flowline Spools + 9 Riser Spools including fabrication and insulation of 9 fatigued welds (525 t).   |
| 2010-2012 | ВР  | Block 31 SPS                                  | Fabrication of 5 Manifolds 2 slot production + 6 MSS + 7 Foundation Piles (Extension of 1 Manifold + 1 MSS + 1 Suction Pile). 67 t/MM; 28.6 t/MSS; 109 t/Foundation.             |
| 2010-2011 | BECHTEL   | ALNG Tanks<br>Construction                    | EPCI project: Fabrication of 2 LNG Tanks (159 kbbl) + 1<br>LPG Propane Tank (88 kbbl) + 1 LPG Butane Tank (59<br>kbbl) + 1 Condensate Tank (108 kbbl) + 5 Fields.                |
| 2009-2012 | EXXON   | Kizomba Satellite<br>Tieback                  | Fabrication of 1225 QJ (17,000 t) + 2 Foundations (340 t each) + 2 BT (160 t each) + 18 FLETS (30 t each) + 18 Jumpers (12 t each).  |
| 2009-2010 | ВР  | GERM Subsea                                   | Fabrication of 1 Gas Export Regulation Manifold + 2<br>PLEM + associated MSS and Piles.  |
| 2008-2010 | Total Angola E&P                                      | Block 2 SCP (Single<br>Central Platform)      | Block 2 injection Platform and associated conductor<br>pipes that will allow gas injection in the caps of two<br>oil depleted reservoirs: Lombo East (LOE) and Tubarao<br>(TUB). |
| 2008-2011 | Total Angola E&P                                      | Block 17 GEP (Gas<br>Export Pipeline)         | Pipeline installation and gas injection facilities to transport associated gas from Block 17 for reinjection into Block 2.   |
|           |   |   |  |

Sagio Lda is a joint venture company between SGPS SA (Saipem Portugal) and Angolan partners. It provides operational and management services of FPSO units and technical consulting services on FPSO maintenance. Sagio Lda started operations in 2010 with the FPSO Gimboa for the Angolan offshore Block 4/5. Saipem sa Angolan Branch

Established in 2007, the company operates in the offshore and onshore business segments with services focused on the design, construction and installation of onshore and offshore facilities for the O&G industry. The head office is in Luanda and operations are carried out in Soyo, Ambriz and

| Year      | Client   | Name                       | Description  |
|-----------|--|----------------------------|--|
|           |  | Drillin                    | g  |
| 2013-2015 | Eni Angola   | Block 15/06                | Drilling operations with Scarabeo 9 (capable of operating in water depths up to 12,000 ft).                      |
| 2012-2013 | Chevron  | Block 0                    | Drilling operations with Perro Negro 6.  |
| 2010-2017 | Total Angola E&P   | Block 17, Block 32         | Drilling operations with Saipem 12000 (capable of operating in water depths up to 12,000 ft) - 25 wells drilled. |
| 2009-2013 | Eni Angola   | Block 15/06                | Drilling operations with Scarabeo 7 (capable of operating in water depths up to 1,500 m) - 22 wells drilled.     |
| 2009-2012 | Consortium between<br>Sonangol, Angola LNG,<br>Total E&P Angola, Sonagas,<br>Petrobras | Various Block<br>locations | Drilling operations with Perro Negro 6 - 9 wells drilled.  |
| 2005-2010 | Total Angola E&P   | Block 17                   | Drilling operations with Saipem 10000 - 35 wells drilled.  |

Malongo and in the Angolan offshore blocks.

Saipem Angolan Branches operate in the offshore drilling business and support the development and production of Angolan offshore blocks. Their head office is in Luanda and activities are carried out offshore. Saipem Angolan Branches have the ability to operate in ultra-deep water blocks using a deep-water drillships capable of operating in water depths up to 3,650 m. The Branches currently have a fleet which includes a deep-water 6<sup>th</sup> generation drillship (Saipem 12000) and two semisubmersible drilling rigs (Scarabeo 7 and Scarabeo 9).

## Saipem's Fabrication Yards in Angola

#### Sovo Yard

Located inside Kwanda base facilities, this is a fabrication yard dedicated to deep water facilities (bundles, riser towers, manifolds, jumpers, subsea structures, etc.), capable of providing 100,000 man-hours per month. It has two workshops: one for the prefabrication and assembly of structures and a second one for Double or Quads Joints.

This yard is equipped with:

- a fabrication and assembly area: 80,000 m<sup>2</sup>;
- 1-off assembly workshop (5,200 m²) equipped with overhead cranes;
- 2-off piping spool workshops (1,440 m²), fully equipped with Gantry Cranes – one for Carbon Steel, one for Exotic Steel (also

suitable for manifold fabrication);

- 1-off Warehouse (700 m²);
- 1-off Quad or Double joint assembly area (900 m²);
- Main equipment on site: pipe and sheet cutting machine, automatic welding equipment, plate rolling machines, cranes, Multi-wheels;
- Welding & pipe fitting school;Load-out Quay: useful length of
- Load-out Quay: useful length of 200 metres.

#### Ambriz Yard

The Ambriz Yard was upgraded and re-opened at the end of 2010. It is now able to provide 3,100,000 productive man-hours per year. The yard is equipped with:

- a fabrication and assembly open area of 70,000 m<sup>2</sup>;
- 1-off prefabrication workshop

(6,000 m²), equipped with overhead-cranes;

- 1-off Warehouse (900 m²) + 1-off mechanical workshop for maintenance activities;
- Main equipment on site: Oxy-acetylene plate/pipe cutting machine, multi process welding machines, hydraulic wheel cranes, crawler heavy lift cranes;
- Welding school (for Ambriz residents);
- 350 m sheet-pile breakwater;
- Load-out Quay: useful length of 180 metres/-6 m WD LAT/concrete cap-beam;
- Access channel: length of 900 m dredged at -7.5 m WD LAT/ width of 100 m and 280 m in the turning basin.

# Company Organisation and Management System

Saipem activities in Angola are under the responsibility of the Saipem Angola Country Manager. Petromar, Kwanda, DWET and Sagio are managed by their respective General Managers.
Saipem SpA Angola Branch is
coordinated by a Branch Manager
reporting directly to the Drilling BU at
Corporate. Likewise Saipem sa Angola
Branch activities are coordinated by
a Branch Manager reporting directly
to Saipem sa Chief Operating Officer
Offshore.
All companies and Branches

### Our Local Management approach

#### Interview with Mr. António Bravo Neto, Petromar Deputy General Manager

At the time of independence in 1975, Angola was producing an average of 100,000 barrels of oil per day. Due to the massive exodus of Portuguese workers from the country, the government of Angola recognised the urgent need to train young Angolan people to sustain and develop the Oil&Gas sector. It was in this context that in 1976 I was selected for a long-term academic formation in Algeria and graduated in Mechanicals.

I started working in the oil industry in 1981 when I joined Sonangol/Fina. About three decades after, production in Angola had grown to nearly 2 million barrels of oil per day. This has been a great achievement and today I feel very proud to have participated actively in this challenge. The sole experience gained in those almost 30 years entitles me to testify to the significant facts of the history of our industry, particularly as regards the contribution of Saipem to the development of the country.

The Oil&Gas sector has been the main driver of socioeconomic development in Angola. In view of the growth of this sector of the economy, Petromar was created in 1984 by Bouygues Offshore (now Saipem) in partnership with Sonangol with the objective of developing local competences to support offshore and onshore oil and gas operations in terms of facilities construction, installation and maintenance facilities. With a wide range of operations and numerous worksites Petromar has been



operating continuously since its creation and today enjoys a leading position as a national Oil&Gas contractor.

To achieve this leading status Petromar has made important investments in the Soyo and Ambriz fabrication yards, as well as in the training and development of expertise among its local workforce.

When I joined Petromar in 2000, the company turnover was 34 million USD. In 2012 Petromar achieved a turnover of 306 million USD. This significant growth was sustained by placing strong emphasis on the training of local resources. Just for reference, in 1984 approximately 20% of Petromar employees were Angolans. But thanks to the ongoing nationalisation programme, which has produced very positive results with a large number of skilled Angolan professional workers and technicians now operating on our sites, today, about 97% of the total workforce is Angolan.

Considering that the training of Angolan resources constitutes one of the tasks that fall under the framework of the Government's priorities, and given the need to endow the Republic of Angola with capable national resources (goals that have also been a priority of Petromar), the Nationalisation Development Programme has recently been redesigned to focus on improving skills and transferring of knowledge to our Angolan employees so that they can cover managerial roles in the company. This will be achieved by 2015 when about 51 positions currently covered by expatriates will be taken over by Angolans following a specific development process designed for each resource identified.

In this way, Saipem has been contributing actively to the development of the people and consequently to the progress of the country.



are supported by the Petromar organisational structure in Angola (Human Resources, Administration, Finance & Control, Procurement, Assets, and QHSES departments).

Quality, Health, Safety, Environment and Sustainability Management of Saipem Companies in Angola is based on Corporate Standards and Guidelines. Petromar Lda has had a Quality Assurance Management System certified to ISO 9001:2008 since 2008, and complies with the requirements of OHSAS 18001:2007. At the same time Petromar is striving towards alignment with ISO 14001:2004.

2010 saw the creation of a OHSE Country Coordinator, who acts as Corporate Representative in Angola to assure an overall global vision and a uniform approach at country level. working in cooperation with the relevant Corporate and Petromar functions. In order to establish a direct link between socio-economic activities in Angola and the Sustainability team at Corporate level and within Saipem sa. and to support the implementation of Sustainability objectives within Angola, a Sustainability Facilitator has been nominated and is trained and supported by the Corporate Sustainability team. The Saipem sustainability approach in Angola is the result of the competent management displayed by all Company Departments aimed at assuring employee health and safety, protection of the environment, Client satisfaction, the implementation of the Angolanisation Plan, human resources management, industrial relations, and local community relations.

### THE APPROACH TO SUSTAINABILITY IN ANGOLA

Since the outset of the Group's activities in Angola, Saipem has contributed to the socio-economic and sustainable development within the country through a strong local content focus and commitment to knowledge transfer and training. This is notably evinced through the Petromar Angolanisation Programme and the Angola Externalities Local Content Evaluation, both of which are described briefly below.

# The Angolanisation Programme

The Nationalisation Plan is a process established to transfer expatriate job positions to Angolans. In order to make this transfer successful and sustainable, it must comprise a gradual transfer of know-how from expatriate personnel to identified Angolan staff.

#### Petromar Nationalisation Development Programme

Petromar has launched a Nationalisation Development Programme (Angolanisation Programme) with the involvement of all key persons, from Top Management down to heads of Departments and Supervisors. A Steering Committee has been designated involving 3 levels: main Shareholder, Company Management and the Local Content Development Manager, with the scope of defining and monitoring the Programme and its execution.

Launched in 2010, Petromar's
Nationalisation Development
Programme foresees the Angolanisation
of 51 positions presently occupied by
expatriates within 5 years. For these
positions, 44 will be covered by local
employees while 7 will require ad hoc
recruitment for the specific job profile.

The Angolanisation Programme is based on a Competence Assurance System (CAS) and consists of an enhanced training plan, including conventional training action and formal internal onthe-job training and coaching, as key points to improve competence and the transfer of know-how. The programme

involves first mapping the knowledge and experience requirements for every position. Once validated, the map is followed by interviews and tests to determine the existing gaps between the competences held by a specific person and those required by the job he or she should fill. A programme is then set up to fill the gaps with training. In this context, the expatriates are designated as mentors during the entire training stage for coaching and advising the Angolan in his/her new position. The CAS allows both parties (Angolan and expatriate) to monitor progress. At the end of 2011, 4 employees in the administration area completed the

## Saipem Training Centre for Drilling

The Saipem Training Centre was set up in May 2012 to develop the technical skills of local resources. Its priority is to ensure proper integration of employees into key positions according to the company's Competence Development Plan (CDP) and its National Human Resources Policy objectives within the framework of the Angolanisation Plan. The course syllabus is designed primarily to offer different types of training courses to company supervisory staff at all levels. These have the responsibility of managing the CDP within their respective areas. Luanda Training Department staff are in charge of organising all training activities. There are fifteen courses proposed on the syllabus, among which technical (welding, mechanical, electrical), drilling (equipment and techniques, IWCF familiarisation), safety (BOSIET, advanced fire fighting, risk safety analysis, H<sub>2</sub>S prevention) and languages (English and Portuguese). Depending on the complexity of courses, they are performed either in-house or via outsourcing. Internally, the Training Centre has developed three modules on drilling equipment and techniques to train drilling personnel as floor men, derrick

men and assistant drillers. The

first course, Basic Drilling, has the following modules.

Module 01 (5 days): Onshore and Offshore Platform Classification, Drill Pipe Equipment and Drilling Fluids and their Application.

Module 02 (4 days): Revision of Module 01, Casing and Cementing, Well Head, Accumulator Pressure, Blow Out Preventer (BOP), Choke Manifold, Mud Tank System, Well Testing and Accident Prevention at Work (Anti-Fall Devices and Work at Heights).

Module 03 (4 days): Revision of Module 02, Drilling Fluids, Mud Losses, Solid Control, Types of Mud, Mud Characteristics and Safe Chemical Handling.

All students receive manuals, booklets of technical terms, and videos and photos taken on Saipem drilling platforms to give a real understanding of equipment and working conditions on sites.

Language courses are another in-house activity performed at the Centre. Provided mainly for local employees, English is considered essential for proper use of Corporate tools and effective communication within the Group. Portuguese courses are also given

for expatriates in order to facilitate know-how transfer to local employees. For specific training sessions, the centre has identified six local educational institutes accredited by MAPESS (Ministry of Public Administration, Employment and Social Security). These are used mainly for technical courses for local employees. For specialised training courses and STCW 95 Maritime certification the company enrols its employees abroad in South Africa (Cape Town University), Italy (Eni University) and Brazil (Maplo Training Centre).

A new training centre has been set up in Luanda at the 'Rei Katyavala' building. This achieved 10,008 training hours (89% in-house) in less than one year, trained 258 workers and established 2 scholarships with local Universities. In addition, a team of permanent English teachers resides onboard Saipem offshore units to reinforce the training activity.

The Training Centre plays a key role in ensuring local content development in terms of technical training and implementation of the Angolanisation Plan. A separate budget to increase the activity up to 25 courses is therefore planned for its continuing improvement.



process and occupied the position, as planned. An additional 9 positions are expected to be covered by local employees by the end of 2012.

# Implementation of the Angolanisation Plan in the Drilling Business Unit

The Angolanisation Plan is the next five-year challenge and emphasis must be on local resource development. Saipem is actively working to achieve adequate Plan implementation through its National Human Resources Policy. To achieve this target, the company has established a Competence Development Plan covering:

- Recruiting process:
  - Hiring plan;
  - Request for staff;
  - Recruitment procedure;
- Managing competence development:
  - General process;
  - Personnel evaluation and yearly appraisal process;
  - Developing and implementing the yearly training plan;
- Specific process for fast trackers:
  - Identification of fast trackers (potential employees);

- Personnel integration operational committee.

The Training Centre has implemented an energetic theoretical classroom syllabus reinforced by on-the-job training offshore. The aim is to ensure an increase in personnel skills. The professional development of potential candidates should lead to the future substitution of expatriates. A five-year monitored plan has been developed to follow all individual cases. All specificities are recorded, such as initial position, qualification, training progress, status within the Angolanisation Plan and target date of transfer to job positions currently covered by expatriates.

In December 2012, the Drilling BU had 204 local workers, 157 (76%) of whom had been integrated into the Angolanisation Plan. Of these 157 Angolan workers, 109 are already covering expat positions and the other 48 are in process of achieving this goal.

Together with the national workforce, Saipem management at all levels is strongly committed to achieving this five-year milestone.

## Assessing the socio-economic value of Saipem's Local Content strategy in Angola

To support and provide evidence of the value generated through its commitment to sustainability in terms of wealth, skills and entrepreneurial capacity created, Saipem has quantified the economic and social impacts of its Local Content Strategy. In fact, measuring the tangible benefits of a Local Content Strategy is the key to demonstrating a sustainability business approach and improving stakeholder relationships at local As defined by J. Stiglitz (Nobel Prize for Economics) 'Externalities

are actions of an individual or a firm that have an effect on another individual or firm for which the latter does not pay (in case of positive impact) or is not paid (in case of negative impact)'. To this effect, the Saipem Sustainability Team has implemented a methodology

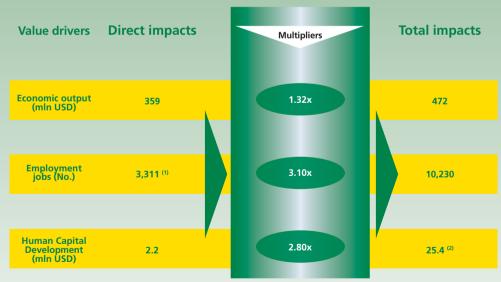
to measure the externalities produced as a result of its activities in an area (the SELCE - Saipem Externalities Local Content Evaluation - Model). Saipem applied the SELCE Model in Angola to understand and quantify the impacts of the Saipem Group in the country. The study aimed to provide a comprehensive assessment of the Saipem Group's impacts on the economic and social development in Angola. The scope of the study included Petromar Lda, Kwanda Lda, Saipem sa Angolan Branch and Saipem SpA Angolan Branch (referred to below as the Saipem

For the purpose of the study, three key categories of impact were identified and measured: economic value, employment and human capital development.

Moreover, the quantification of each impact was geographically split, and attributed to the administrative areas: Province of Zaire (where Soyo is located) and the Republic of Angola. The reference year of the study is

The study clearly demonstrates, in terms of absolute figures and multipliers, the important contribution of the Saipem Group to the Angolan socio-economic system and the fundamental role played by Saipem in contributing to the development of Soyo in particular.

Three socio-economic categories of impact related to the Saipem Local Content Strategy have been identified and quantified. They are Economic Value: the financial



Note: (1) Includes local manpower supplied by local agencies. (2) Calculated over a 5 year time frame.

impact of payments made by the Saipem Group for locally-sourced products and services and to pay taxes. It is measured as the sum of direct, indirect and induced impacts.

Employment: the Saipem Group makes an important contribution to the increase in local employment through the creation of direct, indirect and induced jobs.

Human capital development: the Saipem Group contributes to the increase in the usable knowledge and skills of its employees in terms of additional lifetime earnings expectancy and increased employability.

To define the multipliers (the number that gives the magnitude of an impact or a process), quantitative and qualitative stakeholder surveys were conducted. The results of the quantitative survey and the data from the Saipem Group accounting system (e.g. finance, procurement, QHSE, human resources, training, etc.) were used to calculate the multiplier for

each of the identified impacts.

#### **Ouantitative results**

The figures below represent the consolidated quantitative impacts of Saipem Group activities for the year 2011.

#### Economic output

The results show that the Saipem Group's contribution to Angola's economy is about 1.32 times the direct expenditure in terms of local purchasing, salaries and taxes, for a total impact within the Angolan economy equivalent to 472 million USD. The largest recipients of this contribution are local businesses (61%) and households (22%). The Province of Zaire, where the Soyo logistic base is located, benefits from approximately 29% of the total economic output generated by the Saipem Group. The strength of the multiplier in the supply chain is affected by the current weakness of Angola's industrial structure. Overall, the Saipem Group contributed 0.34% to the Angolan GDP in 2011.

#### Employment results

The results show that the Saipern Group's contribution to Angola in terms of total employment is about 3.1 times the local direct employment. In total, as a result of Saipern Group activities in Angola in 2011, approximately 10,230 jobs are created, 42% of which are held by people that currently reside in the Province of Zaire. Jobs created along the supply chain mostly benefit sectors such as general services (mainly security services) and catering and accommodation.

# Human capital development results

The results show that the Saipem Group's contribution to Angola's human capital development is about 2.80 times the Group's direct expenditure in training. Hence, as a result of Saipem Group activities in Angola, the expected economic value generated over a five-year time frame due to local employee salary gains is in the order of 25 million USD.



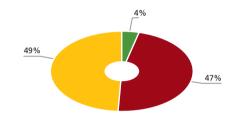
# Sustainability Performance

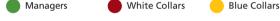
### **PEOPLE**

### **People Management**

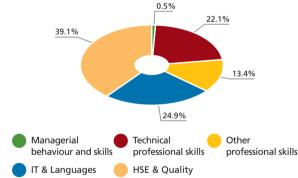
The people management objective is designed to assure that Saipem has the optimum personnel required for its operations and support processes for its activities in Angola.

### **Employees distribution by category**





#### Training Hours by type of training



Recruitment and selection focus on identifying individuals who possess the required skills for their designated profile and who are already aligned or have the potential to align themselves with the Company's values, principles and corporate culture.

The total Saipem workforce in Angola varies considerably based on the number and size of projects undertaken from year to year. While the total number of employees may vary, a strong local content component remains a constant. It is important to highlight that the national workforce is represented at multiple levels within the organisation; in 2012, 28 among Saipem's Managers were Angolan (23% of the total Managers in the Country).

### **Training**

Know-how transfer activities are led by two drivers, one being the training activities required within the contracts of signed projects, and the other the training activities identified by the Saipem Group within the framework of local content development as part of the Angolanisation Programme. All training provided is designed to improve the competencies of all Petromar employees.

Technical and vocational training activities for local employees are intended to develop both their technical know-how and their organisational and managerial capabilities. In 2012, 79,899 hours of training were delivered mainly to blue collar and white collar workers.

| Total Workforce               |       |       |       |       |
|-------------------------------|-------|-------|-------|-------|
| Category                      | 2009  | 2010  | 2011  | 2012  |
| Local                         | 1,300 | 1,511 | 1,418 | 1,380 |
| International                 | 1,124 | 1,699 | 1,748 | 1,302 |
| Locals from Employment Agency | 2,260 | 1,969 | 1,893 | 1,637 |
| Total                         | 4,684 | 5,179 | 5,059 | 4,319 |

### Training initiatives

#### West Hub Project: Transfer of Know-how programme The objective of the training

The objective of the training programme for the West Hub Project is to familiarise young Angolan engineering graduates with all aspects of the FPSO business and in particular with all the phases of an FPSO project through complete on the job training. The specific aims of the programme are to:

- develop personal skills related to management and team working within an international frame;
- develop knowledge and awareness of Health, Safety and Environment issues; and
- develop technical skills in terms of engineering and construction in order to be ready to be employed on FPSO projects as project engineers.

#### Kizomba Satellite

Within the context of the Kizomba Satellite Project, Saipem made a commitment to provide training to two Angolan project engineers during the detailed engineering phase. The project has gone above and beyond that contractual requirement and has provided training to four engineers for up to 18 months in full and part-time training programmes based in Paris where the Angolan engineers have been integrated within the project teams, coached by a qualified senior in their discipline and participated in formal training programmes.

#### Training Plan for Method Engineers

To support the development of young method engineers, within fabrication yards in particular, the Constructability Engineering Department (CEN) of Saipem sa has invested in a training programme, which it has deployed across its area of intervention, including Angola, since 2008, in order to transfer knowledge of methods for constructability and for offshore construction projects including:

jackets, decks, modules, bridges, flares, sub-sea packages, bundles and quad-joints.

#### American Welding Society (AWS) training for Petromar Quality team

In 2011, Petromar organised in Soyo a training course for Quality Control welding inspectors following AWS standards.

The 10 day training course was facilitated by Moody International Angola and conducted by AWS. Fifteen selected Angolan workers from the Quality Control department participated with the objective of achieving qualification as 'Certified Welding Inspector' (CWI) and/or 'Certified Associated Welding Inspector' (CAWI). The exam consisted of 3 separate 2 hour questions and answers. This was the first time ever in the history of both AWS and Saipem that such training had been delivered in Angola.

#### Scholarship for students

Petromar has set up two complimentary Scholarship Programmes:

1. the first is a form of 'recruitment incentive' offered to students from various universities who have shown a real commitment and interest in working with Petromar. These scholarship students, once they have completed their studies, commit to working for Petromar for a minimum of two years and receive on-the-job training;

2. the second 'internal scholarship', involves Petromar employees who are interested in improving specific skills or knowledge by attending various university courses associated with the activities performed by Petromar.

As of 2011, a total of 29 students have received scholarships, of which 16 have finished their studies, while another 12 are still currently attending. From the total of students who received scholarships, 19 are employed in Petromar, working in a range of functions such as Offshore Operations, Asset management, Legal Affairs, Human Resources, Procurement, Commercial and Financial Departments.



### Training for new engineers

In the perspective of creating engineering projects to fruition, specific technical training for newly employed young graduates was required. The training programme aimed to enable participants to: (i) become aligned with Saipem Corporate standards; (ii) understand the overall engineering work processes, interfaces and associated deliverables; (iii) familiarise themselves with subsea & offshore products/systems; (iv) develop competence in base engineering disciplines and technologies; (v) acquire suitable skills for the utilisation of engineering and computer aided design tools; and (vi) carry out technical work on projects (through on-the-job training).

The first programme started at the beginning of 2012, when, after a preliminary full-time English course, 40 graduates began a three-month training period at the Saipem Engineering Centre in Fano (Italy). The training programme had two main parts. The first, which trainees from all disciplines attended, covered general aspects and provided a global overview of the company. The first lesson was devoted to Leadership in Health and Safety (LiHS), underscoring the attention and care that Saipem pays to H&S at work in every corner of the globe. A simple but high level description of Saipem, its organisational structure and all of its project management disciplines was provided, since everyone, at all levels, should have a global vision of the context in which they will be working. The second part was a more specific training session. Trainees were divided into small groups based on the

disciplines that will become their area of specialisation, as per the organisational chart. In terms of offshore activities, emphasis was given to the choice of materials, the design of pipelines and subsea structures, and to subsea and umbilical control systems. As for onshore activities, the areas dealt with were key design activities including structures. machines and processes, as well as the traditional specialist disciplines such as piping, control instruments and

Interview with Sergio Macaia - 32 years old

What made you apply to work with Saipem Angola? I had always dreamed of working for Saipem and I still

systems and electrical systems.



can't believe that my dream has come true! You cannot imagine how happy I was when they told me I was going to be coming to Fano to do a training course! I will always thank God for allowing me this opportunity in my life! I want to give my best to Saipem.

When you got to Italy, did you have any idea of how the training might be? When I arrived in Fano my aim was to make the most of my time here to learn. I wanted to use this opportunity to obtain all the necessary information to be able to improve my skills set. I'm very happy! My desire to learn grows with each day that passes. I am also making progress with my English and this is very important for me. I have learned many things and my knowledge increases every day. In Fano I received respect and affection. Respect and help make our journey easier.

What will be the best memory or impression you will take back with you to Luanda?

I will have many memories to take back with me. First of all Saipem: that means all of the people! Next, the willingness of our teachers to teach us. Also Venice, the most beautiful place in the world. And finally, getting my diploma, because I felt my life was going to change from that moment on!

# Interview with Andre Pedro Barbosa Matiashenriques - 29 years old

What have you achieved over the last three months in Italy?

I feel I have grown as a professional because I have gained a lot of high-level knowledge. There is still a long way to go and my own personal growth will continue in Angola; this is the only way that I will be able to teach my



profession to other colleagues. I am not sorry to have left my old job and I am really happy to be able to increase my knowledge thanks to the highly competent professionals here who have passed on their experiences to me. I can't wait to put into practice everything I have learned and everything I will learn in the future.

# What has the visit of Sonangol to Fano meant to you?

It is important to give a good impression of our country. The image of credibility which Saipem has earned is very important for all of us, as a company and as individuals. When Sonangol came to Fano the company was able to see for itself just how hard Saipem has worked to provide us with such excellent training. I also feel it has been very productive and positive to be able to give some of our colleagues the chance to make presentations to showcase how much we have learned over the three months of the course.



#### Safety

Saipem in Angola bases its Safety Management System on Saipem internal standards, OHSAS 18001 Standard, as well as local regulations and Client requirements. With a view to meeting the ever-changing needs of the Company and to ensure continuous improvement in its Safety performance, the HSE Management System is currently undergoing a comprehensive review. In order to guarantee compliance with the Company HSE Policy, Saipem has developed and implemented programmes and procedures to ensure maximisation of accident prevention on all operational sites. Multi-lingual Safety Campaigns and periodical bulletins are drafted and diffused among the workforce to establish and maintain a high level of awareness and understanding of all the risks related to Company activities. The Company Safety Management System measures not only reactive indicators but also how proactive operational sites are in terms of the implementation of safety standards. The measure of pro-activity is not aimed exclusively at the workforce and middle management; rather, the first safety player in the organisation is the management. Management's commitment is monitored through measurable targets established on a yearly basis.

Under the accident management system, all incidents are reported and investigated in order to identify the root causes and implement corrective actions designed to prevent re-occurrence.

#### **HSE training**

The importance of Health, Safety and Environment is reflected in the training hours dedicated to these topics. The annual HSE training programme is an important proactive tool that sets more ambitious goals every year in order to strengthen HSE skills of Company employees, so that they will always be aware of their own and others' well-being.

All new workers receive HSE induction and are trained on specific themes such as PPE, work permits, scaffolding and fire fighting, according to job type. Some specialised training courses are performed externally: for example, offshore drilling workers are trained in OPITO, H<sub>2</sub>S, fast rescue craft, and so forth.

In 2012, almost 28,000 hours of HSE training were provided in Angola.

#### **Tool Box Talks**

Tool Box Talks are brief (10-15 minutes) meetings focused on particular HSE issues

| Safety statistics  |            |            |            |            |
|--------------------|------------|------------|------------|------------|
|                    | 2009       | 2010       | 2011       | 2012       |
| Man hours worked   | 17,493,434 | 15,155,263 | 14,059,205 | 11,000,963 |
| LTI Frequency Rate | 0.17       | 0.26       | 0.36       | 0.36       |
| TRI Frequency Rate | 1.77       | 1.72       | 1.56       | 1.27       |

| Leading indicators  |        |        |        |        |
|---------------------|--------|--------|--------|--------|
|                     | 2009   | 2010   | 2011   | 2012   |
| HSE training hours  | 34,215 | 58,578 | 63,642 | 27,988 |
| SHOC Cards          | 16,943 | 30,357 | 52,237 | 39,285 |
| Tool Box Talks      | 30,696 | 39,905 | 46,063 | 33,379 |
| HSE meetings        | 2,564  | 2,468  | 2,283  | 1,619  |
| Job Safety Analysis | 32,769 | 32,415 | 19,390 | 16,008 |
| HSE Inspections     | 4,173  | 2,479  | 4,482  | 4,351  |
|                     |        |        |        |        |

and conducted prior to work commencing by a supervisor whose responsibility is to assure that the appropriate information is given to promote awareness and understanding of all the potential hazards which may affect the safe and efficient completion of the job.

#### Leadership in Health & Safety

In 2007, the Saipem Corporate HSE Department began the development of the Leadership in Health & Safety (LiHS) programme, an innovative and highly interactive training programme with the far-reaching aim of creating a strong health and safety culture within Saipem. The LiHS Programme is divided into four phases:

- Phase 1: LiHS workshops for management and supervision staff, to produce and consolidate a change in the health and safety culture of the company.
- Phase 2: Managers present the workforce with a highly charged speech as evidence of their commitment to health and safety. Phase 2 provides an opportunity for senior leaders to bring leadership in health and safety to every employee by designing high impact/influential events. This also promotes the organisation's priorities and intentions throughout the entire workforce, disseminating the Saipem Health and Safety Vision and sustaining the LiHS focus beyond the workshop, while also building interest within the workforce and preparing them for Phase 3.

- Phase 3: Delivery of the 'Five Stars' Intervention training tool throughout the organisation. This tool is implemented in order to provide a simply structured way to intervene in the event of unsafe acts and to reinforce safe behaviour by standardising intervention within Saipem Angola. Following the implementation of Phase 2, Phase 3 sustains the LiHS focus among all employees, and involves practically everyone with the LiHS process.
- Phase 4: Leading Behaviours campaign. 2011 marked the launch of the next phase of the LiHS programme within Saipem, focusing on five leading behaviours that are non-negotiable and which are to be embedded into the actions of employees at every level to become part of Saipem's DNA for the future: Start, Recognise, Intervene, Challenge, and Share.

In Angola a total of 15 Phase 1 workshops have been conducted with managers and supervisors since January 2008, with 236 participants.
As regards Phase 2: the LiHS programme was cascaded in Soyo in May 2010 and in Ambriz in 2011 with a total of 662 participants from various projects conducting activities within the yard. In addition, 6 cascading sessions were carried out onboard Scarabeo 7, Perro Negro 6 and Saipem 12000.





Beginning November 2008, within the context of the GEP-SCP project, additional 'Five Stars' training was delivered as part of Phase 3 by the project manager and HSE manager. Twelve facilitators of the 'Five Stars' programme were trained and certified in Soyo, Ambriz and Luanda, achieving 12 Five Stars sessions and 138 people trained. Furthermore, two facilitators were qualified in Angola to deliver the LiHS cascading and Five Stars training programme.

Phase 4, the first 3 stages (Start, Recognise and Intervene) were conducted in 2011, in Soyo, Ambriz and onboard the drillships whereas the Challenge and Share stages were carried out in 2012, achieving 32 sessions with 2,822 people trained in Leading Behaviours.

#### Health

Employee health is a priority for Saipem in Angola. In addition to medical assistance, the Saipem medical team carries out preventive activities through fitness examinations, vaccination and a variety of information campaigns aimed at promoting employee health and well-being and reducing medical costs to a minimum.

The medical team comprises a total of 23 people (17 of whom are local), including doctors and nurses. In Kwanda

Clinic, there are 3 local doctors, 3 foreign doctors, and 9 local nurses. The Kwanda Base in Soyo has a clinic and a medical license for the provision of first aid and transportation. In Ambriz, there is 1 foreign doctor, 1 local doctor and 2 local nurses, as well as an industrial clinic equipped with facilities for the provision of primary medical care. In Luanda, there are 2 local doctors, 2 local nurses and 1 foreign doctor.

Angola is situated in an area with endemic malaria. In response to this serious medical risk Saipem has launched a comprehensive malaria awareness campaign. The Malaria Control Programme (MCP) is an ongoing activity and all new personnel receive induction from the medical department upon arrival to ensure they are aware of the risks and measures to be taken to reduce the risk of contracting the disease. On a monthly basis, all sites compile a comprehensive report on the implementation of the MCP Programme, which is likewise transmitted to the Corporate Medical Department. Chemo-prophylaxis is available at all site clinics along with mosquito repellent creams and sprays. Treatment for malaria is also available at site clinics.

> Project personnel also receive induction on the prevention of Sexually Transmitted Disease (STD)

as stipulated in the Health Plan and as per the Corporate Medical Department prescribed standard. Again, it is an ongoing activity and, as such, site medical personnel monitor its implementation on a monthly basis. On specific occasions (e.g. World AIDS Day), site medical personnel conduct sessions on STD prevention for the workforce.

Every year, a Cardio Vascular Disease Prevention Programme (CVDPP) is implemented on all Saipem's sites in Angola. Project personnel who are at increased risk of contracting cardio-vascular diseases are identified and enrolled into the programme. As well as being assessed on the basis of their individual medical history, patients are also subjected to a variety of regular medical tests and checks (EKG, Glycaemia, Total Lipid Profile, etc.). An anti-smoking campaign has also been included as part of the CVDPP. Those who are found to have an increased risk of cardio-vascular diseases are advised on the measures they may take to decrease that risk.

A Health Risk Assessment (HRA) Programme has been implemented in Angola and the training is ongoing. Across the various Group sites, health risk assessments have been carried out in close coordination with site HSE professionals. The findings of HRA have been recorded utilising dedicated software developed by the Corporate Medical Department, which is accessible through a dedicated web site. A procedure on HRA, drafted by the Corporate Medical Department, is used as a reference guide to ensure standard output from HRAS.

#### **Internal Communication**

Every two months, Petromar publishes an internal newsletter, 'Mukanda da Petromar', which is distributed to all sites where Petromar operates. The newsletter contains general and project information, as well as QHSE initiatives, and social and sporting events.

In this way, all topics of present and future importance are communicated effectively to all personnel.

### Environment

#### **Environmental Policy**

In accordance with its Environmental Policy, Saipem in Angola is committed to the prevention of pollution and to environmental conservation, mainly through:

- reducing environmental impact through an effective use of materials, energy and natural resources;
- promoting proper waste segregation and disposal in facilities as defined by the client or local authorities;
- keeping areas clear and practicing good housekeeping to prevent contamination with lubricating oil, chemicals or mud;
- performing inspections and implementing remedial actions for identified non-conformities;
- putting the oil/chemical spill response plan into practice through periodic drills



# **Environmental Impact Assessment of Ambriz**

In 2008, within the context of the Ambriz yard redevelopment, Saipem conducted an Environmental Impact Assessment (EIA) for yard rehabilitation. The EIA was conducted in compliance with Angolan regulations and international standard methodologies in order to define both significant aspects and mitigation measures to ensure proper management of environmental and socio-economic issues.

Since the rehabilitation project consists of the complete refurbishment and reorganisation of the base camp and yard facilities so that fabrication work can be restarted, yard refurbishment, operational area construction and base camp refurbishment and construction were all included in the scope of the Ambriz EIA.

Waste and emissions from the activities associated with the rehabilitation of the yard were likewise assessed as part of the EIA process.

As a result of the EIA, various Environmental Management Plans (EMP) were developed for the Ambriz yard within the framework of the global Health, Safety and Environment (HSE) system. Specifically, in order to guarantee and improve environmental performances based on ISO 14001 standards, the following set of plans and procedures was developed: an





Environmental Management Plan (EMP) including a training programme, and a monitoring and auditing system; a Waste Management Plan (WMP); a Chemical Management Plan (to avoid, prevent and respond to pollution events).

# Environmental awareness campaign

To support the Corporate campaign to increase awareness of environmental protection, Saipem in Angola has focused in particular on increasing general awareness of environmental issues across all sites and projects. This includes participation in the World Environment Day initiatives and the launch of the Corporate-sponsored environmental awareness campaign to underline the importance of:

energy saving;

- oil spill prevention;
- waste segregation and reduction;
- water saving and reuse;
- reduction of the ecological footprint to a minimum.

Each one of the aforementioned themes, launched in sequence, is accompanied with dedicated support material in English and Portuguese and diffused through worksite meetings, special tool box talks as well as various environmental drills and presentations to help employees increase their awareness.

The campaign was conducted in the period 2011-2012 in Luanda (industrial Base), Cabinda, Soyo and Ambriz, with tool box talks involving more than 500 employees for each theme.

More than 700 employees were involved in the Environment Day 2012 celebration.

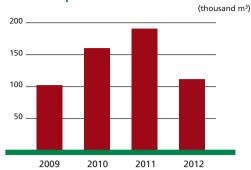
| Energy Consumption |          |        |                       |                       |                       |  |  |
|--------------------|----------|--------|-----------------------|-----------------------|-----------------------|--|--|
|                    |          | 2009   | 2010                  | 2011                  | 2012                  |  |  |
| Diesel             | (tonnes) | 20,866 | 32,095 <sup>(1)</sup> | 41,289 <sup>(1)</sup> | 40,771 <sup>(1)</sup> |  |  |
| Electric Energy    | (kWh)    | 33,304 | 308,800               | 25,901                | -                     |  |  |
| Gasoline           | (tonnes) | -      | 59                    | 30                    | 0.06                  |  |  |
| LSC Fuel Oil       | (tonnes) | -      | 734 <sup>(2)</sup>    | 3 (2)                 | 4.8                   |  |  |
| HSC Fuel oil       | (tonnes) | 11,558 | 335                   | 36                    | 2.3                   |  |  |
| Natural gas (metha | ne) (m³) | 12,493 | -                     | 290                   | _                     |  |  |

(1) Includes Diesel and Diesel Marine Oil according to the new Environmental Reporting Standard defined in 2010.

(2) Includes both Intermediate Fuel Oil and Light Fuel Oil as classified in the new Environmental Reporting Standard defined in 2010

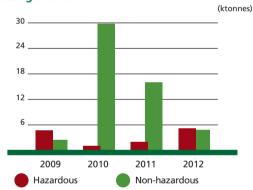
Note: The increase in the use of electricity in 2010 is mainly due to the FARM (Flare and Relief Modifications) project which uses the public grid completed in 2011. Moreover, in 2010, FPSO Gimboa, the main HSC fuel oil and natural gas consumer in 2009, started to use its own produced gas instead of other fuel types.

#### Water consumption



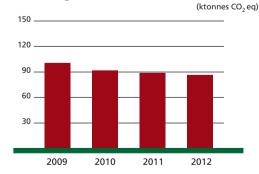
Note: The increase in water consumption since 2010 is due to inclusion of the Kwanda activities in the environmental reporting system together with the start of activities of the 2 offshore drilling units Perro Negro 6 and Saipem 12000. Non desalinated sea water not included.

#### Waste generation



Note: The increase in non-hazardous waste generation in 2010 and 2011 is due to inclusion of the Kwanda activities in the environmental reporting system.

#### **Greenhouse gases (GHG)**





#### **Environmental Performance**

In 2010, the environmental reporting system was also implemented for Kwanda Lda. This is the main reason behind the increase in some environmental performance figures. For water in particular, the inclusion of the Kwanda base and the start of activities of the 2 offshore drilling units Perro Negro 6 and Saipem 12000 led to an increase in consumption. Similarly for waste, the inclusion of Kwanda in the reporting process saw a significant increase in the generation of non-hazardous waste (about 26,866 t in 2010).

# Prevention of pollution onboard

The fleet working in offshore projects is in compliance with international environmental maritime standards. All vessels are equipped to achieve zero discharges through onboard systems such as a sewage treatment plant, a segregated drainage system, an oily water separator for bile system, monitoring and several internal procedures.

### **CUSTOMERS**

Saipem has been present in Angola since 1982 (Kwanda logistic base) working for customers in the Oil&Gas industry, such as Eni, ExxonMobil, Total, Chevron, Shell, BP, etc., which operate and produce in Angola through locally registered branches, through joint venture agreements with Sonangol.

The relationship between Saipem and its customers is close yet constructive, with continual feedback on specific issues concerning local content, HSE and/or security issues. Oil&Gas companies are subject to the same Angolan Content considerations, and Saipem's efforts to improve the local content associated with its activities are therefore seen as an advantage for clients in terms of the overall promotion of the programme.

The evaluation of economic externalities undertaken by Saipem in order to quantify the impacts of the Group operations in Angola is likewise of considerable interest to Saipem Clients. The study demonstrates the long-term advantage for all stakeholders, including Saipem, its Clients, Sonangol, as well as the government and people of Angola, associated with the development of a strategic and sustainable local content approach. Targets for the Angolan Content of each project are shared with each Client and monitored as per contractual requirements.

During new project acquisition, Saipem also cooperates with the Client in defining the local content plan and the commitments towards local communities through the signing of a Memorandum of Understanding (MoU).

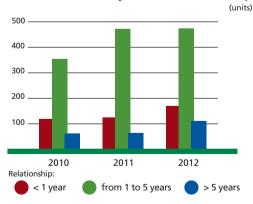




#### Total amounts ordered by local and global vendors



#### Qualified local vendors by duration of relationship



### **SUPPLIERS**

One of the pillars of Saipem's approach to local content development consists of contributing to local economic growth through the active promotion of local suppliers and subcontractors.

Petromar and Kwanda in particular account for a significant portion of the Group's direct contribution to the local economy as a result of the volumes of local purchasing expenditure associated with their activities.

Furthermore, the initial expenditure made by the Group for the purchasing of goods and services triggers backward linkages in the supply chain, in terms of subsequent rounds of expenditure for goods and services bought by suppliers for their sales to Saipem (primary and intermediate inputs). The extent of the linkage within the supply chain, as evinced within the Externalities Study, is considerably influenced by the strength of the industrial sector of the Angolan economy. The Oil&Gas service sector, in particular, requires highly technical goods and intermediate inputs that are not always available on the local market. This being the case, Saipem is focusing efforts in the medium to long term on developing collaborative efforts



with local suppliers in order to improve their capacity and competitiveness.

### LOCAL COMMUNITIES

A key tenet of a sustainable business strategy is the promotion of long-term socio-economic development in the regions where Saipem has a longstanding presence. In parallel with a strong local content focus, Saipem also contributes to the improvement of the standard of living of local populations through various local community initiatives focusing on health care, education, social development, environment and culture.

#### Health

Local community health initiatives include, for example, awareness campaigns at Ambriz local hospital covering basic health care precautions, food handling, malaria, HIV prevention and World Health Day.

Given the problem of endemic malaria and the existence of only basic healthcare facilities in Ambriz, in February 2011 Saipem launched an initiative in cooperation with the Local Administration to support malaria prevention through the use of insecticide-treated mosquito nets.

Over 2 days, a total of 2,800 nets were distributed to approximately 1,300 families with guidance and instructions for optimal use of the treated bed nets. On the second day of distribution a tetanus vaccination campaign for pregnant females was conducted. Relevant statistics were provided to the Ministry of Health representative to support the strategic planning and implementation of malaria control programme at both local and national levels.

For the second phase of the project, Petromar, together with the Ambriz Administration, has planned to distribute mosquito nets to two peripheral communities within the jurisdiction of Ambriz municipality. The communities of Belavista and Tabi, located approximately 50-80 km from Ambriz town, have populations of around 3,000 and 5,600, respectively.

As part of empowerment of the public health system, Petromar also supplied a 4 wheel drive ambulance, and provides the mechanical maintenance when necessary within the Ambriz yard mechanical maintenance work shop.

# Skills acquisition and professional training

As of March 2008 a welding and pipefitting school has been operating



in order to promote skill acquisition and professional training. A total of 50 residents are currently undergoing welding training that includes methods such as rod, semi-automatic and TIG welding.

#### Infrastructure

Social infrastructures and access to safe drinking water are fundamental. Situated at about 13 km from the yard, the Rio Loge pump station supplies the town and the yard with fresh water through a pipeline. Petromar has performed maintenance and refurbishment of the installation including the pump station, pipeline and water treatment system to ensure a continuous fresh water supply for both the town and the yard. The Company continues to offer this maintenance support to the municipality as required.

Petromar provided the trenching, cable supply, installation and electrical connection of the main cable feeder required to supply electricity from the base camp power station to the Ambriz School.

# FUTURE CHALLENGES

Within the objectives set out in the Angolanisation Programmes, one of the key future opportunities and challenges is to continue with the training development plan for Angolan middle and senior managers in all departments in order to assure the continual transfer of know-how, expertise and capacity to Saipem's local employees in Angola.

In parallel with the rehabilitation of the fabrication yard in Ambriz, Saipem has developed several innovative and challenging initiatives in partnership with local stakeholders as part of a comprehensive sustainability programme. These initiatives, including the training centre at Ambriz for skills acquisition and professional development as well as the 'Alegria do Ambriz' project for supporting community agricultural productivity are a fundamental part of Saipem's long-term commitment to business and sustainable development within Angola.

Health, Safety and Environment are fundamental priorities across all Saipem Group operations. Creating a strong safety culture in the entire Saipem workforce in Angola thus remains a challenge of utmost importance. Likewise, Saipem has identified a future challenge in continuing to improve environmental performance within its yards, in particular with respect to separation and disposal of waste generated during project activities given the existing facilities available within the country.



### Accident on the Perro Negro 6

On July 1, 2013, during rig positioning manoeuvres prior to the commencement of drilling operations, the jack up drilling rig Perro Negro 6 suddenly tilted and suffered hull damage, leading to water intake. The event, which was caused by the subsiding of the seabed under one of the rig's three legs, occurred between the coasts of Angola and the Democratic Republic of the Congo, near the mouth of the Congo River, in approximately 40 metres of water. After the sudden and significant

tilting of the rig, it was discovered that, of the 103 crew members. one was missing and another six injured. When the rig eventually capsized and sank at 10:30 a.m. CEST, there was no longer any personnel on-board, since the



emergency procedures had been promptly activated to ensure full evacuation beforehand.

No environmental impacts have been reported and all prevention measures have been implemented. The Saipem Emergency Response Team was mobilised and has been working closely with the Angolan authorities and the Client's operational team. A full investigation is now underway to understand what happened and why.

### GLOSSARY & ACRONYMS

#### **EMS**

**Environmental Management** System.

#### **EPIC**

Engineering, Procurement, Installation and Construction.

#### **EPC**

Engineering, Procurement and Construction.

#### **HDI - Human Development** Index

A summary composite index that measures a country's average achievements in three basic aspects of human development: health, knowledge, and a decent standard of living. Health is measured by life expectancy at

tertiary gross enrolment ratio; and standard of living by GDP per capita (PPP US\$). (from UNDP)

#### **HSE**

Health, Safety and Environment.

#### LTL

Lost Time Injury. Any work-related injury which renders the injured person temporarily unable to perform any regular job or restricted work on any day/shift after the day on which the injury occurred. In this case 'any day' includes rest day, weekend day, and holiday. The day of the accident is not counted when calculating

of the total the number of the Lost Time Injuries.

#### **LTIFR**

Lost Time Injury Frequency Rate

No. LTI x 1,000,000 LTIFR = Total worked man hours

#### TRI

Total Recordable Incidents. Term used to define the sum of Lost Time Injuries (including fatalities and permanent disability cases), work restricted cases and medical treatment cases.

#### TRIFR

Total Recordable Incidents Frequency Rate.

No. TRI x 1,000,000 TRIFR = Total worked man hours Headquarters: San Donato Milanese (Milan), Italy

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#### Feedback

What you think of this Country 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.

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