



# A Leading Oil & Gas Services Provider

September 2015





## Saipem Today: A Major Multicultural E&C & Drilling Contractor

- ✓ Operating in more than 60 countries
- √ ~ 46,000 employees from > 130 nationalities
- √ 29 engineering and project execution centers worldwide
- √ 11 fabrication yards in 5 continents



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## A Leading Global EP(I)C General Contractor





## Engineering & Construction

- Full service EP(I)C provider
- Distinctive 'frontier focus' in Oil & Gas industries
- Most modern, technologically advanced offshore construction fleet
- BUs Offshore, Onshore, Floaters











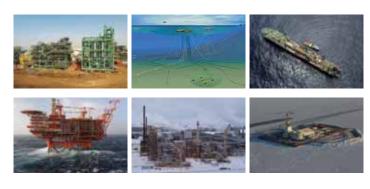
#### Drilling

 High quality player onshore and in niches offshore









#### Engineering & Construction

Designed and built:

- More than 100 grass roots complexes, 2,000 process units
- Over 130,000 km of land pipelines, sealines and trunklines
- In the last decade, more than 100 offshore EPIC projects, including groundbreaking deepwater achievements



Drilled over 7,300 wells, of which 1,800 offshore



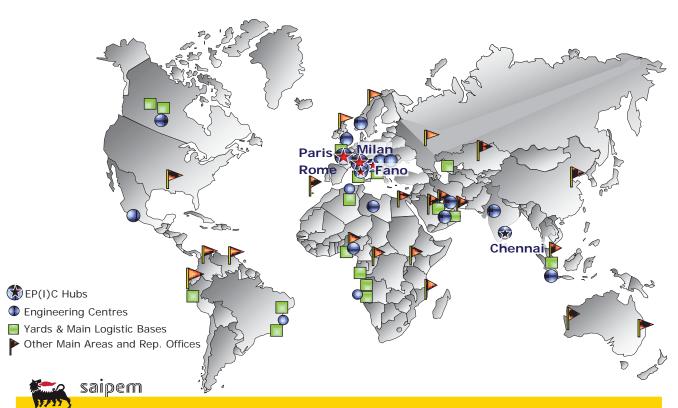




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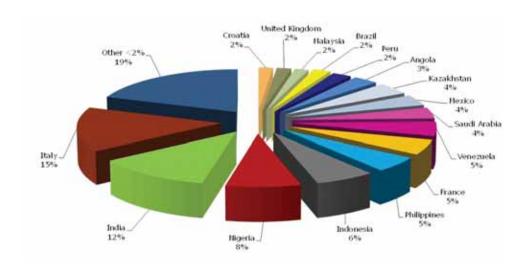
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## Global Presence with a Multilocal Emphasis (1/2)



#### **Human Resources**

#### 46,277 employees of 130 nationalities(°)



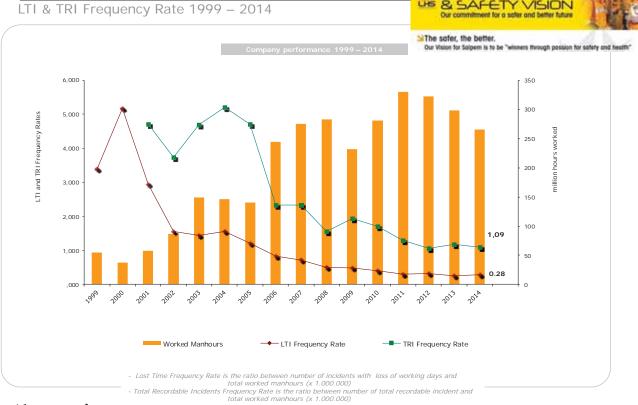
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(°) 31st August, 2015

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#### HSEQ – Top Saipem Priority LTI & TRI Frequency Rate 1999 – 2014





#### Moving to the next safety plateau







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## Choose Life campaign

A campaign design to provoke 'Healthy Choices', specifically targeting 3 of the critical health challenges facing a globally operating company today

# Lifestyle

**Transmitable deseases** 

Malaria

# 478 events 7 953 partecipants<sup>(\*)</sup>





(\*) June 30, 2015



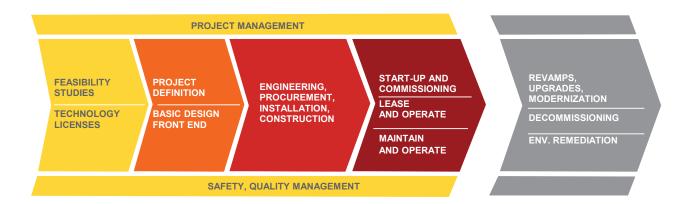


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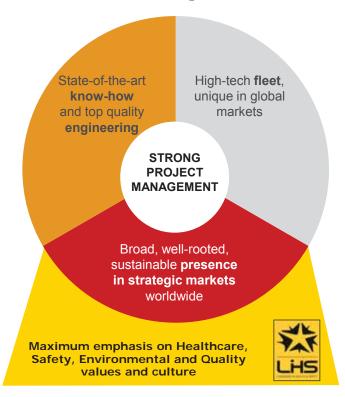
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Saipem Business Model
Supply of complex solutions for even the largest and most challenging projects



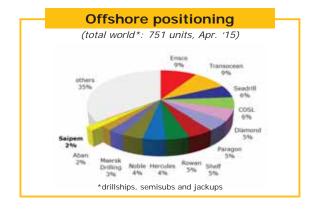


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#### Saipem in Drilling

- → International drilling contractor operating both offshore and onshore
- → 13<sup>th</sup> largest contractor in offshore drilling, 2<sup>nd</sup> largest contractor in **onshore** drilling international markets
- → Specialization in deep water, harsh environments and remote areas



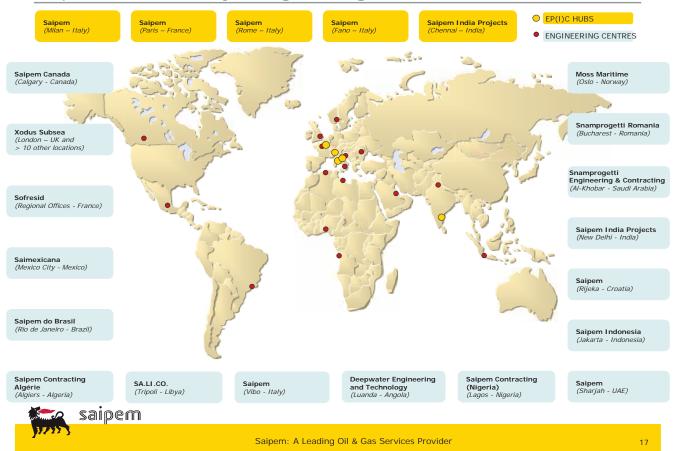




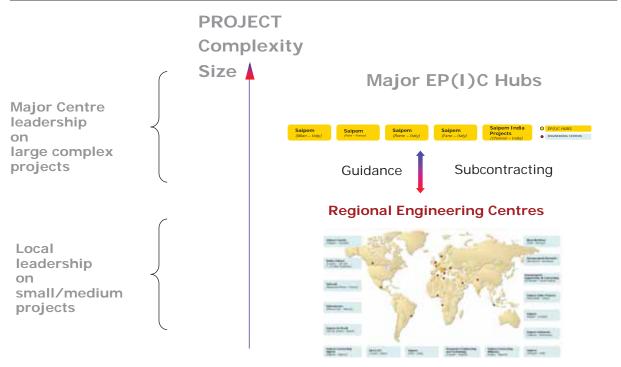
(°) 30th June, 2015



## Saipem's Assets: Major Engineering Centres



## **E&C Typical Project Execution Strategy**





## Saipem's Assets: Fabrication Yards (\*)



## Saipem's Assets: Offshore Construction Vessels

Our offshore fleet exceeds 40 units

Ultra-Heavy Lifting & Deepwater Pipelaying

# Field Development / SURF Lifting and DLB



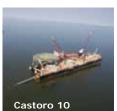




#### **Pipelaying**











## Saipem's Assets: Drilling Units

#### 17 offshore units and more than 100 onshore rigs

#### **Deep Water**



Saipem 12000 Angola



Saipem 10000 Mozambique



Scarabeo 9 Angola



Scarabeo 8 Norway – North Sea



Scarabeo 5 Norway – North Sea

#### **Onshore**



Desert Environment Algeria/Saudi Arabia



Kashagan Field - Kazakhstan



Heliportable Rig Ecuador/Perù

#### Jack-Up



Perro Negro 8 Italy



Perro Negro 7 Saudi Arabia



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Market Cap. € 3.9 Billion

@ December 31, 2014
Listed on Milan Stock Exchange





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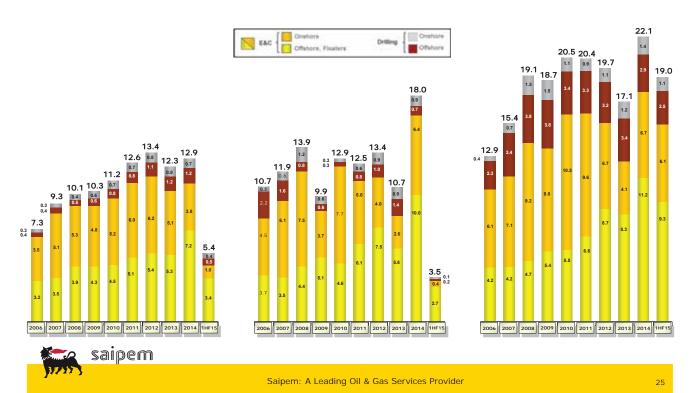






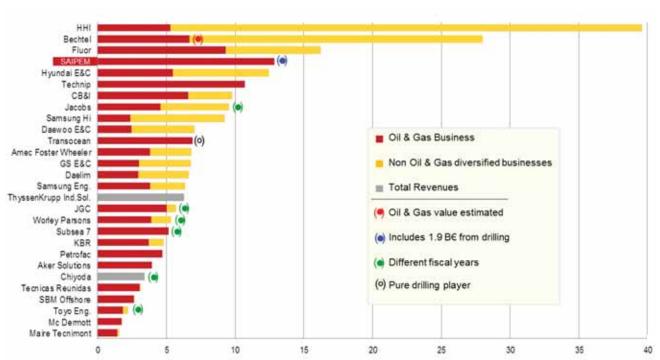






## Major Global E&C Companies in Oil & Gas Markets

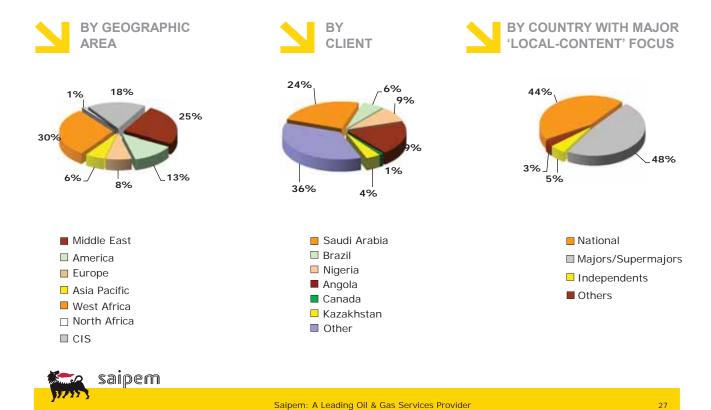
Revenues in 2014 (B €)





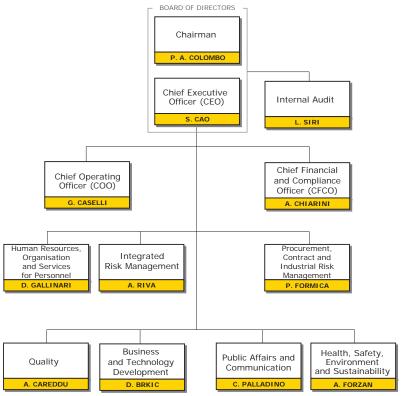
#### Balanced Exposure to Oil & Gas Industry: Backlog Analysis

TOTAL BACKLOG AS OF **December 31**, **2014** = 22.1 B€





## Company Organization

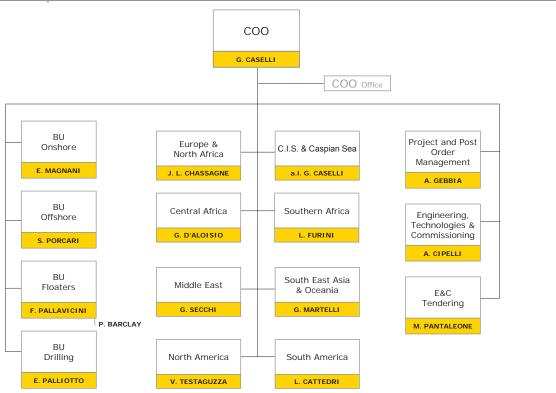


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## Saipem Operations









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#### Local Content Maximization

A cornerstone of Saipem's business philosophy

- Creation of long-term social and economic value
- Development of local skills
- Effective engagement of all stakeholders

- Develop/invest in local project execution centres
  - Engineering
  - Project Management
  - Prefabrication Yards
  - Procurement and Subcontracts with Local Suppliers
- Local hiring
- Training, know-how transfer
- Local partnerships
- HSE, medical training and assistance







Objective: deeply rooted local sustainable presence

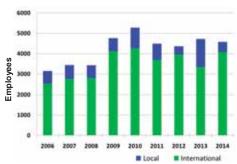


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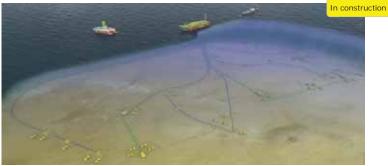
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## Local Presence: Saipem in Nigeria - Since the 1960s

#### EP(I)C contracts with as many local resources as possible



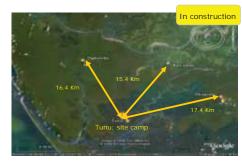
Personnel employed by Saipem in Nigeria



Egina Field Development- Total Upstream Nigeria Ltd.



Rumuolumeni Base, Saipem prefabrication and construction support yard at Port Harcourt



Southern Swamp AG Solution SPDC



Okwori Field Development Scarabeo 3 - Addax



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## Local Presence: Saipem in Canada









- Full service project execution centre, with international reach
  - Upstream
  - Pipelines
  - Refining
  - Oil sands processing
  - Shale gas
- Business model based on EPC

Innovative contractual and risk management schemes, new for the Canadian market

- Mastered exacting local project execution requirements
  - Climate impact
  - Modularization
  - Pioneered new entry mechanisms for foreign labor
  - Completed own prefabrication yards

The only real local EPC contractor in Alberta, with full control of the entire work sequence and risk assumption





Central Metering and Manifold Platform Loadout -Iraq Crude Oil Export Expansion Project, South Oil Company

Rumailah Camp Facilities

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 Sajer, a JV with local partners, registered in Iraq since 2009

- Sajer Assets:
  - Baghdad Head Office (Int. Zone)
  - Rumailah: Camp, Logistics Base, Prefab Yard, Training Centre, Laydown Yard, Batching Plant
  - Sharing people and assets with Saipem ME facilities
- Numerous projects under way
  - Iraq Crude Oil Export Expansion Project Phase 2, Basra Oil Terminal, South Oil Company
  - 4 EPC contracts for water treatment, processing plants and pipelines for ExxonMobil Iraq Ltd.
  - Umm Qasr Marine Terminal rehabilitation, Inlet Booster Compression Station, FCP Majnoon and other projects for Shell/Basra Gas Company
- Drilling Operations
  - Technical service agreement to support Iraqi drilling company

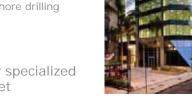
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#### Local Presence: Saipem in Brazil



Lula Extremo Sul Project

- From occasional contractor to permanent player 8 major deepwater EPIC projects underway
  - One Leased FPSO in operation offshore Vitoria
  - 3 rigs deployed for onshore drilling



Rio Engineering Centre

- Application of highly specialized ultra-deep water fleet
  - New flagship Saipem FDS 2 vessel, ideally suited for Pre-Salt ultra-deepwater project execution

Developing new Guarujá Yard and Engineering

Within the industrial hub of Santos, the largest port and



FPSO Cidade de Vitoria



Guarujá Yard



Complex (completed in 2005)

- Guara & Lula NE Pipelines • Lula NE – Cernambi





- Fabrication of subsea and floating structures and supply of
- support services to the specialized fleet and project execution



Saipem (Picture of Saipem FDS 2 vessel that will perform the offshore activities)

Centre in Rio



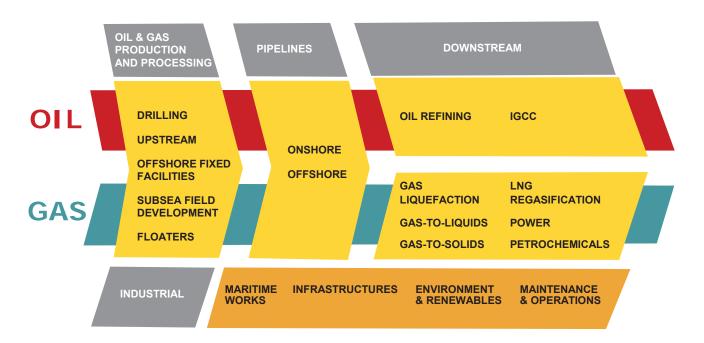


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#### Saipem Strategy

Excel in all steps of the oil & gas value chain, onshore and offshore, upstream and downstream, as well as in selected diversified businesses





## Advanced Subsea, Offshore and Onshore Technology Development

# della della **FLNG tandem** offloading system SIR Riser SpoolSep Flowlines with PiP, heating, liners, ... **SPRINGS** Multipipe

#### **Subsea Field Architectures**

- Riser concepts: SIR, BIRD, ...
- Forged ends PIP
- Plastic liners : FBJ
- Active heating for pipe in pipe

#### **Subsea Processing**

- Gas/liquid separation : Multipipe
- Liquid/Liquid separation : SpoolSep
- Seawater treatment: SPRINGS

- Offshore LNG offloading
- FLNG technologies
- Dry tree Unit (WHB)

# dvanced Welding & Pipelaying

- Ultra-shallow, ultra-deep, Arctic pipelaying
- Productivity acceleration
- Exotic and clad materials

#### Process Technologies

- "Zero emissions" urea synthesis
- Environment and remediation control







**FLNG** facility



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## Mega-projects Under Way, Onshore



Khurais, Mazajili and Abu Jifan production centers expansion Saudi Aramco, Saudi Arabia (Pictured: Khurais Field Development Project)



- Socar & Turcas Aegean Rafineri Turkey (Vision 2023)
- Jazan Refinery Pckgs 1&2, Saudi Aramco, Saudi Arabia
- Al-Zour New Refinery Project (NRP) Pckgs 4 & 5, KNPC, Kuwait



Chevron, LNG Loading Jetty Gorgon - Australia



Fertilizer Complex Dangote Fertilizer Ltd., Nigeria

EPDM Rubber Plant Versalis, Italy



Shedgum-Yanbu Pipeline,

- South Caucasus Pipeline, Azerbaijan - Georgia
- Pipeline El Encino, Mexico
- Water Pipeline System Chile



 CNRL Horizon Secondary Saudi Aramco, Saudi Arabia Upgrader, Phases II and III

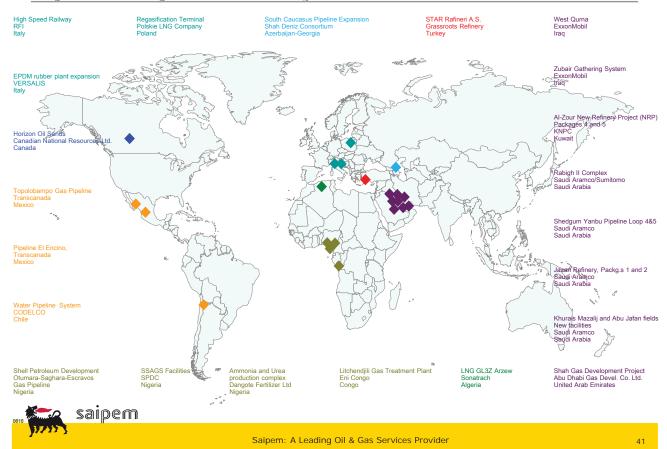
- Canada(Picture of CNRL - Phase I)



Southern Swamp Associated Gas Solution Nigeria



#### Major EPC Projects Under Way, Onshore



## Mega-projects Under Way, Offshore and Floaters



• Two FPSOs for Kaombo - Field Dev. Project, Block 32 Total, Angola







Lula Norte, Lula Sul, and Sapinhoa Norte and Cernambi Sul Lula Extremo Sul Pipelines Guara & Lula NE Export Pipelines-Brazil (Pictured)





Shah Deniz Stage 2, BP Exploration, Azerbaijan



FPU for Jangkrik Complex Project Dev. Eni M.B., Indonesia



Al Wasit Gas Program Saudi Arabia

 New offshore structures (Part of Long Term Agreement) Saudi Arabia



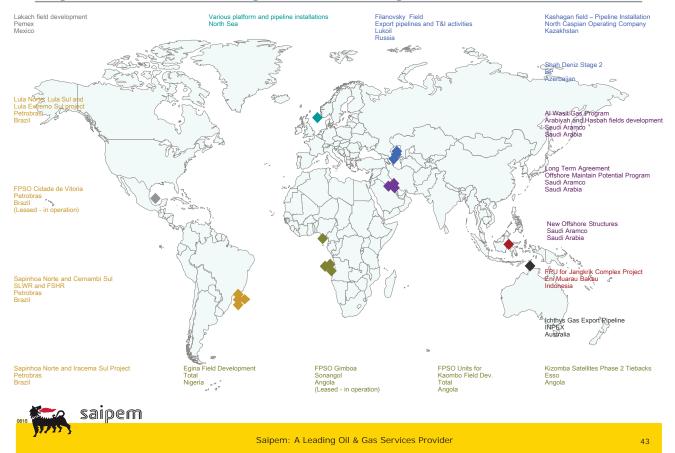
Ichthys Gas Export Pipeline Australia



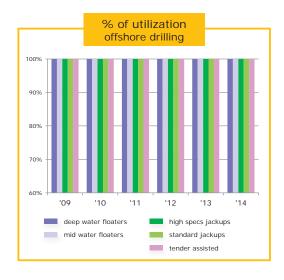
Liwan 3-1 Field - China (Picture of the Saipem FDS 2 vessel that will perform the offshore activities)

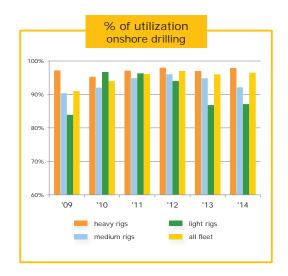


## Major EPIC and T&I Projects Under Way, Offshore and Floaters



## Saipem Drilling Business Unit: Key Utilization Data





→ Utilization rate significantly higher than the average of competitors



## Saipem Offshore Drilling Fleet Deployment (July 2015)



# Saipem Onshore Drilling Rigs Deployment (June 2015)







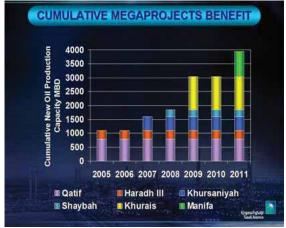


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#### Mega Oil Projects Upstream

Saudi Aramco, K.S.A.



Source: Saudi Aramco (2007)

- Flagship projects to bring huge new gas and oil production capacity on stream quickly
- Individual project values: > 2 bn \$ each Last years total awards: > 12 bn \$
- New "Convertible" contract structures:

FEED EPC (Cost-plus) (Lump Sum)

With pre-agreed formulae

Khurais Oil Field: Saipem awarded 60% of total investment



Qatif Central Producing Facilities



Khursaniyah Processing Facilities



Khurais WIPS



Qurayyah Sea Water Treatment



Khurais Utilities Package



Manifa Central Processing Facilities



 Khurais, Mazajili and Abu Jifan production centers expansion Saudi Aramco, Saudi Arabia



 SPDC, Delta State, Nigeria Southern Swamp Associated Gas Solution





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## Floating Oil and Gas Production



FPU for Jangkrik Complex Project Eni Muara Bakau Indonesia



- Designed and completed:
  - 9 new built floating production systems, including 3 large scale projects with storage capacity exceeding 2 million barrels of oil
  - 6 converted FPSOs under Lease & Operate contracts (3 in operation)
- Continuously developing new concepts and top quality engineering services, including the design of more than 20 semisubmersible units.

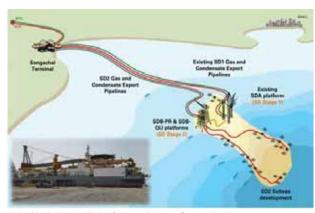


Total, Dalia FPSO, Angola



ExxonMobil, Erha FPSO, Nigeria

#### Complex Integrated Offshore Fixed Facilities



BP, Shah Deniz Field (general layout), Azerbaijan



Crude Oil Export Expansion
Project, Phase 2

Under Execution

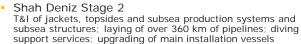
Saudi Aramoo Saudi Arabio

Saudi Aramco, Saudi Arabia, Al Wasit Gas Program

 Completed more than 100 offshore EPIC projects over the last ten years, including several challenging large-scale integrated complexes

#### EPIC flagship projects:

- Bahr Essalam Full Field Development: Gathering sealines, export trunklines, subsea production system, production platform
- Al Wasit Field Development:
  Complete system, including 12 wellheads, 2 tie-in and 1 injection platforms, 200 km export trunkline offshore, 120 km onshore pipeline, service pipelines and sealines, marine works











Agip Gas B.V., Libya Bahr Essalam Full Field Development



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#### Platforms Installation



Saipem 7000 installing platform accommodation module



Sakhalin Island, Russia, integrated deck floatover installation

- Installed 2.5 million tons of offshore structures
- Heaviest lift record: 12,100 t integrated deck
- Floatover and heavy lift techniques







Jacket launch



#### Subsea Deepwater Field Development



Elf Petroleum Nigeria, Usan, Nigeria EPCI of subsea system connecting 42 wellheads to FPSO, with export sealines



Egina Field Development - Nigeria



Gazprom, Sakhalin 3, Russia



Burullus Gas Company West Delta Deep Marine Project,

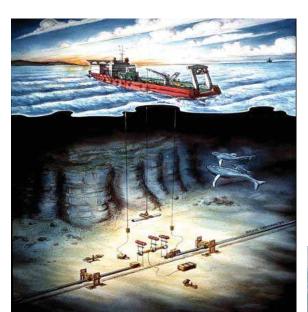
(Picture of Saipem FDS operations in Egyptian waters)

- Designed and executed more than 20 major deepwater systems in the last ten years
- Numerous high technology proprietary solutions available for risers and flowlines
- Under way:
  - Egina Field Development, for Total Upstream Nigeria Ltd. EPIC Contract for Umbilicals, Flowlines and Riser System
  - Sapinhoa Norte and Cernambi Sul Project for Petrobas EPIC contract for Steel Lazy Wave Riser and Free Standing Hybrid Riser for the gas export systems



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## Sonsub Remote Subsea Technologies



Deepwater sealine repair system

- Full service deepwater intervention capabilities:
  - Construction Services
  - Diverless Tie-in and Pipeline Repair Systems
  - **Diving Operations**
  - Specialist Tooling & Engineering
  - Survey & Positioning Services
  - Dedicated fleet of 11 Construction Support Vessels and Several ROVs
- More than 200 subsea inspection, maintenance, repair and support services completed world-wide in the last 20 years
- Deepest recovery operation of oil from tanker at 3,850 m water depth (Repsol, Prestige)



Bar Protector Dive support and construction vessel



Innovator 250 Heavy duty ROV



Repsol, Spain, Prestige Deepwater oil recovery





CNRL - Canada



- 37 grass-roots refineries
- In the last decade, emphasis on "Bottoms-of-the-Barrel" upgrading
  - 30 hydrocrackers, H-Oil and LC Finers
- Recent focus:
  - EST First Commercial Unit for Eni R&M
  - Staatsolie, Suriname, refinery expansion (modular)
  - 2 desulfurization and amine units for Pemex - Refinacion, Mexico
  - Canadian projects CNRL Horizon Upgrader Phases II and III - FEED and EPC
  - Reformer and Aromatics Complex for Saudi Aramco/Sumitomo - Rabigh II, Saudi Arabia

15 gasifiers, plus H<sub>2</sub>, ACR, Soot Ash Removal, Sulfur Recovery

In Execution

Execution

- Aegean Refinery Project 212,000 BPSD Grassroots Refinery Aliaga, Turkey
- Jazan IGCC Complex Saudi Aramco Saudi Arabia
- and other units Al-Zour New Refinery Project (NRP) In Execution for KNPC Packages 4 and 5, Kuwait



Eni - EST Sannazzaro Refinery



Staatsolie Maatschappij Suriname N.V.



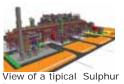
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## IGCC-Integrated Gasification with Combined Cycle

- Designed and built the two world largest IGCC plants On stream
  - Significant interrelationships EPC/Project Financing requirements
  - Integration of many technologies and proprietary equipment
  - Contributed to technology optimization and development (E.g. Reactor redesign)
- GE (then Texaco) and Shell technologies
- Designing and building the world largest gasification project Saudi Aramco Jazan IGCC

Latest Award

• 15 gasifiers, plus H<sub>2</sub>, ACR, Soot Ash Removal, Sulfur Recovery and other units for new grassroots refinery in Jazan, KSA













Recovery Unit



Sannazzaro - Italy

#### Processing

- 20 Integrated Natural Gas Complexes
- Designed and built > 200 process units
- Individual project values > 1 bn \$

Abu Dhabi Gas Development Co. Shah Gas Development Program EPC Packages 2, 3, 5





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#### Gas to Market

#### Onshore Transportation Systems - Pipelines



Hawiyah Gas Pipeline System Saudi Arabia



Kashagan - Caspian Sea

- Leading global E&C contractor for oil and gas pipelines
- Over 60,000 km of gas pipelines90 compressor stations (~3,000 MW)
- 30,000 km of oil & product pipelines
   40 pumping stations (~2,100 MW)
- 1,400 km of water pipelines11 Pumping Stations (~130 MW)
- Topolobampo Gas Pipeline Transcanada Mexico
- South Caucasus Pipeline Azerbaijan – Georgia, Shas Deniz Consortium

Water Pipeline System
 160 km, reaching heights of 3,000 metres CODELCO, Chile

Latest Award

In Construction

Latest Award



BS 160 - Kuwait BS 171 - Kuwait



Alinta - Australia



NAOC GTS4 - Nigeria



## Gas to Market

## Offshore Pipeline Systems



Nord Stream Gas Pipeline – Baltic Sea 1224 Km, 48"



Castoro 6 On duty for Nord Stream



Saipem 7000



- Inpex Ichthys LNG Project Australia (Picture of Castorone vessel that will perform the offshore activities)
- Leader in deepwater and shallow water pipelaying: laid over 35,000 km of sealines
- Designed and laid the most challenging offshore pipelines since the 70s
- Numerous complex mega-projects under way in Brazil, Australia etc.
- New state-of-the-art, high productivity Castorone pipelaying vessel

for very large diameter pipes in sub-arctic conditions and in deep waters



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#### Flagship Integrated Mega-project: Kashagan Experimental Program



- Major offshore and onshore integrated project for the production of crude oil and associated gas:
  - Offshore artificial islands for drilling, process and utility facilities
  - Oil and gas export system
  - New onshore processing facility
- Saipem's scope:
  - EPCI of trunklines and production flowlines
  - Transportation & installation of piles, flares and modular units
  - Fabrication of structures
  - Hook-up and commissioning
  - Drilling of multiple wells from artificial islands





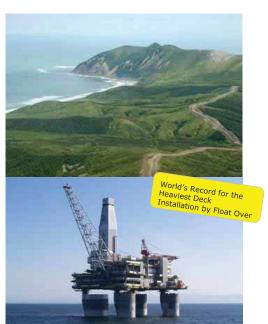




- Developed locally purpose-built construction fleet and unique taylor-made pipelaying techniques and equipment
- Two 95 kilometer pipelines, connecting
   D island in the Caspian Sea to the Karabatan
   onshore plant in Kazakhstan
   Latest Award



## Flagship Pipeline Integrated Mega-project: Sakhalin II



- Client: Sakhalin Energy Investment Co. (SEIC)
- Saipem main contractor multibillion EPC contracts
- Oil & gas twin 780 km land pipeline system
  - Oil: 24" Gas: 48"
  - > 80 MM construction man-hours
  - Driven > 150 MMkm
- Built over 5,000 km of temporary access roads
- Several segments of sealines and subsea power and communication cables
- Offshore transportation and installation of two massive integrated platform decks
- Very challenging logistics:
  - Remote and inhospitable terrain
  - T < -45°C, frost</li>
  - Snow storms
  - Mountains, slopes >15°





Shell CEO 2008 Safety Award



For Sakhalin II, Saipem was awarded the prize "2008 Best Environmental Project" by the Ministry of Ecology and Natural Resources of the Russian Federation.



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#### Gas to Market

## LNG – NG Liquefaction

- 1st multi-billion \$ contract as Main Contractor to design and execute a world class
  - 4.7 MTPA LNG project
- To date, designed and built 9 other LNG trains, 35 MTPA total capacity
- Several FEED and pre-EPC projects under way for major new projects in Canada, Mozambique etc.
- Major synergies with Saipem's long-standing experience and capabilities in marine works and LNG tankage



Arzew - LNG GL3Z - Algeria



RasGas, Ras Laffan - Qatar EPC Trains 3÷5



NLNG, Bonny Island - Nigeria, Trains 1÷6 EPC / Train 7 Plus



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# LNG Import / Storage / Regasification



Canaport LNG - Canada

- Extensive proprietary technology and expertise

- Designed and built:
  - 12 world scale LNG terminals
  - More than 40 LNG tanks
- Pioneer in new technologies for treatment, storage, handling of liquefied gas



LNG Import Terminal Zeebrugge - Belgium



LNG Import Terminal Chengtoujiao, Guangdong - China



Fos Cavaou Marseille - France



Polskie LNG Terminal Swinoujcie - Poland



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## Floating LNG - Regasification and Liquefaction



OLT, FSRU Toscana, Italy

- First FSRU worldwide positioned offshore
- Combining onshore and offshore engineering and construction competencies with the emerging conversion / new built floating LNG market



Significant R&D effort way



Petrobras, LNG FPSO, FEED



Azure, Deepwater LNG FPSO for mild environments, Joint Industry Project



Broadwater FSRU, USA, pre-FEED and ITT preparation



#### Gas-to-Liquids



Modules Fabrication in Abu Dhabi

#### Chevron Nigeria Ltd. - Escravos, Nigeria

One of three world scale GTL projects (34,000 bpsd)

- Sasol process to produce premium diesel from natural gas
- ATR New Syngas production technology from Haldor Topsoe
- Multibillion \$ contract, in JV with KBR















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#### Gas to Market

## Ammonia – Urea Complexes



Engro Chemical Pakistan Ltd. Daharki - Pakistan

- Snamprogetti™ Urea Technology: More than 130 licenses world-wide
- Designed and built more than 30 large Ammonia/Urea complexes
- World largest complex in operation (2 trains):

>5,000 t/d Urea

3,850 t/d

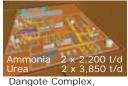
World largest single train complexes:

Urea

- 3 on stream 2 in design and construction
- 3 in design preparation
- 'Jumbo' single train ready!

>5,000 t/dUrea





Dangote Complex, Nigeria



Omifco - Oman







RIO POLIMEROS, Rio de Janeiro - Brazil



 Engineered and built most advanced petrochemical plants

5 Ethylene 13 HD/LLDPE 10 LDPE 3 Styrene

- Access to first class technologies
  - Univation
- Versalis
- Dow
- Lummus Global
- ExxonMobil

Latest Award

Expansion of the Ethylene Propylene Diene Monomer plant Versalis, Ferrara, Italy



Qatofin - Qatar LLDPE (450,000 t/y)



Petrochina Dushanzi Petrochemical Co. SSBR (100,000 t/y) SBS (80,000 t/y)



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PE, Brindisi - Italy UNIPOL™

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#### **Power Plants**



Ferrera Erbognone - Italy

- Designed and built over 10,000 MW (EPC basis)
- Natural gas and syngas, combined and single cycle, combined heat and power, waste to energy
- Italy, France, Algeria, Nigeria
- Ansaldo, GE, Alstom, Siemens turbines



Berrouaghia - Algeria



Ravenna - Italy



Dombasle - France



Okpai - Nigeria



Afam - Nigeria



#### Infrastructure

## Italian High Speed Railway System



Milan-Bologna 182 km

Main Contractor for Design and Construction (Single Contract > 6 B  $\in$ )

Inaugurated in 2008

Milan-Verona 112 km

Under Way

Basic and Front End designs completed EPC started on Milan-Brescia stretch

Ruwais - Shah, Habshan (U.A.E.) 265 km
 EPC Railway Track





Milan-Bologna Po river crossing



Calatrava road bridge



Shah-Ruwais Railway track



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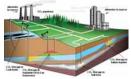
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#### **Environment & Renewables**



Groundwater Treatment Plant Porto Torres - Italy

- Business Line with core team of dedicated specialists integrated into global Saipem organization
- Full Environmental Services Provider:
  - Contaminated sites remediation
  - Water and waste treatment plants and management
  - Ecology, monitoring and emissions abatement
- Developing of new environmental and renewable technologies and systems



CCS programs



Site Remediation Priolo - Italy



Electrochemical Remediaton Technology



Physical Barriers at Porto Marghera - Italy



- Innovative structures
- Optimization of overall facilities layout
- In-house specialist expertise:
  - Coastal Engineering
  - Structural Design
  - Hydraulic Testing
  - Foundation Engineering
  - Construction Methods



- Shore-line facilities for onshore projects
  - Jetties & Berths
- Breakwaters
- Oil & Gas Marine Structures Ports & Container Terminals
- Waterfront Developments
- Recent awards:
- Ammonia/Urea jetty, Arzew, Algeria (Sonatrach)
- LNG loading jetty, Barrow Island, Australia (Chevron)
- Bulk unloading and loading jetty, Sohar Port, Oman
- Tangier II Port Project, Morocco (TMSA)
- Pointe Noire Container Quay, Republic of the Congo
- Puerto Nuevo Export Terminal, Colombia



Guangdong LNG - China



Callao Container Terminal, Lima Peru



Costa Azul Mexico



Tangier Harbour Morocco



Melchorita LNG Peru



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# Offshore Decommissioning











- Successfully completed 7 decommissioning projects in the last decade in the North Sea, Mediterranean and Gulf of Mexico
- Flagship project example Frigg Field Decommissioning for Total E&P Norge:

Platforms (topsides and jackets) and related subsea facilities

- Project duration: 5 years up to 2010
- Scope: engineering, preparation, removal, transportation and disposal
- 340 days of offshore activities by Saipem 7000
- Removed 85,000 tons of structures
- Over 2 million man-hours without LTIs
- Developed innovative seafastening techniques and substructure removal methods

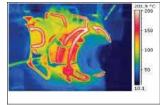


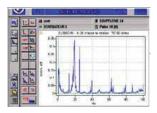
## Maintenance, Modifications & Operations

#### Global O&M Services around 3 main products:

#### 1. Maintenance & Inspection Engineering

- CMMS, Assets register, RCM, RBI
- Spare parts management
- Training services
- Special studies





# 2. Operations & Maintenance Long-Term Contracts

- Technical expertise
- QHSE continuous improvement plans
- On-the-job training programs
- Local content and nationalization





#### 3. Modifications & Turnaround Projects

- Project management
- Engineering & procurement services
- Fabrication support from local yards
- Installation capabilities





# Leverage on continuing in-country local presence saipem

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