

MAINTENANCE MODIFICATIONS AND OPERATIONS



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SAIPEM TODAY

SAIPEM TODAY IS A WORLD LEADER IN THE GLOBAL SUPPLY OF ENGINEERING, PROCUREMENT, PROJECT MANAGEMENT, CONSTRUCTION AND DRILLING SERVICES WITH DISTINCTIVE CAPABILITIES IN THE DESIGN AND EXECUTION OF LARGE-SCALE OFFSHORE AND ONSHORE PROJECTS.

Saipem has a strong bias towards oil and gas frontiers, namely activities in harsh and remote areas, in deep waters as well as in extremely cold and hot environments, applying significant technological competences in many diverse fields such as gas monetization and heavy oil exploitation.

Saipem is organized in two Business Units: Engineering & Construction and Drilling.





SAIPEM ENGINEERING & CONSTRUCTION

FOLLOWING AN AGGRESSIVE GROWTH STRATEGY, WHICH INCLUDED IN THE LAST DECADE THE ACQUISITION OF MANY CONSTRUCTION, TECHNOLOGY AND ENGINEERING COMPANIES, MOST PROMINENTLY OF SNAMPROGETTI, BOUYGUES OFFSHORE, SOFRESID AND MOSS MARITIME, SAIPEM HAS BECOME ONE OF THE WORLD LARGEST AND MOST COMPLETE ENGINEERING AND CONSTRUCTION COMPANIES IN THE GLOBAL OIL AND GAS MARKETS, ONSHORE AND OFFSHORE.



Ever since its initial steps in the fifties as the construction division of Snam, the pipeline company of the Eni Group in Italy, Saipem has pursued a systematic growth strategy, based on the development of internal assets, expertise and skilled resources, as well as on the acquisition of other players with their own asset bases, such as Micoperi in late eighties, and many others.

In the last decade, Saipem has continued its growth by acquiring Bouygues Offshore and Sofresid in France, Moss Maritime in Norway, IDPE in India and Snamprogetti in Italy, and by carrying out a multibillion investment program into the expansion of its offshore construction and drilling fleets. Since the year 2000, Saipem's market capitalization has grown more than sixfold and its revenues tenfold. (*)

The organizational integration of this considerable asset base, namely the network of engineering centres, fabrication and support yards in several continents as well as the offshore construction fleet, has been completed gradually over the years - most recently with the creation of a unified Business Unit Engineering & Construction, an entity with over 30,000 employees (excluding corporate and BU Drilling staff) from over 100 nationalities, with over 60 permanent establishments

and numerous project execution centres around the globe, and with yearly revenues exceeding 10 billion €/y; all held together by outstanding project management skills.

Through the involvement of our global EP(I)C hubs in Milan, Rome and Fano (Italy), Paris (France) and Chennai (India), which operate in connection with a growing number of medium size and smaller regional engineering and project execution centres employing altogether over 7,000 engineers, Saipem balances high project execution quality with a competitive cost and - most importantly - with a major emphasis on local know-how and content.

This well-integrated multicenter approach provides a consistent design and robust execution philosophy on all our projects worldwide. Top priority is provided throughout to all HSEQ aspects.

Saipem therefore offers a complete range of project definition and execution services, offshore and onshore, particularly for the complex "mega-projects" required by the market today: from feasibility and conceptual studies to complex integrated solutions combining design, engineering, procurement, field construction, fabrication and offshore

installation; also revamps, upgradings, maintenance, decommissionings, reclamations and decontaminations.

Saipem today operates in virtually every world market, often in remote locations with harsh environmental conditions and challenging logistics, leveraging on its proven experience across the most significant product lines in the oil and gas production onshore, offshore, in deepwater; gas and oil transportation via offshore and onshore pipeline systems; midstream, refining, chemicals, power generation from fossil as well as from renewable sources; environmental industries, maritime works and infrastructure.

This new series, therefore, outlines Saipem's integrated references in engineering and construction markets offshore and onshore, according to individual business and technology lines.

(*) Until Dec. 31, 2010

MAINTENANCE, MODIFICATIONS AND OPERATIONS

FROM AN EARLY DAYS IN-HOUSE SUPPORT TO SAIPEM'S ASSETS TO TODAY'S SUPPLY OF A FULL RANGE OF INTEGRATED SERVICES TO THE OIL & GAS INDUSTRY, THE MMO BUSINESS LINE WAS DEVELOPED OVER THE YEARS UTILIZING ADVANCED RISK ANALYSIS AND INSPECTION TECHNIQUES.

Saipem MMO offer throughout plant life cycle



Maintenance activities were performed by Saipem since the seventies as an in-house service for the benefit of its construction equipment, derrick & lay barges and drilling barges.

In parallel, modifications works were also carried out since those early days. They took place for offshore or onshore activities first in Saipem yards, especially in Europe, Africa and Asia, where jackets, decks and various types of platforms were fabricated.

In the eighties, Saipem started providing the General Maintenance and Maintenance Engineering Services also to third parties, when Oil & Gas Companies began to outsource such activities as well as their utilities

operations. These services were proposed and contracts signed in a number of countries and for various types of plants, including refineries, petrochemical and chemical plants and upstream installations, through Saipem and its various regional subsidiaries.

From the early 2000s, the Integrated Operations and Maintenance (O&M) Services were also developed for the Leased FPSO business segment. Several FPSOs are now owned, operated and maintained by Saipem.

Also during the last decade, the inspection of critical equipment in the Oil & Gas industry evolved thanks to the use of risk-based analysis methods and new techniques of inspection.

This encouraged the Oil & Gas companies to outsource these services, either at the engineering stage, thus turning them into MIEC (Maintenance and Inspection Engineering Contracts), or at the operations stage (Inspection Technical Services).

From this combined experience, the company now targets new fields of applications within the Oil & Gas industry, aiming at geographical areas and industrial facilities where Saipem can bring added value.

Over the years, Saipem has broadened its range of Operations and Maintenance Services, leveraging on new equipment and new

technologies. Computerized Maintenance Management Systems (CMMS) have transformed the way maintenance activities are planned; the digitalization of documents has significantly facilitated the access to the right technical information, in case of dismantling for repair or inspection of any equipment; bar coding method has transformed the workflow of the warehousing management principles; laser scanning for 3D data acquisition is now used to optimize the modifications for brown-field projects; equipment control and diagnostics of defaults can be conducted from a

remote location, even a different continent. All of these various technologies are now part of the Operations & Maintenance services Saipem can provide.

The Oil & Gas industry is evolving towards new frontiers every day and Saipem will therefore continue to explore new fields of applications of its MMO service portfolio and to develop competitive and innovative concepts, methodologies and tools to offer its clients a complete and competitive range of services.

Refinery shutdown/turnaround in the 80's



DECENTRALIZED SERVICES AND GLOBAL PRESENCE

WITH ITS VAST NETWORK OF CONSTRUCTION AND SERVICING FACILITIES AROUND THE GLOBE, SAIPEM IS ABLE TODAY TO PROVIDE MAINTENANCE, MODIFICATIONS AND OPERATIONS (MMO) SERVICES IN THE MOST EFFICIENT MANNER.





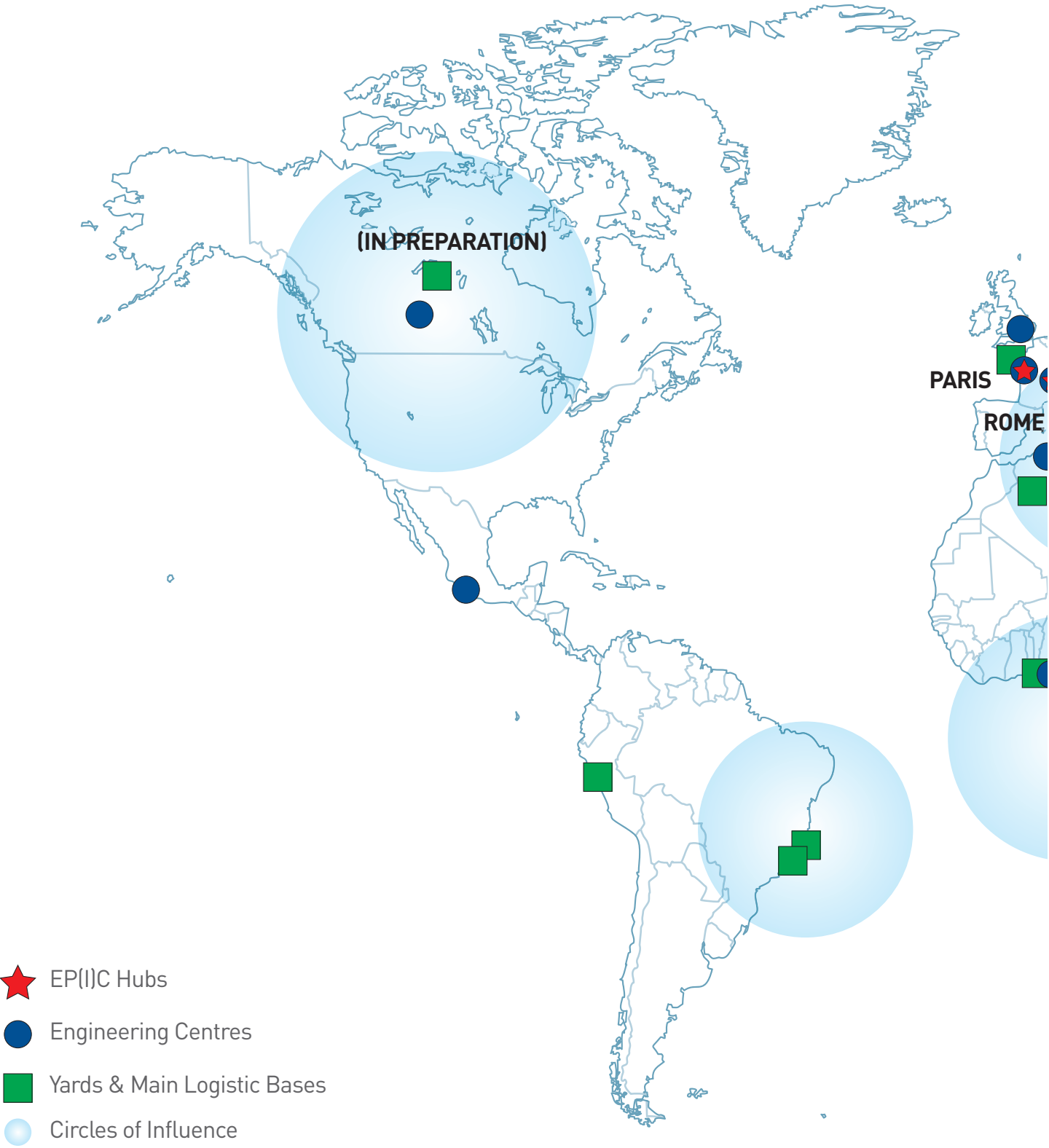
The success of Saipem's MMO business line over the years is also due to its thorough understanding of customer needs, via the local close-to-the-customer presence, strong technical expertise reinforced with the extensive experience throughout the years and its ability to satisfy the most sophisticated requirements expected by the main actors of the oil & gas industry: QHSE, technical skills, reporting and continuous improvements.

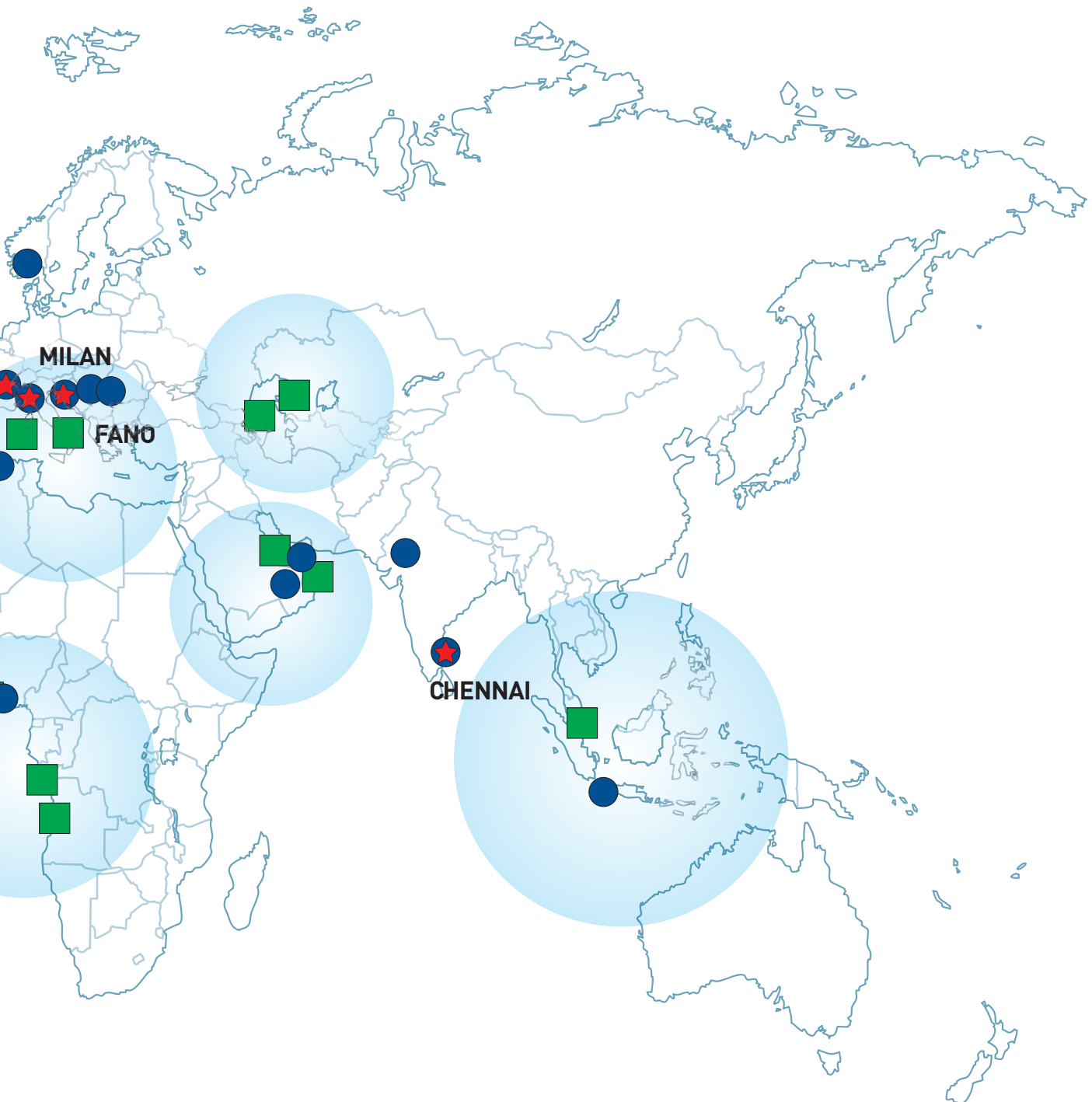
In Saipem, specific attention is given

to the continuity of providing support to historical key clients, both International and National Oil Companies, who - with their business and confidence - have contributed to the development of Saipem's network worldwide.

Thanks to this growth and development of its yards and logistic bases, Saipem and its local subsidiaries are now able to reach a larger customer base and to extend its operational zone.

GLOBAL PRESENCE WITH PREFABRICATION YARDS AND LOGISTIC BASES





A CONTINUOUS COMMITMENT TO LOCAL CONTENT

SAIPEM MAKES A POINT OF CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT OF THE COUNTRIES IN WHICH IT OPERATES.

As an example, Saipem has created a Sustainable Local Content Programme in West Africa to transfer the know-how and skills from foreign specialists to national managers and technicians. In order to make this transfer successful and sustainable, Saipem has developed and implemented a systematic methodology involving all stakeholders, namely the Saipem local top management, the Human Resources staff, the heads of each technical department, the national employees and their foreign tutors and even our Clients.

This Plan consists of an enhanced training programme including conventional training within the country or abroad, supplemented by

formal internal on-the-job training and coaching, as key points to improve the competencies. In this context, the foreign specialists act as mentors during the entire training programme, in order to coach and advise the national managers or technicians in their new position.

A specific Competency Assessment System (CAS) allows both parties (the foreign specialist and the national manager/technician) to monitor the achieved progress.

This methodology has enabled Saipem to reach and exceed its nationalisation targets on several O&M contracts in West Africa, with proven success acknowledgements by the Clients.





SERVICE FOCUS: MAINTENANCE AND INSPECTION ENGINEERING

AN EXTENSIVE TRACK RECORD OF ACTIVITIES CONDUCTED AS PART OF AN EPC PROJECT, AS A STAND-ALONE CONTRACT OR AS PART OF A RE-ENGINEERING STUDY FOR PLANT IMPROVEMENTS AND MODIFICATIONS.

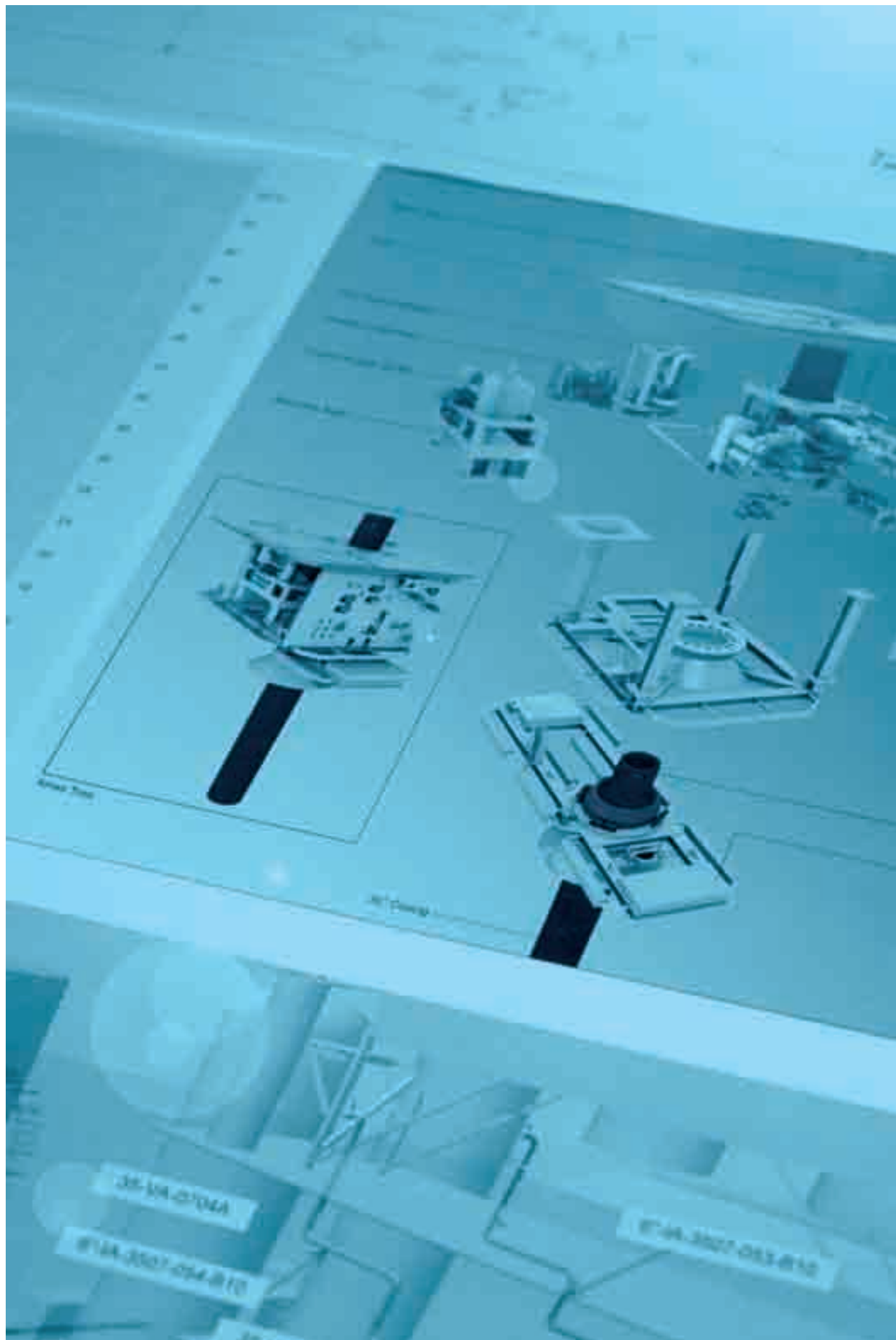
In all cases, these projects are managed by Saipem in close coordination with the Clients' technical and production management teams.

Saipem MIE teams are composed of technical discipline engineers with process design engineering, field supervision and operational experiences, which enable them to propose efficient, robust and

innovative solutions related to maintenance and inspection. The aim is to prepare from early engineering stage, safe and efficient plant operations.

The specific data management tools developed internally allow the handling of large quantities of information (e.g. above 150,000 maintainable tags), as required by the

permanently increasing project sizes. Additional high-value services such as spare part management, warehousing optimization, operators trainings and specific technical studies are also provided worldwide, either directly to Saipem customers through standalone external contracts, or as an engineering discipline of the Saipem EPC projects.







CAPABILITIES:

- Setting up the Asset Register
- Preventive Maintenance: Criticality Analysis (RCM)
- Maintenance Plan and Procedures
- Vendor Technical Documentation gathering and management
- CMMS Database set-up, data population and uploading tools
- Inspection Plan (RBI)
- Spare Parts recommendation (2 years, operations, etc), stock management (E-SPIR or others)
- Maintenance tools (including special ones) and consumables recommendations
- Maintenance and Operating Manuals and Master Technical Documentation
- Operations & Maintenance personnel training services
- Operability Maintainability & Inspectability (Operations assurance, 3D model reviews, handling studies)
- Spare Parts Analysis (optimization based on equipment criticality, interchangeability, etc.)
- Global Maintenance Plan based on RCM studies (preventive maintenance, overhauls, etc.)

- Global Inspection Plan based on RBI studies (measuring points, internal visits, etc.)

TYPICAL DELIVERABLES:

- Maintainability Study Report
- Maintenance & Inspection Manuals
- Templates to be uploaded into a Computerized Maintenance Management System (AMOS, SAP, MAXIMO and others)
- CMMS ready to use (including software installation)
- Operations Assurance deliverables
- "2 Years Optimized Spare Parts Lists", requisitions for procurement
- O&M training courses.

Saipem's expertise in the field of Maintenance and Inspection Engineering has led to the recent acquisition of various contracts related to FPSOs (Akpo, Total Nigeria), SURF facilities (Kizomba Satellites, Exxon, Angola), LNG plants (Yemen LNG, Yemen), and others.

In 2010, Saipem has opened a Maintenance and Inspection Engineering department in Sharjah, UAE, to cater for the local market. This team is currently executing a large project for the Satorp refinery in Al-Jubail in Saudi Arabia and another one for Total E&P Qatar.

MAINTENANCE AND INSPECTION ENGINEERING PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Congo	Total E&P Congo	Libondo
Saudi Arabia	Satorp	Jubail Export and Refinery Project

SAUDI ARAMCO TOTAL REFINERY PROJECT (SATORP) JUBAIL EXPORT AND REFINERY PROJECT - SAUDI ARABIA

SAIPEM is performing the Maintenance & Inspection Engineering Services for the new 400,000 BPSD Jubail Export and Refinery Project. SAIPEM to deliver for the first quarter of 2013 the plant Asset Register (140,000 tags) with their Maintenance and Inspection Programs, the Operating Spare Part Recommendations (60,000 items) and the Maintenance & Inspection Documentation. Data to be uploaded in the client's Computerized Maintenance and Inspection System and the Electronic Documentation Management System.

Contract: Maintenance & Inspection Engineering Contract (MIEC)



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
MIE	2011	2012
MIE	2010	2014



MAINTENANCE AND INSPECTION ENGINEERING PROJECT REFERENCES

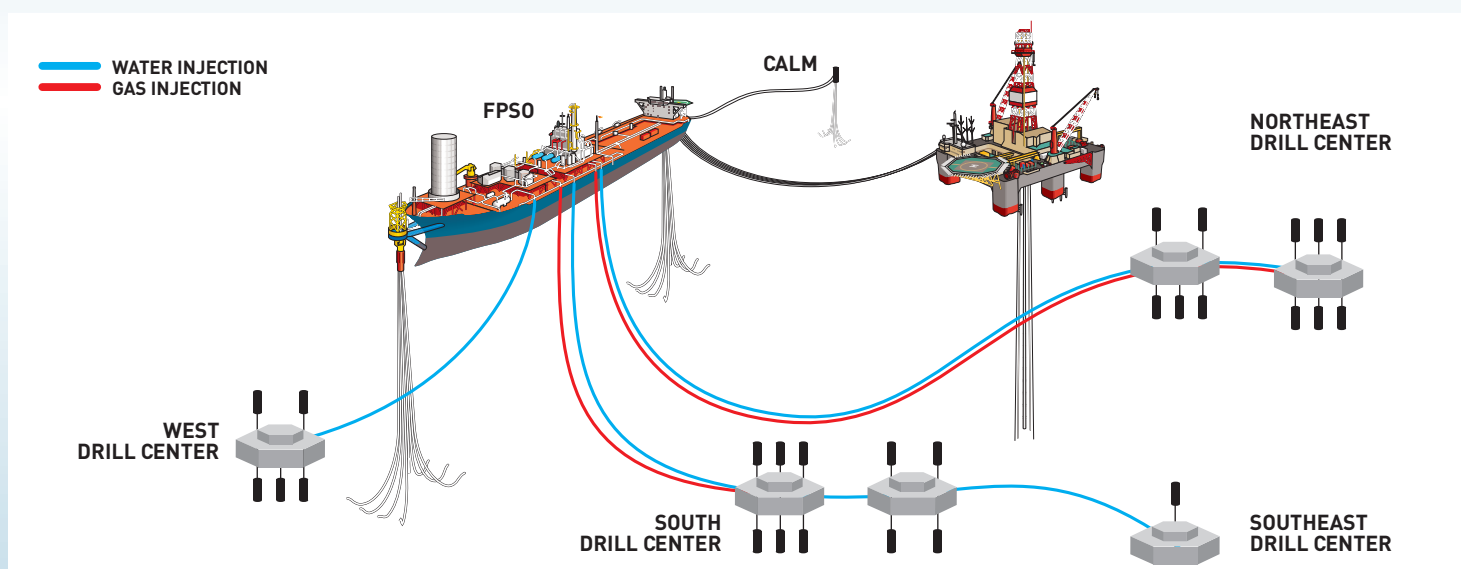
LOCATION	CLIENT	PROJECT
Angola	Esso	Kizomba Subsea Tie-back System
Italy	OLT	FSRU Livorno
Algeria	Sonatrach	LPG
Algeria	Sonatrach	Arzew: Maintainability
Nigeria	Total	OML58
Qatar	Shell	Pearl C8
Algeria	Sonatrach	UTBS
Nigeria	Total	Akpo FPSO
Yemen	Yemen LNG	Yemen LNG

ESSO - KIZOMBA SUBSEA TIE-BACK SYSTEM KIZOMBA - ANGOLA

The Inspection, Maintenance and Repair Engineering to be provided through:

- Equipment strategy by defining a criticality ranking, maintenance oriented, for each equipment
- Development of inspection, maintenance and repair program to be used during in-service operations.
- Training of company personnel to describe each installed subsea equipment.

Contract: Maintenance & Inspection Engineering Contract (MIEC)



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
MIE+Training	2010	2011
ME	2009	2011
MIE	2009	2011
ME	2009	2010
MIE+Training	2009	2011
MIE	2007	2009
MIE+Training	2007	2011
MIE	2006	2009
MIE	2006	2009



MAINTENANCE AND INSPECTION ENGINEERING PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Russia	Shell	Sakhalin2 Oil and Gas Onshore Pipeline
Indonesia	Bp	Tangguh LNG
Russia	Chevron	CPC Pipeline
Kazakhstan	Agip Kco	Kazakhstan Caspian Oil Fields Development
Nigeria	Total	Obite/EGI – Power Generation
Nigeria	Shell	SOKU Gas Plant Up-grade
UAE	Total	Taweelah A1
Nigeria	Exxon Mobil	Erha FPSO
Angola	Total	Dalia FPSO
Angola	Total	Rosa Ext Girassol FPSO
France	Tigf	Artère de Guyenne
Nigeria	Exxon Mobil	Yoho Production Platform
Russia	Shell	Sakhalin2/Molikpaq Production Platform
Algeria	BHP Sonatrach	ROD Gas plant
Nigeria	Total	FSO Amenam
Nigeria	Total	Odidi AGG
Angola	Total	Girassol FPSO
Germany	Total	Mider Refinery



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Training	2006	2007
MIE	2006	2007
MIE	2005	2006
Training	2005	2007
MIE	2004	2005
MIE	2004	2006
MIE	2004	2005
MIE	2004	2005
MIE	2003	2006
MIE	2003	2006
MIE	2003	2006
MIE	2003	2005
MIE	2003	2006
MIE	2002	2005
MIE	2001	2003
MIE	2000	2002
MIE	1999	2002
MIE	1996	1999



SERVICE FOCUS: OPERATIONS AND MAINTENANCE CONTRACTS

OVER THE YEARS, A LARGE NUMBER OF MAJOR INDUSTRY PLAYERS HAVE SELECTED SAIPEM TO CONDUCT ON THEIR BEHALF THE OPERATIONS AND/OR THE MAINTENANCE OF THEIR FACILITIES, IN THE SAFEST AND MOST EFFICIENT MANNER.

These long-term O&M contracts illustrate the high level of mutual confidence developed between Saipem and its industry partners, to jointly develop methods and procedures in order to optimize the production of the corresponding facilities through multi-year programs. In addition to standard QHSE and contractual requirements, such programs generally include continuous improvement measured through KPIs (Key Performance Indicators) as well as a sustainable Local Content Programme, during which Saipem specialists transfer their knowledge and expertise through classrooms and on-the-job training programs to graduated managers and technicians, originated from the country hosting the contract. Once the training is completed and the performance requirements are met, these national managers and technicians are able to manage and

execute the O&M contract in a fully autonomous manner.

In early 2011, Saipem has renewed its General Service Agreement with ENI for maintaining their onshore and offshore assets in Congo. This contract employs over 250 specialists and technicians, of whom more than 90% are from Congo itself.

In a vast majority of cases, these O&M contracts are assigned to one of the numerous Saipem local companies, thus providing our clients with access to workshop facilities, yards and logistic support for any additional activities in connection with the O&M contract.

This set-up illustrates the Saipem industrial model, based on decentralization and empowerment of the local stakeholders, whilst granting them access to Corporate expertise.





OPERATIONS AND MAINTENANCE PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Nigeria	Agip Energy	Okpoho
Nigeria	Tupni	Akpo MTMC
Angola	BP	Great Plutonio FPSO - Block 18
Angola	Somol	FS/FST - Soyo
Angola	Sonangol P&P	Block 2
Angola	Sonangol P&P	Block 2&3
Angola	Sonangol P&P	Gimboa FPSO (Leased FPSO)

TOTAL UPSTREAM NIGERIA LIMITED (TUPNI) AKPO MTMC - OIL FIELD OML 130 - NIGERIA

- Maintenance activities of all disciplines. Operations of specific installations and utilities. Participation to Commissioning. Warehousing activities.
- Methods and Maintenance Engineering activities:
 - Short and medium term planning including major Shutdowns/Inspections of plant and Turn Around Maintenance
 - Activity and Statistical maintenance performance reporting.
 - Updating and management of CMMS and EDMS data
- Local personnel training and Competency Assessment

Contract: Operations & Maintenance



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Maintenance Services	2009	Under Exec.
Maintenance Services	2008	Under Exec.
Operations Maint Support Services	2007	Under Exec.
Maintenance Services	2006	Under Exec.
Maintenance Services	2006	Under Exec.
Warehouse Maint & Management	2006	Under Exec.
Operation & Maintenance Services	2006	Under Exec.



OPERATIONS AND MAINTENANCE PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Congo	Eni Congo	Offshore Oil Platform and Onshore facilities
Angola	Esso	Machine Shop Services
Angola	Sonangol P&P	Block 3
Angola	Esso	Block 15
Brazil	Scnl/ Eni (Jv)	FPSO Cidade de Vitória (Leased FPSO)
Nigeria	Tepnl	FSO Unity Mtce
Nigeria	Total	OML58
Angola	Total	Luanda Refinery
Italy	Stogit	Gas Storage and Distribution Centre

ENI CONGO - OFFSHORE OIL PLATFORM AND ONSHORE FACILITIES CONGO

- Multidiscipline maintenance
- Turbines Maintenance Services
- Onshore Planning and Methods support
- Hook-Up, Turnaround and Modification Works

Contract: Operations & Maintenance



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Maintenance Services	2005	Under Exec.
Mechanical Maintenance	2005	Under Exec.
Maintenance Services	2005	Under Exec.
Maintenance Services	2005	Under Exec.
Operation & Maintenance Services	2005	Under Exec.
Maintenance Services	2009	2011
Maintenance Services	2005	2008
Maintenance Services	2004	2008
Maintenance Services	2004	2010



OPERATIONS AND MAINTENANCE PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Chad/ Cameroon	Esso Exploration & Production Chad Inc	Chad/Cameroon Development Project
Nigeria	Epnl	FSO Unity Amenam
Italy	Eni E&P Italy	On-and Offshore O&G Installations
Angola	Total	Block 3
Angola	Total	FS/FST - Soyo
Nigeria	Agip Energy	Mystras FPSO (Leased FPSO)
Kazakhstan	Cpc	Terminal & Marine Terminal
Russia	Cpc	Terminal & Marine Terminal
Angola	Fina	Soyo
Angola	Total	Facility Management/Luanda
Angola	Elf Exploration Angola	Block 3
Italy	Agip	FPSO Firenze / EPICOM Project
Nigeria	Epnl (Elf Petroleum Nigeria Ltd)	OML 100



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Maintenance Modification & Operation Services	2003	2006
Maintenance & Inspection Services GMC	2003	2009
Maintenance Services	2003	2010
Maintenance Services	2003	2010
Maintenance Services	2002	2006
Operation & Maintenance Services	2001	2011
Maintenance Services	2001	2011
Maintenance Services	2001	2011
Maintenance & Methods Services	2000	2002
Maintenance & Methods Services	1999	2003
Maintenance of Storage and Production Installations	1996	2002
Maintenance & Inspection Services	1995	2007
Global Maintenance	1993	2000



SERVICE FOCUS: MODIFICATIONS AND TURNAROUNDS

MANY EXISTING FACILITIES IN THE OIL & GAS INDUSTRY HAVE TO BE CONTINUOUSLY UPGRADED TO COMPLY WITH NEW REGULATIONS AND TO ADDRESS NEW OR CHANGING MARKET DEMANDS, THROUGH BROWN-FIELD MODIFICATIONS.



Leveraging upon its significant EPC capabilities, its onshore fabrication in various yards and workshops in key areas and, where applicable, its leading position in installations, Saipem is able to propose the most competitive suite of services to address these brown-field projects, both onshore and offshore.

The integration of new modules into

an existing plant or platform as well as debottlenecking modifications executed during a 5-year planned shutdown are Saipem's day-to-day challenges to accommodate complex requirements into the most stringent economic, operational and schedule-related constraints.

These Modifications and Maintenance Turnaround operations are conducted

most of the time on live installations and therefore require the highest standard of preparation related to safety, quality, and operations continuity.

As an example, in 2011, Saipem has been awarded a contract by Total Congo for modifications on its Djeno Terminal.



MODIFICATIONS AND TURNAROUNDS PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Congo	Total E&P Congo	Frame Agreement for Piping & Structural Works and other services
Nigeria	Npdc -Nigerian Petroleum Development Company Limited	Okono 6&7: top side modification of Mystras FPSO (phase 1)
Libya	Mellitah Oil & Gas B.V.	Sabratha Platform Production Enhancement Project Phase
Angola	Somol	FST Flowlines Installation in FS/FST Onshore Fields
Angola	Cabinda Gulf Oil Company	LOT - Fabrication and Installation of the Lakula Oil Treatment Equipment within Malongo Base Onshore
Angola	Exxon	Block 15 - HU works, around 100t of piping spools and 100t of structure, 100t equipment SOW includes E & I (22t). Procurement only of consumables
Angola	Cabinda Gulf Oil Company	Block 0 - Hook-Up to upgrade 4 platforms in Greater Takula Area

SOMOIL - FST FLOWLINES INSTALLATION FS / FST ONSHORE FIELDS - ANGOLA

The modifications consists of adding new piping elements to the existing flowlines. Saipem's work scope included Engineering, Procurement, Construction, Installation, Pre-commissioning and Commissioning activities.

Contract: Modifications & Turnaround



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Modifications	2011	Under Exec.
Modifications	2011	Under Exec.
Debottleneckings	2008	2010
Modifications	2008	2009
Modifications	2007	2007
MARIMBA C2 - TOPSIDES - HOOK-UP PART	2005	2006
Hook up	2005	2006



MODIFICATIONS AND TURNAROUNDS PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Angola	Chevron Texaco	Terminal Pipeline Relocation & Tank Farm Transfer Pumps Facility
Congo	Totalfinaelf	Integration Works between the N'Kossa Field and the Djeno Terminal
Nigeria	Nnpc/Total	Lube Oil Plant
Equatorial Guinea	Mobil Equatorial Guinea	Fpso Zafiro Producer Phase II-C
Nigeria	Mobil Producing Nigeria LTD	Idoho Q&E Revamping Project
Angola	Cabinda Gulf Oil Company	Refinery at Malongo GIP.FOX Platform, Block 14
Congo	Coraf	All Units
Angola	Texaco Panama Inc.	Hook Up Lombo east
Angola	Texaco Exploration & Production	Essungo Refurbishment: Hook up and Commissioning
Cameroon	Elf Serepca	Integration of the East Zone Compression Module on the Rio del Rey Permit
Congo	Coraf	General Shutdown
Nigeria	NNPC/PHRC	Crude & Vacuum Distillation Units - Sws - Naphta & Kerosene Hydro-Treatment
Nigeria	NNPC/WRC	Fcc Including 1 Merox - Lpg Merox - Catalytic Reforming Unit
Congo	Elf Congo	Debottlenecking of the Taf 1, Tat and Taf 2 Platforms
Cameroon	Sonara	Production Shutdown of Refinery
Cameroon	Uic Sonara	Distillation
Congo	Coraf	Distillation and Gas Unit
Nigeria	Jgc Corporation	First Turn Around Maintenance Project



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Modifications	2003	2003
Hook up	2002	2002
Turn Around and Modifications	1998	1998
Hook up	1998	1999
Revamps	1998	1999
Onshore and Offshore Turnaround Maintenance	1996	1996
Turn Around and Modifications	1996	1996
Hook up	1995	1995
Revamps	1995	1995
Revamps	1995	1996
Turn Around and Modifications	1994	1994
Turn Around and Modifications	1994	1994
Turn Around and Modifications	1994	1994
Debottleneckings	1993	1994
Turn Around and Modifications	1992	1992
Turn Around and Modifications	1992	1992
Turn Around and Modifications	1992	1992
Turn Around and Modifications	1992	1992



MODIFICATIONS AND TURNAROUNDS PROJECT REFERENCES

LOCATION	CLIENT	PROJECT
Nigeria	Elf Nigeria Ltd	Production Equipment such as Compressors, Gas Engines, Alternators, Pumps
Nigeria	NNPC	Distillations (Crude + Vacuum) + Sws + Hydro-Treatment (Naphta + Kerosene) + Cata. Reforming
Angola	Cabinda Gulf Oil Company	Routine Jobs in Malongo
Nigeria	Texaco Exploration & Production	Risers repairs and Helideck for North-Apoi
Cameroon	Sonara	All Units
Cameroon	Sonara	Columns, Drums, Air-Cooled Exchangers
Nigeria	NNPC	All Oil Refinery Units
Iran	Sirip	Revamping of 4 Fixed Drilling Platforms
Italy	Agip S.P.A.	Revamping of Fixed Production Platform
Italy	Agip S.P.A.	Palermo Offshore Facilities Revamping



WORK SCOPE	CONTRACT AWARD	COMPLETION DATE
Turn Around and Modifications	1992	1992
Turn Around and Modifications	1992	1992
Hook up	1991	1991
Repair	1991	1991
Turn Around and Modifications	1989	1989
Turn Around and Modifications	1987	1987
Turn Around and Modifications	1987	1987
Revamps	1971	1971
Revamps	1970	1971
Revamps - Engineering Services	1963	1963







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