

Investment in FPSO Charter Projects for Petrobras in Brazil



May 14th, 2018
Mitsui & Co., Ltd.

Thank you for your time today, I am Yoshio Kometani of Mitsui Infrastructure Projects Business Unit.

Agenda



1. Core Business of the Infrastructure Project Business Unit
2. Activities in offshore Oil & Gas infrastructure sector
3. Project Outline
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5. Business Environment
6. MODEC - Strategic Partner for FPSO/FSO Business -
7. Mitsui FPSO/FSO Projects

1. Core Business of the Infrastructure Project Business Unit



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As we explained at Mitsui's Investor Day 2017, Infrastructure Projects Business Unit scope includes infrastructure and plant projects and operates globally in 3 core businesses: Electric Power; Offshore Energy; and Gas Distribution. Among these, the Offshore Energy business, which provides the facilities for offshore oil and gas development, is a major pillar of our Business Unit's profits.

2. Activities in offshore Oil & Gas infrastructure sector



Strength

- Strong collaborative framework with MODEC
- Abundant project achievements for Petrobras (Brazil)
- Stable earnings from 18 FPSO*/FSO

Growth Initiatives

- Raise operating rates, lower costs
- Win new orders for FPSO
- Extend offshore energy domains (subsea business* etc.)

*FPSO: Floating Production, Storage & Offloading System

*Subsea business : Service business for subsea oil and gas production equipment

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Please see slide 4. Within the Offshore Energy business the FPSO (Floating Production, Storage and Offloading) business is our main activity. We are promoting the FPSO business based on a robust partnership with MODEC, Inc., in which Mitsui has a 14.86% stake.

The main market is Brazil, where Mitsui has had a major presence historically. Our business unit has had a long relationship with Petrobras, the Brazilian national oil company, for many years and together we have an excellent track record of several major projects with a total contract value of around 2 trillion yen. Leveraging our excellent relationship with Petrobras, Mitsui along with MODEC has expanded its FPSO projects in Brazil.

In Brazil, since the offshore oil production cost is relatively low and competitive, even during the period of low oil prices oil production was maintained at a high level. Mitsui and MODEC are trying to improve the operating rate and reducing the costs in our existing FPSO business, and based on this experience we are participating in the coming FPSO projects.

Including the two new FPSO projects I am going to present today, we own a total of 18 FPSOs in five countries worldwide, of which 12 are in Brazil.

3. Project Outline

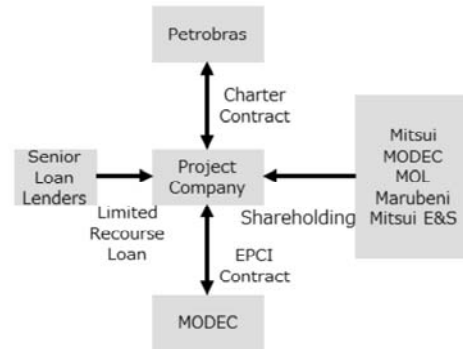


Mitsui is participating in two project companies for a long-term charter business for the purpose of providing FPSOs for use in the Sepia field and Mero field off the coast of Brazil operated by Petrobras. Mitsui's equity interest in both FPSO projects is 32.4%.

<Field Location>



<Project Structure>



Slide 5 gives an outline of two projects we have just participated in.

Firstly, the location of the oil field. The two FPSO vessels will be respectively located and operated in Sepia field and Mero field in the Santos Basin, 200km offshore Brazil. Both areas are more than 2,000 meters deep, in water known as “ultra-deep water”. Oil is extracted by drilling to a depth of a further 5,000 meters into a stratum known as the pre-salt layer that lies directly below the rock salt layer. The project structure is shown on the slide. Mitsui and MODEC are the lead investors in the project companies, which own and operate the FPSOs and have a charter contract with Petrobras. Mitsui is the largest investor in the project companies with a 32.4% stake.

3. Project Outline



	FPSO for Sepia field	FPSO for Mero (former Libra) field
Participation Date	Jan 9 th , 2018	May 11 th , 2018
Field	Sepia pre-salt field, in Santos Basin (Offshore Brazil)	Mero pre-salt field, in Santos Basin (Offshore Brazil)
Field Owner	Petrobras	Libra Consortium (Petrobras 40%, Shell 20%, Total 20%, CNPC 10%, CNOOC 10%)
Charterer/ Operator	Petrobras	Petrobras
FPSO Major Specification	Vessel type : VLCC Conversion Storage Capacity : 1,400,000bbls Oil Production : 180,000bbls/day Gas Treatment : 6,000,000Sm ³ /day	Vessel type : VLCC Conversion Storage Capacity : 1,400,000bbls Oil Production : 180,000bbls/day Gas Treatment : 12,000,000Sm ³ /day
Contract Term	Firm 21 years	Firm 22 years
Shareholding Ratio	Mitsui : 32.4% MODEC : 20.1% MOL : 20.6% Marubeni : 17.6% Mitsui E&S : 9.3%	same as on the left

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Slide 6 outlines the two projects. The field owners of Mero include international oil companies in addition to Petrobras, while Sepia field is wholly owned by Petrobras. Apart from that, the two projects are very similar. Each field is operated by Petrobras, and both FPSOs are VLCCs (Very Large Crude Carriers) conversion and among the largest FPSO projects in the world. The charter contract terms for the projects are respectively 21 years (Sepia) and 22 years (Mero).

In addition to Mitsui and MODEC, each project is co-invested in by 3 other companies who have recently collaborated with us on existing FPSOs: MOL, with a holding of 20.6%, Marubeni with 17.6%, and Mitsui E&S Holdings with 9.3%. MODEC will be contracted by the project company to undertake construction and installation of the FPSOs. MODEC's local subsidiary in Brazil will conduct operations under a direct contract with Petrobras.

4. What is FPSO?



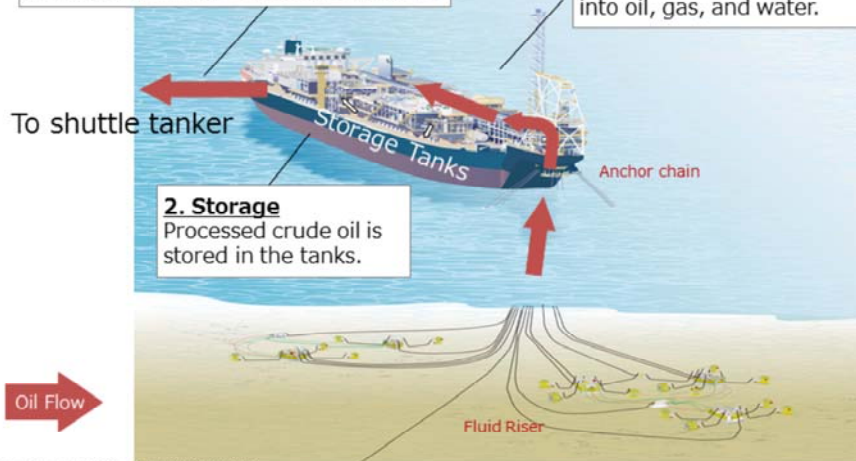
FPSO = **F**loating, **P**roduction, **S**torage and **O**ffloading System

3. Offloading

Crude oil stored in the tanks is periodically offloaded to shuttle tankers.

1. Production (Process system)

The fluid from the reservoir is separated into oil, gas, and water.



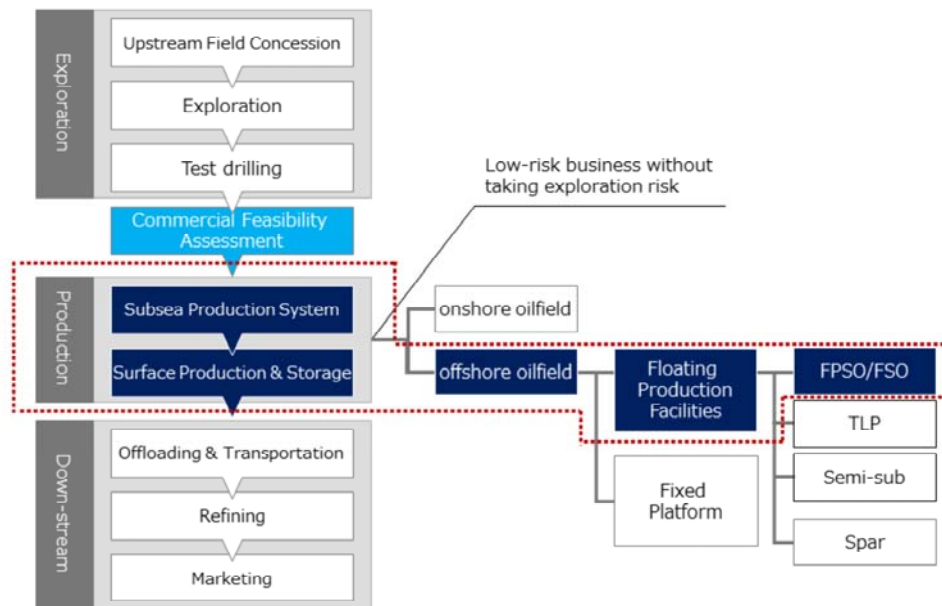
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Next, please see slide 7. Here I will give a supplementary explanation of the FPSO system. FPSO is the abbreviation for our Floating Production, Storage and Offloading system.

As shown in the figure here, a mixture of oil, gas, and water is pumped from the seafloor up to the vessel and separated into oil, gas, and produced water. From there, the separated crude oil is kept in storage tanks and afterwards is directly offloaded to facilities that transport it to shuttle tankers. FPSOs are the most common production facilities and account for about 60% of what are known as offshore floating oil and gas production systems. Currently there are approximately 170 FPSO facilities in operation around the world. The scope of the charter contract with Petrobras only includes the construction, installation and operation of FPSOs. Equipment such as the well base at the seafloor and the fluid riser pipe taking up the crude oil to FPSO is not included in the scope of the contracts.

4. What is FPSO?



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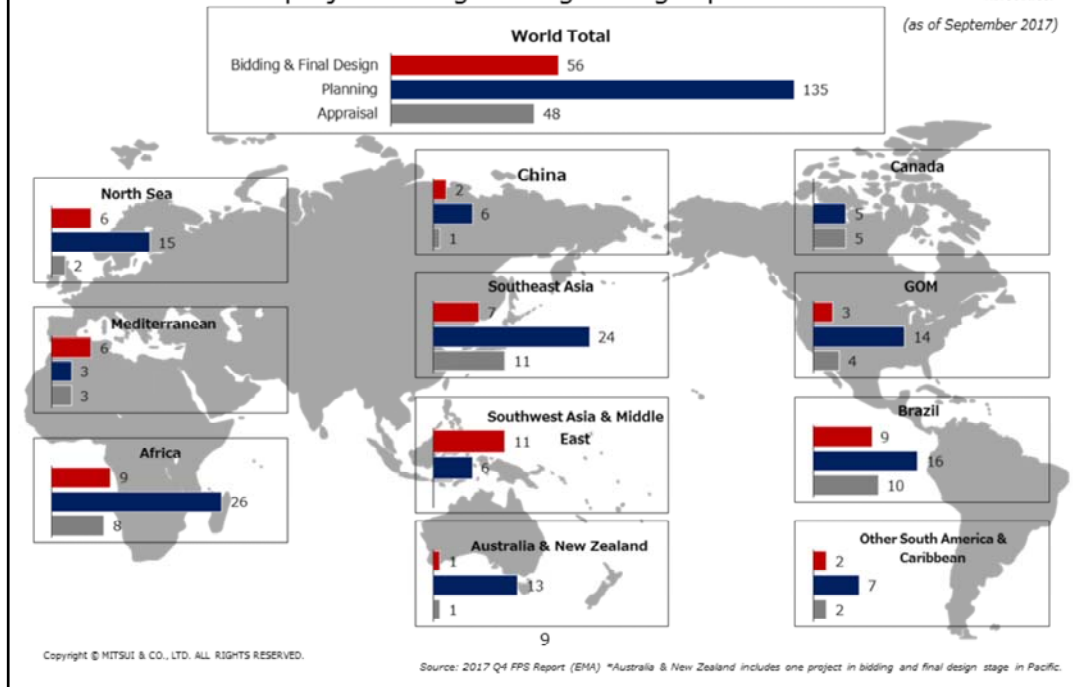
Slide 8 shows FPSOs position in the oil supply chain; drilling, exploration, production, refining, and marketing. Once oil reserves are confirmed, the technical possibility of drilling will be verified. At the stage where production is deemed commercially and technically possible, the FPSO is introduced. Accordingly, the FPSO charter business is remote from the risks faced by ventures such as crude oil reserves and drilling, and this business model creates a stable revenue based on long term charter contracts.

5. Business Environment

- Numbers of projects using floating oil & gas production facilities - MITSUI & CO.



(as of September 2017)



Please see slide 9. Here I will explain the business environment. This is a summary of future investment plans for offshore floating oil & gas production facilities, including FPSOs. As you can see, regionally there is remarkable demand in areas such as Africa, Southeast Asia, the Gulf of Mexico, and Brazil. Among these, areas off the coast of Brazil and western Africa are referred to as deep-sea and reach depths beyond 2,000 meters. In these deep-sea locations FPSO facilities have become extremely large and complex. Therefore, the advanced technology and in-depth expertise of MODEC, which is a pioneer in this industry, clearly differentiates them from other FPSO contractors. By leveraging this differentiation, Mitsui plans to continue focusing on Brazil and western Africa in particular.

6. MODEC - Strategic Partner for FPSO/FSO Business -

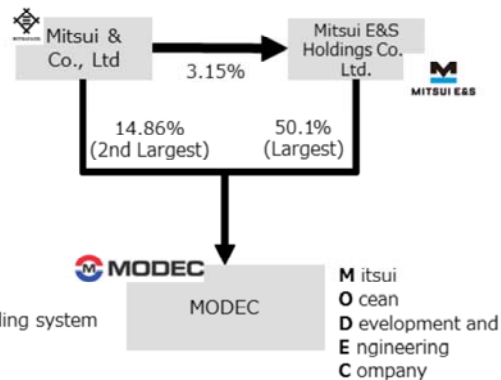


Company Name MODEC, Inc.
Capital 30,122.49 million yen
No. of Employees* 157 (Consolidated: 4,065) * Including contract employees
Main Business** Own, Operation and EPCI of FPSO, FSO, FLNGs, TLPs, Semi-Submersibles, Mooring Systems and new technologies which will meet the challenges of oil and gas production floaters.

Financials

(mil JPY)	2014/12	2015/12	2016/12	2017/12
Revenue	378,523	295,596	229,987	191,182
Net Profit	5,422	5,824	21,012	19,454
Total Asset	348,447	354,464	333,249	321,165
Net Asset	109,631	114,983	134,609	148,387

Shareholding Structure (2018/4/1)



** FPSO : FPSO - Floating Production, Storage and Offloading system
 FSO : Floating Storage and Offloading system
 FLNG : Floating LNG
 TLP : Tension Leg Platform

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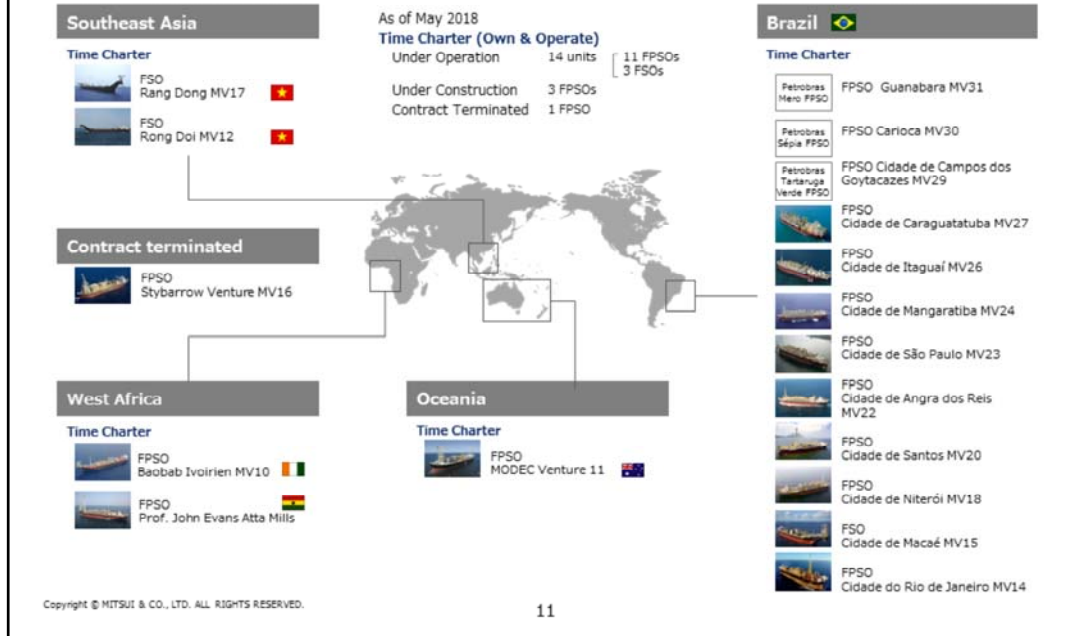
Source: MODEC's web page.

Slide 10 shows an outline of Mitsui's strategic partner, MODEC. As mentioned earlier, Mitsui is the second largest shareholder of MODEC with a 14.86% holding. MODEC is specialized in the design, construction, installation, sales, leasing and operation of floating oil and gas production facilities. In particular, MODEC demonstrates its competitive strength in deep sea areas, like offshore Brazil, which demand a high level of technology and a strong track record.

Utilizing Mitsui's track record in Brazil, we, together with MODEC, have built up a strong track record with Petrobras in the FPSO business. We are the number one in business with Petrobras in terms of both the number of FPSO vessels and the volume of crude oil and gas produced from FPSO vessels, and over 20% of the crude oil production volume of Petrobras is produced by FPSOs owned by Mitsui.

These large FPSO projects have high barriers to entry, and it is said that generally European companies are a strong force in the offshore sector, so this is a rare case of a Japanese company having a worldwide presence in the sector. Further FPSO charter business opportunities centering around Brazil are expected to continue to emerge, and Mitsui plans to further collaborate and strengthen its collaboration framework with MODEC and build up its order book.

7. Mitsui FPSO/FSO Projects



Finally, on slide 11, you'll find a brief outline of the 18 FPSOs owned by us. There are 14 currently in operation, 3 under construction, and one contract terminated.

Thank you, that's all from me.

360° business innovation.

