



Reino dos Países Baixos

Oil & Gas Offshore sector

The Brazilian oil & gas market has tremendous potential. Proven reserves are among the largest worldwide. The bidding rounds which restarted at the end of 2017, and are ongoing for offshore fields, attracted interest of international oil majors and independents. Expected direct investment in the coming years amounts to USD 500 – 700 billion (in comparison current Dutch GDP is around USD800 billion), especially due to the recent pre-salt fields discoveries.

The Brazilian offshore sector is open for foreign competition in exploration and production. The predictability surrounding bidding rounds improved, while local content requirements were reduced. The clear aim is to attract foreign direct investment by creating an internationally competitive playing field, and facilitate lower production costs and introduction of new technologies. The result is a healthier sector, and a rise in business confidence. Government revenues benefit greatly from this strategy.

Knowledge, expertise and reputation of the Dutch sector in the energy supply chain is excellent. The potential and improved business climate provide excellent opportunities.

Competitiveness

The combination of Brazil's (offshore) resource potential, large internal market, recently improved legal framework, predictability in bidding rounds and the crucial reform of abolishing the requirement that Petrobras is the sole operator of pre-salt fields, have raised business confidence. Foreign investors with medium to long-term strategies have found opportunities to acquire local companies which had been hard-hit during Brazil's economic crisis. The entrance of these companies is creating a healthy and competitive landscape, despite ongoing challenges in the regulatory environment. These major international players are investing heavily, in particular, Shell, Equinor (Statoil), Total and Chevron, among other 47 local and 45 foreign companies which are currently holding and acquiring oil exploration and appraisal areas.

Opportunities for foreign players

Opportunities are in the short term in fossil fuels (both oil&gas), as it is foreseen that the traditional 'carbon-based' energy sources will continue to dominate the near future, as investment is focused on these segments. Some potential niches based on Brazilian demand and Dutch expertise are: decommissioning, repair shipyards, exploration fields (and its several phases), training, as well as areas of related economic/social development. According to Federal law, oil companies are required to invest 1% of its revenue in sustainability projects (R&D and CSR for example).

Major Players

Pré-Sal Petróleo (PPSA)
Petróleo Brasileiro S.A.
Shell Brasil Petróleo Ltda.
Equinor
BP Energy do Brasil Ltda.
Total E&P do Brasil
Chevron Brazil Ventures
ExxonMobil Exploração Brasil Ltda.
Murphy Exploration & Production Company
Petronas Carigali
Premier Oil do Brasil Petróleo e Gas Ltda.
QPI Brasil Petroleo
Repsol Exploração Brasil

Other international oil companies include: Rosneft, Karoon

Other local oil companies include: Eneva -former MPX- , Petrorio –former HRT- , Queiroz Galvão E&P -QGEP-.

Main EPCI Contractors (Engineering, Procurement, *Construction* and Installation) in Brazil

1. **SBM (Dutch)** owns 7 FPSOs that operate in Brazilian deep-water, of which 6 are leased to Petrobras. SBM also holds 50% of the Brasa shipyard in the city of Niteroi, where major projects were built for Petrobras' pre-salt fields. The yard is also used for modules fabrication, integration and commissioning. SBM signed a lenience agreement in August 2018, after being involved in corruption scandals. This agreement allowed the company to restart its participation in bidding rounds.
2. **Modec (Japanese)** won bids for first two vessels of Libra fields. It is the contractor with the highest number of active FPSOs in Brazil and the stronger player at the moment, having delivered a total of 10 FPSOs for projects in Brazil. Together with SBM is the biggest, most active in Brazil.
3. **BW Offshore** has two active FPSOs in Brazil, off the coast of the state of São Paulo.
4. **TeeKay (Norwegian)** in partnership with Ocyan (former Odebretch), it currently operates three FPSOs in the country.
5. **Exmar (Belgian)** in partnership with Queiroz Galvão Naval

Identified niches and focus area

1. Exploration & Subsea

Seismic surveys, reservoir engineering, drilling, sampling, testing, subsea installation are some of the areas involved here. The development of Brazil's subsea segment has been greatly due to the "controversial" local content policy. The country's subsea umbilicals, risers, flow lines (SURF) capabilities are extensive.

Main Dutch players: Shell, Fugro, Heerema Marine Contractors, Royal IHC, Jumbo Shipping, Frames are Dutch companies that have already found their way to Brazil mainly to support Petrobras directly or indirectly. Leading subsea players such as Shell have Research and Development centers in Rio de Janeiro.

2. Operation, Maintenance & Repair

Logistics for people and cargo have to be arranged every day and a seamless operation needs to run from an onshore base to the platforms offshore. Vessels, workforce staffing, catering, inspections, integrity, safety, offloading, navigation, communication, remote connection, module replacements, lifting, commissioning, ship repair, training, and many more activities take place offshore.

Main Dutch players: Damen, Boskalis, SBM Offshore, Allseas, Heerema Marine Contractors, Royal IHC, Jumbo Shipping, Frames Technology, Immelmann, Radio Holland, Control Union, Wagenborg are Dutch companies that have already found their way to Brazil mainly to support Petrobras directly or indirectly.

3. Newbuild & Installation

Brazil has large shipyards (the majority located in the state of Rio de Janeiro) which have the capacity to handle construction of big vessels. In the past few years however, due to the corruption scandals and consequent downsizing of the naval industries, the majority of these yards became idle. The need for update, transfer of technology and/or investment is high among local players.

Main Dutch players: SBM (Brasa shipyard), Damen (Wilson Sons shipyards), IHC (Dome), Huisman

4. Decommissioning

The decommissioning of a vessel in Brazil is the responsibility of the operator. Since the majority of offshore platforms and FPSO's are owned or mainly operated by Petrobras, the state-owned company has started to seek out ways to disassemble its fleet. In 2016 Petrobras has created the Decommissioning department in order to investigate alternatives. In 2017, the Decommissioning team travelled abroad in order to look at expert countries and possibilities. After this first look, Petrobras is in the process of deciding on how to approach decommissioning.

The team's conclusion, based on cost/efficiency ratio was that the first priority is to sell old vessels, not decommission them. Petrobras' research center (CENPES) is now preparing a study plan for mid 2019 to apply methodology and metrology and then execute. Petrobras, however, has to be well aware of environmental legislation, because waste must be removed, stored, transported, stored on land and then discarded. There are segments that can profitably and sustainably take advantage of this moment in the Oil industry, but it will be fundamental to have experts with know-how as well as players who will meet all environmental demands with transparency.

Main Dutch players: Not yet identified in Brazil. Shipyards could be eligible for taking ship/oilrigs apart but Damen and Brasa, for example, are not investing in it in Brazil.

5. Training (OG)/ human resources

Specialized labor force in oil&gas is lacking behind in Brazil. Even though in the state of Rio de Janeiro, there are post graduate courses and technical training, due to the decrease in activities in the sector (during the last few years), specialization and up-to-date professionals are hard to find. The success in pre-salt oil field exploration is dependent upon the qualified human resources to meet the fast upcoming demand in the next few years. Therefore man-power capacitation is highly needed in the market.

Main Dutch players: Atlas Professional, Brunel

Crosscutting issues

- HTSM high-tech science and materials

Brazil's technology infrastructure as a whole lacks development but key sectors such as oil&gas have made important technological progress. The country invested 1.2% of its GDP in research and development which is still very low when compared to OECD countries' average of 2.4%.

- Responsible Business Conduct (a.k.a CSR)

ANP requires that oil companies invest up to 1% of their Brazilian revenues in research, development and innovation initiatives to benefit and improve quality of life in order to compensate their core business' environmental impact.

- Sustainability

Brazil is still very much dependent on fossil fuels. Oil & gas is responsible for 10% of the country's GDP. Major oil players in the country foresee that the transition to clearer energy sources will happen. Reason why they are adapting and becoming energy companies in order to welcome energy transition. Brazil is one of the largest renewables markets in Latina America and has seen an increase in green energy source development but still very shy and starting to pick up.