

Brazil –Offshore Decommissioning. Overview.

Decommissioning is a subject that over the past months has begun to gain importance in the Brazilian offshore sector, not only concerning offshore structures but also subsea. Many oil & gas fields in Brazil are about to reach the end of their productive lives. The recent fall in oil price is forcing oil companies to adjust their strategy in order to reconsider the financial viability of their mature fields.

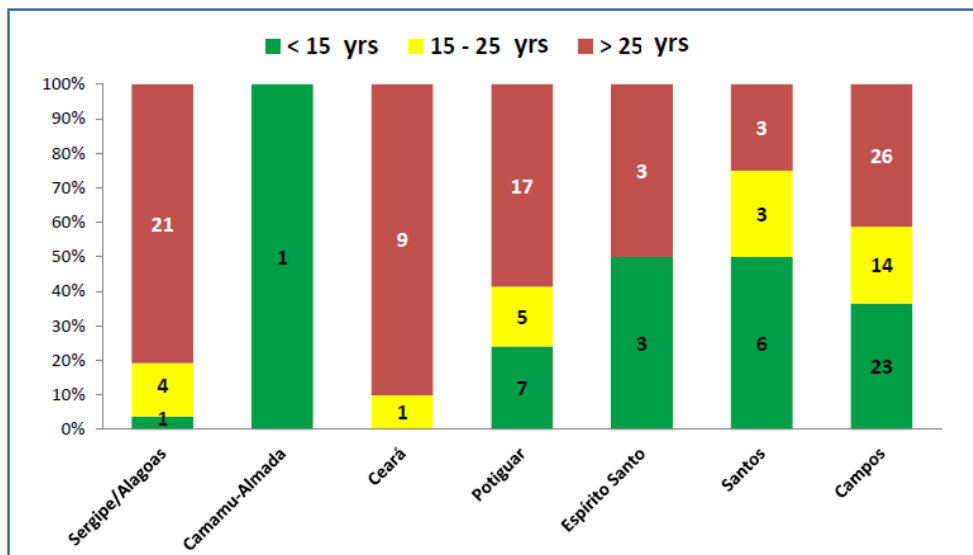
Decommissioning is an expensive and complex process, covering several areas such as engineering, environmental, political and social welfare. In Brazil, the stakeholders involved in a decommissioning project are several, of which the most important are: the national environmental agency - IBAMA, the Brazilian oil, gas and biofuels regulatory agency - ANP, the Ministry of Mines and Energy – MME, State Governments, the Brazilian Navy, contractors and local communities.

According to ANP, Brazil currently has 147 offshore production units in operation. 80% of them (79 units) in operation for over 25 years. Most of them, 26, operating in the Campos Basin, followed by 21 in Sergipe/Alagoas, 17 in Potiguar and 9 in Ceará Basin.

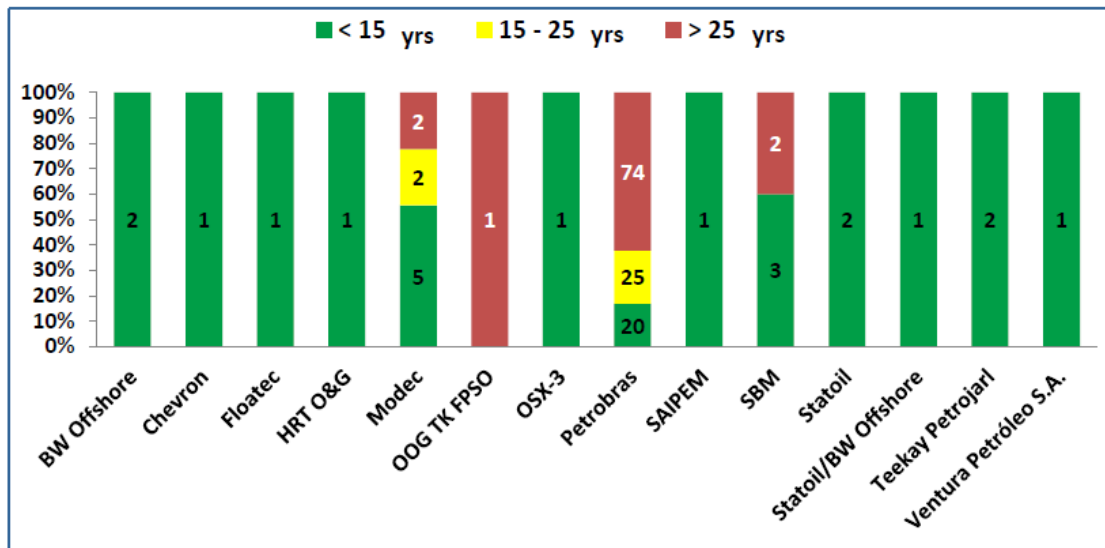
Petrobras alone has 74 units which are aged over 25 years, followed by SBM Offshore and Modec with 2 units each.

More details are available in the charts below:

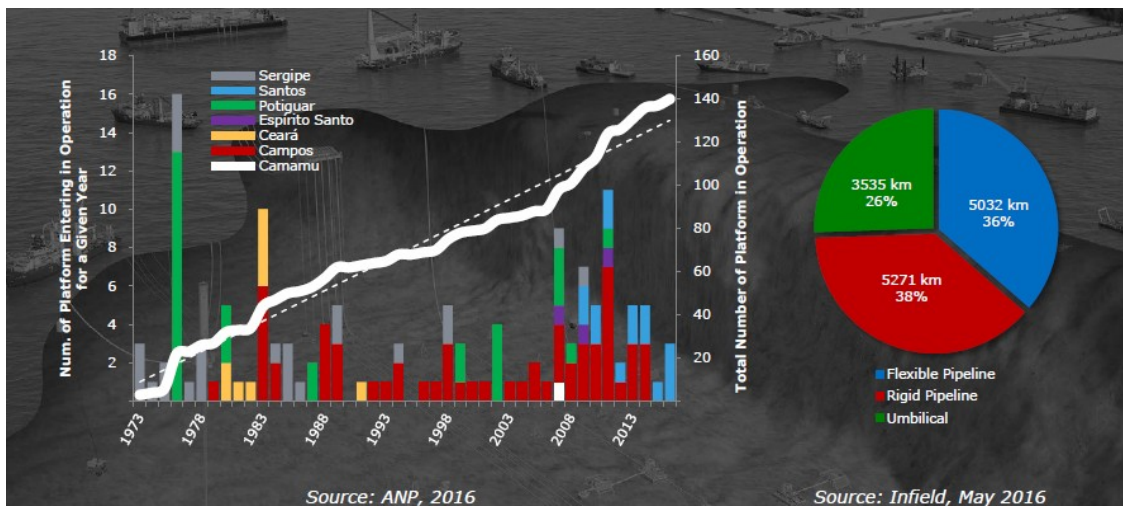
Production unit/Basin (base: 2016.Source ANP)



Production units/operator (base: 2016. Source ANP)



From these 147 units in operation, it is estimated that there is around 10,000km of pipes to be removed, between flexible and rigid – 50/50 on average according to industry experts, plus 3,000km of umbilicals. From that, at least 3,000km of pipes are aged over 25 years and should cease operation.



Source: Subsea7

According to ANP, 25 offshore decommissioning requests have been submitted to the Regulatory Agency from 2014 up to September 2016 and are being analysed.

Challenges

- ❖ Sizeable and congested offshore infrastructure approaching end of life;
- ❖ Challenging technical and economical risks assessment as assets may have an uncertain construction history and asset data, including subsea, may be incomplete;
- ❖ Increase the availability of tools for old wet xmas trees;
- ❖ Optimize the logistics;
- ❖ Removal and destination of NORM;
- ❖ Destination of metallic structures - there are no yards in Brazil with the necessary capacity to deal with decommissioning projects;

Opportunities

- ❖ Integrity Management
 - Continuous assessment of asset's current and future state
 - Assessment of life extension or decommissioning plan
 - Extensive use of early and preventative engineering
 - Subsea Asset Register
 - Data Management

- ❖ Inspection & Monitoring
 - Development of inspection technology (sensors, autonomous vehicle, resident systems, etc.)
 - Review of methodology & scope

- ❖ Onshore Facilities
 - Development of onshore processing facilities for the cases requiring removal of subsea assets

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October 2016