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## **The Intentions and Achievements of the Angola Deepwater Consortium**

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### **Abstract**

The Angola Deepwater Consortium (ADC) regrouping Sonangol, Doris Engineering and Pride International was created in 2000, at the initiative of Sonangol, with a view to develop a long term relationship, allow transfer of knowledge to Sonangol and perform conceptual studies in order to optimise field development in deepwater Angola and improve Angolan content.

Over eight years, ADC has carried out more than ten studies, on various subjects, including:

- Study of a FPSO for Angolan waters, development of the FPSO specification
- Review of offloading systems for spread moored FPSOs in Angola
- Further development of the FPSO specification as shipyard enquiry package
- Review of Angolan yard capabilities and planned future development
- Study of multi-purpose intervention vessels to service Angolan deepwater fields
- Study on sharing of data on subsea reliability
- Study on marginal field development (issues, key enablers)
- Creation and management of an Angolan subsea reliability database
- Study on metocean data and uses in design, creation of a regional metocean database
- Study on pigging operability and application to single production line concepts
- Study on soil characterisation and uses in design, creation of a soils GIS database

The studies performed by ADC are selected by Sonangol and the four historical deepwater operators in Angola: BP Angola, Cabinda Gulf Oil Company (Chevron), Esso Exploration Angola (Block 15) Limited and Total E&P Angola, jointly referred to as 'Participants'.

The studies are driven by a Steering Committee composed of representatives/experts of each Participant. Participants inform the ADC team with corporate expertise, lessons learned or data from their company.

### **Introduction – Field development in deepwater offshore Angola**

Exploitation of the hydrocarbon reserves located in deepwater offshore Angola started less than a decade ago. The first deepwater fields to be developed were Kuito located in Block-14 in 400 m water depth, on stream since late 1999, and Girassol located in Block-17 in 1,450 m water depth and on stream since late 2001. There has been a considerable deepwater activity since then, especially since 2002 following significant security improvement. Several deepwater fields have been developed, either independently from any other development or as tie-backs to existing field facilities. Today there are a number of projects going on and even more prospects identified.

Even though it has gained in maturity over the years, field development in deepwater remains a real challenge which often requires new approaches and highly engineered solutions. The challenge will certainly get bigger in the near future as there will be more and more reservoirs either smaller in size or having characteristics making them more difficult to commercialise.