FPSO Conversions

With a track record of 18 FPSO conversion projects, Inocean is one of the most experienced naval architects in the FPSO industry.

Our FPSO conversion services cover everything from selection and inspection of tanker candidates to hull and topside structural engineering, technical documentation and drawings for class approval.

Inocean can contribute to each phase of a conversion, either by completing specific assignments or by taking on the whole turnkey management of the project, or large parts of it.

Inocean ensures quick and predictable project management. We know the critical path and understand what must be done to limit the most cost-intensive repairs on a vessel during conversion.

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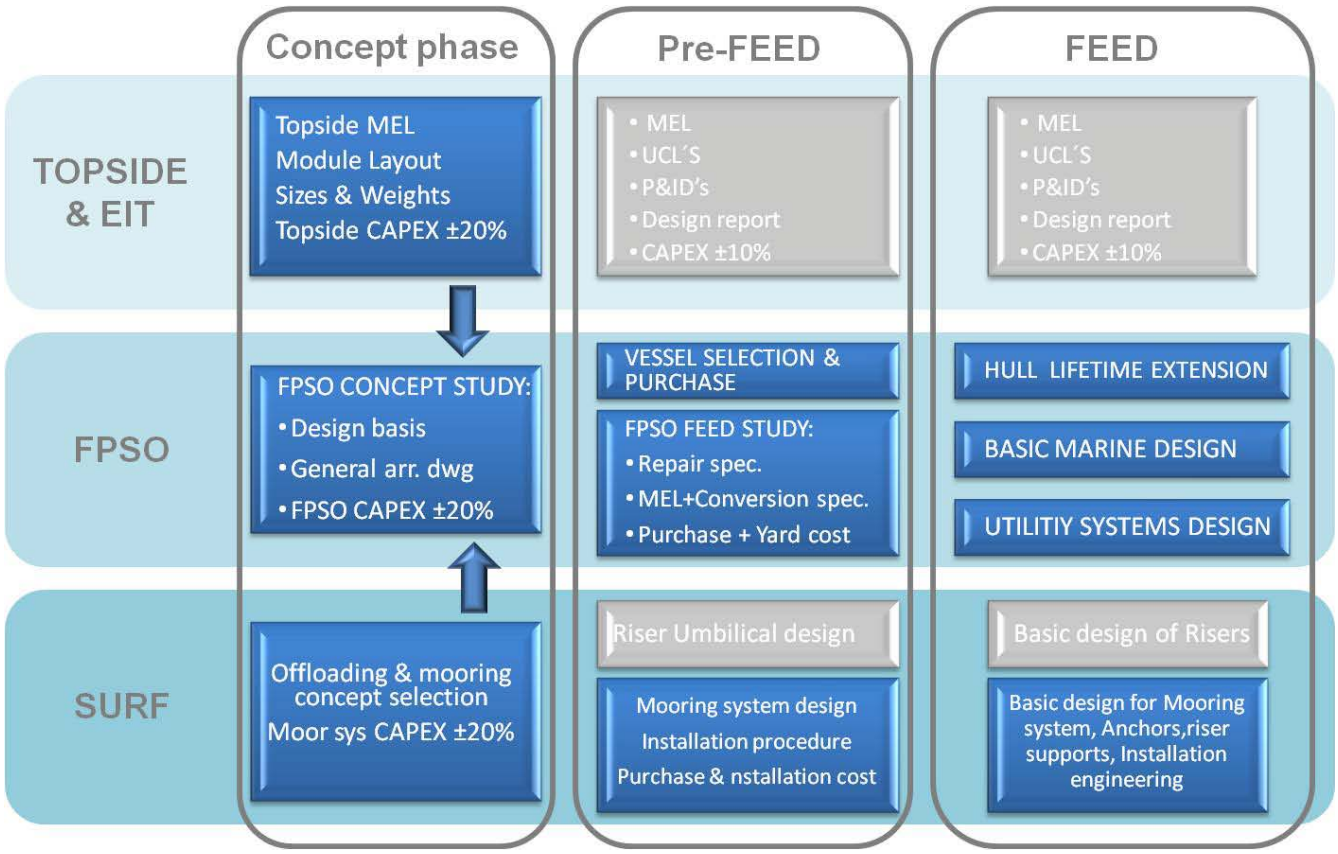

Inocean services during a conversion project (Inocean deliveries in blue boxes)

Concept studies
The purpose of a concept study is to give the client an informed and qualified basis for decision-making.
The most important question is typically related to cost: What is the estimated CAPEX for the conversion and what are the critical issues for the upgrade and modification of the vessel.

Selection and Inspection of tanker candidates
Selection and assessment of conversion candidates is a key step in managing the risks in conversion projects. Inocean has developed a method for selecting the right ship and understanding and implementing the correct repair scope.

Structure and lifetime extension
Lifetime extension for FPSOs is a particular challenge as they may be required to operate uninterrupted for 10 to 25 years without dry-docking. Inocean has developed a methodology for hull assessment and lifetime extension that is tailor-made to vessel conversions and vessels already in operation (not only FPSOs). For the client the results are potentially huge savings and a sounder basis for operational planning.

Stability and hydrodynamic analysis
Inocean develops an FPSO stability booklet for approval including intact and damage stability according to all relevant regulations. We calculate loading conditions for all relevant loading / offloading scenarios, transit and inspection/ repair conditions. We take responsibility of Inclining test procedures and execution and hydrodynamic analysis for the ship in transit and operation.

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Structural design
Inocean can design living quarters, flare towers, crane foundations, helicopter decks, process pipe racks, life boat supports, offloading etc. We can do structural design and verification of topside module skids and supports and we take care of the structural integration of the turret to the hull.

Full class society documentation
We make sure that the vessel meets the relevant class society's rules. Documentation issued for class review and approval typically includes a multitude of reports, general drawings, main structural drawings and Marine P&ID & D&ID system drawings.

Conversion reference list:
BW Carmen (BW Offshore), *BW Nisa* (BW Offshore), *BW Pioneer* (BW Offshore), *BW Cidade de São Vicente* (BW Offshore), *Knock Allan* (Fred Olsen Production), *Dhirubhai 1* (Aker Floating Production), *Yuum K'ak' Naab* (BW Offshore), *DeepProducer1* (FPSOcean), *MPF01* (MPF Corp.), *Knock Adoon* (Fred Olsen Production), *Berge Helene* (BW Offshore), *Knock Nevis/Jahre Viking* (Fred Olsen Production), *Sendje Berge* (BW Offshore), *Berge Hus* (BW Offshore), *Petrojarl II* (Golar Nor), *Petrojarl 1* (Golar Nor), *Petrojarl IV* (Golar Nor), *Ugland Nordic Apollo FPSO* (Nordic Apollo)

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