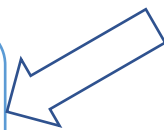




**FEDDO
GROUP**

Growing Reliable Partnership

**Marine Production Risers
Capability Statement**



Technical Training	Field Development	Subsea Systems	Subsea Pipelines	Floating Structures
Marine Risers	Flow Assurance	Advance Engineering	Renewable Energies	Integrity Management



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1.0 Introduction

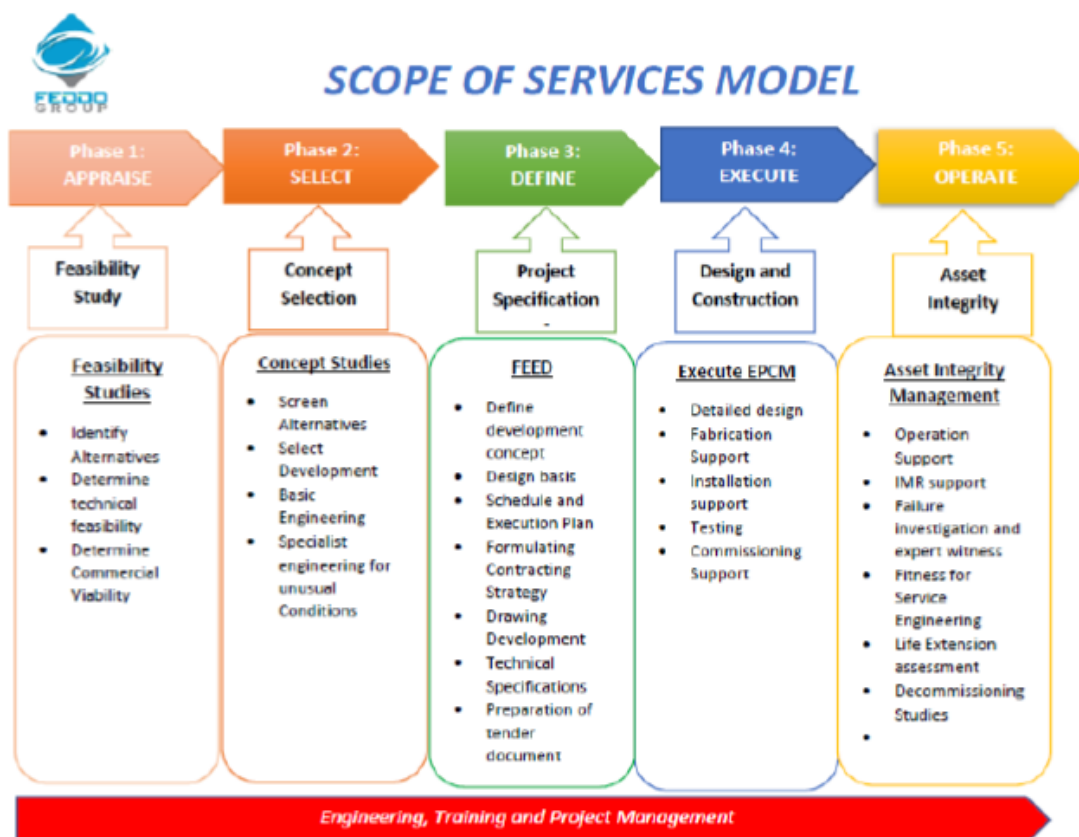
FEDDO Group was established in 2013 as a Global company, registered and headquartered in Australia (Perth)

The main aim is to serve the Energy and Mining sector, providing a range of Consulting Services to the Industry which includes both the Oil & Gas sector, Metal and Minerals and the Renewables sector. FEDDO GROUP specializes in offshore engineering, subsea field developments, subsea and Onshore pipeline systems, integrity management and pigging, life extension, decommissioning, and construction management. We also offer technical training solutions to develop skills and capabilities for the whole life of field covering every aspect of design, operation, integrity management and maintenance.

FEDDO GROUP business model works on a network of regional engineering centres which enable specialised skills, knowledge and expertise to be shared across its global operations.

Our global operational head office is located at Perth, Australia, FEDDO GROUP also has operating offices in Houston, covering the Americas, London, United Kingdom, covering Europe. and apart from these we have commercial presence (Marketing office) in Kuala Lumpur mainly for South east Asia Region; Abu Dhabi targeting Middle East Region.

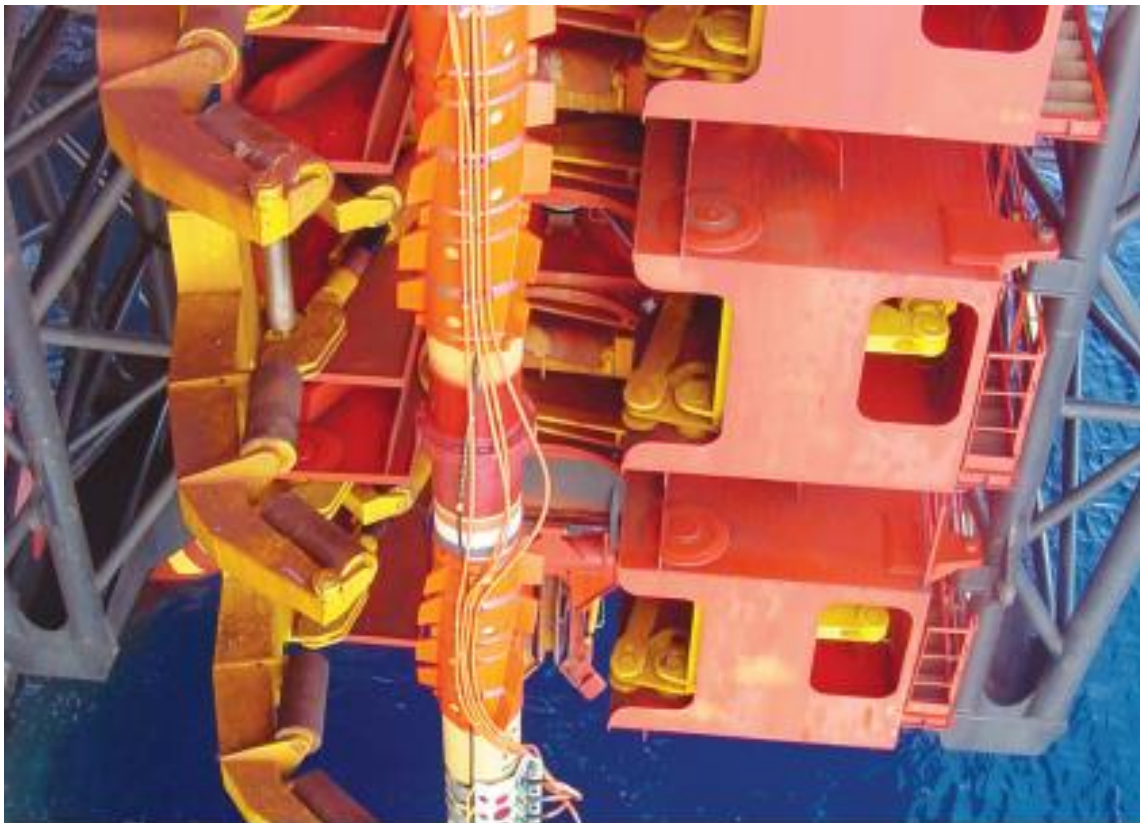
It is our practice to work with client to turn complex situations into positive practical results, by bringing professional insight to support critical business decisions. We work in all phases of project development from appraise, select, define to execute and operate.



FEDDO GROUP provide system engineering comprising the following disciplines:

- Technical Training Solution;
- Field Development;
- Subsea Systems;
- Subsea Pipelines;
- Floating Structures;
- **Marine production Risers;**
- Flow Assurance;
- Advance Engineering;
- Renewable Energies; and
- Asset Integrity Management.

This document provides details of our capabilities in **Marine Production Risers**



2.0 Marine Riser Engineering Capabilities

FEDDO GROUP's capability in Marine Risers is founded on our leading industry personnel, with experience to develop innovative solutions. Our personnel have experience in the design and construction of riser systems in shallow and Deepwater applications whilst FEEDO GROUP forward focus is on dynamics risers in the deep and ultra-deepwater.

For many deepwater systems, risers are an integral part of the subsea production or export systems. At FEDDO, we adopt a system level overview to ensure individual components fit with the overall functional requirements, and that constructability and installation aspects have been fully considered in the riser design. FEDDO GROUP's capabilities include riser interface design with subsea systems (flowlines, pipelines and facilities) and surface platforms.

FEDDO GROUP's capabilities in Marine Risers include the following aspects:

- Through life cycle engineering
 - Appraise, Select, Define, Execute, Operation Support, Decommission
- Independent design verification
- Development and implementation of inspection, maintenance and repair strategies
- Projects and interface management
- Engineering of Risers systems:
 - Top Tensioned Risers (TTR)
 - Steel catenary Risers (SCR)
 - Flexible Risers and Umbilicals
 - Hybrid Risers – Free-Standing, Bundles, Tension leg Risers
- Engineering of ancillary systems
 - Flexible and stress joints
 - Bend Limitors (Stiffeners, Restrictors, Bell-Mouths)
 - Hold down tethers and clamps
 - J- and I-tubes
 - Buoyancy modules/tanks and mid-waters arches
 - Riser Bases
 - TLP tendon connectors
- Global static, dynamic and installation analysis (Flexcom and Orcaflex)
- Mooring analysis (Ariane)
- Couple mooring and riser modelling
- Analysis of riser cross sections, including flexible risers and umbilicals
- Fatigue and VIV analysis
- Materials Selection
- Component design using advanced tools
 - Finite element analysis (ANSYS and ABAQUS)
 - Testing with statistical simulations, including test program design
 - Implementation, management and supervision
- Supervision of riser installation
- Commissioning of Risers



3.0 FEDDO GROUP Personnel Riser Experience

FEDDO's senior technical team consists of industry experts with extensive international knowledge and expertise in challenging environments. Members of this team have worked on some of the most innovative projects of their time

For Further information:

Contact: info@feddogroup.com