The Challenge
CAPEX costs on major offshore projects have been escalating for more than a decade at an average annual rate exceeding 10%. This trend has negatively impacted operating company profitability and return on capital expenditure (ROCE). Decreasing ROCE can be traced principally to project cost overruns and delays to first production, caused in large part by late design changes and unidentified risks.

The Opportunity
There is an opportunity to generate significant cost savings in engineering and construction of facilities replicated from proven designs. Although each development has unique requirements, there are opportunities to create a facility with standardized layouts, components, and treatment options to enable a more cost-efficient topsides facilities design and a reduced cycle time from project sanction to first production.

The Wood Group Mustang Solution
We have developed a comprehensive database of proven designs and layouts with uniform methodologies to address most operating conditions. Our creative approach for the design and construction of large-scale topsides facilities offers many advantages. By leveraging design similarities across projects, we can help reduce capital costs and cycle times while improving operations and engineering productivity.

Key Benefits of “Design One, Build Two”
Cost effectiveness – Utilizing a proven design as a basis gives a reference for a starting point during the conceptual and front-end design phases of the project. Existing designs can be fine-tuned to fit the design basis at a significant cost savings, resulting from increased efficiency, effectiveness and reduced engineering time.

Schedule improvement – Standardization accelerates the design process by using templates for process configuration, facility layout, and equipment arrangement. Predetermined designs can accelerate other aspects of the project including procurement, fabrication, and commissioning.

Risk mitigation and certainty - This approach provides more effective and efficient ways of working, and reduces overall risk and development cost. Lessons learned from exceptional results on prior work can provide cost-effective technical benchmarks for current projects.

Why Leverage Existing Designs?
Effective use of reference designs - as well as challenging customers’ specifications more rigorously and seeking simplification where possible - results in the potential for cost savings in engineering, fabrication and construction. This creates an opportunity for Wood Group to work with our customers and help them achieve their ambition of maximizing the value of the dollars they spend.

Wood Group Mustang has significant experience in applying previous design concepts resulting in both cost and schedule savings – the key is getting it right from the beginning and maximizing every dollar spent. When properly managed and executed, our innovative approach results in both cost and schedule savings, and enables project execution efficiencies that deliver superior results. Clients can expect to see a reduction of 20-30% in the number of engineering man-hours by using existing designs.

Wood Group Mustang understands the challenges being faced today and can add good value with our novel approach to using standardized, off-the-shelf design packages. Wood Group Mustang can help promote an earlier financial investment decision (FID), allowing for a reduction in pre-engineering, procurement and construction phases.
The Leader in Topsides Design

- Designed over 500,000 MT of topsides in the last decade, resulting in over 1.5 million BOPDE production
- Executed pre-FEED, FEED, and detailed design for 18 FPSO projects worldwide.
- Designed more compliant piled towers than any other company in the world
- Consistently ranked in ENR Magazine’s Top Firms for Offshore and Underwater Facilities

Wood Group Mustang Gulf of Mexico Statistics

- 61% Designed 28 of 46 floater topsides

<table>
<thead>
<tr>
<th>FPS Topsides Designed</th>
<th>TLP</th>
<th>SPAR</th>
<th>Semi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>

- Designed topsides for more floating production facilities worldwide than any other company

- Benguela Belize & Tombua Landana - First and only compliant towers outside the Gulf of Mexico

- Ichthys - World’s largest semi-submersible

- Titan – Lightest topsides built on a floating structure with full drilling capacity

- Perdido - World’s deepest spar production platform

- Jack & St. Malo - First ultra-deepwater development in the lower tertiary trend of the Gulf of Mexico