

IOGP JIP33 Standardisation of Equipment Specifications for Procurement – Completion of the Pilot and the Next Phase

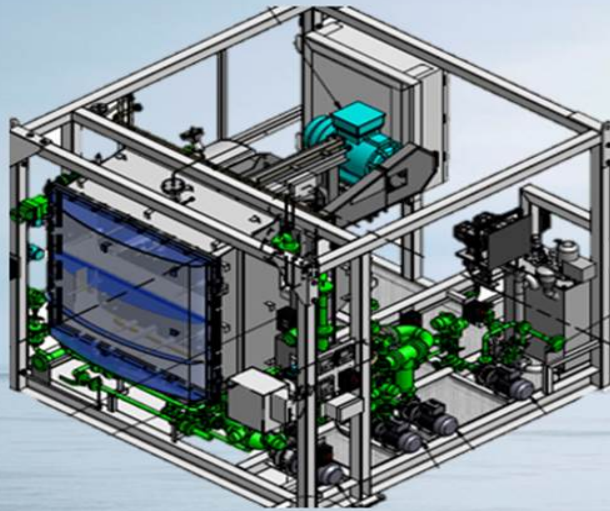
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Fresh Water Package

- From customised to industrialised packages (example)

Customised



Industrialised



Minor modifications outside package needed (10-20% of new value)

40% weight reduction, 50% reduction in size, ~90% cost reduction

But same capacity

Statoil example

Project context, objective and vision

Context

Between 2010-2014, 75% of large E&P projects **exceeded budget by 50%** on average, and 50% of projects **exceeded schedule by almost 40%**.

Objective

The CPC initiative seeks to **drive a structural reduction in upstream project costs** with a focus on **industry-wide, non-competitive collaboration and standardisation**.

Vision

The vision for the industry is to **standardise specifications for procurement** for equipment and packages, facilitating improved standardisation of major projects across the globe.

IOGP JIP33 Standardisation of equipment specifications for procurement



JIP33 phase 1 participants



Value potential

Preliminary estimates indicate...



- Improved **safety**.



- Potential **cost reductions of 10-20% of CAPEX** spending on equipment.
- Up to **40% schedule compression** for standardised asset classes.



- Improved equipment quality and reliability hence **lower lifecycle costs**.

These estimates will be further assessed with vendors and companies during the proof-of-concept consolidation in 1H 2017.

JIP33 phase 1 – proving the concept

Achievements

Completed **proof-of-concept** by producing 4 standardised specifications for procurement.

Developed guidance document on supporting **cultural change**.

Documented learnings from proof-of-concept phase.

Established **Engineering Leadership Summit (ELS)** to drive second phase.

Phase 1 specifications

JIP33 members planning to implement

0% 100%



Ball valves



Subsea xmas trees



LV switchgear



Piping material



JIP33 phase 1 equipment specifications for procurement

Ball valves



IOGP S-562 is based on API 6D 24th edition Specification for pipeline and piping valves.

Subsea xmas trees



IOGP S-561 is based on API Spec 17D subsea wellheads and XT requirements.

Low voltage switchgear



IOGP S-560 is based on the IEC 61439 low-voltage switchgear and controlgear assemblies .

Piping material



IOGP S-563 is based on NORSOK M-630 datasheets.

Specifications have been reviewed by suppliers:



High level feedback on the Capital Project Complexity (chaired by Ben van Beurden, CEO Shell) from CEOs at the WEF meeting in Davos

- Business case is sound and not in question.
- Less focus on 'technical excellence' and more focus on 'risk mitigation' from the subject matter experts in the creation of these specifications –create the 'minimum specification'.
- Standardisation will drive more value than just CAPEX. However, the more we focus on cost the quicker we will get to the right place.
- The engineering leadership summit must steer the way forward to focus the right effort.
- Next steps: Consolidate JIP33 proof-of-concept and increase the scale of the scope and visibility of the effort.





1. Adopt specifications across the industry.
2. Implement standardisation KPIs for individual companies and industry as a whole.
3. Improve the ball valve and subsea xmas trees specifications if deemed necessary.
4. Embed the culture change and work the communications plan.
5. Agree and create further procurement specifications.

	Air-cooled Heat Exchangers			
	Waste Heat Recovery Unit			
	Subsea tree cools "Top Down"			

Cultural Change

Supporting activities (examples)

Clearly **communicate the industry vision** and business case for change to **foster understanding**

- Communicate the value of standardization
- Explain the case for change from an engineering perspective
- Align SMEs with industry priorities

Role model standardization by supporting **industry collaboration** efforts

- Collaborate with peers across the industry
- Encourage and reward engagement with the supplier market
- Celebrate successes of standardization in your organization

Embed standardized technical specifications for procurement within their organisation through **formal mechanisms**

- Replace company specifications with new standardized specs
- Ensure company policies support use of standardized specs
- Follow “no deviation” policy
- Identify single point of accountability for each spec

Provide the necessary **capacity and capability** to further drive standardization

- Define a standardization strategy with supporting resources
- Empower SMEs to make decisions on behalf of companies
- Develop timeline for implementation in future projects
- Develop long-term governance model for updates and modifications

