A Simple Approach to Efficiency

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In the subsea sector, projects are becoming increasingly complex; with longer tiebacks, deeper wells and higher pressures and temperatures increasing the intricacy of the engineering decisions which have to be made.

However, this doesn’t mean that complex problems necessitate complex solutions, and the ‘lower for longer’ oil price environment is also encouraging the industry down the path of simplification and standardisation to enhance cost efficiency.

There is an opportunity for us, as an industry, to re-evaluate how we operate in the subsea sector. A back to basics approach can greatly benefit problem solving capabilities and there is extensive subsea experience which can be distilled to form a standardised and simplified approach to projects.

Simplification and standardisation of specifications, designs, and procedures can result in higher efficiency as there is a universal basis to start a project from and any bespoke elements required can be built on. Standard designs for many subsea components can be developed; using previous designs as a starting point for future designs.

Standardisation should not be a cyclic initiative; it should be a process embedded within the global business models and organisational structures on a long term basis. Also, it is essential to achieve alignment to company and industry standards, as well as suppliers’ standards, based on functional requirements.

There have been cases where over-specification has been a major barrier and has caused proliferation of overly-complex designs and specifications. Simplification of the requirements will need assessment of the risks and value accordingly to understand and mitigate any areas of concern. There is substantial work going on to advance this, especially through joint industry projects.

For example, the Subsea Engineering Competency (SECOMP) JIP will develop a consistent framework for assessing the competency of subsea engineering personnel and provide standardisation across companies and regions.

Wood Group Kenny, having an independent perspective, is also involved in the Subsea UK Subsea Asset Stewardship Work Group, which is a broader collaboration to find innovative industry-wide ways of working to reduce costs and increase production from subsea assets.

There can be barriers to standardisation ranging from planning issues to field or regional legacies and preferences. However, a more simplified approach to design and a standardised approach to procedures are instrumental in reducing costs while still meeting customer requirements. The challenging market conditions have set down the gauntlet for the sector to derive new, innovative approaches which meet value-driven priorities.