

Offshore technological advances define new business model

In the past decade or so, a steady stream of new technologies, some with revolutionary impact, has empowered offshore producers to search for and recover oil and gas in almost unimaginably deep or pernicious waters from reservoirs previously deemed unproductive or inaccessible.

AUTHOR

Garry P. Mahoney, INTECSEA,
A WorleyParsons Company

As innovation continues, the secret to unleashing its potential lies in understanding the role technology plays in the wider context of primary development objectives. A strategy that leverages technology as part of an experienced project-delivery capability will allow producers to realize the top-tier hydrocarbon real estate of the future.

Strategy drivers

Inevitably, the need to manage greater financial risk amidst increased complexity will continue to constrain outsourcing, limit vendor lists, and diminish avenues for forward-looking technology relationships. This will inevitably sustain the trend of awarding large-scale offshore projects to one or more big players that have the ability to mobilize global knowledge, the necessary "big-project" experience, and proven global management systems.

New-generation, large global companies are learning to reduce costs associated with scale to safeguard a competitive edge in complex global business environments, but they must also remain innovative and entrepreneurial in spirit and maintain depth and breadth of knowledge to effectively contribute to all phases of large-scale projects.

Mega-mergers may well be on the back burner for international oil companies (IOCs). However, demands of shareholders and governance structures

will increase together with the need for national oil company (NOC) cooperation. Driven by hunger for increased efficiencies and on-time technology on large-scale projects, NOC-IOC mega investment programs will rely increasingly on independent long-term partners with the most comprehensive engineering and project management services.

In short, the technology-driven business model of the future offshore market favors professional service companies with a global footprint. To offer leading solutions, a company must be global and capable of deploying people, systems, and technology know-how for multiple complex large-scale developments in remote, demanding offshore environments.

This is the technology business model the WorleyParsons group envisioned when it acquired INTEC Engineering and merged it with Sea Engineering to create INTECSEA.

INTECSEA, in turn, is implementing a program to enhance its ability to provide on-time technology solutions that target cost-risk balance.

Rising to the challenge

With a global footprint and adaptable global management systems, WorleyParsons can provide a range of professional services, ranging from consultancy for concept selection through mega-project delivery and beyond. INTECSEA is undergoing a similar growth strategy to leverage this position for depth-and-breadth offshore capability to face the needs of early phase pre-FEED through to large-scale EPCM projects.

INTECSEA is reinforcing a business line strategy that emphasizes system delivery and leveraging a decentralized project execution model. System leaders are tasked to be fully engaged, to nurture sympathetic regional and global knowl-

edge bases, to effectively communicate internally and with the wider industry, to prioritize the necessary collaborative investments, and to target the best solutions tailored to the local market.

One important goal is to remain technology-neutral while penetrating the industry through long-term technology partnerships with NOCs, IOCs, suppliers, specialist bodies, academic communities, and other stakeholders to promote multilateral technological investments and solutions for real future challenges.

Risk margins derived from an "experience-based" perception are not effective guidelines for setting risk margins for complex, offshore mega-developments, especially in a lump-sum contract framework. For these developments, many believe the industry will tend to converge on a more collaborative approach to risk management.

A technology-driven business model becomes an imperative, and there is a strong argument to channel traditional lump-sum risk margins into a comprehensive risk management program with "broad-perspective" participation outside constrictive contractual frameworks.

The future

A successful technology vision recognizes the need for multilateral preparedness to manage the increased complexity that comes with evolving technological solutions and critical risk management processes. It embraces the desire to provide on-time solutions with demonstrable cost-risk balance.

Attitudes toward risk are changing, and stakeholders are seeking technological solutions supported by comprehensive global knowledge and risk mitigation strategies from trusted global partners.

The future belongs to those who are able to adjust their business models to the changing techno-economic climate. **E&P**