

Oilfield Service Companies Face a Future of Challenge and Change

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The oilfield services (OFS) industry, like the oil and gas industry it serves, is facing an exciting, complex, and uncharted landscape. Few industries today face greater economic, technical, geographic, and operational opportunities and challenges.

Growing global demand for energy—particularly from emerging economies in Asia and the Middle East—coupled with tight worldwide supply of crude and hydrocarbon products will likely mean price volatility going forward, despite the current recession. At the same time, the industry faces the rapid decline of mature assets. Authorities estimate that more than 80% of the world's producing assets are past peak production and in rapid decline.

OFS companies have increased their focus on technology to maximize recovery, development, and production efficiency through aggressive drilling, stimulation, and enhanced-recovery programs. The oil and gas sector has also pushed into new geographic, geologic, and technical frontiers. The greatest demand for OFS is expected to come from the Middle East, Africa, Commonwealth of Independent States (CIS), Asia, and Canada.

The opportunities for OFS companies are immense, but change is also unavoidable, and will affect all aspects of the business: technology and talent, products and processes, and organizational capabilities and operating models. Traditional strategies, based on the industry's historical cycles, are no longer satisfactory and could result, at a minimum, in lost business opportunities.

New Customers, New Challenges

One of the biggest challenges currently facing OFS companies now is the change in much of its customer base from international oil companies (IOCs) to national oil companies (NOCs). As NOCs grow in size, number, and influence, the OFS industry's customer base has changed significantly and transformed the industry's competitive landscape.

IOCs and most independent operators are North American or European companies that share common cultures and usually possess strong engineering and technical expertise. The largest NOCs operate outside of these regions and vary widely in technical capabilities and strategic orientation. For example, some are more socially driven rather than financially driven. Holding 85% of the world's proven hydrocarbon reserves and gaining ground in technical sophistication and international capabilities, NOCs have now become much more active in R&D and asset development.

It is easier for NOCs to collaborate with OFS firms on new developments and sidestep the issue of production sharing. Working with service firms, NOCs are better able to maintain control of hydrocarbon reserves—a political priority for a growing number of reservoir-rich nations. Major OFS companies with long histories in global oil and gas operations are playing a vital role in helping NOCs develop their domestic and international footprint. Closer relationships with OFS companies also are allowing NOCs to develop strategies that enhance their internal capabilities or local content, such as related business and service entities. The strategic interests of IOCs are evolving as well. As manager of many of the world's megaprojects, IOCs will remain important service industry customers as well.

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The OFS sector continues to evolve toward a four-tiered structure consisting of:

- Large, integrated. These providers have a global presence, a diverse and comprehensive product and services portfolio, the ability to bundle and package services and products to meet customer requirements, and the capabilities to integrate and manage large complex projects.
- Small, specialized. These providers have niche technology and software, specialized technical engineering services, and specialized tools and equipment.
- Regional, indigenous. These companies are driven by regulatory mandates in emerging countries for economic development and local content. They are based on co-operation between and collaboration with NOCs and large, integrated OFS companies. These providers often draw on the same limited regional pool of trained technical talent that global OFS firms must rely upon and the entities ultimately become local competition. Global OFS companies must carefully weigh the strategic costs and benefits of helping create these entities.
- Commodity. These companies generally provide low-tech commodity products and services as well as low-cost equipment and technical resources. Most of them are located in Asia (China, India) and CIS/Eastern Europe.

Strategies for the Future

Today's unprecedented industry environment is prompting service companies to re-evaluate long-term strategies and develop new capabilities and approaches to their business, such as:

- Development of new service models and offerings
- Product and technology innovation
- Knowledge management
- Finding, training, and keeping a talented workforce

New Service Models. One prominent example is integrated project management. Some OFS companies are taking over the management of mature and marginal assets from the IOCs and NOCs. This approach allows those companies to focus their resources on their most strategic assets, while at the same time enabling and motivating OFS companies to manage and deliver products and services in a way that maximizes both short-term efficiency and ultimate recovery.

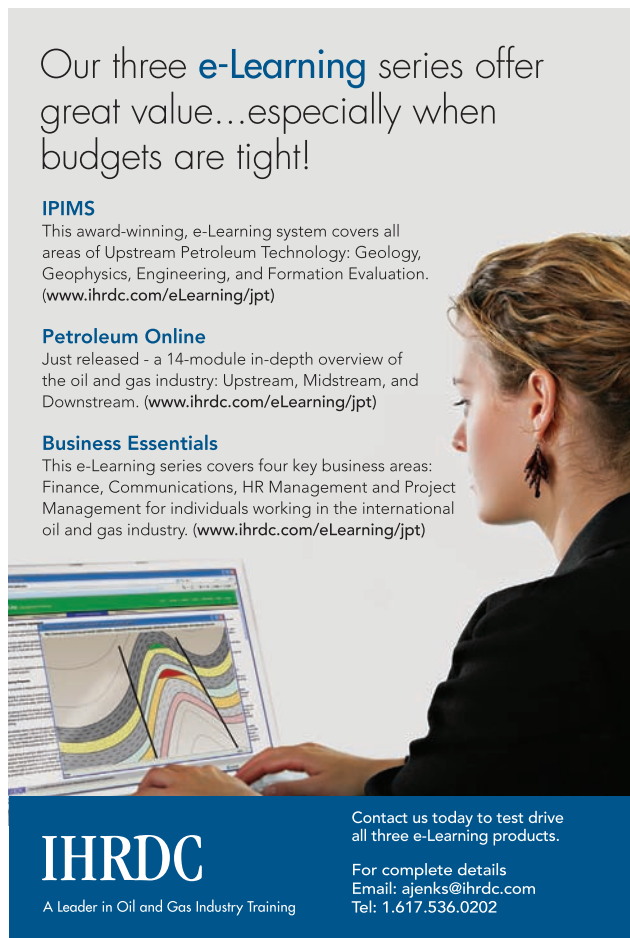
Another example of a new service model is the creation of technical and operational centers of excellence, to leverage increasingly valuable technical resources. These regional and global centers are also known as command centers, operating centers, or hubs.

Product and Technology Innovation. Driven by rapidly escalating drilling and production costs, service companies are aiming their strategic R&D investments at maximizing reliability, efficiency, and total recovery. The push to improve efficiency and reliability is resulting in increased automation and "intelligence" built into equipment and tools, as well as better information-technology enablement of field personnel. Sophisticated companies are also streamlining and improving manufacturing and service operations.

Across the industry, the service sector is moving away from time-based preventive maintenance to predictive-maintenance technologies and methods. The transition from preventive to predictive strategies will allow service companies and customers to be more efficient and reduce costs. Adoption of standardized performance measures and performance indicators also will enable better benchmarking and continuous improvement. So too will optimized tracking, scheduling, and deployment of resources that include crews, equipment, and supplies.

Knowledge Management. One critical strategy for OFS companies is to deploy "enterprise content management" technology to capture technical knowledge and make it accessible across the entire organization. Leading OFS providers are using this to accelerate organizational knowledge and professional development.

Compounding all the OFS industry's challenges is the well-known demographic issue—the big crew change. The talent gap for all sectors of the industry is now a critical strategic business issue.



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The new format also allows SPE to begin publishing papers online before they appear in print. This allows authors to be published sooner, and interested readers to get quicker access to the latest peer-reviewed materials.

GUEST EDITORIAL (Contd. from page 20)

Finding, Training, and Retaining Workforce. To cope, OFS companies are working on creative recruiting initiatives and professional-development programs. They are also tapping into large, new, global talent pools in the rapidly developing technology and manufacturing economies of Asia and Eastern Europe. Embracing and leveraging cultural diversity in recruiting and professional development will be increasingly important.

Developing local and regional talent is becoming an important strategy for risk management as well as for basic demand fulfillment. As the sector's workforce becomes more diverse, companies are recruiting and training

people at all levels to work in their home countries, and developing programs with many local universities to recruit and train local talent.

A new workforce will increase the need for professional development in the service industry and policies encouraging and rewarding greater mobility will be critical to meet the requirements of the industry in this area. Integrated providers have a tremendous advantage as they can more readily rotate employees through numerous diverse environments, role, and experiences. This can greatly accelerate professional development.

Today's OFS companies face a dynamic, growing marketplace requir-

ing a sophisticated, long-term approach to business strategy. This approach involves anticipating changes and responding with capabilities to better serve a global client base.

To compete effectively at the next level, these companies are offering new services bundles and integrated products. They are launching advanced technology programs and using intelligent automation to operate assets from remote locations. They are also developing and implementing new organizational capabilities and operating models to adapt to the evolving industry structure, and nurturing a diverse and talented workforce to handle the challenges of the future. **JPT**

Q&A (Contd. from page 24)

Attracting young people and other potential newcomers to the industry workforce remains an essential long-term objective, even if the financial downturn is delaying the "big crew change" somewhat. How is the downturn affecting hiring, and, as you look ahead, what are the key selling points for E&P sector that could keep it a good career choice?

We have a problem in the industry. A number of people will be retiring in the coming 5 years. We did not recruit enough in the 90s. We were driven by cost cutting. We have launched some

large recruitment again during the last 4 or 5 years. The idea is to maintain that. We will not go through a hire-and-fire scenario at all. Most of all because it is a must; otherwise, we will have a real problem in 4 or 5 years. It takes quite a long time to train a young engineer in our business.

I think, by the way, that this crisis could help us. Recently, we had a forum in France to try to attract young professionals. The year before, we had a major job to convince a lot of them. All of these young engineers were going to financial institutions and banking. This year, there was a long queue in

front of our stand and nobody on the banking side. It is probably a good time to attract good talent. The image of the industry is maybe not so good, but it would be a mistake to stop recruiting. If we stop, we will once again lose credibility in attracting young talent. But in this financial crisis, it is a good time for a real industry like oil and gas to attract young talent because we offer them good jobs in companies that are able to invest.

So real assets have a lot of attraction. Real assets have a lot of attraction, even more today. **JPT**