Oilfield services consolidation

Transforming the value chain
The oil and gas industry continues to experience one of the sharpest and longest downturns in its history. Unprecedented change is occurring, and a radical transformation of the industry has started.

Faced with changing customer behavior, some oilfield services companies are responding by embracing new technologies and contract models, fundamentally changing their business models and transforming their relationships with their customers. Others have not yet adjusted to the new market environment, facing balance sheet pressures or providing undifferentiated products and services in niche markets.

More fragmented than ever, the oilfield services industry is adapting to the new environment and is starting to consolidate as a response to the fundamental changes in its customer base. What are the drivers of this consolidation, and how do they differ from previous consolidation waves? How is the oilfield services industry responding, and what are the future expectations?
Previous downturns, mega mergers and economies of scale

The mega mergers among the majors in the late 1990s and early 2000s took place during the “mid cycle” when oil oversupply triggered the oil price to fall from US$30/bbl in 1985 to US$10/bbl in 1986 and then average US$18/bbl during the 1990s. These mergers were mostly driven by the belief that bigger is better, with economies of scale leading to greater efficiencies and stronger balance sheets supporting complex mega projects. They were also the product of globalization, which led to greater concentration in the hands of a few mega caps, not only in the oil and gas industry but also in other industries, such as the pharmaceutical and automotive industries.

Faced with supermajor customers and greater cost pressures, the oilfield services industry was forced to react and started its own consolidation wave. As with the upstream and downstream industries, this consolidation was mostly horizontal, dominated by the combinations of companies providing similar services and products or operating in complementary markets.

Oil prices started to increase again in the early 2000s and remained above US$90/bbl for close to four years until October 2014. This strong oil price environment supported the oil industry move into frontier areas such as deepwater and arctic regions, and it resulted in an increased capital spending on finding and developing new resources.

With their customers demanding highly specialized knowledge, products and assets, and commodity prices rallying significantly from 2004 onward, the oilfield services industry grew quickly, which triggered another round of horizontal integrations. Meanwhile, the industry continued to fragment as many companies with niche offerings started to emerge.
Oilfield services consolidation timeline

**Upstream transactions**

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Acquisitions/mergers</th>
<th>US$b</th>
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<tr>
<td>1</td>
<td>Aug-98</td>
<td>British Petroleum Amoco</td>
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<td>Dec-98</td>
<td>Exxon Mobil</td>
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<td>3</td>
<td>Dec-98</td>
<td>Total</td>
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<td>Apr-99</td>
<td>BP Amoco Atlantic Richfield Company</td>
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<td>5</td>
<td>Sep-99</td>
<td>TotalFina Elf Aquitaine</td>
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<td>6</td>
<td>Apr-00</td>
<td>Anadarko Petroleum Union Pacific Resources</td>
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<tr>
<td>7</td>
<td>Oct-00</td>
<td>Chevron Texaco</td>
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<td>8</td>
<td>Nov-01</td>
<td>Conoco Phillips Petroleum</td>
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<td>Dec-05</td>
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<td>Jun-06</td>
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<td>Dec-06</td>
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<td>Jul-11</td>
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<td>Oct-12</td>
<td>Rosneft TNK/BP</td>
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<td>Dec-14</td>
<td>Repsol Talisman Energy</td>
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<td>18</td>
<td>Apr-15</td>
<td>Royal Dutch Shell BG Group</td>
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<td>19</td>
<td>Oct-15</td>
<td>Suncor Energy Canadian Oil Sands</td>
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<td>20</td>
<td>Dec-16</td>
<td>Giencore/Qatar Investment Authority</td>
<td>19.5% stake in Rosneft</td>
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<td>3</td>
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<td>CGG Veritas DGC</td>
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<td>7</td>
<td>Aug-09</td>
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<td>8</td>
<td>Jun-10</td>
<td>Aercy Subsea 7</td>
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<tr>
<td>12</td>
<td>Jul-11</td>
<td>SapuraCrest Petroleum Kencana Petroleum</td>
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<tr>
<td>13</td>
<td>Oct-11</td>
<td>Superior Energy Complete Production Services</td>
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<tr>
<td>14</td>
<td>Aug-12</td>
<td>National Oilwell Varco Robbins &amp; Myers</td>
<td>2.5</td>
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<td>Apr-13</td>
<td>General Electric Lufkin Industries</td>
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<td>16</td>
<td>Jan-14</td>
<td>Aemc Foster Wheeler</td>
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<td>Siemens Dresser-Rand</td>
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<td>Schlumberger Cameron</td>
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<td>19</td>
<td>May-16</td>
<td>FMC Technologies Technip</td>
<td>13*</td>
</tr>
<tr>
<td>20</td>
<td>Oct-16</td>
<td>GE Oil &amp; Gas Baker Hughes</td>
<td>50</td>
</tr>
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</table>

Note: select group of announced transactions above $2.5bn value, as of end Dec 2016.
Upstream transactions are highlighted in blue. Oilfield Services transactions are highlighted in red.

*Indicates merger value.
Sources: Baker Hughes (rig count), EY.

Oilfield services consolidation: transforming the value chain
The significant growth in upstream capex spend during the period from 2000 to 2013 did not generate a commensurate increase in production and reserves, and the oil price fall of 2014 acted to intensify the challenges already faced by the industry in a high oil price environment. In this challenging environment, the response to the current downturn is different, because:

1. Operators’ behavior and competitive landscape are changing.
2. Onshore unconventionals have become a new core resource.
3. Digital is transforming the route to reserves and their monetization.

Operators’ behavior and competitive landscape are changing

The response to the downturn has varied according to various types of operators.

International oil companies (IOCs)
The large cap IOCs continue to focus on increasing their cash flows to reduce their leverage and sustain their ability to meet their dividend payment commitments. A combination of divestments, downstream strength and working capital releases has helped support balance sheets, while significant efforts have been made to reduce an unsustainable cost base. IOCs have managed this by focusing on standardization and simplification measures and reducing project inefficiencies, while maintaining their focus on safe operations.

The significant cost savings of the past two years have reduced the break even of a large number of projects. According to Wood Mackenzie, the cost per barrel in the upstream sector has fallen by 30% compared to the average recorded in 2014 while capex per barrel is down 45%. With many new projects expected to start in 2017 and more work to do to reduce capex spending, the focus on dividends and costs reductions is expected to continue, no matter the oil price.

In addition to further capex reductions, a greater focus on operational excellence is expected, which likely will involve robust and significant structural changes. Unmanned facilities, particularly in remote locations, provide significant potential for cost savings by means of reduced health, safety and environment; utilities; and logistics costs. Where on-site personnel are still required, a rigorous assessment of solutions maintaining safe operations and low personnel count is performed, often in combination with favoring suppliers with cross-trained specialist functions.

Why is this downturn different?
Collaboration with oilfield service companies is increasing, primarily with respect to large and complex project developments, where the need to spread risks is the highest. More and more, contractors are being required to innovate and use technologies to reduce costs, improve reliability, mitigate risks and improve project profitability, often on a shared risk-reward basis. In many cases, the traditional “cost-plus” contracts are being replaced with “outcome-based” contracts with the contractors bearing risks such as equipment failures during the development of a project.

On the other hand, with unconventionals changing IOCs’ appetite for big capex developments, IOCs are looking for their suppliers to be able to switch on and off some large capex projects. The IOCs, like the independents, are looking for the supply chain to deliver onshore resources quickly, cheaply and efficiently, in a relatively commoditized way.

Indepedents
The independents have undergone significant ownership changes during the past few years, with many transitioning from publicly listed to private companies owned by private equity. These new market participants are heavily focused on returns and more willing to share the risks and rewards with the oilfield services companies.

It is likely that risk-sharing agreements will increase as private equity owners further increase pressure on contractors to deliver better outcomes at lower costs. Such arrangements could provide contractors with an alternative approach for achieving market success and premium prices when other more traditional routes prove unsuccessful, or with the ability to move into new markets ahead of competitors or to build partnerships with key customers.

Critical to the success of these arrangements will be to deeply understand how the products and services provided by contractors deliver value to the customer.

National oil companies (NOCs)
In general, NOCs have also responded to lower oil prices by driving down costs and improving efficiencies in their oil and gas production activities. For instance in the UAE, the Abu Dhabi National Oil Company has undergone various initiatives since the appointment of a new CEO in February 2016, including:

- Reducing headcount by approximately 10%
- Merging two large offshore concessions ADMA and ZADCO to benefit from economies of scale
- Merging three of its services units (The Abu Dhabi National Tanker Company, the Petroleum Services Company and the Abu Dhabi Petroleum Ports Operating Company) into one company

Over the past few years, NOCs have also continued a long-term trend of looking to take greater control of their resources and seeking to displace the IOCs by using service providers in a more integrated manner. Such examples include Saudi Aramco’s alliance with Nabors to own, manage and operate onshore drilling rigs in Saudi Arabia (October 2016) and joint venture (JV) with Rowan to operate offshore drilling rigs in the country (November 2016).

Many NOCs are also focused on creating more value within the hydrocarbon value chain and are increasing their vertical integration by creating a cohesive business that efficiently operates across the value chain.
the price cycle. The pacesetters in the US have learned the hard way that the commodity price cycle will likely be compressed to approximately three years. The ability curve of shale wells, means that the commodity price cycle will be able to quickly respond to price signals. The speed from capital to first oil is economically rational operators involved, its short development cycle, low risk profile and ability to deliver returns quickly, US shale will likely represent the marginal barrel of production, forcing them to focus on survival, putting the smaller operators in a difficult position. As a result, the oil market clearing price is expected to be set at least in the medium term and potentially for much longer.

The North American shale revolution has led to structural changes in global oil supply dynamics and dramatically lower prices, which has low breakeven prices compared to other reserves, the majority of transactions made in the Permian basin, which now holds nearly as many active oil wells as all transactions in 2016 have targeted this shale play, allowing multiple lateral spreads targeting each layercake reservoirs, resource potential with multiple “layercake” reservoirs, growing investment into the Permian play will continue to add new core reservoirs.

For many NOCs, collaboration with service contractors is key to:

- Develop new technologies
- Attract and retain top talent
- Promote the creation of jobs in the oilfield services industry
- Promote local content
- Reduce costs of services and materials
- Attract new international oilfield services firms by linking to university academic research and sponsored by and adjacent industries by setting up local R&D centers, often

The oil and gas industry is one of the world’s most advanced and their monetization

Digital is transforming the route to reserves

A strong component of a more efficient oil and gas industry.

- Increasing reservoir management and drainage
- Further increasing reservoir management and drainage
- Managing, storing and analyzing massive amounts of data and collecting data in real time without previously necessary human intervention

Connect critical assets and reducing system failure

Connecting critical assets and reducing system failure

A strong component of a more efficient oil and gas industry. Digital is enabling new technologies to disrupt the oil and gas industry on a scale equivalent to the US shale phenomenon by:

- Digital has the potential to disrupt the oil and gas industry on a scale equivalent to the US shale phenomenon by:
- Digital is transforming the oil and gas industry.
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How the oilfield services industry is responding

The segmentation of the oilfield services industry – the Big Four, the drillers and well services providers, the seismic companies, the engineering and construction companies, the equipment manufacturers, and the logistics providers – has started to change as boundaries between subsectors become more blurry following vertical consolidation, and as digital technologies and their impact on operations create new opportunities for all players.

This transformation is only in its infancy; however, based on the changes highlighted above, the industry could converge into the following groups:

› The **specialists** who are focusing on a niche part of the market or a single or small set of technologies, offering specialist products and services, with or without any differentiation

› The **logistics providers** who are providing assets (vessels, rigs, helicopters, etc.) and a range of support services to the industry and are responsible for oilfield logistics, supply and training of personnel, warehousing, etc.

**Integrated service providers**

The integrated service providers are breaking with the past, understanding that the cost-efficient development of increasingly complex hydrocarbon resources will not occur without fundamental changes in their operating models, innovative technologies and greater collaboration with the upstream industry.
Recognizing the inexorable diminishing of boundaries between industries, the integrated service providers are actively forming partnerships or involving themselves in networks with other organizations.

The recent collaboration agreements between some oilfield services companies and operators (such as Det norske, Subsea 7 and Aker Solutions, or Schlumberger’s JV with Golar LNG) illustrate this fundamental shift in how operators and suppliers might be able to work together on some oil and gas developments, as one “integrated” or “aligned” team.

Recent examples of vertical integration illustrate the integrated service providers’ response to the need to reduce overall project costs by offering more integrated solutions and combining technologies, products and services from different parts of the value chain. Schlumberger’s acquisition of Cameron, for instance, combines expertise in reservoirs and wells with surface, drilling, processing and flow control technologies. Technip’s merger with FMC illustrates the combination of engineering and project management capabilities with technology, manufacturing and services capabilities, in an effort to provide greater value to customers at a lower cost.

Integrated service providers are working closely with operators to develop leading practices and provide the greatest value to their customers, looking out among many of their smaller competitors, who might only work as their subcontractors with less control of their own supply and associated margins. With a range of capabilities in various parts of the value chain (e.g., LNG, GTL, gas to power), they are able to present integrated solutions that are attractive to their customers and governments alike.

The integrated service providers also benefit from a strong balance sheet that allows them to share some of the risks and rewards in certain projects and to be more comfortable with outcome-based contracts. Baker Hughes’ recent agreement with CSL Capital Management and Goldman Sachs Group’s merchant banking division to create a hydraulic fracturing company illustrates how some integrated service providers are looking to reduce their capital intensity to maximize shareholder value as well as the return of some financial investors looking to create pure plays operating in niche segments of the market.

Finally, the integrated service providers are using technologies as a way to increase their market differentiation and competitive positioning, and to create competitive hooks to secure new contracts in a market where the number of contracts is dwindling.

At the forefront of the changes in the industry, the integrated service providers are able to choose in which market they want to operate (e.g., niche versus mass market, commoditized versus differentiated offering) and to drive consolidation, with the goal to create a broader portfolio of solutions and technologies to be able to innovate and reduce capital and operating costs for the ultimate benefit of the customer.

Specialists

The specialists either operate across the value chain and provide niche products and/or services or operate in niche markets. While it is hard to generalize this market, it is likely that most of them will have some differentiation through technologies or through bespoke assets (for example in drilling), allowing them to effectively compete with the integrated service providers.

To thrive as specialists, they need to be best in class in their specialty and market as their position may erode rapidly.

Depending on their market positioning, they may be dealing directly with the operators and could consider risk-sharing contract structures, although most are likely to follow the general trend of acting more and more as subcontractors to the integrated service providers and other tier 1 suppliers. Niche markets and technologies make them very attractive to the integrated service providers and to private equity, and it is therefore anticipated that the specialists will be involved in private equity-sponsored buy-and-build and consolidation transactions in the near term.

Logistics providers

With high leverage and many assets on their balance sheets, the logistics providers face significant challenges in the current market and a business model that is likely to be challenged in the future. They need to join forces to survive the downturn and to think about business models that increase their differentiation and value to operators.

They tend to work directly for the operators, although this might change as a consequence of the ongoing restructuring of both the supply chain as well as the business models associated with equipment, tools, consumables and personnel logistics.

The logistics providers are facing a more aggressive type of consolidation, primarily opportunistic and driven by the financial stress of many companies in this group. These include the offshore support vessel industry, which is currently significantly oversupplied and highly fragmented and has been strongly affected by the sharp reduction in day rates and utilization. These companies have significant challenges associated with their current structures and business models. Consolidation is driven by the need to create larger entities with financial and operational strength to accelerate the timing of recovery by removing more vessels from the market, with the creation of significant synergies as a key premise for this more traditional type of consolidation.

Whether they are large integrated service providers, specialists or logistics providers, the key for these companies will be to think strategically about where they want to position themselves for the future. The question of how small companies will compete also remains, as operators reduce the number of interfaces with suppliers, encourage standardization and seek broader solutions and integration with their suppliers.
Opportunity for M&A in the oilfield services sector?

The large transformational transactions already witnessed in the oilfield services sector are likely to be the prelude for a large wave of consolidation activity across the entire value chain.

There are six drivers of this transformation:

Long-term change in customer behavior

The current changes in the industry, in terms of capex reductions and opex focus, seem to indicate a long-term response to an industry that was already struggling to deliver adequate returns with oil prices above US$100/bbl. This change is expected to persist even if oil prices gradually increase. As operators are seeking greater alignment with the supply chain across the entire asset life cycle, a continuation of transactions targeting vertical integration and technology is likely.

Technology

The acquisition of technology is becoming increasingly important as the sector increases its investment in the digital space. The ability to integrate technologies is going to be an equally important differentiator. Such providers can become integral to a development’s success and will be viewed increasingly as project life cycle partners. Companies need to acquire the right talent and innovation capabilities to navigate the changing business environment, and more acquisitions of technologies (from the oil and gas sector or other industries) should be expected.

Market share protection

At the top end of the market, more consolidation is expected as large companies continue to consolidate as a response to their competitors’ consolidation in order to protect market share, retain leadership positions in key markets and protect their operational leverage.

Portfolio optimization

While several of the recent transactions have been complementary with little overlap between the entities combined, some post-merger divestments are still to be expected as a result of anti-trust processes, portfolio optimizations and continued efforts toward operational excellence.

When companies have operated a range of loosely adjacent services, more consolidation should be expected to focus portfolios on the right offering and, in some cases, create pure players best able to service customers.
Financial restructurings

The industry is undergoing significant financial restructurings with companies and assets being marketed out of necessity as part of broad restructuring or administration processes. With the downturn continuing, more stress is likely to emerge with a resulting increased volume of distressed transactions. These financial restructurings are also resulting in significant changes in the ownership structure of many companies that are now owned by their lenders, bondholders and/or other financial investors.

So far, banks have taken a supportive stance with borrowers avoiding any actions to enforce their security and take ownership of assets. With the downturn persisting and little to no signs of immediate recovery in some segments, it remains to be seen whether this support will continue and what role banks and financial investors will play in this consolidation trend.

As the market reaches the bottom and the valuation gap between buyers and sellers reduces, more investment from private equity and financial investors is expected. In some segments facing significant oversupply with no short-term sign of recovery, such as the drilling and offshore support vessel markets, banks may find it harder not to crystallize their losses, which could lead to greater consolidation or jeopardize the bare existence of many companies in these segments.

Industry diversification

As the oil and gas sector continues to undergo transformation, external influences such as growing climate change and digital disruption are compelling companies to look beyond their core sector for acquisitions. To reduce their carbon footprint, oil and gas companies are seeking to increase the share of natural gas and to invest in renewables and clean technologies, which has driven several oilfield services companies to already focus on these markets. The nuclear and power industries are also becoming of increased interest to some contractors as a way to reduce their volatility of earnings.

Conclusion

The oil and gas industry is undergoing a fundamental change, which is unlikely to reverse if and when oil prices increase. Companies need to embrace these changes and decide which approach to follow and which market to play in. The integrated service providers are well-placed to drive the major changes needed in the industry – to be successful, they need to offer a genuinely differentiated risk-based offer. The specialists own valuable technologies and expertise and need to be best-in-class from a cost and market perspective to remain relevant in the new world. The logistics providers currently face significant challenges and need to join forces and adapt their business model to increase their differentiation and the value they provide to their customers.

The industry has changed rapidly over the past two years. The window to join the club of the integrated service providers is open, for now.

How EY can help

Through our closely linked transactions advisory, tax and advisory service teams, coupled with our global team of 10,000+ oil and gas professionals, EY is equipped to provide independent, whole-life support and advice to our oil and gas clients during this time of fundamental change. We have proven skills covering the entire breadth and depth of our oilfield services clients’ businesses, including:

- **Transaction advice** – opportunity identification, advising on execution of mergers, acquisitions, divestments and carve-outs, joint ventures and alliances, as well as undertaking buy- and sell-side due diligence.
- **Financial and operational restructuring** – advising corporates, banks, bondholders, private equity, alternative capital providers and other stakeholders on financial and operational restructurings, including assessment of existing restructuring programs, evaluation and execution of cost savings initiatives, negotiations with corporates, banks and capital market providers of capital, and other capital providers, accelerated M&A processes.
- **Integration** – determining and analyzing post-acquisition and merger integration and portfolio realignment.
- **Capital agenda** – improving capital needs at the corporate, portfolio, asset, project and business unit levels, including working capital, cash flow improvements, and debt and equity raising and/or refinancing.
- **Strategy and performance management** – strategy development and assessment, market access study, competitor analysis, asset portfolio management, organizational improvement, supply chain improvements in procurement, logistics, engineering, field operations, manufacturing and distribution; improving work processes, identifying key risks to facilitate services of major capital projects, improving overall financial and management reporting, supporting key business and operations improvements by effectively deploying information technology.
- **Risk management services** – advising on business risks and developing plans to accept, identify or capitalize on them, including assessments (assessing risk potential and processes), improvement (designing and assisting with implementation of improvements to achieve business objectives) and monitoring (evaluating if processes, initiatives and functions are operating as expected), as well as undertaking internal audit programs to augment clients’ internal capabilities.
- **Tax advisory** – advising on country fiscal regimes, tax structuring, transaction planning and impact of alternative energy, as well as managing international assignments for key employees and understanding tax considerations in expanding operations to new countries.
- **Fraud investigation & dispute services** – assisting companies manage risk, investigate alleged misconduct and measure the financial impact implications of disputes. Areas of focus include anti-fraud, corporate compliance, dispute services, forensic technology and discovery services and fraud investigations.
- **Disruption management** – digital offering – management of potential disruption, asset performance management, digital supply chain, operations and field ticketing, digital tax, robotics process automation (RPA) and corporate functions, integrated planning and portfolio management, cybersecurity, data analytics, digital worker, warehouse of the future.

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