

Time to choose: oil services at a strategic crossroads

February 2021



Contents

Foreword

02 Recommendations

6 Key themes from interviews

16 Background to global oil services market

26 Our approach and acknowledgments

27 Contacts



Foreword

2020 was a tumultuous year for the global oil services sector. Once more the industry had to deal with a brutal downturn, as it tackled the twin challenges of an oil supply and demand shock while dealing with the operational adversity posed by a global pandemic. For the oil and gas industry, this downturn followed in the wake of the 2014 oil price crash, which many oil services companies had yet to fully recover from.

And this is in tandem with the other major force that is shaping the sector, the energy transition in its broadest sense. Environmental Social and Governance (ESG) themes are increasingly impacting how investors assess their investments. Consumers and broader stakeholders like governments and cities recognise the urgency to address climate change. And as governments implement fiscal stimulus packages, they are seeking to 'build back better'. In many ways, COVID-19 has accelerated the energy transition.

It is in this context we decided to take a pulse check of the industry. We interviewed more than twenty stakeholders from the oil services sector and the topics that emerged from our conversations are captured in this report.

What was a striking theme across all the interviews is the ability of the oilfield services sector to adapt.

Whilst cost control in a downturn is a road well travelled for the sector. the pandemic has accelerated trends around remote working practices, operational restructuring and digital technologies. Each provides a long term sustainable cost opportunity to the supply chain. Mergers and business combinations are also likely in the current environment.

And this ability to adapt is and will be a critical success factor. As oil services companies assess the strategic choices they need to make in a rapidly evolving energy market, they will need to choose a pathway. One that is focused on hydrocarbons or one that pivots wholly or gradually towards low carbon.

Even those that stay hydrocarbon-focused will increasingly find that the net zero objectives of the oil and gas operators will impact ways of working in the sector. As the UK government highlighted in their recent white paper, business as usual is no longer an option.

There is no right or wrong pathway, both may be equally valid and have important roles in global energy supply for many years to come. As energy systems transition, the supply chain has a critical role to play in enabling a lower carbon future.



The clock is ticking and the time to act is now

The need for oil services companies to adapt and reposition themselves in a rapidly evolving market has never been greater. With an increasing number of the major operators declaring their net zero ambitions, the supply chain will need to decarbonise as well to reflect what their customers are doing.

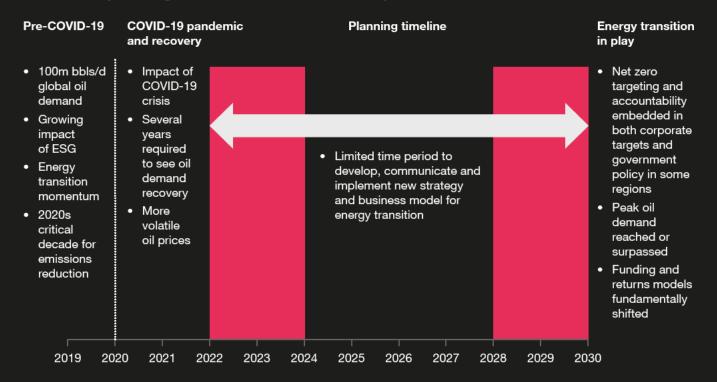
As a result oil services companies have a choice to make. Do they follow their customers – the operators – into the new low carbon markets? Or do they double down in hydrocarbons, becoming ever more cost efficient?

And this strategic decision needs to be taken fairly quickly. Energy transition is gaining momentum and has been accelerated by COVID-19. ESG factors are also shaping investment decisions, as illustrated for example by Larry Fink of Blackrock and his letter to CEOs urging corporates to set net zero strategies.

In regions such as Europe, energy transition will be top of mind for investors, governments, corporates and consumers. And hence the pressure to change will be accentuated. As illustrated in the chart, this would suggest the time period to evolve a new market strategy is increasingly constrained for those oil services with a major European footprint.

However, other territories may offer longer term growth opportunities in traditional hydrocarbon markets where energy transition is not top of mind. Therefore, we anticipate that internationalisation will continue to be a strategic pillar for the sector in some regions.

Illustrative planning timeline for oil service companies





Energy transition is where the growth is in the medium term. Oil and gas will continue in the Middle East for next 20-30 years but will eventually decline. Growth will come from alternative energy."

Global EPCI company

Consequently, oil services companies will need to make strategic choices about what type of business model to pursue

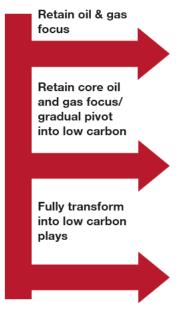
Companies will need to determine where they want to play in this evolving market – from pure play oil and gas services through to full diversification into low carbon.

Our interviews with the supply chain suggested there are essentially three broad pathways:

- Retain an exclusive focus on hydrocarbons but become a highly efficient provider using digital technologies.
 Operational carbon emissions will need to be reduced to retain license to operate.
- Pivot gradually to low carbon using the core hydrocarbons operations as a cash engine funding the growth of the new low carbon business.
- Eventually divest the hydrocarbon business and become a fully fledged provider of new energy services.

Oil services will need to figure out which pathway is their best option for sustainable growth. Understanding what their core competencies are and whether these can and should be used in other low carbon adjacencies will be a factor in the decision-making. Articulating their investor proposition will also influence the optimal pathway.

Illustrative pathway for oil services business model



- Hyper-efficient hydrocarbon value chain focus.
- Clients will be pure play IOCs, NOCs and independents.
- · Reduced carbon emission footprint necessary.
- Major focus on digital technology to improve efficiency.
- Hyper-efficient hydrocarbon/low carbon value chain focus.
- Clients will be IOCs with traditional hydrocarbons and new energy focus.
- Additionally, other new energy developers will emerge as a key customer group.
- Reduced carbon emission footprint necessary.
- Major focus on digital technology to improve efficiency.
- Begin providing low carbon services with strong adjacencies to oil and gas business.
- Use core oil and gas services as cash engine to fund new low carbon business.
- Wind down and eventually shed hydrocarbons business.
- Complete focus on low carbon services from helping oil and gas operators to reduce emissions to leading low carbon solutions for other sectors and non-energy companies (for example decarbonisation of industrial clusters).
- Major focus on technology/digital to develop low carbon capabilities and increase efficiency.

High

Low

"

Companies need to be clear on what their role is in the energy transition as core revenues decline."

Global support services company

"

I am convinced that the companies that are doing something now about the energy transition will have a huge competitive advantage in a few years...but it needs to be profitable. Energy transition for the sake of it is not enough."

Global EPCI company

Understanding which pathway to pursue will require companies to make some challenging decisions

Key next steps



Understand your market and assess how your strategy needs to change and adapt.

Do your operations have an adjacency to renewables that will provide you with a clean energy opportunity? Or does your specialism mean that retaining a hydrocarbon focus is more appropriate?

Regardless, how can you operate in a more carbon friendly manner? How can you help your business partners do similar?

What will your investor proposition be going forward? If for example the proposition focuses on strong double digit returns which pathway is more likely to deliver that? Alternatively, if the primary proposition is stable long term returns, which pathway might be more relevant?

As a result of your strategy review and investor proposition, map the implications on your business model, portfolio of assets, people, technology and overall governance.

In terms of sustainable cost reduction, where are the opportunities for strategic cost transformation? Are there parts of the business in the back office for example where a material change in the cost structure can be realised through standardisation and automation?

How will you measure sustainability in your own organisation and what is your timescale?

Design an implementation plan that will allow you to execute the necessary actions expeditiously. And communicate to stakeholders in a timely manner the new direction of travel.

Who should oil service companies partner with? Partnerships are an ideal platform to extend capabilities and reduce investment costs. However, selecting the right partner will be critical. What are the capabilities being sought - digital? new energy? And how will a partnership open up new markets?

Other factors to consider

- · A successful pivot to low carbon will depend on skills transferability. Some oil services companies will have natural adjacencies, others will not. Engineering companies, for which a clear transition opportunity exists, are among the first movers from the sector in transition.
- · Companies may find that in addition to challenges in respect of skills needed in renewables, there is also a different price point in this market. Designing solutions which are appropriately engineered for new sectors is important.
- Even companies that assess they are better placed to double down in oil and gas need to think about doing so in the most carbon effective manner. Operators will increasingly require a reduced carbon footprint from their supply chain. Longer term, the role of carbon capture and storage offers the oil and gas sector a significant offset opportunity.
- · Communicating clearly the role oil services companies can play in enabling energy transition will be critical. Their technical skills and innovation will be fundamental to developing new low carbon theatres and exporting these competencies internationally.



We interviewed senior stakeholders in the oil services sector to obtain their perspectives on COVID-19 and the impact of energy transition

In the course of our interviews, a wide range of opinions were offered with a number of key themes emerging



The pace of energy transition is gaining momentum



Some companies have skills which are more transferable across sectors



A sustainable investor proposition is needed for oil services



The sector needs to do more to positively communicate its role



Internationalisation is also still a valid growth strategy in hydrocarbons

Our hypothesis



- As we emerge from the pandemic, oil service companies will have a number of long term strategic choices to make.
- · COVID-19 has accelerated the pace and impact of the energy transition in many regions.
- · Therefore, companies will essentially need to make a binary choice:
 - Do they retain their oil and gas focus and become ultra efficient and digitally enabled?
 - Do they pivot towards low carbon plays (such as offshore wind, carbon capture) using low carbon as a growth platform (and treating oil and gas as the cash generating engine to fund that growth)?

Methodology



- We interviewed over 20 key stakeholders from the oil services sector (detailed at the end of this report with some requesting they remain anonymous).
- In size these ranged from the large oil service companies to smaller niche players.
- · Our sample of companies included privately-held entities and publicly-listed. Regulatory and trade bodies were also interviewed.
- Companies were predominantly UK-headquartered but include many with a global footprint.
- · Those companies interviewed covered the value chain from drilling contractors to EPCI and well services to broader support services.

Interview approach



- · We interviewed senior executives across these organisations.
- Our questions spanned several dimensions.
 - The immediate impact of COVID-19 on operations and businesses.
 - The response from oil services to deal with COVID-19.
 - Perspectives from oil services on the energy transition (impact and evolution).
 - Challenges and opportunities for oil services regarding the energy transition.
 - Building a compelling investor proposition.

The energy transition is poised to reshape the fortunes of many oil services companies...

Theme 1: Energy transition is gaining momentum

There is a regional lens to the energy transition



- All the respondents we interviewed recognised energy transition is reshaping the oil services sector. However, the impact of transition varied depending on the operating region. So for example, for those companies with a major footprint or a head office in Europe, energy transition was very much top of mind with ESG themes shaping and impacting their agenda. For oil service companies in other regions where transition was not top of mind, the impact was less.
- · Not all companies interviewed saw low carbon as the only major opportunity. Some oil service companies continue to view hydrocarbons as an important focal point and regions like the Middle East were still viewed as growth plays in oil and gas (see page 15 for more detail).

Momentum for energy transition is growing



- The majority of companies we interviewed recognised that COVID-19 had in fact accelerated energy transition. As governments developed fiscal stimulus packages, many countries were looking to stimulate a green recovery to 'build back better'.
- Those companies interviewed also cited the major operators who were setting the pace for decarbonisation (such as bp, Total, Equinor, Repsol and Shell to name a few examples). Many service companies recognised the need to transform themselves in alignment with their customers.
- Some service companies were also recognised as setting the pace in terms of decarbonisation.

Demand for carbon credentials in oil services is growing



- Several respondents highlighted a growing trend of tenders from some operators who were beginning to require credentials in decarbonisation from the supply chain. Moreover, some operators were cited as expecting their oil service providers to decarbonise in order to preserve their own license to operate.
- Several oil service companies we interviewed also felt as energy transition and decarbonisation gather momentum, the low carbon credentials of a services company will become an area of significant competitive advantage.
- If the operators increasingly demand that the supply chain decarbonises, oil services companies will have to become greener or reconsider their regional focus.

...however, a strategic pivot to low carbon needs to be gradual and skills transferability may not be easy

Theme 2: A pivot to low carbon needs to assess the transferability of skills but the supply chain can be a leader

Shifting to a low carbon portfolio needs to be gradual



- For those companies that had developed a low carbon business, they generally considered that the pivot had to be gradual.
- The oil and gas services business played an important role in funding the growth of the newer low carbon business. It also allowed the business the time to develop its capabilities and credibility in low carbon.
- · As result, many interviewees suggested that a 'hard' pivot to low carbon was discouraged, as it was perceived as destroying the value of the existing hydrocarbons-focused business.

Building a low carbon business has three core pillars



- · For those oil service companies we interviewed who were developing low carbon capabilities, they broadly identified three discrete areas of business focus:
 - As a minimum, an oil services company needed to lower its own operational emissions (Scope 1&2).
 - The supply chain then has a key role to help its clients, the operators, lower their emissions footprint (Scope 1&2).
 - Evolution then shifts to become a leader of decarbonisation with companies outside their traditional customer base.

Some skills sets are transferable but there are challenges



- The companies we interviewed had mixed views on the transferability of skills between oil and gas and low carbon.
- · Some respondents suggested there were segments in the supply chain which were well placed to transfer skills. For example, engineering firms with offshore skills were well positioned to deliver offshore wind projects. Certain technology-focused firms also were fungible enough to serve different sectors.
- · However, some segments were cited as not having obvious adjacencies in low carbon. For example, offshore drillers were perceived as having limited scope to thrive in low carbon.

The supply chain can become a leader in low carbon theatres



- Several interviewees suggested the supply chain was well placed to lead the way in low carbon. Service companies could develop (and in some cases already had) the skills and capabilities to help operators decarbonise.
- Some oil service firms were already undertaking project work in multiple low carbon theatres (such as CCUS and hydrogen) which meant they had valuable project experience to share with operators.
- · Moreover, some interviewees suggested as the supply chain's experience in low carbon matured, the UK could become an export hub of energy transition skills to other mature international basins.

44

A pivot to low carbon is very hard...the risk is you make a move from oil and gas to renewables, you have sold your core business off and your new assets are not mature enough to be sustainable."

Global oil services major

As for skills transferability, traditional oil services faced some challenges pivoting to low carbon

Transferability of skills in oil services and low carbon

Many interviewees highlighted that skills transferability was a challenge for the sector. All service companies had core capabilities in a particular area. The challenge was figuring out where there were natural adjacencies in low carbon for oil services.

While many oil services companies had some skills which were transferable for low carbon, others were better placed.

As illustrated in the chart overleaf, engineering firms with offshore experience are well placed to benefit from a diversification into low carbon (such as offshore wind). Whilst drilling services companies may have some cross over potential in areas such as geothermal, there is clearly a higher barrier to entry for these companies in low carbon.

Interviewees also acknowledged there were several key barriers which might impede the success of a pivot to low carbon. These ranged from having the 'right' brand (that is no association with oil and gas) when dealing with new energy developers to the complexity (and higher costs) associated with oil services solutions making them uncompetitive with other low carbon services providers.



Overview of opportunities and challenges in skills transferability for low carbon (selected examples)

Traditional oil and gas oil services

Seismic

Opportunities for seismic and broader geophysical and geotechnical services. Site investigation for subsea foundations for wind turbines.

Less fungible services

Drilling and workover

Drilling wells for carbon storage or geothermal opportunities.

Well services and commodities

Plugging and Abandonment can thrive in rapid energy transition. Tubular products for infrastructure related to CCUS and hydrogen.

Subsea

Subsea cables for wind farms, electrification of offshore platforms.

New low carbon opportunities

EPCI

Opportunities for engineering firms with offshore expertise for wind farms. Broader skills for carbon storage and hydrogen production.

More fungible services

Maintenance and operation

Potential to support offshore wind farms, carbon storage and hydrogen infrastructure. Inspection services, accommodation etc.

Barriers

Reskilling costs

For those companies looking to re-skill their workforce, there were concerns around how to pay for this. Also there were challenges around the flexibility of engineers to adapt to new ways of working.

Source: Press, PwC Strategy& research

Legacy brands

Some oil services companies recognised several low carbon developers were hostile to services providers with an oil and gas heritage.

Attracting talent

Some interviewees recognised it was difficult to attract younger talent given their oil and gas activities. Conversely, a focus on low carbon was seen as a way to attract new talent.

Debt levels

Interviewees recognised the challenge to allocate resources to develop a low carbon business given the focus on cost reduction and cash preservation.

Over-engineered solutions

Operating in a hazardous environment, oil services have had to develop solutions meeting very stringent H&S standards. These solutions were sometimes more complex, more expensive than required for low carbon applications.

The interviewees also highlighted three focal points to consider if oil services were pivoting to low carbon

As mentioned previously, our interviews suggested there were essentially three areas of focus in low carbon:

- how oil services decarbonise their own operations;
- what they can do to help their existing clients, the operators, decarbonise;
- diversify and provide low carbon services.

Many interviewees suggested there was a natural progression in this evolution.

Typically oil services needed first to lower their own carbon footprint to demonstrate how they could then help their clients do likewise.

Thereafter, the supply chain would be better placed to diversify outside its traditional oil and gas customer base and become a leader in decarbonisation services for other sectors.

And, increasingly, their customer base, the operators, may expect them to follow this path.

Opportunities in low carbon

Selected examples

Reducing oil services' carbon footprint

- Set a baseline of operational carbon emissions (Scope 1 & 2).
- Recruit/appoint a head of sustainability to set the ambition and framework to address emissions.
- Use of Nature Based Solutions as offsets.
- Effective monitoring of methane leaks using digital solutions/drones.
- Electrification of services using renewable sources.
- Services linked to reducing emissions e.g. CCUS.

Reducing operators' carbon footprint

- Electrification of offshore platforms sourced from low carbon and near to shore.
- CCUS technology and services to capture emissions.
- Offshore wind farms (floating) to power offshore platforms.
- Generation of 'green' hydrogen using renewables in electrolysis.

Diversifying into low carbon

- As expertise in low carbon is established, increasingly oil services companies will have opportunities to work with clients outside their traditional customer base.
- Rather than solely responding to the requests of oil and gas operators, they will be leading the deployment of low carbon solutions outside oil and gas, such as the decarbonisation of industrial clusters for example.

"

The need for all oil and gas firms to demonstrate they are minimising their impact in order to retain investor and stakeholder support is real and has accelerated significantly. This translates for instance into reducing and eliminating emissions from facilities, working to minimise future emissions and promoting operating efficiency."

Industry representative

Oil services recognised the investor proposition for their sector was sometimes challenging, raising capital access issues

Theme 3: the investor case for oil services needs to evolve

Our interviews highlighted the investor proposition for oil services was sometimes challenging. Many of the interviewees acknowledged the segment was facing a number of challenges including:

- A sector highly exposed to cyclical and increasingly difficult downturns.
- A segment facing mixed growth prospects in hydrocarbons over the short term, as it recovered from the impact of COVID-19. In addition, dealing with the ramifications of an accelerating energy transition in some geographies.
- A sector perceived by some investors as less attractive given the growing momentum of ESG factors.
- And all the above impacting access to capital as companies sought growth options.

Against this backdrop, many interviewees recognised the need to get back to basics, to focus on cash flow and build up the balance sheet. By doing this, companies could build resilience and explore optionality to diversify into low carbon.

However, this still left an open question around the investor proposition. With oilfield services companies having a leading role to play in transition, investors are needed to support the sector. Importantly, this needs to also include companies which are 'doubling down' in oil and gas to ensure continuity of supply.



More broadly, the oil and gas sector needs to articulate better its contribution to society and the energy transition

Theme 4: Clearer messaging on the contribution of oil and gas and its enabling role in the transition is required

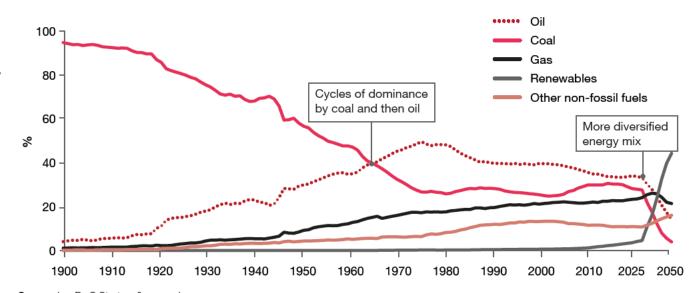
The majority of oil services companies interviewed agreed the broader industry was not always speaking with one unified voice about their sector's contribution to society.

Interviewees explained the sector played an important role in providing affordable energy and employment.

Hydrocarbons are likely to form a staple part of global energy requirements for years to come. In bp's rapid transition scenario, published in September 2020, renewables do not emerge as the largest source of energy supply until the late 2030s. Indeed, when oil and gas are taken together, they remain the largest source of supply until 2045.

Interviewees also confirmed the supply chain had an important contribution to make vis-à-vis energy transition and enabling that transition through its engineering expertise, innovation, project management and global operational scale.

Shares of primary energy (Rapid scenario)



Source: bp, PwC Strategy& research

I can understand the view that some stakeholders do not want to see oil and gas as part of the energy mix. If we are going to get really big buying power in the green revolution you need to bring all capabilities to the table - including oil and gas companies."

Industry representative

Some oil service businesses did not view low carbon as the only strategic option, seeing hydrocarbon growth opportunities elsewhere

Theme 5: Irrespective of energy transition, the Middle East will likely be the 'oil province of last resort'

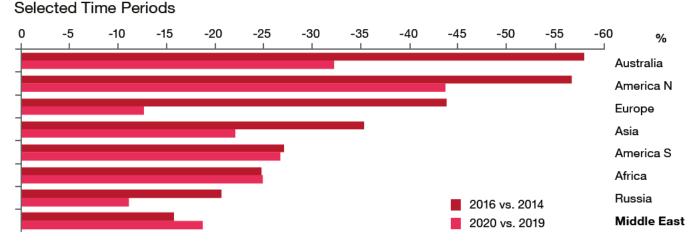
As mentioned earlier, several respondents recognised there was a regional lens to energy transition. Some oil service businesses felt there were hydrocarbon growth opportunities in other basins, especially the Middle East. The GCC (Gulf Cooperation Council) for example, was seen by some as the 'oil province of last resort' and likely to be producing oil and gas for the foreseeable future.

Despite curtailed expenditure in the wake of COVID-19, many regional players (operators and oil services) saw growth returning in the 2022/23 timeframe.

Some respondents did acknowledge that several major international oil services players had exited the region, which combined with a push for localisation had created an opportunity for the local supply chain to capture market share.

Nevertheless, international oil services firms still viewed the broader Middle East as a hydrocarbon growth opportunity. As illustrated in the chart, when assessing contraction in capital spend through different downturns, the Middle East has witnessed smaller reductions compared to many other regions.

Reduction in global upstream capex spend by region



Source: Rystad Energy, PwC Strategy& research

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There is a moral case for affordable energy and companies that can provide that as efficiently as possible should not be punished for doing that."

Global oil services major

Background to global oil services market



Capital spend in upstream oil and gas was beginning to recover from 2014, with 2020 a potential bright spot, until COVID-19

Upstream capital expenditure is the lifeblood of the oil service sector. As operators spend more so the fortunes of the supply chain improve commensurately. The inverse is equally true.

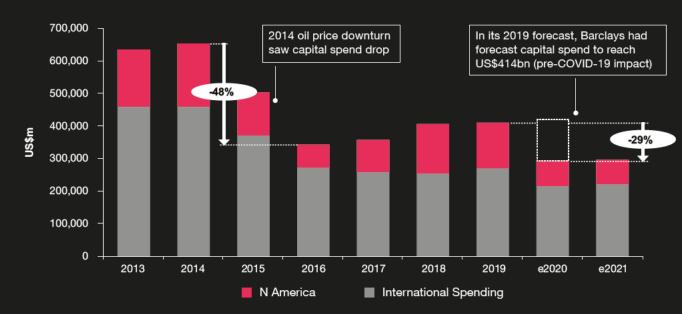
The 2014 oil price downturn led global capital spend to decline from over US\$650bn to US\$340bn in 2016, a decrease of nearly 50%.

Spend began to recover in 2017 and, according to the Barclays Capital Global E&P Spending Outlook Survey in December 2019, 2020 was forecast to see ongoing growth to reach an estimated US\$414bn.

However, the impact of COVID-19 undermined that growth potential and in its updated survey in January 2021, spend in 2020 was expected to have dropped by nearly 30% to total US\$293bn.

As for estimated spend in 2021, Barclays forecast a 1% increase with total spend reaching some \$296bn.

Global E&P capex (2013-e2021)



Source: Barclays Capital Global E&P Spending Outlook Survey January 2021, PwC Strategy& research

Many oil services companies have not recovered from the 2014 oil price downturn and are now saddled with debt – which is maturing

The oil services sector was impacted significantly following the oil price downturn of 2014. As operators deferred and cancelled projects and reduced capital expenditure, this led to significant cost and margin pressures for oil services.

Moreover, operators in 2014 exerted pressure on the supply chain to reduce costs (as typically occurs in cyclical downturns) which in turn put more pressure on margins.

As a result of these market pressures, many companies became over-leveraged as they sought to maintain capital intensive fleets and inventory during periods of uncertainty and low activity.

According to data from Bloomberg, members of the World Oil Services Index have seen collective debt rise from some \$25.5bn in 2016 to nearly \$43bn by the end of 2019 (an increase of almost 70%).

To compound this challenge of rising debt levels, many oil service companies will see a share of this debt maturing in 2021, adding to existing financial distress. Rystad Energy analysis suggests Well Services and Commodities players will be particularly exposed.

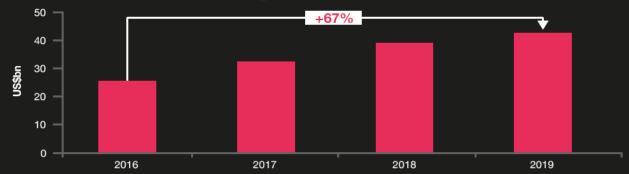
Ironically, most of the respondents we interviewed had hoped 2020 was going to be a year of recovery and growth for the supply chain. However, the impact of the pandemic dashed those hopes.

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There is over-leverage and excessive debt across the oil services space."

Listed support services company

Net debt of members of Bloomberg World Oil Services Index



Total debt obligations due in year 2021 by debt rating category of company as at Nov. 2020



Note: Well Services & Commodities includes for example, artificial lift and tubular products.

Source: Bloomberg, Rystad Energy, PwC Strategy& research



Debt levels are too high – there is way too much debt and it was too readily available."

Private drilling solutions company

Moreover, pricing for services has declined significantly since 2014, suggesting there is limited room for further reductions

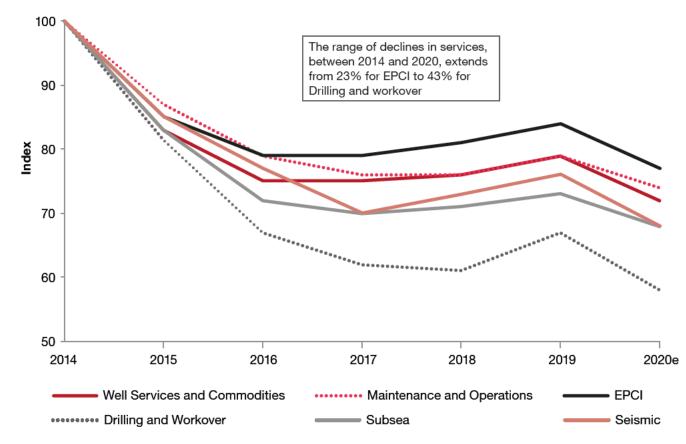
Following the oil price downturn of 2014, the oilfield services sector came under significant price pressure from operators. All parts of the sector experienced price deflation in the years that followed.

Even in the recovery period between 2017 and 2019 there was limited price inflation.

Some segments have been particularly exposed to price deflation, such as Well Services. Over-capacity in this segment is a factor. Other segments like EPCI (Engineering. Procurement, Construction and Installation) have proved more resilient.

With service prices forecasted to drop by 9% (as indicated in the chart) in 2020 this leaves limited room for further cost reduction through service contract renegotiation. Therefore, oil services companies will need to work harder to maintain profits and seek a material reduction in their cost base, as well as achieving productivity gains.

Services price index (Index normalised to 2014 = 100% for each segment)



Source: Rystad Energy, PwC Strategy& research

And then COVID-19 triggered a unique supply and demand shock, pushing oil services into another downturn

Oversupply by the OPEC+ nations, Saudi Arabia and Russia, initially triggered a decline in oil prices. This was subsequently compounded by a demand shock as COVID-19 led to a global economic slowdown.

As oil and gas operators cut capital spend and headcount and cancelled or deferred projects, this collectively had an adverse impact on the supply chain, as in previous cyclical downturns.

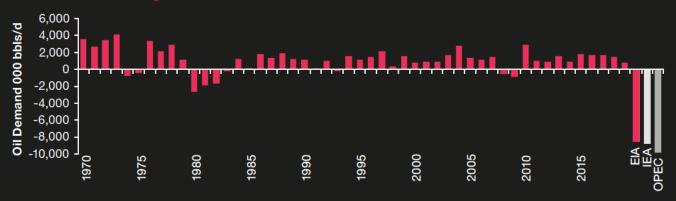
Whilst the analysis on the previous page suggests a 9% reduction in pricing, there were some anecdotal examples from industry suggest some operators asked the supply chain for 20% - 40% pricing discounts during the current downturn. This served only to place more pressure on oil service segments.

Brent crude daily price 01.01.06 - 14.01.21



Source: Bloomberg; PwC Strategy& research

Global oil demand growth YoY 1970 - 2020



Source: Bloomberg, IEA, EIA, OPEC, Press, PwC Strategy& research

e2020 forecasts by agency

Oil services responded to the impact of this downturn by pulling the traditional levers of cost reduction

Oil services response to downturn

As the downturn accelerated, oil services companies pulled the traditional levers when dealing with a downturn.

As illustrated in the chart, they cut costs, reduced headcount and broader capital spend. Projects were deferred or cancelled and in some cases dividends were cut.



COVID-19 pushes oilfield services headcount to lowest level in over a decade

Rystad

Baker Hughes cuts headcount by 15% in latest hit for the industry

Baker Hughes has shed thousands of jobs in response to the downturn, cutting headcount by 15% so far this year.

Energy Voice, 02.11.20

Is the worst over for OFS job losses?

By Matthew V. Veazey Rigzone staff Tuesday, November 10, 2020

However, unlike in 2014, current cost reduction efforts are unlikely to succeed without structural change

In the aftermath of the 2014 downturn, operators and the supply chain dramatically reduced costs and delivered significant efficiency gains.

As illustrated in the chart, this time round, operators have limited scope to cut supply chain costs further - perhaps by only as much as 12% (compared to nearly 40% in the wake of 2014). Moreover, even a 12% reduction in costs could have a detrimental effect on a fragile supply chain.

It is worth noting that as we conducted the interviews for this paper, there was a recurring theme: oil services companies were concerned about potentially having to achieve similar levels of cost reduction this time round, as they did post-2014. All companies confirmed there was limited scope to replicate the scale of efficiency and productivity gains achieved in the last oil price downturn in 2014. However, they did acknowledge going forward, operators and oil services would need to focus on improved project economics, partnerships and digital/technological solutions to eke out further savings.

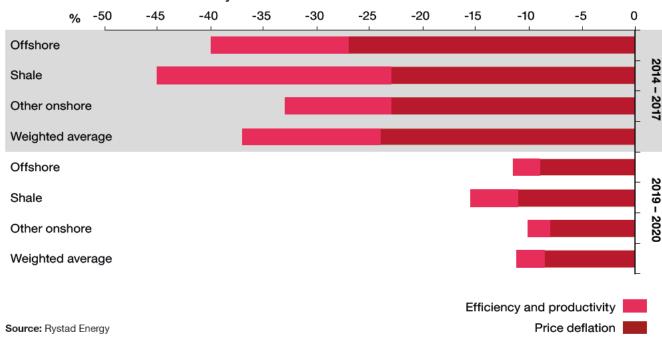
In our interviews, some of the larger oil service companies recognised that pulling the traditional levers of cost reduction were unlikely to yield major benefits. Instead genuine structural change in key back office functions and procurement was essential to deliver the level of sustainable cost reduction required.

2014 was all about taking fat out of the supply chain."

Global support services company

Cost compression by segment

2014 - 2017 vs. 2019 - 2020 by %



We are still seeing letters from operators seeking 30-40% cuts in pricing. There are still irrational behaviors which are forcing people out of business."

Mid cap oil services company

Against this backdrop, market value is being eroded and there is financial distress in some segments

Offshore drillers have been particularly exposed to financial distress. The deferral of exploration activity and a reduction in spend have been a key cost reduction lever for operators. Consequently this has impacted the segment seeing reduced rig utilisation, subsequently leading to hardship. As illustrated in the table, there have been a number of high profile bankruptcies in this segment.

The market value of the global oil services sector has been significantly eroded by a number of factors. These include the impact of ESG factors, margin erosion and oil price volatility.

According to Bloomberg data, the World Oil Services Index declined by 60% between January and November 2020. This was worse than the World Oil and Gas Producers Index which declined by 40%.

It is worth noting that in contrast to the broader oil and gas sector, the Nasdag 100 Index not only witnessed smaller declines since the start of the COIVD-19 pandemic but it's value has since surpassed pre-COVID-19 levels.

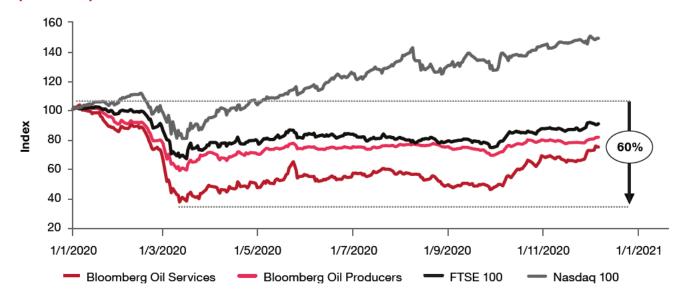
In previous oil and gas cycles, the relatively low level of business failure has been a notable feature of the market. This time round, there are a number of reasons why more casualties might be expected:

- The financial health of the sector as a whole is weaker than previous recessions.
- We are already seeing a high level of restructurings, particularly in the North American markets.
- The relatively near term nature of much of the debt held by the oilfield services sector.
- The need for structural change in the sector.

Selected examples of OFS Chapter 11 filings for bankruptcy

Company	Segment	Date	Debt levels (\$bn)
Valaris	Offshore Drilling	August 2020	6.6
Noble	Offshore Drilling	July 2020	3.4
Diamond Offshore	Offshore Drilling	April 2020	2.6
McDermott	EPC	January 2020*	4.6

Bloomberg World Oil & Gas Producers Index vs. World OFS vs. FTSE 100 vs. Nasdag 100 (Rebased)



Source: Bloomberg, Press, PwC Strategy& research

Note: *Emerged from bankruptcy in July 2020

In addition to market distress, other factors are shaping the sector, such as ESG, with net zero ambitions being declared...

ESG factors are increasingly impacting the energy sector. Noticeably since the end of 2019 a number of oil and gas operators have announced their net zero ambitions.

While still constituting only a handful of companies,

momentum has been growing throughout 2020 with Petrochina, Petronas and ConocoPhillips joining the ranks in the latter part of the year. Other operators are likely to follow in their wake.

As their clients follow this path so too will some oil services companies. Baker Hughes has a 2050 net zero target, Petrofac is looking at 2030 and Aker Solutions is seeking to derive 20% revenue from renewables and 25% from low carbon by 2030.

Net zero announcements by operators

Selected examples

	Pre	-COVID-19 p	andemic				С	OVID-19 p	andemic	
	Q4 :	2019		Q1 2020		Qź	2 2020	Q3 2020	Q4	2020
Player	Energean	Repsol	Equinor	Lundin	bp	Shell	Total	PetroChin	a ConocoPhillip	s Petronas
	December 2019	December 2019	January 2020	January 2020	February 2020	April 2020	May 2020	August 2020	October 2020	November 2020
Target	Net Zero	Net Zero	Net Zero	Carbon Neutral	Net Zero	Net Zero	Net Zero	Net Zero	Net Zero	Net Zero
Scope	1 + 2	1-3	1 – 3	1 + 2	1 – 3	1 + 2 3: 65% decrease	1 + 2 (Global) 1 - 3 (Europe) 3: 60% decrease	1 + 2	1 + 2	1 + 2
Timeline	2050	2050	2050	2030	2050	2050	2050	2050	2050	2050
lote: In November a strategy preser	2020 Occidental Petro ntation, that it was acce C Strategy& research	leum announced a ne	t zero target for Sc	ope 1-3 by 2050). In February 202		d, PetroCl		COP first major US O&G to commit to	Petronas, anotl leading Asian N

other NOCs

...and digital solutions, in the broadest sense, offering a pathway to reducing costs and improving efficiency

The 2014 oil price downturn acted as a catalyst for digital adoption across the oil and gas sector. Many companies explored proofs of concept, applying a range of technologies from drones to digital twins and predictive maintenance.

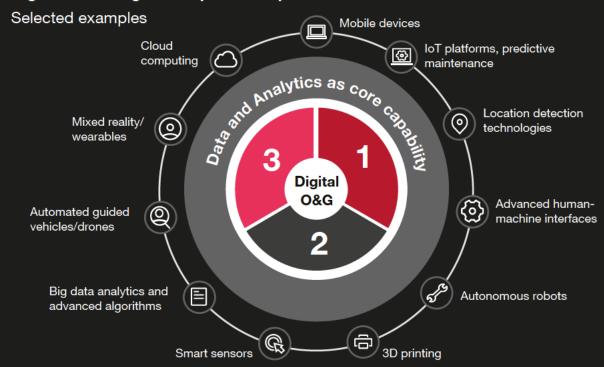
Also a number of operators and service companies brokered partnerships with technology firms to accelerate digital adoption. Some of the operators went further developing digital strategies, recruiting chief digital officers and building

digital capabilities by hiring software engineers and data scientists. The larger oil service companies have followed a similar trajectory, with a number of smaller start-up companies also focused on data applications.

In many ways COVID-19 has accelerated the need to adopt and deploy digital solutions. Given the physical impact of coronavirus on the workforce, companies have been forced to increase automation. During the lockdowns, Shell used

a remote-controlled vessel in the Norwegian Sea to inspect the Ormen Lange gas field and a crawler robot to conduct an ultrasonic scan of a tank roof in a refinery. Furthermore, operators and oil services will need these digital solutions to enhance productivity in a world of weaker oil prices. Needless to say, while digital offers great potential for efficiency gains in the services segment, in the short term at least, it will be balanced against tight cost control. As a strategic imperative, investment in digital solutions cannot be cut off.

Digital technologies and partnerships



Partners		Focal Point
Total	Google	Al
bp	Belmont Technology	Al
ExxonMobil	Microsoft	Cloud Platforms
Baker Hughes	C3.ai	Al and Cloud
Wood	IBM	Al and Quantum Computing
Schlumberger	Microsoft	Cloud
	Chevron	

Source: Press, PwC Strategy& research

Our approach and acknowledgements

The findings in this report are based on interviews we undertook with a variety of oil services companies and others, across multiple segments. These ranged from offshore drilling to EPCI (Engineering Procurement and Construction and Installation).

As for the types of company, we spoke to large and small with local and global footprints, including publicly-listed and privately-held entities.

We would like to thank everyone who contributed to this report and thank those interviewed for their thoughts and insights. Some of those companies we spoke to preferred to remain anonymous.

Altus Intervention	Oil & Gas Authority
Ardyne Technologies Limited	PD&MS Group
Baker Hughes	Petrofac Limited
Blue Water Energy LLP	Prosafe SE
Buckthorn Partners LLP	Silixa Ltd
Hunting PLC	Sir lan Wood
IO Consulting	Stena Drilling Ltd
KCA Deutag	Swire Energy Services
National Petroleum Construction Company (NPCC)	Wood PLC
Oil & Gas UK	

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