

Despite turbulent pricing for oil and gas and a strong social pivot towards the energy transition and decarbonization, determination and cautious optimism prevails to make a success of the remaining life in the UKCS.

In its 2019 economic report1, Oil & Gas UK (OGUK) asserted that North Sea firms were on track to produce roughly the same amount of oil and gas in 2020 as they did the previous year, regardless of the unforeseen challenges thrown up by the COVID-19 pandemic. However, with more than GBP35 billion of investment opportunities over the next ten years included in companies' plans at the outset of 2020, the annual study concedes there is "real uncertainty" about the viability of many of these initiatives going forward

As a mature basin, dealing with aging infrastructure and challenging recovery costs, those in the local market are competing with 'easy' and more profitable projects in other locations. However, it continues to be viewed as a resilient role model for burgeoning regions to concurrently reduce lifting costs and improve production in deeper, harsher and more demanding environments. Conversely, its fortune and fate can also act as a portent to oil and gas hubs reaching the dusk of life but where the sun still shines brightly.

Figure 1: Aker Solutions' goal is to maximize recovery and efficiency of oil and gas assets, while using its expertise to develop the sustainable solutions of the future. ©Aker Solutions













Making hay

According to research by McKinsey & Company2, aggregate fossil fuel demand is set to peak in 2027 - with oil peaking in 2029 and gas in 2037 - partially due to the impacts of COVID-19. The study surmises that while hydrocarbon consumption will plateau, more than half of all global energy demand will continue to be met by oil and gas up to 2050.

There seems no doubt that standing still is not the answer. A different approach will be required to secure and sustain success in this new era for the energy mix.

In less than a decade, the playing field of the North Sea has undergone dramatic change with many of the supermajors departing and making way for a new generation of smaller, more nimble, independent operators. There has also been a significant shift in the size and type of field development being progressed to extend life in the basin. This renovation looks likely to continue for another decade as renewables, such as offshore wind, hydrogen and greater electrification, take time to upscale.

As one of the most mature provinces for oil and gas, the UKCS has continuously evolved technologies to satisfy its specific requirements - many times ahead of other regions - which affords great opportunity. However, the counter point is now a very cost-focused culture where commoditization of the supply chain has ramped up, potentially hindering further investment in technology.

Though the reputational and financial gains to be made from the renewable sector are now more attractive and attainable for investors, oil and gas retains a crucial role in the energy mix going forward. As the transition starts to pick up pace, oil and gas production is still considered the 'cash cow' for investors.

From a supply chain perspective, the ideal investment is one in which the technology being used to drive down the cost of remaining reserves can also build in efficiencies to lower carbon footprint and increase sustainability. Likewise, key to any kind of business, regardless of size or market, is learning to adapt to the conditions, adopt digital technologies, and be agile in that change. Diversification into renewables also becomes increasingly important to spread the risk and increase the gains.

Opportunity knocks

It need not be doom and gloom for the sector. In fact, the cyclical nature of the oil and gas industry makes it inherently more flexible to ride through the lows and take the prize with the highs. It's a myth to think of monolith organizations as dinosaurs seeking fossils. Adaptability whilst maintaining productivity has always been a necessary trait. Commercial prospects do exist in this sector, particularly as the UK boasts a fast-moving net zero agenda and a highly qualified and highly skilled workforce with easily transferrable talent ready to expedite it.









For example, knowledge and experience gleaned from decades working with natural gas enhance the safe and sustainable adoption and implementation of hydrogen management, processing, and transportation. A strong skills base in the North Sea today is vital or our future role will be limited.

As traditional oil and gas companies such as BP, Shell and Equinor evolve into international energy companies, so the supply chain is pivoting towards that with strong provenance already in place.

The issue is one of ten keynote programme sessions at SPE Offshore Europe 2021 being held in Aberdeen, Scotland, 7-10 September 2021. It will bring together the regulator and a selection of operators at different stages of evolution to share experience and insight and discuss what is needed to survive and thrive in this period of extraordinary change and pressure.

The sessions, which include transitioning to lower carbon solutions, oil and gas security of supply, lowering carbon footprint and emissions, and future collaboration models. are aligned to the overall theme and direction of the event: 'Oil & Gas: Working Together for a Net Zero Future'.



Is it time for E&P to RIP?

With the continuing need for the provision of oil and gas to satisfy energy demand, alongside new and broader sources of energy provision, there is a market for many types of energy provider. Like an elaborate quilt, the industry is a patchwork of diverse companies each approaching the marketplace on a range of routes. Some of the larger internationals are using technology to drive it while smaller businesses are using varying work processes and practices. The winners will be those who can balance and take into consideration the agenda for decarbonization as well continuing safe and sustainable production.

For the future of E&P, a major talking point at SPE Offshore Europe 2021, companies that can approach the marketplace with the right cost base and approach for managing and developing commercial deals and models, who may not be so heavily burdened with their own resources to keep costs lean, will make money. Essentially, if the recovery continues and lifting costs can be kept at or below \$20 a barrel, then there's still a profit to be made, even between USD40 to USD50 a barrel. Anything is possible with the right combination of field, development plans and financial acumen.

This also affords the industry opportunities to work together and develop solutions to reduce flaring, reduce venting, for example and legitimize their social license to operate.











United we stand - and deliver

For the UK, there has been a huge jump forward in terms of government investment in the low carbon agenda. Over the past year, the Energy Whitepaper and the 10-point plan for a green recovery have been showcased. The outcome of negotiations on the North Sea transition deal is also expected over the next six months. This will map out longterm action for transforming the sector, delivering the energy transition, while acting as a vehicle for creating new jobs, as well as trade and investment opportunities.

All these are at a particular point in time where it makes sense for those working in the mature North Sea to look at the transition more strategically, whilst continuing the dayto-day delivery of oil and gas, now and for future energy requirements. It's a time when our industry must pull together and show its broad capability and focus.

References

- 1. https://oilandgasuk.co.uk/product/economic-report/
- 2. https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2021#











Author biographies



Sian Lloyd-Rees, UK Country Manager, Aker Solutions

In a career spanning more than 25 years, Sian has extensive business experience as a senior leader in both energy and IT industries, having held a number of leadership roles in both blue chip and start-up companies.

The domain knowledge and global focus gained in the energy industry, coupled with the pace of evolving digital strategies and entrepreneurship encouraged in the IT industry, have both contributed to a proven track record in developing new and profitable business opportunities. She is the Head of UK and an SVP for Aker Solutions, a global provider of solutions and services across the broad energy sector.

Sian is co-chair on the Board of Oil and Gas UK (OGUK) and was co-chair for the OGA MER Supply Chain & Exports steering group.



Jim Lenton, Senior Vice President Integrated Solutions, Worley

With a background in chemical and process engineering, Jim Lenton has built his career in oil and gas globally over 25 years.

He is a Fellow of the IChemE, and a previous IChemE UK Board member and co-chair of ECITB's Offshore Project Management Steering Group. Prior to being acquired by WorleyParsons in 2017, Jim ran the European Operations for Amec Foster Wheeler in Northern Europe and CIS, and then the global Asset Support Product Line in the Oil, Gas and Chemicals division.

Jim has been largely based in Aberdeen for the last 25 years but has run operations in many locations. Most recently though, he moved to Houston to run the global Integrated Solutions Portfolio for Worley, which includes Brownfield EPC and Operations and Maintenance









