Offshore Network

Offshore Well Intervention Europe Report

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INTRODUCTION

With nearly 80% of its reserves already produced, the North Sea's exploration scene that peaked in the 1970s is now looking at its twilight years as governments in the region promote well intervention practices for sustainable exploration while accelerating the shift to renewables.

The United Kingdom's policy shift has been the most notable as it scaled back on issuing new licenses, encouraging development only on existing assets. Tackling these decades-old mature assets thus catapulted the need for frequent well intervention measures in the region. This meant the herculean task of managing these giant fields hardly reflected for operators, and could be achieved in a matter of few days. The process limited the use of excessive construction material, keeping waste disposal to minimum. Intervention processes, instead of drilling a new well, make a huge difference in terms of reducing emissions, aligning with the region's climate goals.

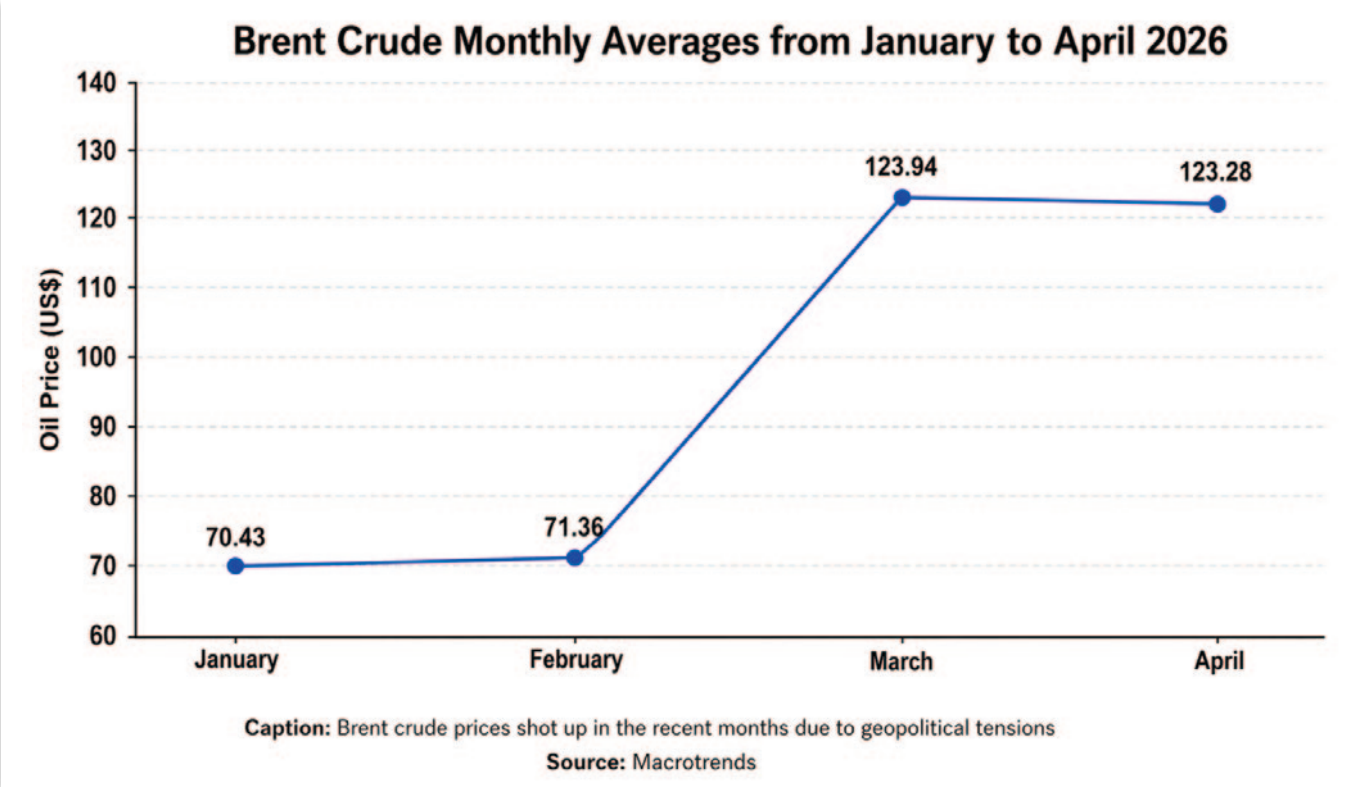
The North Sea's production and exploration industry is historically known for its technical prowess which matched the wilderness of the region, characterised by unimaginably deep waters, freezing temperatures and storms. Its legacy continues unblemished as to date, the region is, a global leader in well intervention innovation.

In fact, well intervention in the North Sea is way past the stage of innovation and is now a necessity for the industry. It is a few steps away from becoming an established norm, integral for production upkeep from declining assets.

MARKET OVERVIEW

A recent finding by the International Energy Agency states small offshore fields in Europe will likely fall to decline by more than 15% annually. From a global perspective, lack of investments for the development of existing assets could cost the world a yearly loss equating Norway and Brazil's combined production count from the overall oil balance.

Noting an acceleration in investments for the development of declining assets, IEA's Executive Director,



Caption: Brent crude prices shot up in the recent months due to geopolitical tensions
Source: Macrotrends

Fatih Birol, said, "Only a small portion of upstream oil and gas investment is used to meet increases in demand while nearly 90% of upstream investment annually is dedicated to offsetting losses of supply at existing fields."

IEA states the region requires continued development to ensure production of more than 45 mb/d of oil and nearly 2000 bn cu/m of gas from new conventional fields by 2050 to match current production levels, even as oil faces supply shortage by 5.5 mb/d, while natural gas decline rates have risen from 180 bn cu/m per year to 270 bn cu/m.

Well intervention can be the most practical way to get there, and now is the time to lock in the benefits as oil prices hover on the higher end, around US$94 per barrel at the time of writing, owing to global geopolitical tensions. These are especially lucrative times for mature and high cost assets like those in the North Sea, as it gives operators the ground to extract even the most difficult reserves.

Equinor has confirmed in March a commercial oil discovery preliminarily estimated between 25 and 89 million barrels of recoverable oil equivalents from the Snorre area in the North Sea. Aiming to generate a rapid and cost-effective output from the Omega South asset as existing fields continue to decline, the company is planning field development prior to discovery. This way, new discoveries can be brought into production in less than three years.

"The exploration well was drilled through a foundation. The partnership plans to reuse both this foundation and parts of the exploration well in the field development, which reduces costs and enables a faster start-up," said Trond Bokn, Senior Vice President for Project Development at Equinor.

"The new discovery will be tied back quickly to existing subsea facilities and produced through the Snorre A platform. Near field exploration is important for extending the lifetime of fields already in operation. Since most of the infrastructure has already been paid off, these are competitive barrels," said Erik Gustav Kirkemo, Senior Vice President for the Southern Area in Exploration & Production Norway.

"Equinor's ambition is to maintain approximately the same production level in 2035 as in 2020. This corresponds to around 1.2 million barrels of oil and gas per day from the Norwegian continental shelf. About 70% of this will come from new wells and developments, and we plan to drill 250 exploration wells, most of them near existing fields," Kirkemo said.

"By using existing infrastructure, both costs and environmental footprint are reduced, while the resources on the Norwegian shelf are utilised efficiently," said Bokn, while mentioning how the move is fully aligned with company's strategy to optimise oil and gas portfolio, ensuring high value creation, and contributing to a responsible energy transition.

Sources – Equinor

INDUSTRIALISING PLUG & ABANDONMENT

As the European Union navigates the transition from fossils to renewables, it needs to secure employment for its vast oil and gas workforce, supporting them in the process of skills transfer. Active well intervention practices will ensure a gradual and methodical transition, helping to better retain the workforce.

Suppliers and rig owners from the United Kingdom Continental Shelf (UKCS) are already looking for business outside because of falling demand in the region. Plugging & abandonment (P&A), which is considered the forerunner to further decommissioning activities and energy transition, can turn this situation around. According to the North Sea Transition Authority (NSTA) in the UK, more than 1,000 wells are due for P&A between 2026 and 2030. The NSTA is actively pushing for P&A in the UKCS, which takes up half of the total decommissioning budget.

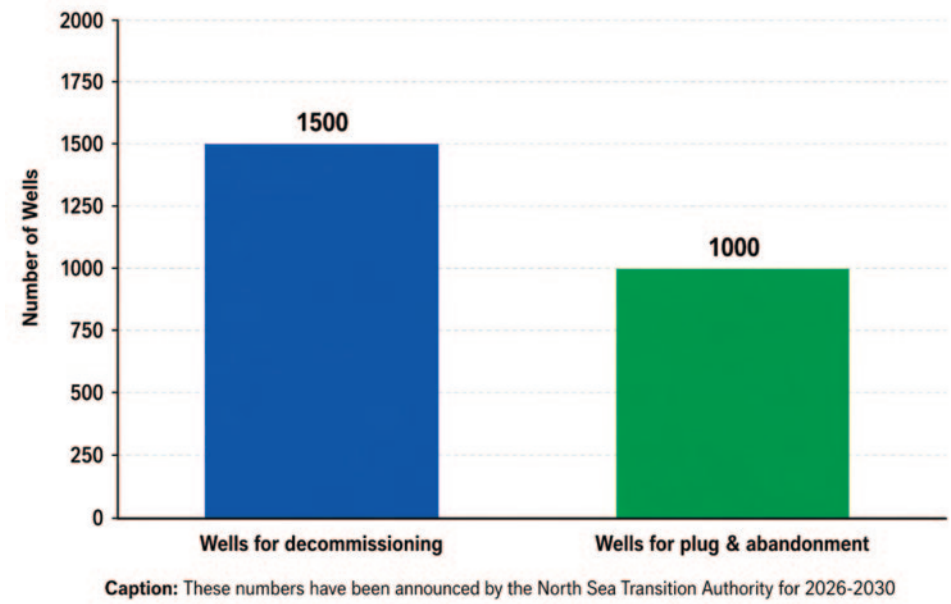
Decommissioning is also the logical way out of UK's Energy Profits Levy (EPL) or windfall tax that caps profits for operators up to 78%. It gives the means to produce offset against EPL, which can cushion the blow for operators to certain extent.

Contracting P&A deals with local providers can secure a major revenue stream for the region's shrinking supply chain. The heavy regulatory framework might come as a challenge for operators as they also need to comply with the rules of the UK administrative division of Offshore Petroleum Regulator for Environment and Decommissioning, as well as meet the international standards set by the Oslo and Paris Conventions, namely, OPSAR Commission. But delaying already costly P&A liabilities is no longer a solution as it will only become heftier with time if the basin continues to lose rigs due to lack of demand.

Operators are addressing this by reconsidering traditional abandonment approach. They are thinking integrated delivery models that will cover planning, engineering and execution into a single, coordinated workflow are the way forward. Ensuring cost reduction and schedule certainty remain the key drivers during early-stage decision-making while contracting strategy and campaign design.

EnQuest, for example, signed a multi-year strategic partnership with Well-Safe Solutions in 2025, to secure critical supply chain resources in the North Sea spanning a whole decade. Designed with an objective to generate more than US$45mn, the contract delivery will see through a minimum of 100 days of activity this year and a minimum of 130 days in the following year. While this covers short-term delivery, the contract's scope pushes way beyond to accommodate a broader strategy of sustaining uninterrupted activities from 2028 through to 2034.

According to Phil Milton, the CEO of Well-Safe Solutions, this contract is suited to significantly contribute to a



Caption: These numbers have been announced by the North Sea Transition Authority for 2026-2030
Source: NSTA

forecasted increase in demand from 2026 onward, at a time when the availability of mobile offshore drilling units (MODUs) has contracted sharply.

"EnQuest is delighted to have chosen Well-Safe Solutions to support the next phase of our Group decommissioning plans. Having completed the plugging and abandonment of more than 35% of all wells decommissioned across the northern and central North Sea over the past three years, EnQuest is proud to be one of the most prolific decommissioning operators in the North Sea, employing innovative technologies and operating techniques to deliver top-quartile decommissioning performance. Accordingly, we look forward to executing the upcoming activity in a safe and efficient manner, alongside the Well-Safe team," said Steve Bowyer, EnQuest's Managing Director.

Operators are also resorting to modern, field-proven P&A practices, and going with innovative approaches that involve through tubing P&A, rigless interventions and bismuth alloys, to name a few.

DIGITALISING WELL INTEGRITY

Keeping up with production goals from the largely declining North Sea assets will inevitably require rapid digitalisation of the sector. As operators are now having to work under dynamic conditions, requiring fast yet accurate decision-making, they need the support of integrated digital platforms that combine real-time data, historical well information and advanced analytics to improve visibility across their assets. Tools, such as digital well barrier schematics, are helping reduce manual effort and enabling more consistent, standardised approaches to integrity management.

Advancements in diagnostics, such as high-resolution acoustic imaging of downhole conditions are helping detect issues such as corrosion, deformation, and scale build-up with incredible accuracy. Artificial intelligence and machine learning are helping operators predict failure risks and optimise operations.

SLB's Electris, for example, supports operators to predict and adapt seamlessly throughout the entire well life.

The NSTA is always working to keep its Digital Energy Platform – equipped with spatial and subsurface mapping tools – up to date for operators. It is regularly accommodated and integrated with a range of technologies offshore, including carbon storage and oil and gas, among others. Operators can use the platform to freely access 1.7 petabytes of geoscience and engineering data.

Sources – SLB

CONCLUSION

The roles of administrative bodies governing the UKCS and NCS regions are not limited to being watchdogs but have evolved to support operators in navigating the challenges of P&A and decommissioning. Operators can leverage their digital resources for optimised deliveries within reasonable costs.

Digital resources besides, regulatory and commercial awareness on the UKCS and NCS regions will bring clarity and perspective to operators on deciding their best move while planning cost-effective solutions across the North Sea. For example, UK enjoys global repute for its expertise in late life and P&A, while Norway is emerging as a trendsetter on drilling efficiency with CCS activity a key driver of sustainable exploration practices in the region.

CCS implementation has already made it to the administrative policy level, thus driving project planning for operators. Several case studies of reusing legacy infrastructure for carbon storage are helping operators to create a roadmap for upcoming CCUS projects.

Innovation in engineering solutions are ruling the P&A sector as well, with modular intervention units and low-POB execution models, including CT, LWIV and hybrid approaches, gaining popularity.

While the mighty North Sea has birthed timeless offshore engineering innovations which are globally followed, there's no limits to the digital inventions it continues to produce to this day. OWI EU 2026, which is opening its doors in Stavanger, Norway, to all industry stakeholders on 28 and 29 April, will celebrate the rich legacy of the North Sea, by fostering cross-border collaboration, digital innovation, and sustainable interventions.

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