Issue 50
Spring 2021

wireline

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Air pressure

Heli operators unite to create pilots' support network

The magazine for the UK offshore oil and gas industry

OGUK

Hazards31

16–18 November 2021, Virtual conference

Hazards is widely recognised as one of the world's leading process safety conferences. An industry-focused event, it provides a platform for sharing good practice, latest innovation and lessons learned in process safety, as well as valuable networking opportunities.

Hazards 31 will be held virtually on 16–18 November 2021, building on the success of last year's online event, and continuing to facilitate knowledge-transfer and reflection in the safest and most accessible way.

Presenting opportunities

We are currently seeking speakers for the *Hazards 31* programme. Abstracts are invited from anyone with process safety contributions to share that will inspire others and make a positive difference.

Practical examples of good practice, latest innovation and lessons learned are welcomed, as well as abstracts relating to our conference themes:

- **Identifying and embedding good practice in process safety including the role of executive leadership**
- **How to embed the strategic learning from the COVID-19 response into process safety management**
- **Process safety issues associated with climate change and decarbonisation technologies**
- **Process safety opportunities and risks associated with digitalisation, big data, Artificial Intelligence, and cyber security**

We are particularly keen to hear from those owning and managing risk within operating companies.

Visit the event website to find out more about *Hazards 31* and how to contribute to the programme.

www.icheme.org/hazards31

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Issue 50 | Spring 2021

Welcome to Issue 50

Welcome to *Wireline*, the magazine for the UK offshore oil and gas industry, and welcome to our 50th issue.

Launched in May 2007, *Wireline* was created to reflect the evolution of the UK Offshore Operators Association as it became Oil & Gas UK. Looking back, much has changed since then. OGUK has grown from 60 members to more than 400, and roughly doubled its staff to take on new work in areas like decommissioning, energy transition and data. On the other hand, some things appear refreshingly familiar. *Wireline's* earliest headlines included the growth of the All-Party Parliamentary Group (APPG) - encouragingly still going strong – and the publication of a "long-awaited Energy White Paper"...

It is fitting then, that *Wireline's* first half-century comes at a time of visible and vital change in the offshore industry. The Government's unveiling of the North Sea Transition Deal in late March not only helps set a clear route for the industry's role in supporting net zero, but ensures an exciting future for those who work in it. The deal would see joint investment of £16 billion from government and companies, and will help support the creation of 40,000 new energy jobs over the coming decades. You can read more about what the deal means for the industry inside this issue [p. 14].

Highlighting the scale and breadth of these opportunities are projects such as Shetland's ORION (Opportunity Renewables Integration Offshore Networks). Linking wind power, hydrogen production, and onshore infrastructure, it would not only provide low-carbon electricity for offshore oil and gas assets, but also set out a blueprint for the Islands as an integrated energy hub. *Wireline* learns more from project co-ordinator Gunther Newcombe [p. 20].

The impact of climate change is also transforming legal and corporate frameworks across the global economy. A new report from law firm White & Case highlights the extent to legal and procedural developments have contributed to a new environment in which climate change related disputes are more prevalent than ever – and how this is only set to increase as time goes on [p. 28].

Alongside the offshore personnel who have continued work throughout the COVID-19 pandemic, so have the pilots and helicopters who enable them to travel safely. Recognising the pressures placed on those in aviation, North Sea helicopter operators have joined together to establish a peer assistance network. Its aim is to offer a peer-led, first port of call for any pilot suffering from poor mental health, but its lessons could be replicated in many other industries [p. 34].

Finally, *Wireline* explores a new alliance formed by Proserv and Intelligent Plant, aimed at promoting open data standards for controls and analytics technologies. Proserv's Stuart Harvey and Intelligent Plant's Steve Aitken explain why these open standards are beneficial, and why true digital innovation comes when organisations empower teams from within [p. 38].

While the post-COVID business environment continues to be challenging, the North Sea Transition Deal illustrates that this sector can play a decisive, positive role in our energy future – and one in which all our readers and members will participate. Our thanks once again for reading *Wireline*.

Design, Digital & Editorial Team
OGUK

Wireline is published by OGUK, the voice of the UK oil and gas industry.

Contact the editorial team on editorial@oilandgasuk.co.uk

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OGUK
1st Floor, Paternoster House,
65 St Paul's Churchyard,
London EC4M 8AB

Telephone: 020 7802 2400
www.oilandgasuk.co.uk

Contributors
Jeremy Bowden
Jack French

Wireline Team
Andrew Dykes
Anthony Barter
David Jeffree

Cover image
Courtesy of Bristow

wirelinemagazine.co.uk

OGUK decommissioning manager Joe Leask visits the Well-Safe Guardian in February 2020.

Revised OGA Strategy now in force

The revised Oil and Gas Authority (OGA) Strategy, which was laid before Parliament on 16 December 2020, has come into force as of 11 February 2021.

The revised Strategy reflects the ongoing energy transition and features a range of net zero obligations on the oil and gas industry, including stepping up efforts to reduce production emissions, support carbon capture and storage (CCS) projects and unlock clean hydrogen production.

Government forecasts show oil and gas will remain part of the energy mix for the foreseeable future, as we transition to net zero. The OGA believes that the industry has the skills, infrastructure and capital necessary to help ensure that the net zero target is achieved.

In addition to the net zero obligation, the revised Strategy also calls on industry to work collaboratively with the supply chain and actively support CCS projects, and the OGA will monitor closely and ensure that carbon costs are considered in regulatory decisions.

The OGA is now actively implementing the revised Strategy into its work; guidance documents are being updated to help industry understand how operations may need to alter in order to achieve the new requirements.

A new stewardship expectation is also being developed to reflect the revised Strategy and its net zero target. Further information on the revised Strategy and how it will impact on the oil and gas industry is available on the OGA website.

Decommissioning Insight confirms sector resilience in disruptive year

The impact of a challenging year for the industry is captured in OGUK's Decommissioning Insight 2020 which reveals the decommissioning industry, though resilient, has not escaped the impact of COVID-19 and the collapse of commodity prices.

Given the major disruptions of 2020, OGUK conducted an additional interim survey of operators in June 2020 to provide deeper insight of the impact of COVID-19 on decommissioning activity. This shows that continuing market uncertainty has led to around £500 million of decommissioning expenditure previously scheduled for 2020-22 being deferred into the future.

The survey identified a 30 per cent reduction in expenditure from £1.47 billion in early 2020, to around £1.08 billion but despite these pressures, the sector is in no rush to decommission. The report highlights the resilience of the hard-pressed supply chain in delivering the roster of projects that have gone ahead this year, but also continual performance improvement in terms of cost and efficiency.

OGUK attends BEIS Select Committee

During the week of the Government's reshuffle in early January 2021, OGUK chief executive Deirdre Michie OBE appeared before the House of Commons BEIS Select

Committee to give evidence on the Energy White Paper (EWP), published by the department in December.

The recently published paper provides a critical opportunity for a transformational North Sea Transition Deal (NSTD) to deliver new business opportunities, jobs and skills at pace, and protect and transition the wider communities which currently rely on the oil and gas sector. The committee also had representatives from the Environmental Audit Committee (EAC) in attendance to quiz industry representatives on the content and deliverability of the much-anticipated document.

Commenting on the Paper, Michie said: "We welcome the Publication of the Energy White Paper as it demonstrates a holistic approach to energy, which is something we have been asking for in terms of the development of a comprehensive energy strategy.

"It is a timely document which sets out ambitious and challenging expectations of the UK energy industry, including the offshore oil and gas sector. "It seeks to build on the strengths of our sector and others in a meaningful way – by recognising the contribution the industry can make to a successful transition.

"We're proud to tell our story. The sector is already in action and changing – building on its strong focus on oil and gas to incorporating wind, CCUS, hydrogen, wave and tidal energies, but there is a still a need for governmental support to help our workers and communities transition at pace.

"We must use this as an opportunity to solidify the importance of our workforce and produce reliable frameworks to support the transition of their knowledge and skills. We now need government and Parliament to develop strong legislation to help us deliver our net-zero ambitions whilst ensuring our energy communities are secure and equipped with the necessary infrastructure for a fair transition."

Collaboration success rates hit record high

Improving commercial models which support cost reduction whilst incentivising the supply chain could re-energise collaboration, according to the findings of the annual Deloitte and OGUK Collaboration Report, published in late January.

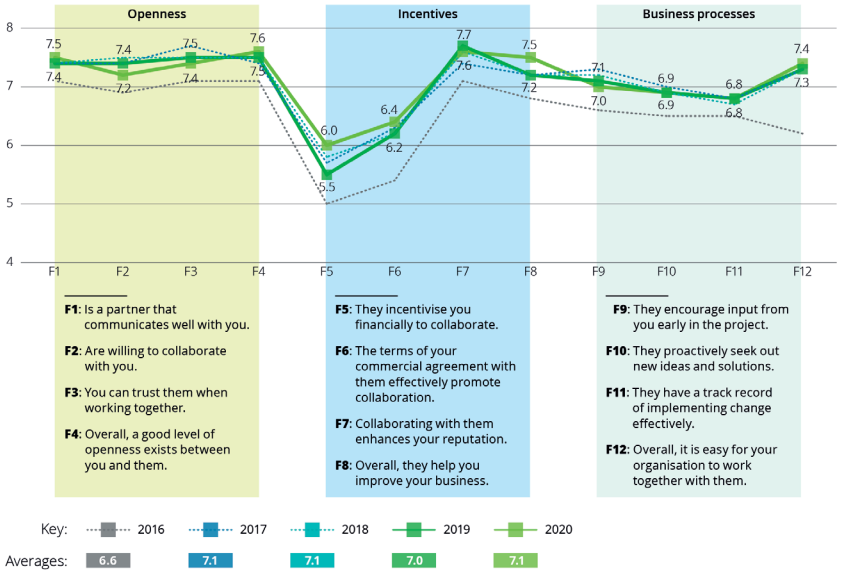
Deloitte and OGUK's industry-wide Collaboration Index (CI), which measures the effectiveness of companies as partners in projects, is part of the annual UKCS upstream supply chain collaboration survey. The report showed a slight increase in the collaboration index to 7.1 in 2020 from 7.0 in 2019, highlighting the flexibility and support the supply chain showed during an exceptionally challenging year.

Collaboration success rates hit a record high in 2020 with more than 50 per cent of survey respondents saying over half of their efforts were successful. However, while COVID-19 saw many businesses work together to address the challenges, respondents said the pandemic and consequent economic downturn also led to disadvantageous commercial behaviours such as cancelled or modified contracts.

OGUK will issue a call to action to promote adherence to its Supply Chain Principles and to communicate the benefits after the survey received a broad mix of views.

Source: UKCS Upstream Collaboration Survey

Figure 2. Industry-wide Collaboration Index: higher incentives scores driving marginal increase



Total number of feedback: 2016 n = 464; 2017 n = 584; 2018 n = 937; 2019 n = 1,378; 2020 n = 1,302
Source: Deloitte analysis

OGUK &wards

Principal Sponsor

OGUK builds on assurance resources for HCR prevention

OGUK's Assurance and Verification Task Finish Group has continued its work with the production of supporting documentation following the recent publication of the Assurance Guidelines.

The new Assurance Toolkit contains the Assurance Guidelines, plus a Gap Analysis tool, allowing organisations to identify strengths and weaknesses in the management and realisation of their Assurance Programme, and a leadership training slideshow.

The Assurance Toolkit will be further enhanced by a Practitioner Training Slideshow, also complete with presenter's notes. This training document is aimed at those who support assurance activities, such as OIM's, Safety Representatives, HSE Advisors and Technical Authorities. The Assurance and Verification Task Finish Group also ran a pilot training session in early February, prior to publishing the finalised slideshow.

Congratulations to OGUK Award Winners

The final weeks of 2020 saw hundreds attend a virtual gathering to celebrate the winners of the OGUK Awards 2020. Streamed via YouTube, LinkedIn and Facebook Live, 27 finalists from more than 90 entrants contended for the ten awards on offer, including the prestigious first-time Audience Award, which received over 19,000 votes.

Renowned industry expert John Hogg, HSSEQ Director TAQA Bratani Ltd, received Mentor of the Year for the vital role he has played and his extraordinary commitment to aiding learning and improvement across the industry.

Meanwhile Connor Robb, Project Manager at Baker Hughes, took the Graduate of the Year trophy for making his mark in the UK oil and gas industry, delivering tangible benefits to his employer, and being identified as a future leader by peers.

OGUK's own health, safety and environment director Trevor Stapleton was also recognised for his outstanding teamwork this year in supporting the industry through the efforts of the Pandemic Steering Group, helping to deal with the challenges brought

Company Award winners

Workforce Engagement (sponsored by Wood) – Spirit Energy

Business Innovation SME – Omniscient Safety Innovations Ltd

Business Innovation Large Enterprise – Petrofac

Diversity & Inclusion (sponsored by Apache) – Baker Hughes

Energy Transition (sponsored by Fairfield Decom Limited) – TOTAL E&P UK Ltd

Excellence in Decommissioning – Fairfield Energy Ltd

Individual Award winners

Apprentice of the Year (sponsored by OPITO) – Scott Milligan, Trainee Mechanical Technician, CNOOC International

Graduate of the Year (sponsored by ECITB) – Connor Robb, Project Manager, Baker Hughes

Mentor of the Year – John Hogg, HSSEQ Director, TAQA Bratani Ltd

on by COVID-19 and protecting our people while maintaining safe operations.

Congratulations once again to all our winners, and our sincere thanks to our principal sponsor Shell and all our Award sponsors, who again helped make the event a success.

Digital Decommissioning Conference delivers global connectivity

In November OGUK hosted its first ever digital Offshore Decommissioning Conference. More than 1,200 delegates registered for the dynamic, interactive and international event with online participants joining from more than 60 countries around the world.

Using a new digital platform, participants gained access to a free and fully immersive experience enabling them to interact with industry experts, visit 20 virtual exhibition stands and engage in online networking. Operators, supply chain companies and academics engaged on issues including decommissioning in a low carbon world, innovative technology, evolving regulatory changes, and recent research into the influence of man-made structures in the marine environment.

Among the 11 topics on the programme, delegates also discussed collective efforts to shape the future of UK decommissioning, growing exports and opportunities presented by energy integration, carbon capture and storage and innovation in low emissions decommissioning. Output from the conference will inform OGUK's work in shaping the decommissioning agenda while also highlighting priority areas for future industry initiatives.

OGUK thanks sponsors IOGP, OGA, Repsol Sinopec and registration sponsor Petrofac. Our thanks to the following organisations for their help as session champions: Decom North Sea, IOGP, OGA and the OGA Decommissioning Task Force, OGTC, Robert Gordon University and SPE Aberdeen.

Equinor Senior Vice-President assumes Co-chair of OGUK board

Arne Gürtner, Senior Vice President UK & Ireland Offshore at Equinor has now assumed the role of Co-chair at OGUK, bringing with him a wealth of industry experience. In this capacity, Arne will work with Contractor Co-chair, Phil Simons, VP North Sea & Canada, Subsea 7. Arne takes over from Phil Kirk, who is stepping down from the role.

Based in Equinor's UK operations headquarters in Aberdeen, Arne leads the organisation supporting Equinor's UK and Ireland upstream activities, which includes the Mariner development and Rosebank, one of the largest undeveloped resources on the UKCS.

Arne has held a broad variety of leadership roles across Equinor, including his previous position of Vice President for Technical Excellence in a global business function, and brings experience from project development, integrity management and process safety in operations from the UK and Norwegian Continental Shelves, as well as global research and technology development. He also currently holds the position of OGA Asset Stewardship Task Force Co-Chair.

Overleaf left: Arne Gürtner, Senior Vice President UK & Ireland Offshore at Equinor.
Credit: Michal Wachucik

Left: OGUK *Business Outlook 2021*

Business Outlook warns £3bn lost investment could threaten green recovery

The findings of OGUK's Business Outlook 2021 highlight the critical need for secure and sustained investment in the sector to help the UK quickly realise a net-zero future.

The report shows industry is facing a period of extreme uncertainty as it grapples with the after-effects of the pandemic, which has led to a significant decline in offshore activity levels and overall levels of expenditure falling by more than a quarter in the last year alone.

Despite the challenges of the pandemic and the severe economic downturn, production from UK waters still managed to safely meet around 70% of the country's oil and gas needs in 2020, evidencing the continued need for an indigenous supply. There are also some early signs of improved sentiment emerging, with new investors continuing to be attracted by the remaining potential of the North Sea.

To realise the UK's shared climate goals, as well as maintaining affordable energy and a strong base for the UK's energy supply chain to build from, OGUK reinforced that government policy and regulation must continue to prioritise domestic production over imported energy.

Collaboration delivers new Energy Services Agreement

The Energy Services Agreement (ESA), which will set base terms and conditions for thousands of employees working offshore in the UK, is a leading example of impactful, cross-industry collaboration.

Fourteen service companies (Aker Solutions, Altera, Brand, KAEFER, Muehlhan, Navitas, ODE, Oleochem, Petrofac, Semco Maritime, Stork, Wood and Worley), trade unions GMB, RMT and Unite, and a dedicated project team have worked together over the past 13 months to develop the new ESA. It is a landmark employment agreement for the UK offshore energy industry that supersedes the Offshore Contractors Partnership Agreement (OCPA) which expired at the end of 2020. The purpose of the ESA is to promote fairness and stability and to create a sustainable foundation for employees, employers, and operators in the UK offshore energy industry.

Following extensive and proactive engagement across the supply chain the agreement has been endorsed by the workforce and will now be implemented by a large proportion of our industry's supply chain. The delivery of this agreement will promote a safe, stable, and fair operating environment as our industry journeys towards economic and green recovery in line with Roadmap 2035.

Facilitation of this new agreement will be carried out by OGUK's Workforce Engagement and Skills Team. If you have any questions about the ESA, please contact the team directly.

North Sea Transition Deal to deliver home-grown transition towards net zero

On 24 March, the UK government announced that it will deliver a transformational deal in partnership with the UK oil and gas industry to tackle climate change and deliver key aspects of their ten-point plan.

The deal is the first of its kind by any G7 country, setting an example of how oil and gas producing countries can move fairly towards a lower carbon future in a way which supports the economy, jobs, and energy communities across the UK.

Developed in partnership with OGUK, the North Sea Transition Deal outlines over 50 government and industry actions to accelerate moves towards the government's target of net zero emissions by 2050.

Key commitments in the Transition Deal include the sector's target to reduce emissions by 10% by 2025, 25% by 2027, and 50% by 2030. By 2030, the sector will also voluntarily commit to ensuring that 50% of its offshore decommissioning and new energy technology projects will be provided by local businesses, helping to anchor jobs to the UK.

The deal will in turn help to unlock up to £16 billion in investment over the next decade in crucial low carbon solutions including CCUS and hydrogen, and support the creation of up to 40,000 new energy jobs in industrial heartlands across the UK.

It comes after the sector published Roadmap 2035: A Blueprint for Net Zero, in 2019, and was one of the first industry responses to the government's climate change commitments.

The deal has been agreed between Business and Energy Secretary Kwasi Kwarteng on behalf of the UK Government and OGUK Chief Executive Deirdre Michie on behalf of industry.

OGUK chief executive Deirdre Michie OBE said: "The North Sea Transition Deal is a transformative partnership which will harness the expertise of the UK offshore oil and gas industry to urgently meet the country's climate ambitions of net zero emissions by 2050.

"It will unlock billions of pounds of investment and see government and industry work together to deliver a homegrown energy transition, realising innovative low carbon solutions that can be exported globally.

"The Deal will safeguard UK energy security, providing affordable energy to millions of households, secure tens of thousands of jobs in industrial heartlands across the country and support the UK economy. It is the first deal of its kind by any G7 country and a striking example of the UK showing global leadership on climate change ahead of COP26."

Learn more about the North Sea Transition Deal on p. 14.

OGUK HSE Conference reflects on lessons and impact of COVID

Held March 23-24, OGUK's HSE Conference saw over 350 attendees join over the two day event, which included 9 conference sessions, 14 exhibitors and numerous conference chat rooms. Attendees heard from industry leaders, regulators (OPRED, BEIS and HSE) along with subject experts across the fields of health, safety and environment.

Convened under a conference theme of 'Looking Back to Move Forward' the sessions reflected upon COVID-19 and the impact it has had upon the sector, and importantly what this has meant for on- and offshore workforces. A highlight of the conference was an audience with Professor Sir David Spiegelhalter FRS OBE, who delivered a keynote on 'Trustworthy Communication In The Age Of Covid'.

Meanwhile, the second day of programming examined the industry's efforts and opportunities to move towards net zero, and the current and future state of process safety.

Organisers were delighted to welcome a diverse range of participants to the sessions, including Safety Reps and OGTAP apprentices, along with topic specialists from across the sector.

OGUK would like to thank sponsors TOTAL (principal), Stork, Quensh and OPITO for their much-valued support. OGUK members and attendees can catch up on all the recordings in the members gallery, available via the OGUK website.

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At Deloitte, we see a 'connected energy future' where we're all in it together, with a common purpose, and each with a clear role to create our new energy world. We understand the challenges and opportunities the Future of Energy brings and actively help our clients accelerate impact on their markets, stakeholders and society.

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Attend our Industry-leading digital events

Events

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oilandgasuk.co.uk/events

In light of the ongoing coronavirus pandemic OGUK is reviewing the events programme for the remainder of the year and re-imagining a number of the event formats, along with potential sponsorship opportunities.

The vast majority of our OGUK online events are now FREE to join — all are welcome

North Sea Transition Deal - powering a cleaner UK

OGUK chief executive Deirdre Michie sets out what the North Sea Transition Deal means for the future of the UKCS.

As I'm sure you're now aware, after many months of hard work, the UK Government, announced in March the successful agreement of the transformational North Sea Transition Deal .

The Deal, which is the first of its kind by any G7 nation, recognises that the oil and gas industry is and will continue to be key to helping to deliver net-zero carbon emissions by 2050. It also looks to futureproof hundreds of thousands of jobs for our energy communities in industrial heartlands across the UK and unlock the experience and skills of our people to contribute to the solutions that will be needed to deal with the difficult challenges of climate change.

Through this deal, our industry will continue to move urgently towards a lower carbon future and show global leadership in sustainability. The government, for their part, have agreed to create an internationally competitive and level playing field that prioritises UK energy, jobs, businesses and communities, encouraging innovation and sustaining the investment needed to realise net zero.

Representing months of collaborative work between industry the UK government, this agreement provides five core commitments for both industry and government to work to. Once fully realised, this crucial agreement can deliver our shared net-zero goals at pace, grow the economy and exports, create tens of thousands of jobs, and continue to provide affordable, sustainable energy to millions as we navigate the energy transition. In a year where the eyes of the world are on the UK as COP26 comes to Glasgow, today's agreement reaffirms that the UK government and the offshore oil and gas industry are committed to a low-carbon future.

The deal comes at the end of what has been an extremely challenging 12 months for our industry. We estimate that by the end of the year as many as 30,000 jobs could be lost if the current conditions continue. This deal however goes a long way to supporting and sustaining our resilient workforce, who throughout the pandemic, worked tirelessly to keep our homes lit and our hospitals powered.

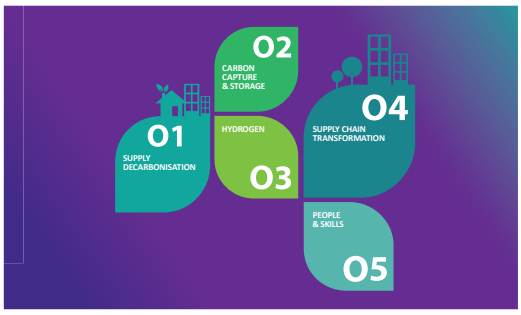
And it is this workforce who will be critical in implementing the North Sea Transition Deal. Within our industry exists a level of talent, skill and expertise which will be key to unlocking the challenge of net-zero. For our industry to achieve the tough emissions targets we've set ourselves disruptive thinking and brave decision-making from the people who make this industry special will be key.

I'd like to take this opportunity to thank the OGUK Board and those Board members who so closely with us on the Task Finish Group, as well as our Sustainability Director Mike Tholen and all other OGUK colleagues for their hard work in achieving this landmark agreement. Over the coming months and years, we look forward to showcasing how our industry can play a crucial and constructive role in tackling climate change.

To explain the Deal further, we've put together the animation overleaf.

Lastly, we'd really value your support to make sure this important milestone is publicised as widely as possible. Join us on our net-zero journey and get involved in the conversation by using #TransitionDeal on social media.

Kind regards,
Deirdre Michie OBE
Chief Executive, OGUK



#TransitionDeal

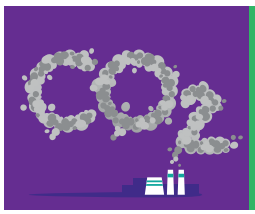
North Sea Transition Deal at a glance:

01 SUPPLY DECARBONISATION:

cutting emissions through an emissions reduction programme

Cut emissions

Cut emissions by 60 million tonnes – equivalent to taking 2.5m cars off the road, with 15 million tonnes to be reduced from industry production by 2030



02 CARBON CAPTURE & STORAGE:

capturing carbon released through production and in society to reduce UK's carbon footprint

World-leading infrastructure

Boost the world-leading infrastructure - carbon capture - scientists (and the Committee on Climate Change) say is necessary to tackle climate change.

03 HYDROGEN:

developing hydrogen revolution in the UK to provide a realistic alternative for heating, heavy industry, and transport

Kickstart hydrogen in the UK

Building a platform to provide a needed alternative for heating, heavy industry, and transport, providing resilience to the energy system as a whole.

04 SUPPLY CHAIN TRANSFORMATION:

developing expertise that underpins energy-sector wide export growth from the UK, creating a globally competitive energy supply chain with great reputation

Investment for the energy transition

Unlock up to £16bn in investment over the next decade in crucial low carbon solutions

05 PEOPLE & SKILLS:

securing, stimulating, and creating tens of thousands of high-quality jobs in industrial heartlands across UK

Secure & retain jobs

Secure 40,000 energy jobs in industrial heartlands across the UK, ensuring energy communities like Aberdeen and Teesside can successfully transition, retaining jobs and skills and creating a more diverse and inclusive workforce

Member News

Repsol Sinopec forms alliance to maximise recovery

Repsol Sinopec Resources UK Limited has formed an innovative partnership with energy service providers TechnipFMC and Petrofac, creating an industry alliance which seeks to maximise the recovery of oil and gas from the UK Continental Shelf (UKCS).

The partnership will offer the owners of oil and gas discoveries near Repsol Sinopec's existing North Sea infrastructure hubs an integrated, technically robust and commercially flexible solution to meet their near to mid-term development objectives.

Under the terms of the partnership, TechnipFMC will deploy its iFEED front-end engineering and design solution and its integrated subsea business model, 'iEPCI', whilst Petrofac will provide all topsides engineering and operations support. Repsol Sinopec will provide access to its facilities under the industry-led infrastructure code of practice.

Repsol Sinopec CEO, José Luis Muñoz commented: "As an industry we must get better at recognising the benefits of utilising existing North Sea infrastructure to maximise the economic recovery of the basin, minimise carbon emissions and transition to a lower carbon economy. This industry collaboration brings together three well respected, experienced companies that have the resources, drive and ambition to support the continued success of the industry for many years to come."

Petrofac's Engineering and Production Services managing director of West business, Nick Shorten, said: "With more than three billion barrels locked in marginal fields across the UKCS, small pools represent a big opportunity. Industry level collaborations such as this will drive the standardisation required to reduce the time and cost of tie-back developments. Petrofac is thrilled to combine the asset knowledge gained as Repsol Sinopec's operations and maintenance partner, with our engineering and project management expertise in support of this exciting collaboration."

TÜV SÜD launches oil and gas data analytics service

TÜV SÜD National Engineering Laboratory has launched a data analytics service to help oil and gas operators minimise flow meter downtime and maintenance, significantly lowering operating costs.

The total cost of calibrating an offshore flow meter is estimated to be in the region of US$50,000 or more, once all costs incurred are accounted for. Traditionally, irrespective of whether a flow meter is deviating from its required operating parameters it will be routinely scheduled for recalibration and operations stopped unnecessarily.

The new service will enable operators to move away from this time-based calibration approach to condition-based calibration, by using statistical modelling techniques to predict meter performance based on live and historical data. In addition, diagnostics information can be used to understand what may be negatively impacting a meter by analysing hidden patterns to identify specific fault conditions.

Gordon Lindsay, Head of the Digital R & D Group at TÜV SÜD National Engineering Laboratory, said: "Thanks to advances in technology and increased connectivity through the Internet of Things, vast amounts of data exist but only a fraction of its potential benefit is realised. Our new Data Analytics service uses data in real-time to detect when a meter is not performing to specification and identify the cause of this failure. This means that end-users can avoid shutting down production to remove a device from the pipeline before a solution to a fault can be found. Recalibrations are both costly and labour intensive, so proactively determining the optimal calibration date delivers increased measurement confidence, reduced downtime and cost savings."

Below left: Salus Technical MD and founder, David Jamieson.

Below: Equinor uses HoloLens technolgy to visually inspect the Mariner A helideck. Source: Equinor

Salus Technical helps bridge gap between academia and industry

Aberdeenshire-headquartered process safety firm, Salus Technical, has teamed up with the University of Edinburgh to provide the next generation of engineers the opportunity to work with real-life industry software.

Salus Technical MD and founder, David Jamieson, offered the company's new risk assessment software solution – Bowtie Master - free-of-charge to university students of degrees related to process safety, such as chemical and process safety engineering. Aimed at enhancing and streamlining the risk assessment process across a range of sectors, Bowtie Master will give these students the opportunity to experience pioneering industry-relevant software as part of their studies.

The University of Edinburgh has accepted the offer for their students, and asked David to carry out a lecture for undergraduate students on their Chemical Engineering degree course. David's lecture on bowtie diagrams and barrier management will form part of a module on 'Advanced Process Safety'. David is currently in discussions with a number of universities across the UK, several of whom are keen to use the software with their students.

A cloud-based application, Bowtie Master facilitates the building and sharing of these bowtie diagrams, offering unprecedented capabilities to design, collaborate on and share these diagrams across disciplines and organisations.

"I know from my own experience, I didn't encounter any real-life, industry software programmes until I was actually working, so this will be a huge boost to the students' future career prospects. Here at Salus Technical we are absolutely passionate about supporting the training and development of the next generation of engineers, and we look forward to working with the universities going forward," added David.

Equinor helideck certified following first virtual inspection

Equinor, together with the Helideck Certification Agency, has completed the first virtual offshore helideck inspection - a first on the UKCS and in the company.

After the onset of the pandemic last spring, Equinor, began exploring digital options with the Helideck Certification Agency (HCA). The idea was initially driven by COVID-19 restrictions. The aim was to secure the recertification of the Mariner A helideck, avoiding any impact to offshore operations while keeping personnel levels in the field as low as possible to mitigate transmission risks.

HoloLens, the mixed reality headset, was used in this first virtual helideck inspection and certification. Using the tool, the team offshore was guided by the onshore inspector to give full visibility of all areas of the helideck, including walkways, potential obstructions and key equipment, such as the helifuel system, enabling them to complete the full audit from their home office.

The visible detail provided by HoloLens, supported by technical documentation, led to the HCA issuing a full two-year recertification for the Mariner A helideck.

Helideck Certification Agency managing director Alex Knight commented: "HCA has been conducting trials using virtual technology. The system requires further fine tuning and development, but the exercise with Equinor was the first time we did it for real and were able to issue a renewal certificate based on the audit evidence."

Member News

Neptune Energy, EDF to pilot novel method to measure offshore methane emissions

Neptune Energy and Environmental Defense Fund (EDF) have announced a scientific collaboration to test a first-of-its-kind approach for measuring oil and gas methane emissions from offshore oil and gas facilities.

EDF will coordinate a team of international researchers that includes Scientific Aviation, a provider of airborne emissions sensing, and Texo DSI, a UK-based drone platform provider, to evaluate advanced methods for quantifying facility-level offshore methane emissions, identify key sources and prioritise mitigation actions.

State-of-the-art drone, aircraft and methane sensing technologies will be deployed on the Neptune-operated Cygnus platform in the UK Southern North Sea to provide a close-up view of operations typical of a North Sea offshore facility, such as gas separation, drying and compression technology, and flaring and venting.

Global investment firm The Carlyle Group, a shareholder in Neptune Energy, is supporting and observing the project to help drive research learnings and improved standards.

Pete Jones, Neptune Energy's VP Operations Europe, said: "Neptune Energy already has one of the lowest methane intensities in the sector, at 0.01%, compared with the industry average of 0.23%. But we want to go further and have set a target of net zero methane emissions by 2030. This study will help us identify where we need to take further action and how we can apply new measurement techniques across our global operated portfolio."

"Data transparency is paramount," said Mark Brownstein, EDF's Senior Vice President for Energy. "Oil and gas companies have made commitments to tackle emissions, but you can't just assert strong environmental performance. You must show it. Having credible data is the first step and we recognise Neptune Energy for valuing emissions reporting that is based on rigorous science."

Last October, the European Commission introduced a strategy that calls for oil and gas methane regulation in the EU and gives consideration to a performance standard for gas used or sold in the EU. The EU is the world's largest natural gas importer, with 85% of its consumption coming from outside the EU.

Neptune is a member of the Oil and Gas Methane Partnership (OGMP) and is a signatory to OGMP's new 2.0 framework, which aims to improve the reporting accuracy and transparency of methane emissions. Organised by the UN Environment Programme, the European Commission, the Climate & Clean Air Coalition and EDF, OGMP will create a robust set of measures for participating companies to document and report their emissions performance to better inform customers and regulators. Currently, there are 65 global oil and gas companies participating in OGMP.

The study is due to commence in July this year with initial results expected in October. The outcomes will be published in a scientific peer-reviewed paper in 2022.

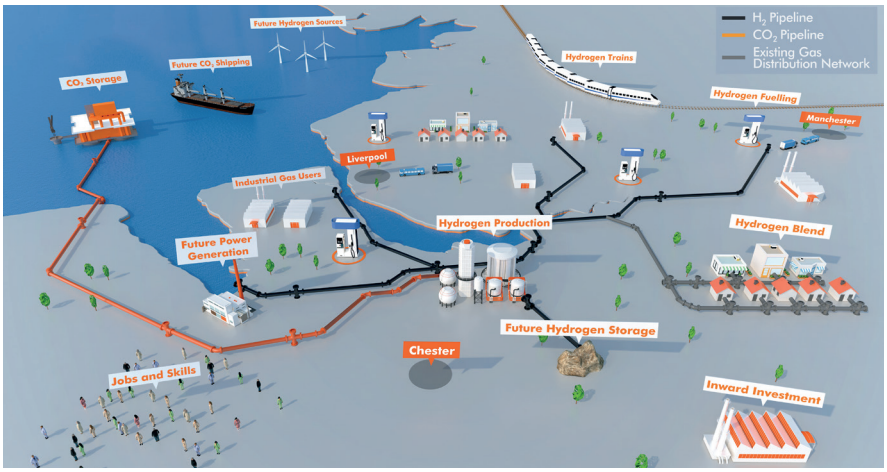
Ancala Midstream secures gas transport and processing contracts with Lundin

Ancala Midstream Acquisitions has secured a life-of-field contract to transport and process gas from the Solveig field located in the Norwegian sector of the North Sea.

The Solveig field is operated by Lundin Energy Norway, one of Europe's leading independent oil and gas exploration and production companies. First gas is expected in Q3 2021 and will be processed through Ancala Midstream's capacity in the Beryl pipeline and the Scottish Area Gas Evacuation

Left: Neptune Energy's Cygnus Alpha platform.

Right: Overview of the HyNet North West project.



pipeline and terminal (SAGE System) at St. Fergus in Scotland.

Aberdeen headquartered Ancala Midstream will also provide transportation and processing for Lundin's extended production test on the Rolvsnes field which is expected to commence production in Q3 2022 and is also located in the Norwegian Sector of the North Sea.

Solveig is the first of two new fields tying into Ancala Midstream's capacity in the SAGE System in 2021 and will increase Ancala Midstream's throughput in the system to 55%. SAGE comprises a 323-kilometre, 30-inch bore pipeline and a gas processing terminal. Gas is transported through the Beryl Pipeline and SAGE pipeline and processed in the SAGE terminal from multiple fields across the UK and Norwegian sectors of the North Sea. The terminal also processes gas received by way of the Britannia pipeline which serves the Britannia field and its satellites.

Ancala Midstream chief executive Jim Halliday commented: "The addition of two new fields and the substantial reserves growth from the prolific Edvard Grieg area, provides further evidence of the strong prospectivity in the SAGE catchment area, as well as the confidence our customers have in the SAGE System as their offtake system of choice. We have worked closely with Lundin to develop innovative solutions to the technical challenges faced and in doing so reduced project development costs for the Solveig and Rolvsnes Owners."

Step forward for HyNet North West project in UK

Eni has confirmed that the HyNet North West integrated project, aimed at decarbonising the important industrial district in the North-West of England, has received £33 million in funding from UK Research and Innovation (UKRI). Issued through the Industrial Decarbonisation Challenge (IDC) fund, the funding covers around 50% of the investment necessary to finalise ongoing planning studies with the aim of the site becoming operational by 2025.

Alongside Eni, the HyNet North West project is being led by a consortium of regional industrial companies. The site intends to capture, transport and store CO_2 emissions from existing industries and from future production sites for blue hydrogen, as an alternative fuel for heating, electricity generation and transport.

The project will be the first carbon capture and storage (CCS) infrastructure in the UK. Eni will play a pivotal role as part of the consortium by transporting and storing the CO_2 in its depleted hydrocarbon reservoirs, located at around 18 miles offshore in Liverpool Bay, for which the company was awarded a carbon storage licence by the UK Oil and Gas Authority (OGA) in October 2020.

Once operational, the project will transform one of the most energy-intensive industrial districts in the UK into the world's first low carbon industrial cluster and will help reduce CO_2 emissions by up to 10 million tonnes every year by 2030, delivering 80% of the Government's new UK-wide target of 5GW of low carbon hydrogen and playing a crucial role in the target of net zero emissions by 2050.

This goal is fully aligned with Eni's commitment to the energy transition and decarbonisation. CCUS, in particular for "hard to abate" industrial emissions, represents an important solution towards meeting the targets set by the Paris Agreement and the Agenda 2030 for Sustainable Development, and is also considered crucial by the UN, as stated in its latest Unece report.

Looking up at ORION: Shetland's green hub

Cutting the carbon intensity of oil and gas production will require new clean energy to feed the upstream sector, but it could also act as a catalyst in the wider energy transition. Shetland's ORION project highlights the potential scope and scale an integrated approach can bring.

With the UK now committed to transition to a net-zero carbon economy by 2050, oil and gas companies operating in the North Sea are increasingly focused on cutting the carbon emissions associated with production. Once a field has been found and developed, the biggest source of carbon (with the exception of flaring and venting) is power generation on rigs, which has traditionally been fuelled by gas or diesel. These emissions are significant, with power generation at UK offshore facilities accounting for 10% of UK power generation emissions and 70% of upstream operational emissions, according to the Oil & Gas Authority (OGA).

Supplying rigs with low-carbon electricity is one direct route to reducing these emissions, and in turn lowers the carbon intensity of production sharply. Accordingly, this is now a major objective of many oil companies, many of whom have set their own net-zero targets. Overall, the industry has pledged to halve its operational emissions by 2030, and most new projects must prove their low-carbon credentials if they are to be sanctioned today.

Norway has already had considerable success in supplying green power from its grid (mostly hydro-electric) to offshore platforms such as Sleipner, Troll C and more recently, Johan Sverdrup. Together, this has avoided more than 1.3 million tonnes of CO_2 emissions per year, according to Equinor. The UK has also seen advances in the area, including plans at Total's Culzean field and related developments at Equinor's Mariner, but not on the scale of the Norwegian Continental Shelf - at least until now.

In Shetland, leading North Sea producers and all levels of government are moving forward with a project that will not only supply green power to rigs and pumping stations, but also encourage large-scale development of wind resources and potentially hydrogen production. Together, these measures could extend the usefulness of North Sea infrastructure around Shetland, and provide a promising green energy production future for the region when oil and gas output does eventually cease.

Now known as the ORION (Opportunity Renewables Integration Offshore Networks) project, it was launched in April 2020 as the "Shetland Energy Hub" with aspirations to turn the islands into a green energy hub. The new ORION name loosens its attachment to Shetland, allowing the scheme to be replicated elsewhere in the UK and possibly even further afield (there are already another five similar but smaller projects pencilled in for other areas of the UK Continental Shelf [UKCS]). Currently ORION is led by Shetland Islands Council (SIC) and Scotland's Oil & Gas Technology Centre (OGTC), working with Highlands and Islands Enterprise (HIE) and alongside a steering group including BP, Equinor, Shell, SSE, Total and EnQuest, which meets monthly.

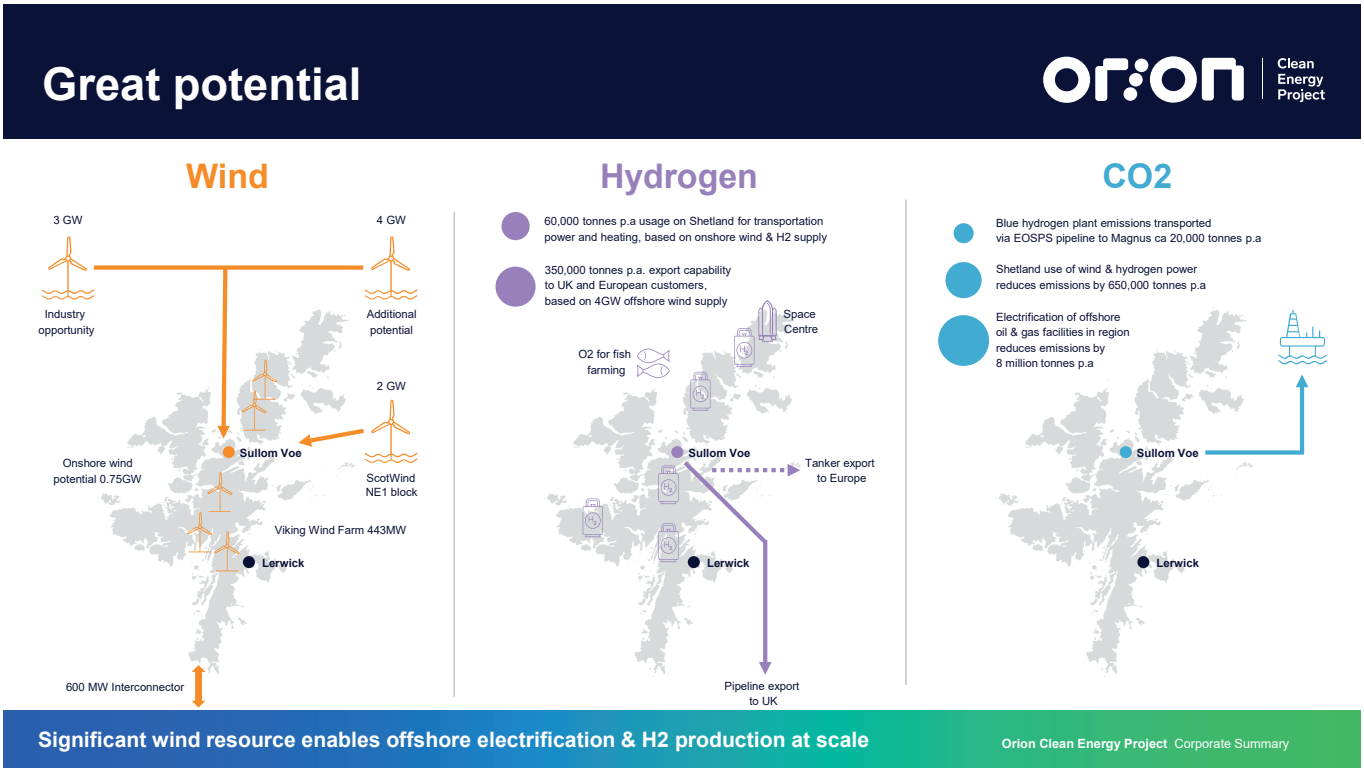
Enabling expansion

ORION Project Coordinator Gunther Newcombe spoke to *Wireline* about the project. Gunther noted that currently ORION was primarily a strategic framework, comprised of various interdependent parts that would all need to be in place, connected and optimised during a 20-year plan with various stages. Together, project costs are estimated to be about £5-10 billion.

The project's first stage is to ensure green power is available (enabling projects), and then use it to electrify new rigs to the west of Shetland, including Clair South, Rosebank, and Cambo. West of Shetland has half the remaining resource potential of the UKCS, and projects "cannot get sanctioned or secure investment without net zero operations," Newcombe said. "The clock is ticking for licensees – they will have to move soon given current licence conditions."

In December, the OGA had its remit modified from maximising economic recovery to include carbon emission reduction, suggesting that even if companies wanted to go ahead with fossil fuel powered platforms, the OGA may not approve them. The project is also an important step in line with OGUK's Roadmap 2035: A Blueprint for Net Zero.

Left: The constellation Orion over Shetland. Credit: Joe Leask



The next batch of west of Shetland projects are expected to require up to 150-200MW of firm clean energy capacity from Shetland. This could be met by the Viking 443MW windfarm on Shetland – currently under construction - with back-up from the 600MW interconnector with mainland Scotland, where an increasingly high proportion of generation is from renewable sources, again mostly wind. Viking will be complete by 2025, and another 300MW of wind is earmarked for onshore Shetland, along with some tidal capacity, which would be enough to power the entirety of Shetland (including electrification of its ports) with clean energy.

Further electrification of offshore platforms to the east of Shetland, and eventually hydrogen production, would require large-scale offshore wind, of which there is potential for at least 9GW in waters around the islands, and probably much more. The demand for platform electrification could accelerate the development of these offshore resources, with potential further momentum lent by hydrogen production on the islands, as well as demand from the UK grid. Near-shore and floating opportunities will be offered through forthcoming wind licensing rounds, as the government intends to expand on the present 5.6GW of consented capacity. Indeed, Scotland intends expects to reach 11GW installed by 2030, up from the 1GW in operation now. The situation has been compared to the start of the North Sea oil boom in the 1970s and could line-up offshore wind development work for the next 50 years.

The ORION plan also includes potential blue hydrogen development, through a mixture of new and existing infrastructure. Associated gas from Clair and other West of Shetland fields, plus gas-condensate from Laggan-Tormore (which is currently piped to St Fergus in Aberdeenshire), could be used as initial feedstock. Steam methane reformer (SMR) units could be built on Shetland, and waste CO_2 used for enhanced oil recovery at the Magnus field, and possibly others. Surplus hydrogen would be exported by tanker or mixed with gas in the St Fergus pipeline.

At this stage, the blue hydrogen project is almost certainly a cheaper way of producing the hydrogen, but once offshore wind power is installed at scale and larger, more efficient seawater electrolysis plants are available, the green option is likely to move ahead. Another opportunity for ORION is CO_2 management, possibly using the soon-to-be empty Brent pipeline and depleted fields to transport and store industrial emissions pumped from mainland UK.

Unique characteristics

Wind energy is particularly effective in Shetland, with load factors the highest in the world – 52% at the islands' existing 4MW Burradale wind farm. This load factor would be even higher offshore Shetland, which should make power especially cheap, giving the islands a significant cost advantage in green hydrogen

Above: Green components in ORION's Shetland plans

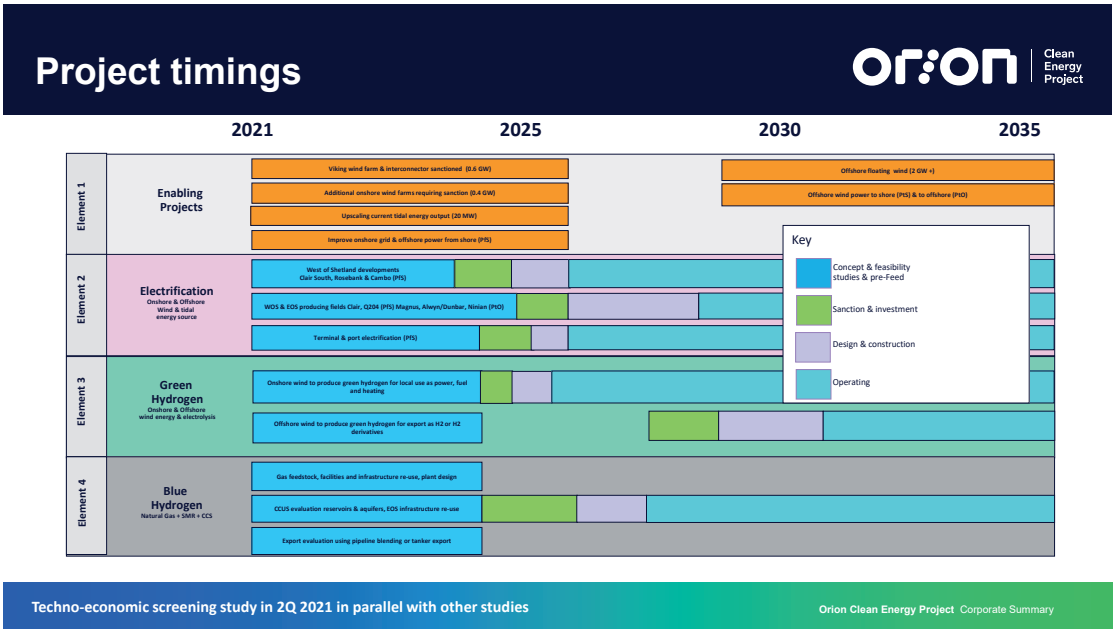
Right: Sullom Voe Terminal from the Houb of Scatsta / Mike Pennington / CC BY-SA 2.0

production at scale. Surplus power would effectively be stored as hydrogen rather than curtailed. Newcombe said the Viking Wind Farm was expected to have a load factor of 48%, adding that back-up systems were still needed when the wind drops. To this end, Viking has signed a deal with Wartsila for 8MW of quick response back-up, and similar discussions are ongoing with other companies. Battery storage is also being considered: "We are just about to launch an onshore power system study which will also look at back-up" until hydrogen is available, Newcombe added.

The scheme would be particularly beneficial for Shetland itself, which is reliant on large volumes of expensive, imported fossil fuels. Currently that puts Shetland's supply chain at a disadvantage compared to the mainland. "If [Shetland] doesn't create its own clean fuels it will have to import them at expense in future," said Newcombe, "wind and 60,000 tonnes of hydrogen could replace fossil fuel dependency", with hydrogen and its derivatives (methanol, ammonia) used in power back-up and directly for fuel, including for the islands' fishing fleet - eliminating the islands' 650,000 t/yr of CO_2 emissions. Eventually the bulk of hydrogen produced would be exported, and Newcombe said he had already had strong interest from German and Dutch companies keen to import hydrogen to supplement limited domestic output.

As well as excellent on and offshore wind resources, Shetland may be able to use or adapt existing oil and gas infrastructure, and has plenty of industrial land

The next batch of west of Shetland oil and gas projects are expected to require up to 150-200MW of firm clean energy capacity from Shetland.



ORION Project timings (conceptual)

and a skilled workforce that could transfer from oil and gas work currently. About a half of industrial land at the Sullom Voe Terminal is unused, which is plenty for the new facilities that would be required for wind farm upkeep, hydrogen production and export. Further support would come from established supply chains in the north-east of Scotland. Supply chains further south could also benefit, especially if similar schemes could be replicated there – Newcombe said other offshore electrification projects are expected to include the area around Bacton in the southern North Sea (from grid and wind farms), as well as the central North Sea, with connections from Norway or UK.

There is strong support for ORION among many oil and gas producers, especially from those with tough internal zero-carbon targets. Total, for example, is "systematically reviewing cost-effective solutions" on all its new upstream projects to keep emissions to a minimum, according to E&P president Arnaud Breuillac. About 160 projects have already been identified to help to reduce the firm's Scope 1 and 2 upstream emissions by 2.5 million tonnes of CO_2 per year by 2025. In the UK these include plans to electrify offshore platforms at its Culzean fields, and at Denmark's Tyra fields, using wind turbines.

First steps

Aside from Viking Wind, which is being developed independently, ORION's first phase will involve three small green hydrogen pilot plants, totalling 4MW. They should be running by 2025 as proof of concept. Prior to that, it is hoped that Scottish Government Energy Transition Fund (ETF) subsidies will be approved to support the project by the end of Q1. There will also be three-month technical studies starting in April, followed by the pilots. Newcombe could not offer names of those funding the studies just yet, although did mention that ORION would be partnering with a leading university very shortly.

Outstanding concerns include the cost/price of hydrogen and regulatory issues, such as the permitting of power flows to offshore grids, along with modifications to the system of tariffs and the emissions trading system. The cost of retrofitting older platforms is also a major issue. Further away from Shetland, a lack of wind farms in some UKCS areas means platform connection to the mainland would be one of the only options available for electrification.

To meet its major ambitions, the strategy is dependent on a diverse suite of industry and investors instigating projects, with the ORION team acting as catalyst, advisor and co-ordinator. However, its timelines fit with corporate decarbonisation targets and government targets for offshore wind, hydrogen and net zero more broadly, and further momentum is likely to be provided by the UK's hosting of UN COP26 climate talks in Glasgow in November.

As far as March's Budget was concerned, Newcombe could see no immediate impact on the project, "but the NE Scotland Energy Transition Fund got a great boost!" – suggesting the long-term future for ORION looks bright.

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Understanding the Energy Services Agreement

The Energy Services Agreement (ESA) is a new collective bargaining agreement which sets out base rates of pay and conditions for thousands of employees working offshore in the UKCS. *Wireline* spoke with Aimee Wallace and Irene Bruce from OGUK's Workforce Engagement and Skills Team about what this new agreement means for companies and the workforce.

Since its creation in 1995, the Offshore Contractor's Association (OCA) was the central organisation at the head of North Sea workforce relations. Working directly with trade unions and member contracting companies and representing thousands of offshore workers across seven key member companies, the OCA negotiated minimum rates of pay and standards for employees, as part of a collective bargaining agreement known as the Offshore Contractors' Partnership Agreement (OCPA).

As well as bringing stability to industrial relations in the North Sea, the OCA worked with members to support workforce engagement, and promote key issues including training, wellbeing and skills. Historically, this approach ensured good relations across the spectrum OCPA partners.

In October 2019, the OCA conducted a stakeholder engagement project to ascertain the industry's views of the OCPA. Key feedback received highlighted that widespread changes within the offshore industry over the last decade had led to less adherence to the OCPA, the annual negotiations had become a protracted process and there was a general view that the agreement was outdated. This culminated in decision to end the OCPA and the OCA as of December 31, 2020.

Another key piece of feedback was that collective bargaining was more efficient than individual negotiations therefore work began to forge a new agreement to succeed the OCPA and throughout 2020, the OCPA'S replacement - the Energy Services Agreement (or ESA) was developed. The ESA is a wide-ranging collective bargaining agreement and aims to promote fair and sustainable employment conditions throughout the continued turbulent operating environment and well into the future, as the UK oil and gas industry plays its key role in the energy transition.

Fairness and collaboration

The ESA is a leading example of what impactful cross-industry collaboration looks like in practice. Fourteen service companies including Aker Solutions, Altera, Brand, KAEFER, Muehlhan, Navitas, ODE, Oleochem, Petrofac, Semco Maritime, Stork, Wood and Worley; three trade unions made up of GMB, RMT and Unite; and a dedicated project team worked together for 13 months to develop the ESA. These service companies and trade unions are now taking the ESA forward with the assistance of OGUK.

So what makes the ESA different to the OCPA? In a nutshell, the signatories have seen the potential of this agreement. This includes promoting fairness and stability and creating a sustainable foundation for employees, employers, and operators in the UK offshore energy industry. It is a landmark employment agreement that promotes a safe, stable, and fair operating environment as our industry moves towards economic and green recovery in line with Roadmap 2035.

The ESA is a living document which means that there is scope to change the agreement to ensure it remains fit for purpose. It outlines the minimum base rates of pay for hourly, day-rated and salaried employees. It also sets out conditions and expectations for the workforce in areas such as rest periods, delays, and training. Increasing transparency and understanding of base earnings was an integral part of the creation of the new agreement. The standards outlined within the ESA are minimum standards; employers can each

Credit: istock.com/ francisblack

determine their own terms and conditions, but they should be no less than those guaranteed by the ESA.

Arguably the biggest innovation in the agreement is the Rate Adjustment Mechanism (RAM), which replaces lengthy and often adversarial pay negotiations with a formula based on both inflation (CPI) and oil and gas prices (CPA). As well as releasing valuable time for more value-adding activities and discussions, the RAM gives transparency for all stakeholders of forthcoming rate changes, which will help companies budget and avoid the difficulties of backdating pay changes, something which impacts all stakeholders.

The agreement will be underpinned by five Industry Codes of Practice:

1) Travel, Accommodation and Expenses
2) Training, Competence and Development
3) Workforce Engagement and Trade Union Representation
4) Health, Safety and Wellbeing
5) Productivity, Performance and Delivery of Service

Each of these will align with the Scottish Government's Fair Work principles. The Travel, Accommodation and Expenses and Training, Competence and Development codes are both directly linked to the ESA and are nearly complete. The remaining three are currently under development with the Productivity, Performance and Delivery of Service code the current priority. Once developed these codes will underpin the ethos of what the ESA is hoping to achieve.

At the heart of the agreement is engagement with the offshore workforce. We are keen to make sure that we capture the views of the people who are covered by the agreement and to incorporate this information in our future planning. Engagement sessions with representatives from ESA employer companies, the trade unions, and the workforce via their representatives take place on a quarterly basis.

If you would like to find out more about the ESA, please contact the team at ESA@oilandgasuk.co.uk.

Climate change disputes:

Growing demand for sustainability fuels legal risk

As the number and scope of climate change related cases intensifies, businesses, governments and industries must prepare for increasingly more complex and sophisticated legal challenges to the way they operate.

Global law firm White & Case highlights the steady expansion of climate change disputes and contemplates what lies ahead.

It's clear that climate change-related disputes are no longer a niche for academic arguments. A new report from law firm White & Case highlights that companies, governments and industries are now facing unexpected judgments with serious implications on business operations as courts continue to expand their role in facilitating regulatory change. Even as the global economy grapples with the effects of COVID 19, the urgency of addressing climate change remains.

Disputes have evolved beyond damages-based claims to a new and diverse class of climate change-related actions; in the past two years alone, some 600 new cases have been filed.

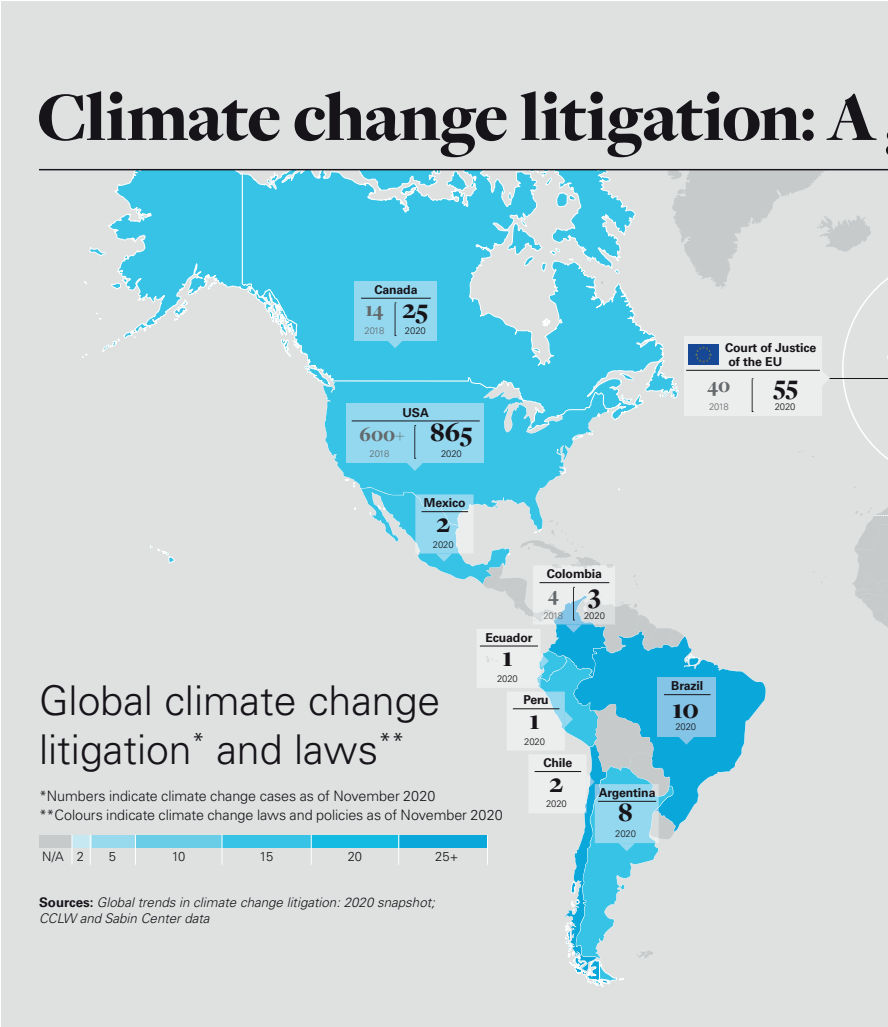
The increase in such actions has amplified pressure on legislators, regulators and legal institutions alike to facilitate the prosecution of such actions, and many regulatory authorities have responded with procedural developments designed to foster the pragmatic use of legal remedies. These legal and procedural developments have contributed to a new environment in which climate change related disputes are more prevalent than ever.

In February 2020, the International Bar Association also published a 'Model Statute' recommending changes to procedural and evidential rules for litigation against governments for failing to act on climate change. This is designed to assist claimants bringing claims by waiving the need to provide security for costs, and the Model Statute even provides for unsuccessful claimants to be reimbursed for their costs in 'upholding or advancing an important public interest issue or the law relating to climate change, the environment or human rights.'

Arbitration has been gaining recognition as a potential forum for the resolution of disputes related to climate change and, in January 2020, the International Chamber of Commerce (ICC) Task Force on the Arbitration of Climate Change Related Disputes noted the benefits of procedural features such as responsiveness of tribunals and the specific expertise of selected tribunal members as supporting the role of arbitration in this regard.

Alongside these developments, new voluntary rules and guidelines are being developed on how to manage the risk of climate change issues, highlighting the increasing attention that climate change is attracting in the context of corporate governance.

"Shareholders at a number of financial and energy companies have voted in favour of setting climate targets in line with the Paris Agreement."



Above: A snapshot of global climate change litigation and laws. Source: White & Case

In June 2020, the Climate Financial Risk Forum published guidance for financial services firms on how to approach and address climate related financial risks, and highlighting how, if poorly managed, the physical risks of climate change and the transition risks of moving to a net zero carbon economy could lead to a financial crisis.

Additionally, in November 2020 the European Central Bank (ECB) published its guidance on climate related risks, noting that it will now ask banks to voluntarily conduct a self-assessment and produce an action plan in line with the ECB's guidance. The ECB intends to benchmark and challenge these plans in an effort to stimulate further climate related risk analysis and disclosure in the financial sector.

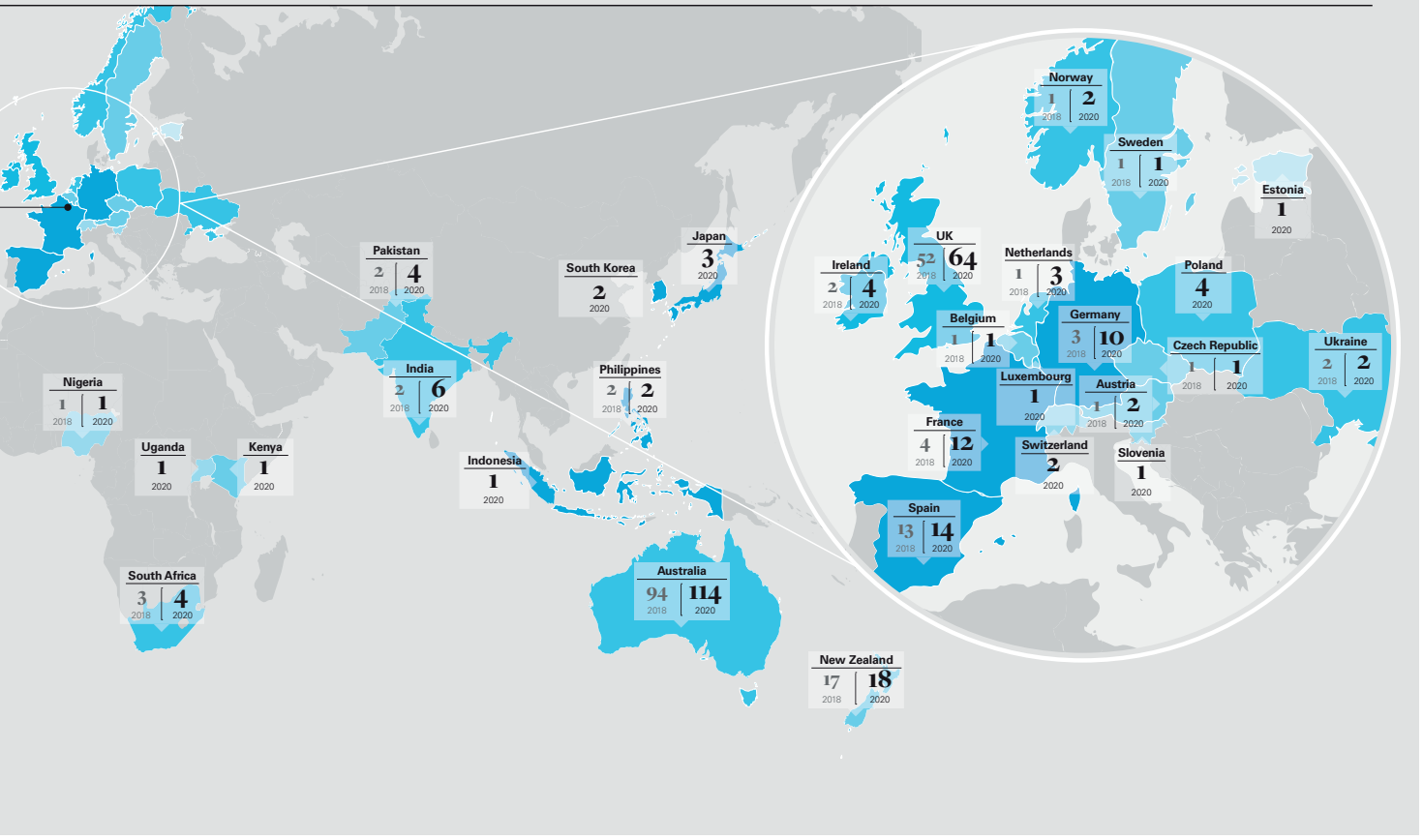
Legal developments

As regards claims for damages, the law of causation remains a key hurdle for many climate change related claims. The complexity of the energy sector, supply chains and consumer choices all create numerous breaks in the chain of causation, making it difficult to attribute climate change to the actions of one or even multiple companies or governments.

However, developments in the law of causation regarding an issue of similar public importance indicates an increased willingness of the judiciary to develop the law to enable claimants to overcome this hurdle. In the US case Oklahoma v. Johnson & Johnson, concerning the cost burden on the state allegedly resulting from the use of opioids, the court rejected Johnson & Johnson's arguments that the link between the behaviour of which it was accused (the manufacture, marketing and sale of opioids) and the strain on Oklahoma's public health, was too remote to establish causation.

Instead, the court accepted an expansive definition of nuisance, holding that Johnson & Johnson created a public nuisance by engaging in a marketing campaign promoting opioid use. Were this decision to be applied in a climate change related dispute, the effect would be that, rather than having to establish, for example, that marketing material which promotes the use of fossil fuels contributed to the

global snapshot



'primary' nuisance of climate change, claimants would only have to meet a lower threshold of establishing that the marketing itself is a public nuisance. Such developments in the law of causation would help circumvent the significant challenge that claimants have previously faced in establishing causation in climate change disputes.

Shareholder action

The rising sense of urgency around climate change has also prompted shareholders to take action through traditional business mechanisms, such as voting on climate change resolutions at annual meetings.

As a result, 2020 has proven to be a landmark year for investor action on climate change, with significant resolutions being tabled for consideration, many of which were passed. For example, shareholders at a number of financial and energy companies have voted in favour of setting climate targets in line with the Paris Agreement. While not all resolutions have obtained the required majority, the influence that can be exerted by shareholders should not be underestimated, as it has been revealed that some shareholders are now also opting to vote against the re-election of directors of companies whose views do not align with their own.

As this turbulent period of uncertainty continues, it is clear that it has seen many more groups and individuals take action against climate change, both through the courts and other mechanisms, and it is expected that these actions will only increase in number and sophistication. While challenges remain in the prosecution of these claims, legislators, regulators and legal institutions are taking steps to assist claimants in this regard. Similarly, courts are beginning to make positive rulings in favour of claimants. In this evolving landscape, companies and financial institutions must be prepared for legal challenges to their business activities and proactively take steps to limit their exposure to climate change-related claims.

Learn more and read an extended version of this article at whitecase.com.

"The growing use of class action lawsuits in the UK coupled with the European focus on invoking human rights in climate change-related claims suggests that a significant claim of this nature will be issued in the near future."

***Wireline* spoke with Mark Clarke, a partner in White & Case's Dispute Resolution team in London who co-heads the firm's Global Oil & Gas Disputes Group. Mark co-authored the report on climate change-related disputes, along with London-based counsel Tallat Hussain and associates Katherine Daley and Gwen Wackwitz.**

How has the landscape for global climate disputes changed since 2018?

There has been a steady expansion of cases which have become increasingly more complex and sophisticated since the original damages-based climate change-related claims. Claimants now seek to rely on a variety of causes of action including nuisance, breach of climate legislation and guidance, and more recently, breaches of human rights.

Significant procedural developments designed to foster the pragmatic use of legal remedies for climate change-related harms, coupled with these novel causes of action, continue to pave the way for an uptick in these complex disputes. Although US claims continue to face issues of justiciability, European claimants have had a number of high-profile wins where governments have been held accountable for breaching their commitments with respect to climate change.

What is the general outlook for these kind of claims in the UK?

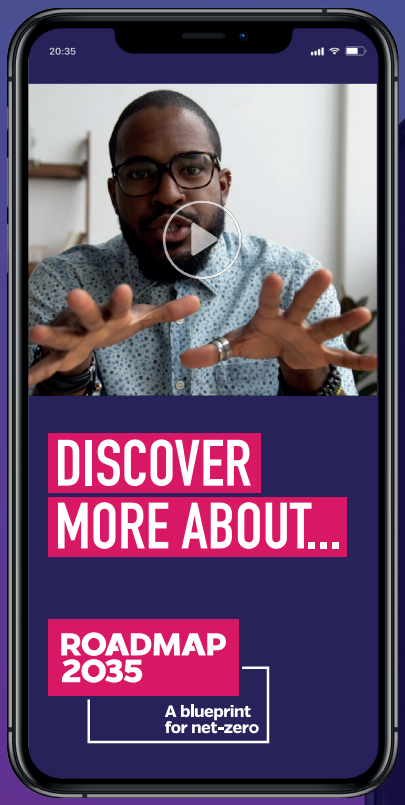
Despite the worldwide increase in climate change related disputes, a significant action has yet to prevail in the UK.

Notably in early 2020, the Court of Appeal ruled that the UK Government had failed to take its climate change commitments under the 2016 Paris Agreement into account when assessing Heathrow's expansion plan and, as a result, found that the Government's recommended expansion plan to be unlawful. This decision was ultimately overruled by the Supreme Court in December 2020, but it remains a stark reminder that infrastructure projects could face legal claims if they do not properly account of their climate-impact, particularly in light of the UK Government's target to achieve carbon neutrality by 2050.

Furthermore, the growing use of class action lawsuits in the UK coupled with the European focus on invoking human rights in climate change-related claims suggests that a significant claim of this nature will be issued in the near future. If a successful claim of this nature is brought, this will undoubtedly set the precedent for countless further claims.

Are the risks for oil, gas and energy companies different to those of other sectors, such as construction or heavy industry?

Certainly – the nature of work conducted by these companies is often alleged to be directly responsible for climate change-related harms. In addition to the risk of claims focussed on breaches of climate legislation, regulation and guidance that all companies face, these industries are at real risk of substantive legal action based on human rights grounds.



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Pilots' peer network cleared for take off

As focus grows on the importance of mental health and wellbeing, North Sea helicopter operators have launched a new peer-led network aimed at supporting pilots across the sector.

While aviation safety is often considered in terms of mechanical processes and procedures, it is equally concerned with the integrity of human operators. The legacy of Germanwings Flight 9525 in 2015 has served as a stark reminder that the health and wellbeing of pilots and crew is as vital to safety as the functioning of a piece of equipment.

As part of legislative changes made by the European Aviation Safety Agency (EASA) in the wake of the incident, a key requirement was the development of resources to help support the mental health of commercial air transport (CAT) pilots – beyond that of their routine yearly medical. Guidance supporting the EASA ruling, issued by the UK's Civil Aviation Authority (CAA), notes that: "It is essential that pilots have an easily accessible route for seeking assistance when under pressure or when symptoms of ill-health first present, so that they can be supported or referred for treatment."

According to that guidance, these support programmes should include (among other things) education on mental health in aviation, critical incident support, evaluation and feedback, and the creation of peer assistance networks (PANs) staffed by trained peer volunteers and supported by aviation psychologists.

Responding to the legislation, UK helicopter operators Bristow, CHC, NHV and Babcock have joined forces to set up a collaborative, shared PAN to support the mental health of offshore pilots.

Rather than each devise a support network of their own, the helicopter operators quickly realised that collaborating on a shared network would offer a broader network of diverse peers who would be better able to deal with any of the questions and challenges that staff might encounter. Speaking with *Wireline*, Bristow Offshore Flight Operations Manager, Captain Guy Holmes, explained the rationale: "If I was needing to reach out for help, I might want to speak to someone at my operation who knows my job, but I might alternatively prefer to speak to someone who works for a different company altogether, or may wish to speak to someone who is female... The only way to offer such a diverse group was to link up with other companies."

He adds that: "There are only a few airlines in the UK large enough to be able to provide their own network of peers that could be confidential and anonymous... At Bristow we looked and thought that ideally, we'd want to be able to provide a genuine peer. We have our oil and gas operations, but we also have Search and Rescue [SAR]; Babcock has oil and gas and additionally, police and air ambulance units – but are they genuine peers to each other? We recognised early on we had to be able to give people choice as to who they spoke to."

As well as being more efficient in terms of training and administrating peer support, this would also ensure any network was led by a true cross-section of pilots and stood outside of the formal structures of any one organisation. "We can accomplish so much more and achieve things we couldn't manage individually," Guy continues. "We can offer this to pilots as a network and a service they are able to trust, because it stands outside of any of the four operators...it stands independently and autonomously."

Opening up

The fact that the group will exclusively serve helicopter pilots also recognises that much of the policy development around the new PAN guidance is geared towards larger fixed-wing airlines, while smaller operators, training establishments and helicopter operators are less well represented. Again, Guy says this will ensure anyone engaging with the new offshore network will be able to speak to a "genuine peer" working in their field.

That's all the more important when considering the unique flying conditions offshore. While helicopter pilots maintain a high standard of training in a very regulated environment and will always work as part of a crew, he is clear about the nature of their roles: "It is a high-pressure work environment. Helicopters are noisy; if the weather's bad you might be flying offshore at night in snowstorms - it can be an exceptionally challenging

Above: Pilots training in a Sikorsky S-92 simulator in Aberdeen.
Source: Bristow

arena to be flying in."

As with many offshore workers, becoming an offshore pilot might also mean moving away from family or friend support networks to be nearer your working base, or occasionally residential rotations in more remote locations. Combined with the potential pressures of paying back training debts and living up to the expectations of the role, pilots may feel they have a lot of weight on their shoulders. He emphasises how important it is for staff to be able to draw on a support system outside of formal corporate or medical settings, if those pressures start to build.

"We are in a society still, where acknowledging mental health issues is still difficult for many... We're trying to open that up and bring it to the surface by working with peers – not with management or HR departments – to work through issues with their own colleagues and people who will understand what they do and how they work," he adds.

Managers from across the companies have all been trained in mental health first aid, but will not be directly involved in the network. The peers can then decide what information is fed back to the companies, giving them a general picture of workforce health and alerting them if any other broader issues need addressing.

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Bristow
YG
Bristow


Bristow


Bristow

"Our role really isn't to offer advice but to put them in contact with people who might be able to help them. It's a service that I think will be incredibly useful – there's absolutely no judgement or stigma attached to it."

Reaching out

The benefits of such networks are well documented, and by no means unique to aviation; such support is deployed throughout many industries and may even form a component of employee assistance programmes (EAP). According to mental health charity Mind, these support settings can be particularly beneficial because "In peer support everyone's views and experiences are equally valued, rather than anyone being seen as more of an expert than others. How much support you give and receive can vary depending on what feels right for you at different times."

The helicopter operators' PAN is comprised of 16 peers from across the four companies, one of whom is CHC pilot Zoe Champion. Zoe is already part of CHC's internal Crew Resource Management (CRM) function and helps deliver training on stress and its effects on mental health, but says the anonymity of the PAN and access to peers outside of the employee's company will hopefully encourage more people to reach out.

The group attended a two-day mental health first aid course delivered by Core Aviation Psychology's Paul Dickens, who provides clinical support to the PAN. This covered different mental health illnesses, the effects of stress on people, routes for coping with it, and how best to help people in immediate distress.

"We're a first contact, someone to talk to for anyone in any kind of mental distress or looking to reach out to someone," Zoe told *Wireline*. "Our role really isn't to offer advice but to put them in contact with people who might be able to help them... It's a service that I think will be incredibly useful – there's absolutely no judgement or stigma attached to it."

The existence of these networks should also serve to remind pilots that taking time out to deal with mental health issues or stress should not be another, additional worry. "A clear message to pilots that suffer from mental health problems or stress should be that almost all recover their flying medicals again," she adds. "I think that's the biggest worry, people don't want to come forward because they suspect they will have their medical suspended."

Zoe says she has been contacted "a few times" since the introduction of the network, suggesting that it is already proving a valuable resource for colleagues to draw on.

Meetings of the helicopter operator PAN have been running since 2019 in the run-up to the initial August 2020 deadline. While the group's intention was to have everything running much earlier, the disruption of COVID-19 limited the ability to meet for combined training and development, and it was officially launched in Q1 2021.

Guy also presses that as a peer-led group, there are no reportable KPIs or success criteria for the network. "We're not looking for any targets or goals," he added. "We would just like pilots to know it's there, it's available, it's public and they can view it there as their first port of call... We will fund it and make sure it's delivering what they need it to be – and that will be our goal."

Source: Bristow

New collaboration puts open data first

As the sector grapples with how best to enhance data and digital capabilities, a new tie-up between Proserv and Intelligent Plant aims to sync their expertise in controls technology and data analytics, while maintaining commitments to open data principles.

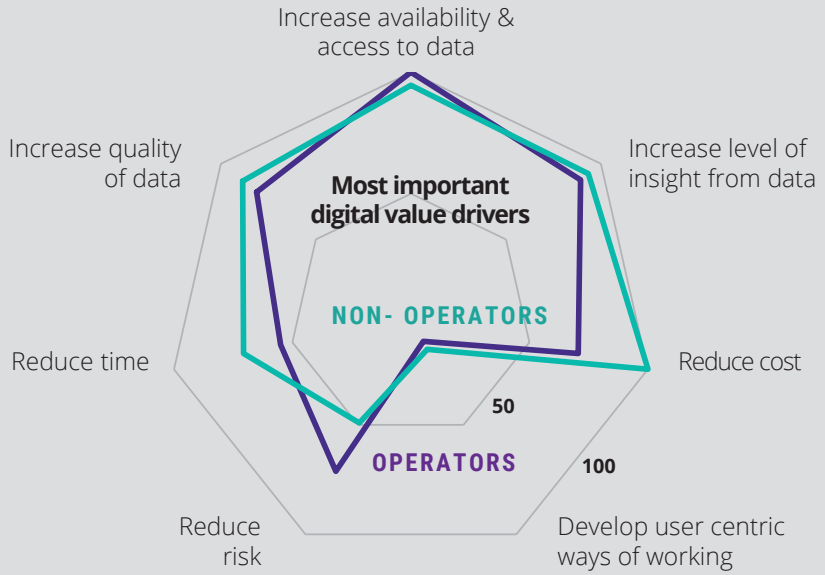
One of the key findings from last year's *UKCS Data & Digital Maturity Survey* was the extent to which the embrace of digitalisation within the oil and gas industry is as much about culture as it is about hardware and software. Author Deloitte notes that: "Full digital transformation requires a holistic approach that also encompasses data, innovation, people and culture."

Moreover, despite widespread efforts (and successes) in fostering collaborative relationships – the OGUK-Deloitte Industry Collaboration Index showed a slight increase to 7.1 in 2020, compared with 7.0 in 2019 – the Survey also noted that models had not yet emerged to fully enable this in the digital space. The authors add that: "The complex nature of the oil and gas supply chain means that collaborative digitalisation is the critical next stage in the industry's journey."

The findings are echoed in the experiences of Proserv Controls digital innovation manager Stuart Harvey and Intelligent Plant founder Steve Aitken. "I think a lot of companies that put people in roles that have the word 'digital' in their job title can affect the culture in organisations... There's a perception that people like me have all the answers and that isn't true," Stuart explains. Reflecting on the nature of what real digital

THE TOP DIGITAL VALUE DRIVERS RELATE TO DATA

Respondents were asked to rank eight digital value drivers in order of importance. Overall score out of 100 was assigned based on average rank.



Left: Monitoring the performance of an industrial system in real-time using Intelligent Plant software.

Above: Findings from the *Data & Digital Maturity Survey 2020*

innovation looks like, he adds: "For me, the way digital transformation success should be measured is by the number of engineers that come forward every month and say: 'I've got this idea, can you help?' Because at that point, congratulations! You have created demand within your organisation."

It was discussions like these that led Stuart and controls technology company Proserv to form a unique 'strategic alliance' with Steve's award-winning software engineering firm, Intelligent Plant (IP). Announced in December 2020, its stated aim was to combine Proserv's expertise in control systems - the source of industrial data – with Intelligent Plant's data connectivity and analytics, where value is extracted. One of the main differentiators, the two stated, would be a commitment to transparency around data access, while also ensuring essential security levels are maintained.

2+2=5

What does that mean in practice? In essence, the alliance is about expanding the capability of what the two firms can offer as part of their services, while retaining the principles that make their businesses distinct. For Proserv, this meant finding a partner who would be comfortable and flexible enough working with the wide array of data output from its various control systems; for IP, it was about ensuring that a controls vendor was committed to an open-access

"Our fundamental differentiation in strategy needs to be making this data open."

Proserv Controls
Digital Innovation Manager
Stuart Harvey

Intelligent Plant
Founder
Steve Aitken

“What’s the opportunity for digital technology? The truth is nothing, unless people want to do it.”

approach to data, rather than the vendor-specific protocols which are largely the norm across industry.

Reassuringly for IP, Stuart says this distinction is a central component of Proserv’s digital strategy: “We see time and again clients getting effectively locked in by protocols and technology used on hardware and software, which ultimately means a lot of the data that comes out is closed,” he continues. “Our fundamental differentiation in strategy in this space needs to be making this data open.”

In that regard, the new alliance has been a meeting of very similar ethics. IP’s main business has been in its Industrial App Store, an online marketplace of apps and web services that connect to industry standard data sources without requiring a local installation. Just as with mobile applications, clients can choose which apps are relevant, connect them to their data sources, and perform visualisation and analysis functions on their time-series data (such as pressures, temperatures, flow rates etc.) and/or alarm and event data (such as outputs from monitors on SCADA systems). IP can assist companies in making the most of their analytics and insights – or customers can pick and choose apps to manage the process on their own.

Linking IP’s app capabilities with Proserv’s pragmatic approach to controls systems enables the two to offer controls hardware and software, data analytics, or any combination of the two. For Steve, explaining this to potential clients can be like telling them ‘2+2=5.’ “Clients really want end-to-end delivery and [IP] have always focused on one part of that and deliberately not done the other bits, for openness,” he adds. “Giving clients this option that allows them to do effectively anything - but also provides an out-of-the-box answer that works - I think this will be a brilliant thing.”

The hope is that their similar ethos, as well as their commitment to keep the alliance philosophy agile and “start-up style”, will be advantageous in offering flexible solutions to suit clients ranging from SMEs to major operators. As much as the two can deliver short-term projects and quick results, it is also about developing their open-data strategy over the long term. Stuart notes that every conversation is valuable for both companies because the relationship between smart control systems and efficient and effective analytics is only set to become closer as time moves on. “It doesn’t matter if we have a joint conversation with a client and all they do is buy IP apps, because eventually those things will become joined up in a wider open market” he says.

Local heroes

As much as it is about the solutions that Proserv and IP can offer, the culture around data access within organisations is arguably even more important. Steve is keen to point out that the most valuable insights from data - and from IP’s apps - will come from empowering teams within organisations, rather than from external providers delivering a project or a package of technology: “Tools like apps require people, they don’t do things on their own... If you really want to embrace them, they’re not just added on top of what you do - it’s about how they can fundamentally change what you do,” he adds.

It’s only once that culture of innovation is encouraged that truly transformative results can be seen. They recall a recent project in which an operator was able to achieve notable production

Above: Proserv subsea controls system apparatus at its Great Yarmouth facility.

efficiency improvements using an IP Alarm app – a positive result that was completely unintended from the app's original use. Its success was down to internal teams using their initiative to identify how tools like this could change how they worked. Steve says: "They were the heroes, and quite rightly so, we need to allow more heroes to come forward and show what they can do with this.

This perhaps gets to the crux of the discussion around 'digital transformation.' If data and expertise are warehoused – whether internally by teams or individuals, or externally by vendor protocols – truly disruptive changes are much less likely to happen. The same goes for financial and leadership support, as Steve continues: "A lot of clients struggle to justify the budget to do stuff in digital because it's seen as a separate budget rather than the main budget. That means that they have to justify the incremental cost on top of what they're already doing - and the assumption is that what they're already doing continues."

Both Stuart and Steve identify procurement as an area that frequently poses a barrier to those advocating for new technologies and new approaches. The nature of standardised procurement, while delivering price competitiveness, can struggle to accommodate truly disruptive technologies. Steve explains: "If you make something that's better and it's defined as better, then it doesn't fit into standard procurement because it's not the same as everything else." While both agree that the North Sea is far more open to new ideas and new thinking than many other basins, it remains a frustration to achieving wider adoption of new processes.

The solution, of course, is not to try and disrupt every process – rather that organisations should strive to find a balance between implementing new ideas (especially those of engaged, empowered employees), and achieving repeatable results with reliable processes and data. "We need to consciously create a balance," he continues.

Despite the obstacles that remain, the model adopted by the likes of Proserv and IP is a step in the right direction, particularly in light of the findings of studies such as the *Digital Maturity Survey*. The technology and the capability for digital transformations already exist – the key will be in the people driving them forward. "That's the challenge," Steve muses. "What's the opportunity for digital technology? The truth is nothing, unless people want to do it."

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