Issue 48 Summer 2020



wireline





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Welcome to Issue 48

elcome to the 48th issue of *Wireline*, the magazine for the UK offshore oil and gas industry — and welcome to a new era.

The world looks very different to how it did when our last issue was published just a few months ago. Few have been unaffected by the spread of COVID-19, and it's clear that its effects will be with us for some time. The energy sector in particular has been hit by a series of interlinked issues, including international supply disputes, an unprecedented collapse in demand (21 million bpd year-on-year in April according to Wood Mackenzie estimates), negative oil prices and extensive activity cancellations. While prices have since stabilised, the route to recovery will take some time and the industry that emerges is unlikely to resemble that seen in prior cycles

Our Spring issue began with several references to transition and transformation; this issue continues those themes. In June, OGUK published targets which chart a path to a 50% reduction in production emissions by 2030, en route to a net-zero basin by 2050 [see p 9]. Further work continues to support the development and deployment of CCUS, hydrogen and other low-carbon solutions.

Inside this issue, we have an exclusive interview with Minister of State at the Department of Business, Energy and Industrial Strategy, Kwasi Kwarteng MP, who discusses how government intends to support the sector on this path.

Similar support must also be extended to our people. The OGUK D&I Taskforce is working to address underlying inequalities and reiterates its call for company leaders and everyone working in our industry to be unequivocal in their commitment to racial parity. The message of the Black Lives Matter movement across the globe reminds us that no individual, business or industry can be complacent in efforts to address injustice and ensure greater inclusivity and equity.

We also explore the amazing efforts of our membership in responding to COVID-19. Whether donating food and equipment, volunteering within local communities or manufacturing vital safety equipment, the sector has pulled together in incredible ways. *Wireline* hears from some of the people on the front lines of these efforts [p 24]. In addition, we look how IT departments across the industry have enabled many of us to work safely and remotely [p 38].

Of course, plenty of businesses continue to operate and make investments for the future. We hear how chemicals manufacturer SNF is supporting an increase in enhanced oil recovery activity on the UKCS [p 20], while the operators of Kishorn Port in north west Scotland look to cement its place as a key location for both oil and gas and renewables work [p. 34].

Wireline sits down with oil and gas chaplain Reverend Gordon Craig, who considers the changing nature of remembrance and the new drive for greater mental health support within the sector [p. 47]. And ten years on, OGUK personnel also chart the safety legacy of the Macondo well disaster on the UKCS [p 44].

We wish everyone the best as we continue to navigate difficult and challenging times, and our thanks for reading *Wireline*.

Design, Digital & Editorial Team OGUK

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Cover image Courtesy of INEOS wirelinemagazine.co.uk





News

You can find OGUK's new London office right next to St Paul's Cathedral..



OGUK makes new base in the City

As of 9 March 2020, OGUK's London office has moved to a new location.

OGUK is now sited in the heart of the City of London, next to St Paul's underground. The newly furbished offices offer greater meeting space as well as a co-working space accessible to visiting members.

Our new address is:

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

We look forward to welcoming more members to our new location once government guidelines permit.

Chief executive visits Met Office

Late February saw OGUK chief executive Deirdre Michie travel to Exeter to visit associate member, the Met Office — the national meteorological service for the UK.

Deirdre was met by a team of marine scientists and climate change specialists who talked through their work in providing meteorological services for the offshore energy sector.

The Met Office's specialist forecasts and weather window analyses help the UK oil and gas industry minimise weather-related risk and uncertainty, reduce operational costs and ensure safety at sea.

Supply chain looks for SOCS

OGUK has agreed to support cyber security professionals in the oil and gas supply chain by recognising the industry Service Organisations Cyber Security Forum (SOCS) as an OGUK Special Interest Group.

Open to all companies in the supply chain (except IT software, hardware, services and consultancy providers), SOCS holds weekly calls to share current threat intelligence, and quarterly face-to-face meetings at which more strategic opportunities for collaboration are discussed, ranging from potential shared services and industry projects through to questions of capability and skills. The Terms of Reference for SOCS are available on the OGUK website.

To find out more, and to enquire about joining, please contact Daniel Brown.

Below: Committee on Climate Change CEO Chris Stark (left) addresses attendees at OGUK's APPG reception in Westminster, 11 March.

Right: OGUK's three-stage framework for industry recovery.

Below right: OGUK's Gareth Wynn with ABB's Head of Energy Transition to Net Zero (UK), Stuart Young at the Imperial College London CCS pilot plant.



Stakeholders welcomed at APPG Reception

Prior to lockdown in mid-March, the annual UK Oil and Gas APPG Reception was well attended by MPs and Industry representatives on the Terrace of the House of Commons.

Guests were addressed by CEO Deirdre Michie, Chair of the APPG Peter Aldous MP, and Committee on Climate Change CEO Chris Stark (pictured), the author of the ground-breaking Committee on Climate Change report.

All of the speakers stressed the need to meet our net-zero ambitions, and the need for the industry and stakeholders to come together to achieve that. OGUK would like to thank all members and stakeholders who attended the event, despite difficult circumstances.

Three-stage framework proposed to secure jobs, sustainability

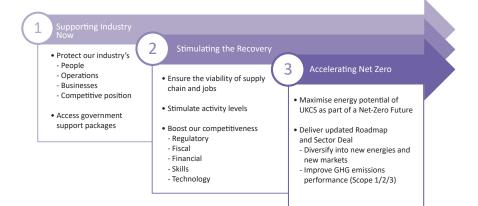
Published on April 28, OGUK's *Business Outlook: Activity and Supply Chain* report, has called for urgent action to protect energy security, jobs, and energy regions following the impact of COVID-19 on operations and commodity prices.

Findings indicate that industry CAPEX could fall to between £3.5-4 billion, the lowest investment since 2000 and amongst the lowest levels of investment since the early 1970s. OGUK also anticipates that OPEX will be reduced by 10-20%, compared to expectations at the start of the year, to around £6-7 billion. As a result, up to 30,000 jobs in the sector could be under threat without urgent collective action.

OGUK has asked governments and regulators to support a three-stage framework to support the sector in dealing with the immediate crisis while positioning it to play a key role in the UK's transition to a net-zero future. Recommendations include improved current COVID-19 financial packages, retaining a sector-leading and progressive regulatory, fiscal and policy framework, as well as the development of a sector deal which will support the supply chain and accelerate the UK towards net zero.

UK NDR: Happy 1st Birthday!

The UK National Data Repository for technical oilfield data celebrated its first birthday on 19 March. Operated by CDA, OGUK's data and digital subsidiary, and built





on data foundations laid by industry over the last twenty five years, the NDR has now become the prime industry source for UK well, seismic, and other technical oilfield data, available free to download (self-registration required), or on media for a small handling charge.

Inside Imperial College London CCS pilot plant

With the offshore oil and gas industry looking to support the energy transition, OGUK Stakeholder & Communications director Gareth Wynn visited Imperial College's carbon capture pilot plant in west London to learn more about this vital technology.

The pilot plant forms part of Imperial College's £8.9 million ChemEngSpace

Project and is used for undergraduate teaching. Overseen by a state-of-the-art ABB control room, the plant features an extensive selection of ABB products and systems used in a broad range of industrial applications worldwide and is designed so that students get hands-on experience in cutting-edge industrial applications. By using this equipment, students can gain valuable practical experience of plant operation that will help prepare them for the industrial challenges of tomorrow.

The plant uses a mono-ethanol amine (MEA) solution for absorption and has capacity to capture up to 50 kg of CO, per hour.

Gareth said: "As a non-engineer it was exciting to understand the technology of how CCUS works and to hear how it can be scaled up. Seeing this pilot plant really brings to life that the main challenge with CCUS is a commercial one about how to get the money to scale up, rather than a technical one. We also had a great conversation which

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showed the enormous potential scale of carbon storage in the UK. It is clear it can be a major contribution to achieving net zero."

Young Professionals' webinar looks to future skills

April saw OGUK host its first free Young Professionals' Webinar. Attended by over 370 people in the energy industry, the event offered a virtual opportunity to hear first-hand from leaders in the industry as we navigate what are challenging and unprecedented times due to a turbulent oil price and the COVID-19 pandemic.

Hosted by OGUK's continuous improvement manager Emily Taylor, panellists included OGUK chief executive Deirdre Michie, Opportunity North East chief executive Jennifer Craw, and OGUK Apprentice of the Year 2019, Ashley Thomas of BP.

OGUK market intelligence manager Ross Dornan presented on the current market conditions and gave an overview of the overall industry landscape. The panel then took questions from the attendees, with queries covering the future of industry, skills required for renewables sector and job retention. The energy transition continues to be a key focus for the industry and there was a big appetite to hear more.

Emily Taylor added: "It was fantastic to see so many people join the webinar and we were able to ask attendee's questions to get interaction and live results as the panel answered questions. It was reassuring that over 63% agreed that they could see themselves as having a career in the energy industry. We will be scheduling more in the coming weeks to address all the questions we ran out of time for."

View the full webinar on OGUK's Vimeo Channel.

New tool promotes collaborative approach to problem-solving

OGUK's Continuous Improvement Network has developed a new online knowledgesharing network aimed at encouraging companies to work collaboratively to share problems and source solutions to their efficiency challenges. The Problem-Solving Network enables companies to make quick connections and find support amongst their peers to help them achieve continuous business improvement.

Accessed via the OGUK Efficiency Hub, users can post problems and have them reviewed by the Improvement Network, whose members will apply their expertise to sourcing specialists in their field and finding answers.

Industry recovery plan focuses on net-zero opportunities

OGUK has convened a group of experts to help shape the sector's recovery as it looks beyond the immediate health and safety issues posed by COVID-19. BP regional president Ariel Flores, Aker Solutions Head of UK and SVP Europe and Africa Sian Lloyd-Rees, Asset Solutions CEO at Wood Dave Stewart, VP Upstream at Shell Steve Phimister and Chrysaor CEO Phil Kirk will develop a strategy for the sector to recover as part of OGUK's three stage framework revealed at the end of April.

The recovery group will focus on opportunities with short to mid-term impact, with a view to stimulating much needed



fresh activity for supply chain companies. Proposals to bring forward net-zero projects in energy communities across the UK are already at the centre of discussions on how to boost business opportunities, with industry leaders set to open discussions with the UK and Scottish Government on Carbon Capture and Storage, hydrogen and floating wind.

The group will explore opportunities from exploration to decommissioning, from maintenance programmes and desktop engineering design work, to offshore work programmes, to identify where projects could be brought forward or more widely promoted to stimulate activity levels for companies servicing the sector.

OGUK operations director Katy Heidenreich said: "We know that we can't wait around for a recovery to come to us, which is why we're already in action to understand where we can support supply chain companies and identify fresh opportunities in a challenging low oil and gas price environment.

"Many of our members are already active in bringing carbon capture and storage, hydrogen and offshore floating wind projects to life across the UK. Our recovery plan will not only look at how we can support the oil and gas industry through improving our competitiveness as a basin, it will also look at how we can use this as an opportunity to position ourselves as an incubator for net zero projects."

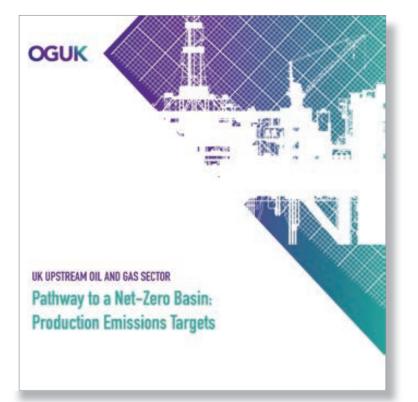
Disruption opens new opportunities for D&I

OGUK hosted its first Diversity & Inclusion webinar in May. Entitled 'D&I — An Opportunity in the Disruption' it saw participants share insight into the Task Group's current work and reflections on the current situation with the aim of shaping a stronger, diverse and inclusive culture across the sector.

The webinar was chaired by Craig Shanaghey, D&I Task Group Chair and president operations services (Europe and Africa) at Wood, and was attended by over 300 people across the industry. Speakers included Kalor Consultancy's Mavis Anagboso, Baker Hughes' Findlay Anderson, Atkins and AXIS Network Chair Karen Blanc, Susan Brimmer of the OGTC and AFBE-UK co-founder Ollie Folayan.

The Task Group welcomes everyone to join the conversation and share their experiences in the dedicated LinkedIn group. Below: OGUK sets out the route for lowering production emissions in its Pathway to a Net-Zero Basin report.

Right: OGUK sustainability director Michael Tholen.





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OGUK charts pathway to offshore emissions reduction

The UK's offshore oil and gas industry has committed to halving operational emissions in the next decade, confirming its pathway to becoming a net zero emissions basin by 2050. The sector is one of the first in the UK to commit to industry-wide targets and provide details on how they will be achieved.

An OGUK report titled *The Pathway to Net Zero: Production Emissions Targets,* outlines how these targets will be achieved through changes to operations, progressive reductions in flaring and venting, and major capital investment programmes aimed at using electricity rather than gas, to power offshore facilities.

The targets form a key part of a transformational sector deal now in formal discussion with the UK Government. With jobs, the supply chain and energy communities at its core, this sector deal will consider how the UK's oil and gas industry can support a green recovery.

This could see the sector support wider UK efforts to decarbonise, using its skills and

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infrastructure to develop critical carboncutting solutions such as industrial scale Carbon Capture Usage and Storage, and the use of hydrogen for heating and heavy transport.

Commenting on the publication of the strategy, UK Government Minister for Energy Kwasi Kwarteng said: "The offshore oil and gas sector's commitment to halving operational emissions over the next decade is a welcome step for an industry that has a vital role to play in our energy transition in the years to come. The UK Government will continue to work tirelessly with all partners to deliver a dynamic Sector Deal. This will further support the industry in becoming more sustainable, as we work towards achieving net zero emissions by 2050."

Scottish Government Minister for Energy, Connectivity and the Islands, Paul Wheelhouse MSP, said: "I welcome this report from the UK oil and gas industry and the ambitious targets committing it to halving operational emissions over the next decade. This is not only an important commitment from one of Scotland's key sectors, but a significant step to support Scotland's just transition to net-zero which helps us move at pace.This report is timely as it follows the Scottish Government's announcement on Friday 12 June of £62 million to support our energy transition."

Debriefing decommissioning

OGUK hosted its first decommissioning webinar that shared knowledge gained from UKCS decommissioning projects. The event comprised of two presentations: the first focusing on CNOOC International's Ettrick and Blackbird project, while the second featured Wintershall's Sillimanite Project.

Hosted by OGUK Decommissioning Manager Joe Leask, the event was attended by over

300 people from across the industry and across the world. Speakers included Innes Jordan of CNOOC International, Maarten Richard and Lars van Zelm of Wintershall Noordzee, and Pauline Innesof the Oil & Gas Authority.

Joe commented: "The first decommissioning project wash-up webinar was a great success. There is a lot of interest in learning from completed decommissioning projects and there is already a lot of experience in the UK and North Sea. This was clearly demonstrated by the number of attendees to this event, with people participating from all around the world.

At OGUK we play a central role in ensuring that the industry talks to each other and learns from each other. Going forward we will look to build on this events' success, with many more Decommissioning Project Washup sessions planned, capturing learnings and driving improvements on future projects."

L-R: OGUK decommissioning manager Joe Leask and communications adviser Lucy Gordon visit the Well-Safe Guardian in February 2020.





Follow us on social media and subscribe to our events email updates for more information

oilandgasuk.co.uk/events



In light of the ongoing coronavirus pandemic OGUK is reviewing the events programme for the remainder of 2020 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

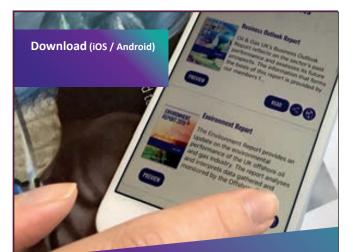
We look forward to announcing these details in due course.

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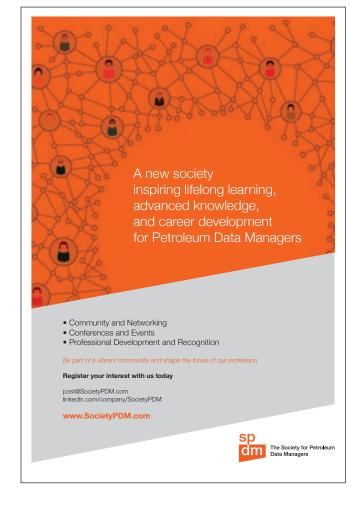
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OGUK

A book to inspire more girls to join the Oil & Gas industry





Calling all case studies

As the UK energy industry aligns to deliver net-zero emissions by 2050, OGUK is looking to share success stories.

s we step up our collective activities to transform understanding, reposition our industry as part of the solution and integrate the sector in a comprehensive UK energy strategy, we will increasingly need tangible examples which enable us to tell our story through facts and evidence.

From emissions reduction, to the efficient and safe production of domestic resources, to programmes which look to promote diversity and inclusion, OGUK is looking for any examples which reinforce and support our position that industry is in action.

These examples will be promoted to key stakeholders — from politicians to the investor community and the wider public — to help demonstrate the delivery of Roadmap 2035: A Blueprint for Net Zero. The primary vehicle for this will be our website, however we also intend to draw on this content to create podcasts, videos, 1-2-1 presentations and in briefings to media.

We are here to help articulate your story, so we do not expect a fully formed case study at this stage — a press release or an internal blog is a good start.



L-R: Regulatory Affairs Manager Cassandra Smith, General Manager EMENA Susan Hart.

RISE to the challenge

One example of a successful study has been provided by oilfield solutions provider ChampionX. The RISE programme was created to Recognize, Inspire, Share and Engage ChampionX associates to measurably accelerate the advancement of women leaders to drive business growth. The Aberdeen RISE chapter was launched in 2018 and has developed a strong community while delivering opportunities for networking and mentoring.

The scheme provides opportunities for all associates to voice their thoughts and give members opportunities to develop different personal strengths aligned with their development plans, with a focus on inclusivity.

The Aberdeen RISE team currently has five committees to support its goals. Membership and Communications plans and communicate events aligned with RISE strategic goals and objectives. Professional Development provides opportunities for all members to design and deliver training, with examples including courage training and transferable skills training.

Networking opportunities enable the development of purposeful networking skills, while one-on-one mentoring sessions help program participants in specific areas such as teamwork and diversity, global leadership, financial, and general career development.

Finally, the virtual committee provides opportunities for field and remote associates to participate in the programme and its goals.

RISE currently has 125 members, and its 12 events have reached 425 attendees, with more planned for the future.

If you have a story demonstrating a success in key sector areas such as efficiency, diversity and inclusion, energy transition or skills development, please get in touch. You can e-mail us your case studies and ideas to **casestudies@oilandgasuk.co.uk** and we will work with you to develop them into shareable formats.

Crisis management

OGUK leadership reflect on the industry's response to COVID-19, and how the industry can be steered through its recovery.

s the operational and economic responses to coronavirus begin to stabilise, *Wireline* asked OGUK chief executive Deirdre Michie OBE and health and safety director Trevor Stapleton to reflect on the challenges and lessons of responding to a global pandemic.

What are your general reflections on the past few months? Has this period been like anything you have experienced before?

TS: As a North Sea incident management team (IMT) leader in a former life, you do your exercises to prepare for major events, but this was something completely different. I suppose the closest we could have got to this was BP's Macondo incident, which for the company was like its own pandemic and took up a huge amount of resources. I was involved in that response on the periphery, but I've never personally gone through anything like this.

DM: I agree, it's not comparable with anything I've been involved in before. Like Trevor I've been involved in emergency response to tragic incidents where we have lost colleagues which were really difficult. COVID is so multi-faceted. We were and are all being challenged personally, operationally and economically and it is still coming at us from all these different directions.

In previous instances you might be able to look for support from other sectors, such as in the previous downturn, but with COVID everywhere you turn everyone is impacted. That for me has been the difference in terms of what has gone before.

What has OGUK and the wider industry done well in response?

TS: I think the way that we stepped up to handle the immediate crisis is really a testament to everyone involved. OGUK has been at the forefront of a number of initiatives including working with the four helicopter operators to get personnel and suspected COVID cases transported safely, and ensuring that helicopter operations kept going.

We established the Pandemic Steering Group

(PSG) with a good cross-section of our industry and by adopting an agile way of working, we were able to address the many COVID-19 issues by working through smaller targeted sub-groups such as aviation, medical, logistics and find solutions to problems as they arose.

DM: Building on that — I think the regular connection and communication and working of issues in real time with our members and all our stakeholders has been absolutely key.

We worked closely with both governments and their officials, and then with our members and stakeholders to get insights and feedback, as well as the Oil and Gas Authority (OGA), other trade associations, unions and Step Change in Safety. There was a whole raft of people we worked with constantly and relentlessly and we really appreciated the support and access that we had with them all.

We also worked with members in terms of the financial impact on their businesses — helping where we could in terms of explaining and accessing the Chancellor's support package. We could then share with government what was working well and sought to get amendments that would be helpful to our sector. The extension of the furlough scheme was a great example of this.

How would you characterise the response from industry and stakeholders?

DM: I think it's been excellent. The stakeholders that we work with, and both governments, have been really receptive and open and everybody has wanted to support and be helpful. That was the overwhelming feeling in the first few weeks and there was a lot of solidarity that we are all in this together and we need to work together like never before.

TS: I would echo that. OGUK was a focal point in terms of working issues and providing information and communicating on behalf of the sector. We worked hard across the whole industry and it really has been and continues to be a great example of cross-sector teamwork!

DM: We have also been able to reach out to the





Above: OGUK health and safety director, Trevor Stapleton.

Right: OGUK chief executive Deirdre Michie OBE. supply chain through Matt Abraham and his team and tried hard to understand how we can support them, recognising they were also facing the brunt of this. We've had really positive feedback from the supply chain in that regard.

Are there any lessons or changing behaviours which may be taken forward into the new business environment?

DM: If you have a purpose and if you work collaboratively and take people with you, you will deliver results. It's a shame that it can take a crisis to reinforce that we should be working more like this on a daily basis. Obviously you can't work in that context all the time but that reinforcement of common purpose — why this industry is important and why the safety of our people is important — we just have to keep focused on that.

TS: My focus would be around the pandemic response itself. I think we will look back over the past few months at what worked and where we could improve and establish clearer relationships for the future. This crisis has allowed us to test our response plans beyond just desk studies and a lot of people will now sit and reflect on this experience. That also means we now know exactly what to do should a pandemic ever return.

How do we ensure that we are able to weather this storm over the next 6-12 months, and do it safely?

DM: It continues to be really tough and so our threestage framework is helping to provide a route ahead for the sector. All three phases — Protect, Recover, Accelerate — are key and underpin each other and they have the health and safety of our people and operations at their heart. Protect is all about ensuring the health and safety of our people as we go through the lockdown phase of the pandemic. Recover seeks to show we go back to work safely and stimulate more activity to try and secure as many jobs as we can. Accelerate is about moving at pace to the opportunities that net zero offers our sector in terms of jobs and supporting the supply chain which is under significant and sustained pressure. The challenges ahead are real and relentless but not insurmountable.

TS: It's quite simple for me, and there are two aspects. The first is to keep working the four themes of our strategy in terms of reducing the risk of COVID-19 being transmitted offshore, maintaining helicopter operations, ensuring the health and safety of those working offshore and dealing with the logistics issues. There is also a missing piece of the jigsaw for me right now, and that's asymptomatic testing of our workforce, using NHS test centres without compromising frontline NHS and care home operations. I believe this is essential as it allows for offshore operations to adopt a pragmatic approach to increasing manning levels back to where they were pre-pandemic.

The second aspect is that the plans we had for 2020 haven't gone away; they still exist! Hydrocarbon releases still have to be reduced, the physical and mental health of the offshore workforce requires attention, aviation safety still dominates the agenda — all the issues that were confronting us before, require the same level of focus we have applied whilst dealing with the COVID-19 crisis.

Now we can see that our strategy to deal with COVID-19 is starting to lower the risks, we have to pay similar attention to these topics and we will start getting after them to ensure we continue to enjoy a safe and healthy working environment.

Member News

IOG awards contracts following FDP approval

The Oil and Gas Authority (OGA) has given approval for the first phase of Independent Oil and Gas' (IOG) Core Project to proceed, paving the way for further contract awards and construction throughout 2020-21.

Developed as a joint venture with CalEnergy Resources (UK), Phase 1 of the Core Project comprises the development and production of the Southwark, Blythe and Elgood fields through a total of five wells, with gas transported onshore via the Thames Pipeline. Despite the disruption of the coronavirus, the company affirmed in late April that project execution activities remained on track and that there was no immediate impact to its planned schedule.

CEO Andrew Hockey commented: "We are very pleased to have received this milestone approval for our core UK gas project. Such government endorsement brings a welcome boost to the UK offshore industry and supply chain given the current environment. This innovative low-carbon project, re-using previously decommissioned infrastructure to develop otherwise stranded domestic gas resources, is a definitive example of Maximising Economic Recovery (MER)."

IOG followed the approval of the field development plan (FDP) in early May with confirmation that Subsea 7 had been awarded an Engineering, Procurement, Construction and Installation (EPCI) contract for Phase 1, covering Subsea, Umbilicals, Risers and Flowlines (SURF).

The SURF contract incorporates project management, engineering, procurement, construction and installation activities for the subsea elements of Phase 1, including a 6km extension linking the Thames Pipeline to the Southwark platform, and a 25km line connecting the Blythe platform to the Thames Pipeline — both of which IOG says will be loaded onto pipelay vessels in the summer. The contract also covers a 9km pipeline and an umbilical connecting the Elgood field to the Blythe platform, as well as associated structures and tie-ins.

In early June IOG also confirmed the award of a Phase 1 well management contract to Petrofac.

Drilling Systems trials web-based software to train drillers remotely

Simulator developer Drilling Systems, part of 3T Energy Group, has launched a webbased version of its well control simulation software following successful trials with Louisiana State University (LSU). LSU was looking for a way to continue delivering highquality academic instruction to its drilling and well control students during the current coronavirus outbreak and worked closely with the company to develop a solution.

Drilling Systems adapted its existing well control training software into a cloud-hosted product to enable remote well control learning for the very first time. Accessed through a web browser via tablet, laptop or desktop computer from anywhere in the world, it has allowed LSU to create virtual classrooms where students could develop and fine-tune well control skills remotely, overseen by an instructor.

The company says its simulators provide an "ultra-realistic learning experience", which mirrors drilling and well control operations in the field. Using scenario-based training models and realistic graphics, the software takes human factors and emergency response into account to develop a person's drilling and well control skills and create someone who is 'industry-ready.' Following this successful trial, the company launched the suite online under the product name 'iDrillSIM'.

3T Energy Group director of simulator operations Clive Battisby added: "Coronavirus is a fast-moving situation and the industry needs to act quickly to adapt to this changing and challenging environment. At a time when people are simply unable to go into training centres or attend universities and colleges, we wanted to develop a solution which can help support well control training and ensure the industry maintains its high safety standards."

National Decommissioning Centre secures first anchor partner

The National Decommissioning Centre (NDC) and Chevron Corporation (CVX) have signed an agreement that will support research at the NDC through to 2023. The anchor partnership will fund a portfolio of research projects that will aim to better quantify the environmental impacts of decommissioning and provide guidance on best options from an environmental perspective.

The projects will focus on techniques for monitoring fish stocks around installations and pipelines as man-made marine habitats, the bioavailability of potential decommissioning-related substances, and modelling the longevity and eventual fate of offshore infrastructure left in situation. Based at the centre's Newburgh campus, projects will be delivered by three PhD students and a postdoctoral researcher under the supervision of biological sciences and engineering academics from the University of Aberdeen.

Below: OPEX Group VP of Data Science, Danny Farquhar

This is the first anchor partnership between the NDC and an energy major, and according to the organisation marks "a significant step forward" in its aim of working with companies to become a global leader in research and development focused on reducing costs, extending field and asset life, and transforming the approach to decommissioning.

NDC director Professor Richard Neilson thanked Chevron for its support and noted: "We will be providing Chevron with rigorous and unbiased evidence to assist its approach. The research around fish stock techniques, bioavailability of substances and longevity and mode of breakdown of oil and gas structures will provide valuable information that will inform decision-making."

Peter Oliver, senior staff environmental scientist at Chevron, added: "The work we have planned with the NDC is an important part of Chevron's research to better understand the environmental implications of decommissioning across the breadth of our international operations. Our agreement with the NDC is an effective way of leveraging outstanding UK science and technology."

OPEX Group launches emissions reduction service

Following significant investment in technology development, OPEX Group has launched X-PASTM Emissions — a new data science service enabling operators to reduce CO_2 intensity and emissions from their oil and gas operations. This new service aims to help customers reduce annual CO_2 tonnage by 15%, at a time when operators are seeking to cut costs and achieve ambitious net-zero targets.

Powered by the company's predictive technology, X-PAS™ Emissions dynamically



calculates and displays in real time the lowest achievable emissions intensity for an asset's production target and plant configuration. Through the X-PASTM Emissions portal, users have full visibility of the energy use and emissions intensity of their assets and the operational actions they can take to reduce CO_{2} emissions.

Danny Farquhar, VP of Data Science at OPEX, said: "It's encouraging to see the work that is going into initiatives such as carbon capture, hydrogen, electrification and renewables, however these are likely to be medium to long term solutions and our industry also needs solutions that make an impact now. The X-PAS[™] Emissions service makes use of existing data and is currently being rolled out to the first customers over the coming weeks. The interactive tools and displays are easy to comprehend by everyone, not just engineers."

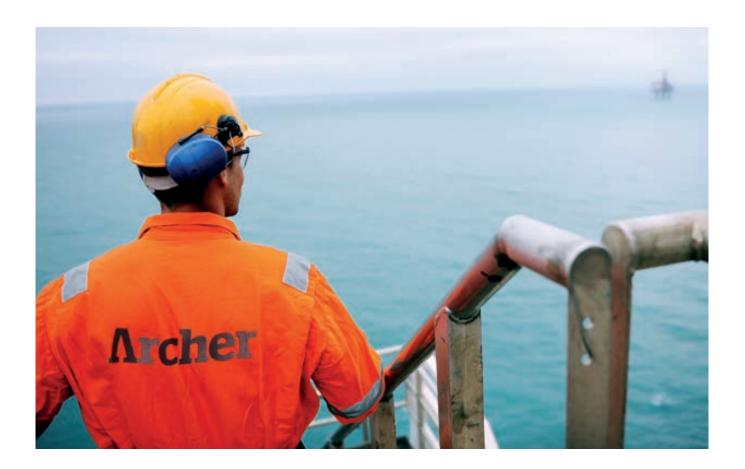
"The service delivers immediate impact by reducing energy consumption and direct emissions intensity. This not only helps to lessen environmental impact but also drive down EU ETS costs and fuel costs at a time when the industry is facing significant pressures."

Bureau Veritas sees 900% rise in demand for remote inspection of offshore rigs

Testing, inspection and certification services provider Bureau Veritas has reported a 900% rise in demand for the remote inspection of offshore assets and equipment since the outbreak of the COVID-19 pandemic.

Bureau Veritas says requests for its remote inspection, certification, examination and verification services has escalated from a 'want' to a 'need' this year as businesses seek to keep employees safe from the coronavirus. A number of remote inspection solutions are already in progress for operators and oilfield service companies and there have been in excess of 20 additional requests since the start of this year.

Member News



Inspections and verification are vital for offshore companies to comply with legislation and ensure the efficiency and performance of their assets and equipment. Using mobile cameras and existing personnel, Bureau Veritas employees can carry out these essential services remotely onshore, limiting close contact and reducing the need for travel.

Archer's UK Engineering division awarded Cormorant Alpha contract

Archer has secured a formal contract award for the provision of derrick equipment set

(DES) and derrick removal services on Cormorant Alpha by TAQA.

The scope of services includes the engineering design and preparation dismantlement activities, derrick in modular sections by specialist rope access teams followed by the deconstruction and removal of the DES drillfloor and major structures. Following removal of the existing DES package Archer's engineering teams will prepare the platform's drilling and pipedeck structures to enable the platform to receive a modular drilling rig for plug and abandonment (P&A) operations.

The engineering activities in relation to the derrick removal activities are estimated to commence from mid-May 2020 with the offshore deconstruction works estimated to commence mid to late Q1 2021.

ODE achieves duty holder milestone on Babbage installation

ODE Asset Management Ltd (ODE) has secured a contract from NEO Energy for the Babbage Field in the Southern North Sea, its first appointment as duty holder on the UK Continental Shelf (UKCS).

ODE is no stranger to the Babbage asset. The company has acted as operations and maintenance provider since the project phase and successfully transitioned the platform from normally manned to not normally manned status in recent years. The company's continued involvement in Babbage is important business continuity for NEO Energy, particularly in securing existing jobs managing the offshore asset.

Cyberhawk offices near Ratho, Edinburgh.

PD&MS secures three-year contract with Spirit Energy

International engineering and design specialist PD&MS Group has been awarded a new three-year contract with Spirit Energy, with options for a further three-year extension.

The deal, worth an undisclosed multimillionpound sum, will see the Aberdeenheadquartered firm deliver complex modifications for the E&P business.

The engineering, procurement, construction and commissioning firm has worked with Spirit Energy, providing decommissioning support in the Morecambe Bay area. Building on this existing relationship, the new contract will see PD&MS carrying out campaigns both onshore and offshore in the execution of Spirit Energy's complex modifications delivery strategy.

Cyberhawk awarded five-year software contract with Shell

Drone-based inspection and asset visualisation expert Cyberhawk has secured a five-year, multimillion-dollar software contract with Royal Dutch Shell plc (Shell).

The company's iHawk platform will become Shell's next generation visualisation software platform for all onshore, offshore and subsea assets, as well as all global construction projects.

Cyberhawk, which has been working with Shell since 2012, will support the



supermajor's digital transformation strategy, providing a central platform for all digital and visual data sources. Additionally, iHawk will provide a fully enabled IoT solution by seamlessly integrating third party sensors and APIs specifically developed for Shell.

The contract follows the successful integration of iHawk at a \$6 billion construction project in the USA, where it is now being used by over 800 monthly users and has been rolled out at further sites in the UK, Central America and Africa.

Following the completion of Shell's firstin-class drone audit earlier this month, the contract accompanies Cyberhawk's global aviation authorisation within Shell. This permits drone-based inspections and surveys across all Shell facilities and marks Cyberhawk as the first and only drone operator to be approved to work on all Shell sites globally.

Altrad takes construction, hook-up and commissioning contract for Tolmount

Services group Altrad has secured a contract for the provision of temporary access, engineering design, insulation, corrosion and fire protection, rigging and LOLER support to enable the hook-up and commissioning of the Tolmount offshore gas platform.

The contract, which commences immediately, will encompass Altrad mobilising resources to Ravenna in Italy for the construction phase of the phase of the project, followed by the hook-up and commissioning phase located offshore in the Southern, North Sea.

Tolmount is a 50/50 joint venture between operator Premier Oil and partner Dana Petroleum, supported by another infrastructure joint venture between Dana and Kellas Midstream which will finance the platform and pipeline (collectively known as the Humber Gathering System).

This award builds upon Altrad's long-term relationship with Rosetti Marino, which was last active in 2013, when Altrad successfully supported the construction, hook-up and commissioning of Total's West Franklin and Elgin B platforms in the UK North Sea.

Altrad director of Business Development & Strategy, Peter Hughes, commented: "The award of this contract, marks the beginning of Altrad's transformation strategy in the UK offshore sector, wherein we have restructured the business, to put our client's objectives at the heart of our decision making. This opportunity allows us to prove we can deliver enhanced value for our client, which exceeds that available from our competitors, and we will demonstrate that, not in our words, but in how we deliver a superior outcome for our client."

Ready when you EOR

Following a sizable investment in new capacity, chemicals supplier SNF looks to the next wave of chemically enhanced oil recovery projects on the UKCS.

ith producers looking to the future of the UK Continental Shelf (UKCS), it's clear that alongside new exploration efforts and smarter technologies, extra

efforts will be needed to support existing assets as they approach the end of their productive lives. Central to those efforts will be chemically enhanced oil recovery (CEOR) programmes.

Also known as 'tertiary oil recovery', EOR is a catch-all covering any operations that use additional techniques beyond natural reservoir pressure, pumps or water injection to return oil and gas to the surface. Typically, this may include injecting gas, specific blends of saline water and/or bespoke chemicals, all of which help push more hydrocarbons out of the reservoir structures faster, and boost recovery.

In support of wider Maximising Economic Recovery (MER UK) plans, the OGA has developed an EOR Strategy which includes these technologies, and explicit support for the economic development of at least 250 million barrels of oil equivalent (boe) of incremental reserves — primarily through polymer CEOR programmes — over the next decades. This involves working with operators and the supply chain to support new and existing projects, and to drive risk reduction via technical and economic improvements.

SNF is set to play a key supporting role in these efforts. As the world's largest supplier of polyacrylamide — a vital polymer for the CEOR process — the company has been involved in many of the large-scale CEOR projects commissioned to date across the world. Part of the SPCM Group headquartered near Lyon in France, its 23 factories support oil operations on every continent, as well as the mining, water treatment and paper industries.

Growing interest in EOR has seen the company's reach expand further. "SNF's growth beyond its traditional water treatment, pulp and paper, and mining markets has been driven by the global oil industry," SNF UK managing director Andrew Woollin tells *Wireline*. This has included supplying polymer for China's onshore fields — one of the frontiers for the development of EOR techniques — since the early 1990s, as well supplying polymers for onshore fracking projects in North and South America or treating tailings generated by the Canadian oil sands mines. These operations are largely supplied from production sites in Georgia and Louisiana in the USA.

With demand for CEOR polymers defined as part of the future of production in the North Sea, SNF has been investing accordingly, committing over £100 million to a new manufacturing plant in Billingham, Teesside, to provide local capacity. "Whilst the oil recovery factor is higher if CEOR is implemented early in a field's development, it is economically viable at any stage of the exploitation of the field, such at the start of water flooding or when a field is mature. At this stage of field development, the use of CEOR polymers can be used to significantly increase returns for operators by reducing cost and minimising supply chain risk," he says.

"The use of CEOR polymers, with a typical offshore cost of around \$5-15 per barrel of additional oil, can be considered both environmentally beneficial and sustainable, given that the polymers are manufactured using a carbon efficient bioprocess using an enzymatic catalyst alongside the fact that produced water volumes

"The site was chosen with a view to be more than big enough to serve the North Sea in its entirety for probably the next 20-30 years. It's taken with a very long-term view — a lot of investment is already committed."



SNF's Billingham site is ideally located to support EOR projects on the UKCS. can be reduced by up 65% and by removing the need for further exploration along with associated risks and costs. SNF estimates that the use of CEOR polymers can enable CO2 emissions to be reduced by around 50% primarily based on the vastly reduced amount of water requiring pumping, treating and handling per barrel of oil produced."

Ahead of the market

The 50-acre site in Billingham forms the bedrock of SNF's growing links with North Sea oil and gas producers. Development began in 2013, though Woollin recounts a long process of land grading and construction before the facility itself was able to open. The first production train opened in 2018 and is used mainly to serve the UK water and wastewater industry. A further two production lines, with world-scale capacity aimed exclusively at oil and gas customers, will be commissioned later in 2020, having been delayed by the impact of COVID-19. He continues: "A lot of the preparation work for the long term capacity expansion of the site is already completed and given the long time horizons that the oil industry operates on, we can invest to expand capacity essentially when customers need us."

"The site was chosen with a view to be more than big enough to serve the North Sea in its entirety for probably the next 20-30 years. It's taken with a very longterm view — a lot of investment is already committed."

With that in mind, SNF is already looking to its newest tranche of customers. "We're talking to various operators with projects in differing states of advancement and will tailor our capabilities to meet their needs," Woollin says.

Thinking globally

SNF's plans to increase global capacity are as much about supply chain resilience and risk reduction as market share and existing market demand. In light of the recent disruptions caused by COVID-19, the ability "SNF is in this industry for the long run; we know the importance of the North Sea to the UK and Scottish economies and are positioning to add capabilities and capacities over the long term."

to ensure continuity of supply is vital, especially in the case of multi-million-dollar EOR projects where production can decline dramatically without regular polymer injection.

"Having plants around the world means we can source raw materials and produce polymers efficiently and effectively on a global basis," he explains. It also provides flexibility in supply. As at Billingham, most of the group's manufacturing plants are able to respond according to demand, increasing output when and if demand rises. "That's very much the philosophy of SNF — whatever customer demands are placed on us we want to be able to meet them," he explains

That also has implications for cost and for the sustainability of the supply chain. Woollin is bullish on the impact that co-ordinated logistics and supply chain management can have for end users: "Once the polymer is manufactured, value can be created by optimising the supply chain to minimise vehicle movements to both reduce cost and to drive carbon out of the supply chain," he notes. "Our Billingham site is ideally located, being both close to a major UK chemical manufacturing hub and the ports necessary to enable shipment of CEOR polymers to the North Sea by supply boat."

In addition to supplying chemical products, SNF's dedicated oilfield customer engineering teams based in France can also advise on how best to design plant and handling equipment for storage and injection into the reservoir. EOR polymers are manufactured on a bespoke basis to meet the specific requirements of each oil or gas field, but Woollin says that the earlier SNF's technical teams can get involved in a project, the more expertise, and hence value, they're able to offer operators.

Whatever the short-term disruption to the market, Woollin is unequivocal about SNF's long term commitment to the North Sea: "SNF is in this industry for the long run; we know the importance of the North Sea to the UK and Scottish economies and are positioning to add capabilities and capacities over the long term." The Billingham site has been designed to allow rapid expansion of capacity as required by the market. **Oil, natural gas and low-carbon electricity 100,000 women and men**

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Emergency Response

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Onshore and offshore, personally and professionally, the impact of coronavirus on the UK oil and gas industry has been immense. *Wireline* looks at the efforts across OGUK and its membership to ensure the safety of people and the security of energy supplies. he advent of coronavirus has had a profound effect on everyone in the UK. Looking back over the past few months, it's difficult to capture the scale of the upheaval, uncertainty and consequent changes to our society, and questions remain over what actions can be taken to combat the disease in future. However, it would appear that whatever does come next, the world is unlikely to resemble the one we knew just a

few months ago. This is equally true of the global oil and gas industry. Hit by a combination of plummeting demand and market oversupply, oil and gas prices fell dramatically and though there has been some recovery, the way out of this cycle is much different to the route out of the last price downturn just a few years ago.

In responding to this pandemic, the UK oil and gas sector has had to demonstrate exceptional speed and co-operation. From key workers ensuring safe dayto-day operations, to armies of volunteers helping communities and distributing supplies, the collective contribution of the sector has been inspirational. Here, *Wireline* has collected stories from across OGUK's membership that reflect some of those amazing contributions.

Strategic communication

As the immediate implications of the pandemic for the offshore industry became clear, OGUK worked with members, stakeholders, unions, regulators and government to co-ordinate efforts and ensure both the safety of the energy workforce and the security of energy supplies.

Much of these efforts were led by the newly established Pandemic Steering Group (PSG) which has worked to co-ordinate efforts across the industry over recent months. Sub-groups of the PSG were tasked with providing guidance for specific workstreams, such as logistics, helicopters and medical support, and have continued to meet throughout the quarter.

Crucial to these early efforts was the securing of 'key worker' status for those in the energy workforce. As well as guaranteeing their ability to get to work (offshore and onshore), it also provided reassurance that schools would remain open to look after the children of affected staff. This was supported by liaison with regional response groups to provide details of secure accommodation and transport options for those travelling offshore, and for those who may be displaying symptoms.

Additional business support was also secured in the form of the Coronavirus Business Interruption Loan Scheme (CBILS), COVID-19 Corporate Financing Facility (CCFF), VAT relief, and the Coronavirus Job Retention Scheme, which saw the government guarantee to provide salary contributions for staff placed on furlough. The latter has since been extended to October 2020.

Air support

One of the earliest concerns for offshore personnel was the ability to evacuate any suspected cases of the virus quickly and safely. As standard search and rescue (SAR) helicopters are not equipped to deal with a viral contagion securely, dedicated helicopter response teams were set up to pick up patients and return them to shore for medical treatment or safe isolation.

Remote medical services provider SSI Energy partnered with helicopter operator CHC to establish the so-called 'COVID Copters', comprising of specialist adapted helicopters staffed by SSI Energy medics. SSI already supplies medics for offshore assets - and following updates to government guidance in late April, has been operating screening centres at airports — but required new protocols for the transport of suspected cases.

SSI managing director Duncan Higham explained: "CHC were extremely proactive in putting in screens between the cabin and the cockpit. From our point of view we had to be very careful with our medic who would be in close proximity with suspected COVID cases, so our medical director Dr Patrick Morgan and medical manager Paul Savage wrote new standard operating procedures so that we were content our medic was as best protected as we could get them."

Deployed from heliports in Dyce and Norwich to service the central and northern North Sea sectors respectively, medics can be mobilised in under an hour, SSI says, reaching suspected cases no more than three hours from the initial call. As of mid-May, Higham estimates that each of the crews continued to respond to a handful of cases a week.

Establishing the service has challenged and proved the company's skills, and has drawn on much of the team's experience in remote and hostile conditions from military and medical backgrounds.

On offshore assets themselves Higham says that SSI's medics are responding as well, staying alert to any symptoms and helping crew screening. "They are also involved in a sort of leadership capacity in enforcing the companies' policies of social distancing, and very much being role models to help make sure safe practices are carried out."

Following dialogue with the offshore workforce, the PSG also identified the need for greater PPE protection for personnel travelling offshore, particularly during crew transfer. This presented a problem; conventional surgical masks and face shields are unsuitable for helicopter passengers due to the risk of foreign object debris (FOD) should rotor downdraught rip the mask from the wearer's face. These masks can also risk interfering with other PPE equipment on board.

A solution was found via safety specialist Survitec, in the form of the Virustatic Shield antiviral snood. Worn around the neck and pulled up to cover the nose and mouth, prevents pathogenic microbial intake into the respiratory system. The fabric also incorporates

A 'COVID Copter' crew staffed by SSI Energy and CHC Helicopter.



Deployed from heliports in Dyce and Norwich, COVID medics can be mobilised in under an hour, reaching suspected cases no more than three hours from the initial call.

an antiviral coating capable of neutralising 96% of airborne viruses and reduce the risk of cross-contamination.

Commenting at the time, Survitec energy sales manager Ross Johnston said: "We are doing all we can to support all sectors of industry in these unprecedented times through constant innovation and flexibility. By sourcing, procuring and supplying Virustatic Shield we hope to help reduce the risk for our customers and are able to better protect crews, passengers and offshore personnel."

The snood is included at the same time as crew and passenger lifejackets and immersion suits are issued before helicopter flights, and then disposed of after use. Alongside social distancing measures offshore and testing prior to departures, it helps provide a barrier to the spread of the virus in close-quarter environments.

Critical workers

While many businesses were able to adapt to remote working, others maintained those operations which were essential to keeping supplies and equipment running. One notable example is Global Energy Group (GEG), a Scottish-based service provider supporting construction and maintenance across the energy sector. With thousands of personnel working on and offshore across the UK, it quickly sought to adapt new routines and safety measures at lightning speed.

While GEG closed its offices and onshore fabrication

facilities across Scotland, its Port of Nigg facility — part of its Global Port Services unit — remained operational during the entire phase of lockdown as an enabler of crucial supplies. Organisational engagement manager Sarah Dunn explains: "Our Health & Safety teams worked with both staff and clients to make sure that they were able to introduce social distancing and increased hygiene measures across the entire facility delivering projects with a reduced workforce." Health and Safety representatives also risk assessed all facilities to implement new procedures across the group.

Adds Sarah: "The response of everyone across the group in pulling together to find solutions to what has been one of the biggest challenges of our lives has been outstanding."

Even as installations down-manned, portions of GEG's staff were still required to carry out essential work offshore. However, the widespread reduction in personnel on board (POB) also enabled the Group's brownfield EPC business — Global E&C — to offer a new campaign-led approach to execution. Dubbed PACE (Planned, Assurance, Consistent, Execution), Global E&C's deputy managing director, Terry Allan explains: "This model is related to brownfield modification scopes which sees Global E&C move away from the traditional method of carrying high volumes of POB on a continuous basis to lead a more focused, relevant and flexible campaign model."

The aim is that Global E&C's PACE model, in which



Left: COVID Copters have to be specially outfitted to protect pilots and provide care for patients.

Above: INEOS set up hand sanitiser production plants in the UK, US and Europe to supply hospitals, care homes and other key services. teams are dispatched to tackle specific work scopes for shorter periods of time offshore, will unlock efficiency and remove unnecessary wastage from offshore activities — while also reducing disease transmission risks for staff. With adoption now, the hope is that its effects could enact new ways of working far beyond the immediate pandemic.

"In order to really move the needle, as a supply-chain, we need to accept that the legacy number of beds on offshore installation don't need to be filled, in fact the opposite is true. There is a responsibility on companies like Global E&C to work smarter and think differently during our offshore execution activities," adds Terry.

Supplying the front lines

Back onshore, many OGUK members were able to use their supplies and capabilities to assist national efforts, as well as their local communities. Equipment and supplies quickly became an area of focus, particularly personal protective equipment (PPE) to assist healthcare and NHS workers.

Petrochemicals and E&P group INEOS was one of the first to spring into action, announcing in late March that it would produce one million bottles of hand sanitiser per month from a new plant at Newton Aycliffe, near Middlesbrough. Supplies were provided free to NHS sites, and offered to schools, workplaces, pharmacies and supermarkets.

Expanding its efforts globally, by April the company had set up further plants in France and Germany, followed by US sites at Jacksonville in Arkansas and Neville Island in Pennsylvania.

Commenting at the time, Sir Jim Ratcliffe, founder and chairman of INEOS noted that: "INEOS is a company with enormous resources and manufacturing skills. If we can find other ways to help in the Coronavirus battle, we are absolutely committed to playing our part."

Another OGUK member, marine services group TSG Marine, started its own initiative to make sure PPE got to those who needed it most. The idea came directly from one of its staff: "On one of our regular virtual team calls one of our team members highlighted "The response of everyone across the group in pulling together to find solutions to what has been one of the biggest challenges of our lives has been outstanding." that our stores still had boxes of PPE left over from previous campaigns which we didn't currently need, and as a team we decided to reach out to the wider community and see if the items we had would help protect key workers," TSG Marine managing director Erika Leadbeater told *Wireline*.

The company successfully distributed more than 30 boxes of items including chemical protection suits, paper coveralls, overshoes and contact safety gloves to the NHS and local charities. "It's a small gesture, but anything people can do to help protect the frontline key workers during this crisis is helping protect our vital services," she added.

The success spurred the group to start the "Pass the PPE" campaign, prompting donations to key worker groups from across the sector including companies such as Petrofac, Bilfinger Salamis UK, Wood and Well-Safe Solutions. Leadbeater noted that the success of the campaign has been encouraging for the whole organisation: "The team at TSG Marine have been delighted to be able to do something proactive to support those putting themselves on the front line in the fight against this pandemic. It's not in our nature to sit back and watch, we're all about finding solutions to problems."

In the meantime, it says it continues to work in line with strict social distancing and safety measures to keep vital marine services going.

Even those without PPE directly to hand were able to help. Christopher Toothill, a senior software engineer at RelyOn Nutec, was one of the thousands who joined a nationwide campaign to use 3D printers to produce protective equipment from their homes and offices. As Christopher told *Wireline*: "I came to participate as I had a printer that was idle and my girlfriend is an ITU nurse. The prospect of her and her colleagues not having enough PPE was a worry for everyone,

3D Crowd raised over £150,000 to produce and deliver 190,000 3D-printed face shields.

so I thought: 'What could I do?'. I had heard about a volunteer group who had set up in the UK so I joined to see how I could help. I knew how quick 3D printing was, so it's a great solution to rapidly provide products."

The campaign, organised via 3dcrowd.org.uk, has sought to raise over £250,000 in crowdfunding and volunteer makers to supply face shields for NHS Trusts across the country. Christopher says he personally made around 200 face visors over six weeks of lockdown, contributing to the 10,000 made in the Aberdeen area and 3D Crowd's 190,000 nationwide. These were delivered locally to hospitals, doctors' surgeries and care homes, from Stonehaven to Elgin.

For its part, RelyOn was able to pay for Christopher's raw material costs, meaning more funding remains available for others to produce supplies via the centralised pot. Working remotely has also allowed him to manage the production process:

He adds: "As I have been working at home I can easily monitor the printing as I work as normal. As a business we provide e-learning and software services so not







Above Left: TSG Marine staff deliver equipment as part of the 'Pass the PPE' campaign.

Above right: Sodexo Group donated supplies from some restaurants to Aberdeenshire food banks.

Below left: INEOS hand sanitiser is delivered to NHS hospitals. only has the 3D printing kept me busy but the demand for digital products has increased as well."

He also printed a separate supply for RelyOn Nutec's training centre to ensure its staff and trainees are safe during their practical training. "It's been a challenge but has presented opportunities to volunteer and use valuable time wisely," he continues.

In addition to offering support through its personnel (see overleaf), services group Sodexo was also influential in providing supplies. As businesses shut down regular operations in mid-March, so too did many of the group's restaurants, resulting in overstock of foodstuffs. Restaurants across the UK were able to donate large amounts of spare supplies to foodbanks, vulnerable families and the elderly in the local communities.

The CFINE Fareshare foodbank in Aberdeen received fresh milk, fruit and vegetables, orange juice and other perishable items from the One Subsea site in Portlethen, as well as cheese, yoghurt, pineapple, carrots, fruit juice and bread from Chrysaor's Oscars restaurant.

Army of volunteers

As well as an unprecedented effort by frontline workers in the NHS and healthcare, responding to the virus also required an extraordinary commitment by the UK's police forces. Alongside regular staff, forces across the UK drafted in help from an army of Special Constables — a part-time, volunteer body consisting of voluntary officers with identical powers to that of police officers — to help secure public safety. Special constables usually work alongside police officers in their spare time, but many have upped their commitments to assist local forces during the pandemic.

In north east Scotland, a raft of offshore workers were among the regular Specials volunteers, including Kevin Bruce of Fraserburgh. Offshore he leads a crew of 14 Sodexo staff, catering for as many as 195 people on board on the Clyde platform, but following a request from Police Scotland, he temporarily swapped his chef's whites for a Police vest to work extra shifts on the beat. Kevin first began his Special Constable career 11 years ago, and has considered signing up full time, but his 3/3 offshore rota gives him flexibility to pursue both roles. "It's about giving back to your local community. Policing is also totally different to my job — [offshore] we're cooped up in a galley all day, this is totally different. You get to see the world from a different side of the road — and I enjoy the job, no two days are the same," he told *Wireline*.

He also praised Sodexo for assisting that flexibility and for their support during the pandemic. "They were very supportive and released me from going offshore for a trip, and to get that opportunity was very much appreciated from myself and from the local police. It's helped crew extra cars and put other foot patrols out, so it has been really appreciated."

Kevin's beat has mainly involved community foot patrols in Fraserburgh, and he says that the response from the public has been great to see. "99% of people have been extremely supportive and the positive feedback we've been getting from the public when we are out on patrol is really encouraging. When you're

"The team at TSG Marine have been delighted to be able to do something proactive to support those putting themselves on the front line."





"It makes it worthwhile getting recognised at that level for going out and putting yourself at that little bit extra risk."

out and about people are coming up — obviously keeping their social distance — and thanking us. It makes it worthwhile getting recognised at that level for going out and putting yourself at that little bit extra risk."

While some medics journeyed offshore to treat emergencies, others made the journey back onshore to assist the NHS. Philip Rice, a rig medic on the Transocean 'Paul B Loyd Jnr' vessel, was previously a combat medic in the British Army and latterly a nurse anaesthetist in Manchester.

As with other frontline services, the government appealed for qualified staff to come back to assist the NHS and Philip was drawn to help. "Before long I was hearing from old friends that they were short staffed and struggling," he says. "My team at Salford Royal Hospital were the team that managed the aftermath of the [Manchester Arena] bombing in 2017. They are brilliant, they can handle anything, and I trust them. So when they ask for help, you know they really need it, and I couldn't ignore that." Philip asked Transocean to support him in taking a sabbatical, which it was happy to grant. He began with a period of mentoring on the Trauma Team to refamiliarise, before moving to the front line working in a COVID-ICU ward.

Speaking ahead of his reintroduction to the ward in April, Philip noted: "I'm apprehensive, of course but I'll take a healthy dose of chronic unease and procedural discipline with me — and I'll be back before I know it and hopefully I can make a small difference to a few people. A big thank you to everyone at Transocean for helping me to do this, and for all your support."

Human resources

In addition to practical support for those grappling with the virus directly, it's important to remember that everyone may be in need of additional help or guidance during such difficult times, both personally and professionally. In a recent white paper responding to the pandemic, Mark Walker of behavioural change and process safety consultancy DEKRA notes that leadership is especially important during times of stress, particularly in fostering trust within teams.

As organisations and teams may be separated and/or working remotely, good leadership in these situations requires communication and attentiveness to potential stress factors to help support team members. Walker adds: "Leaders who foster strong connections with employees and practice active listening are in a better position to learn how their team is being affected and therefore have an opportunity to counter the stress with flexible solutions, good will, care and compassion." Leaders should therefore look to three principles to help guide leadership responses: awareness, care and self-reflection.

While physical health may be seen as the overarching priority, DEKRA also notes the importance of helping employees maintain mental fitness, whether though self-assessment checks or encouraging stress Left: Special Constable and Clyde platform catering manager Kevin Bruce.

Right: Philip Rice, rig medic on the Transocean 'Paul B Loyd Jnr', returns to wards to assist NHS colleagues in Manchester.



Above: GE Group prepare new routines for safe return to work, including socially distanced fire drills, temperature checks, and a Return to Work equipment pack for staff.





management techniques like mindfulness.

For other staff, the downtime of lockdown could be an opportunity to consolidate skills and learning. Training provider MINTRA Group has made a suite of its oil and gas e-learning courses available for free to workers who have been made redundant or furloughed.

Available via Training Portal, the material includes 10 hours of online learning for energy sector workers, and 90 days free access to 15 of its most popular health, safety and environmental compliance courses used regularly by energy sector employers. Users can register and access courses at trainingportal.com/ skilledworkers.

Looking to the future

At the time of writing in early June, much of the UK is moving cautiously towards reopening many shuttered businesses and services. Although the threat of the virus remains, some public buildings, schools and businesses have established new routines such as oneway systems or social distancing measures to allow staff and clients to return.

In the case of companies like GEG, that has included an e-learning module for all staff which now forms part of new mandatory safety procedures, as well as a Return to Work pack containing a range of items to support the preventative measures. These packs, combined with both daily self-declaration forms and temperature checks, are among the adaptations GEG and others have initiated into working practices.

For much of the energy sector, the focus for the foreseeable future will now turn to safety and sustainability. While the past few months have seen many projects and work scopes shelved, some have accelerated — not least the roll out and adoption of new ways of working and collaborating remotely (see more on page 38). With many now seeing the benefits of these technologies, business may feel empowered to stick with the changes, or become even greater adopters.

It has also seen business and their staff engage with their communities in ways they may never have considered before, both locally and nationally. Whether that has been seen in donations, volunteering time, or simply providing greater flexibility with regards to caring for children or family, the hope is that this too might continue.

Certainly, plenty of hard work and hard decisions lie ahead. However, as the outlook stabilises, all should strive to ensure that the industry that emerges from lockdown has learnt from this period and stands more ready than ever to embrace new technologies, new strategies for transition and a brighter future.

The view from Westminster

Minister of State at the Department for Business, Energy and Industrial Strategy, Kwasi Kwarteng MP, answers *Wireline's* questions on industry challenges, COVID-19 resilience and a sector deal to support net zero.

hat do you think are the biggest challenges for the oil and gas industry and what is your advice for how we tackle them?

First and foremost, the global spread of coronavirus has already produced a number of challenges, chiefly the huge drop in the price of oil. The UK Government has worked closely with G20 countries to ensure global energy supplies remain secure, competitive and reliable, as well as look beyond the pandemic to drive forward a clean energy future.

I'm acutely aware of the worry this is causing to the tens of thousands of workers who rely on the oil and gas industry for their livelihoods, especially in Scotland and right across the UK. I want to reassure that the Government will be there for everyone connected with this — every step of the way. We've introduced a farreaching package of support to help businesses to deal with the pandemic, including £330 billion in loans and grants, offering to pay 80% of the wages of furloughed workers, and nearly £3.7 billion to the Scotland Government to deal with COVID-19.

Secondly, as the lockdown restrictions begin to ease, I know the industry will be keen to ensure it is complying safely with practical guidelines to make their workplaces safe. That's why the UK Government engaged with businesses, unions and trade associations, including the OGUK to draft practical guidance, which I would urge everyone to follow. We are also making progress

on testing. I would though like to congratulate the sector on the good work that it has done in response to the operational challenges that it has faced in recent months. The collaborative effort through the Pandemic Steering Group has been exemplary.

Thirdly, as the industry goes through one of its most challenging times in its history, it's important to reflect on how it can use this as an opportunity to adapt. The skill, flexibility and capacity for innovation in this industry is second to none. A transition to a low-carbon future will help the sector enjoy a sustainable recovery; and the UK Government is ready to support with that.

What has been your impression of the oil and gas sector since taking on your role last year?

I've been very encouraged by the industry's shift in direction towards cutting its emissions. All of the UK has an important part to play in our world-leading commitment to reaching net zero by 2050. It's very welcome to see OGUK's *Pathway to a Net Zero Basin* which sets out the operational changes that the sector can and must take. These steps will be vital, not just to the UK's economic health, but to the global transition to cutting greenhouse gas emissions.

Credit must also go to the industry for the resilience shown in such difficult times. Faced with the twin problems of the pandemic and low oil price, innovation and problem-solving has prevailed, which will set





Right: Kwasi Kwarteng MP, Minister of State at the Department of Business, Energy and Industrial Strategy.

Below left:

Emissions reductions pathway for the UKCS as published in OGUK's *Production Emissions Targets* Report everyone on the right course to weather these storms. We all want to see an upturn in activity as soon as possible, and are taking every possible step to ensure this is done in a timely and safe way.

You've been heavily involved in industry-wide discussions during the COVID-19 pandemic. What kind of government support might we see to help keep the sector sustainable and competitive?

We have a far-reaching package of support to help businesses through the coronavirus pandemic, including £330 billion in loans and grants, offering to pay 80% of the wages of furloughed workers, and nearly £3.7 billion to the Scotland Government to deal with COVID-19. We continue to work tirelessly with all partners, including the devolved administration in Scotland, G20 and regulators to provide support. I have been in close contact with representative bodies throughout this difficult time, discussing matters with industry leaders at the Maximising Economic Recovery (MER) Forum, hosted by the Oil and Gas Authority, and in weekly updates with heads of industry.

We want to hear more from the industry on their views on the UK Government delivering a transformational Sector Deal, which will support the North Sea oil and gas industry transition to a lower carbon future, decarbonising production and creating a net-zero basin within the UK Continental Shelf for the future. This includes platform electrification, Carbon Capture and Storage, as well as a move towards creating hydrogen from gas, which will be a game changer in the UK's energy future. "The skill, flexibility and capacity for innovation in this industry is second to none. A transition to a low-carbon future will help the sector enjoy a sustainable recovery; and the UK Government is ready to support with that."

What role do you see the oil and gas sector playing in the move towards net zero?

As I say, the UK Government is keen to maintain momentum on new technologies in the existing offshore oil and gas industry. Harnessing our infrastructure of pipes and wells for low-carbon technologies such as Carbon Capture Usage and Storage (CCUS) will be something we explore further in the future. The UK has the potential to become a world leader in storing CO₂. This will maintain and create quality green collar jobs, ensuring the industry remains strong in the years ahead.

The industry has already published its ambitious Roadmap 2035, which sets out a number of actions it can take to decarbonise production and create a net zero basin within the UK Continental Shelf for the future. This will be crucial for the industry to remain strong in the years ahead, as will OGUK's Net Zero Pathway and the Oil and Gas Authority Maximising Economic Recovery Strategy review. We see huge potential in these technologies to transform the industry and massively reduce the UK's carbon footprint.

Opportunity allegades

Kishorn Port is a key location in the early history of the UK oil and gas industry. Thanks to a major investment programme and a raft of new capabilities, its owners hope it will play an equally important role in the North Sea's future. *Wireline* finds out more...



hen the dry dock at Kishorn Port was opened to receive a cargo ship in May this year, it represented more than just another routine maritime project. The MV Kaami,

which had run aground on rocks between the isles of Skye and Lewis, was taken to Kishorn on Scotland's north west coast for dismantling after being deemed by experts to be beyond repair.

The event, however, had a much wider significance: it was the first time in more than 25 years that the dry dock facility had been fully opened to the sea to accept a vessel. And it marked a significant step forward for the port as it pursues a three-pronged strategy to capitalise on modern-day opportunities — and thereby revive the fortunes of a sleeping giant.

Yard lessons

The port, near Lochcarron in Wester Ross, is indelibly linked with the story of the early years of the UK oil ans gas industry — most famously, of course, as the site where the massive Ninian Central platform was constructed in the mid to late 1970s.

The Kishorn yard was originally developed as a manufacturing and fabrication facility for platforms and at its peak employed more than 3,000 people.

The port has continued to provide conventional marine services to sectors such as aquaculture, forestry and construction through the intervening years, although the dry dock was last operational in the early 1990s when the caissons that support the Skye Bridge were made there. In recent years however, a major programme of investment has fully restored the dock — one of the biggest facilities of its kind in Europe — to operational use, and in the process reenergised its ambitions for growth.

At the centre of the initiative is a 50/50 joint venture set up in 2008 by businesses with distinctive but complementary areas of focus at the site: Aberdeenbased Leiths (Scotland) Ltd, which operates the quarrying, concrete and construction materials business at Kishorn, and Fort William-based Ferguson Transport, which runs the wider port facilities.

"The two businesses came together at the time and looked at the latent opportunity presented by the disused dock, not least in terms of the fabrication of concrete structures," says Colin Ortlepp, a director with Kishorn Port Ltd (KPL). "We recognised that we could work together to realise the dock's potential, capitalising on our respective capabilities and resources to make it an asset once again."

Since then, the site has witnessed significant investment by the joint venture partners as well as by a host of other organisations keen to capitalise on the economic development opportunities. With that momentum, the site has undergone real transformation over the past ten years.

Gate keeping

Work has included a major refurbishment of the two huge dry dock gates (each weigh 13,000 tonnes in situ and span a length of 160m in total). This overhaul included the replacement of gate sealing systems and the introduction of new large-scale pumps for removing water once the gates are closed.

A new length of road has been created to facilitate better land access into the dock, while mooring systems have been installed out in Loch Kishorn to host the gates safely and securely when they are removed. The geography is advantageous; the loch offers draft at up to 80 metres depth in its main channel, while the port hasan existing quayside berth at 120 metres length, another at 95m length and a third at 80m length. At the loch's mouth, the Sound of Raasay also offers up to 150m of water depth and a clear path to the Atlantic Ocean.

In addition, onshore facilities including office accommodation and sleeper cabins have been established for use by visiting contractors or rig crews if required.

Together, these measures have positioned Kishorn Port to develop a long-term strategy focused on attracting new business and bolstering the local economy. This strategy has three key planks, namely: oil and gas infrastructure decommissioning, oil and gas servicing and renewables.

"We see decommissioning opportunities on the horizon and we're ready to play a significant role in that market," says Colin. "We can take those projects on whenever operators of mature assets decide the time is right to go to the decommissioning phase... One of our prime advantages is that the nature of the dry dock means decommissioning work can be safely performed in a contained environment, effectively isolated from the sea."

The MV Kaami project, which emerged at relatively short notice as a place of safety was sought for the vessel, has served to demonstrate the credentials of Kishorn when it comes to decommissioning. "The work came out of the blue," adds Colin. "The gates had been floated for testing purposes in recent years, but this was the first time we'd done it for operational reasons."

The impact of COVID-19 made things even trickier. He continues: "It involved a great deal of planning over a short period of time, all against the backdrop of the lockdown restrictions. We also needed to bring a number of resources and skills sets on site, ranging from tugs, diving and winching services to specialist engineers and naval architects.

The operation required the teams to remove one of the gates, which he says was completed smoothly and without any issues. This then allowed the ship to be taken in before water in the dock was pumped out to enable dry dismantling work to start. "It was a challenge in the circumstances, but we pulled it off," "We believe the dry dock is a significant asset — not just for us but for Scotland as a whole."





Above: The MV Kaami is towed into the open gates at Kishorn, before water is pumped out to carry out repairs in dry dock.

reflects Colin. "It showcased that we can not only operate the dock effectively but also that work can be done safely and in an environmentally sound way."

Beyond these individual successes, he is confident of the port's potential to become a world-class site. "We believe the dry dock is a significant asset — not just for us but for Scotland as a whole," he explains.

Sustainability strategy

The port last year secured a waste management licence from the Scottish Environment Protection Agency (SEPA) to formally underpin its decommissioning offering.

Kishorn's oil and gas servicing capabilities were exemplified early in 2019 when it took on its first major contract of recent years. The world's largest semi-submersible offshore drilling rig, the Ocean GreatWhite, anchored at the port for servicing work en route from Singapore to the west of Shetland to undertake drilling campaigns at Siccar Point Energy's Blackrock and Lyon prospects.



Above: After being built at Kishorn, Yard the Ninian Central platform was towed by seven tugs to its final destination in the northern North Sea.

Titan of Industry

The original Kishorn Yard was owned by Howard Doris Ltd and operated from 1975 to 1987.

The dry dock was constructed specifically for the Ninian Central development, which represented the largest project undertaken at the site.

The 600,000-tonne platform, when completed, was towed by seven tugs from Kishorn to its destination, around 240 miles north east of Aberdeen in the northern North Sea. At the time it represented the largest man-made moveable object.

The scale of operations at Kishorn during its peak years meant two retired cruise ships were berthed locally to help accommodate workers. Those years, and the people who worked there, are also marked in the well-known folk song 'Kishorn Commandos'.

Today, operations at the location include the provision of quarry products to construction projects alongside port support services for sectors such as renewables, oil and gas, forestry and aquaculture.

www.kishornport.co.uk

With a draft of over 23 metres, the 60,800-tonne rig required deep water for anchoring and Loch Kishorn provided an ideal site, helped as well by its sheltered conditions.

Meanwhile, outside of the decommissioning arena, KPL is optimistic that a new round of seabed leasing by Crown Estate Scotland for offshore wind developments may yield major opportunities. The leasing process is still in its early stages but involves multiple areas around the Scottish coastline.

In particular, the port is positioning itself as a location for the fabrication of foundations for fixed or floating offshore wind turbines. Colin says Kishorn is cited in the early documentation as a prospective delivery location for support of these developments. "We believe we're really well placed to service new developments, particularly off the west and north coasts.

"It's also good news for us that the process indicates that developers should look to use as much local content as they can."

The strategic investment programme at Kishorn has received grant support from both Highlands and Islands Enterprise (HIE) and the Scottish government's Decommissioning Challenge Fund. It has also had welcome support from Highland Council, particularly in respect to planning issues, Crown Estate Scotland and local landowner the Applecross Trust.

"It's a fragile area economically and Kishorn does represent economic development and jobs, which are important locally," says Colin. That has also necessitated a close and co-operative relationship with local residents. "The community has by and large been very supportive of Kishorn over the years," he says. "We use a lot of local services — ranging from accommodation to construction support — and many of those will benefit as and when we're successful in bringing more work to the port.

"Our goals now are to build an established track record across all three of our strategic areas. We want to create a breadth of experience and have the facility constantly busy."

Colin believes Kishorn still enjoys a special status in the local community. "There are still many people living here who clearly remember the days of Ninian Central being built. When you're around the area, you meet people who enjoy telling you that they worked at Kishorn and about their experiences there. It's almost ingrained into the local psyche in some respects."



The IT in team

With many staff now working from home full time, COVID-19 has demanded an exceptional response from our IT and communications systems. *Wireline* looks at how this shift may shape the future of the 'Modern Workplace'. hether it's a family Zoom meeting, a conference call via Microsoft Teams or just arranging a shopping delivery, ICT has been an essential piece in ensuring our safety and aiding the fight against coronavirus. For many businesses, it has also meant a rapid roll out of equipment and software to support digital access for staff working from home.

For the energy sector especially, which has been cautious in its adoption of new digital technologies, this is likely to be a pivotal adjustment. While recent years have seen improvements in the capture and harnessing of data — big and small — many parts of the industry still rely on manual processes to inform things like maintenance and record keeping.

Such rapid change brings with it challenges in terms of equipment, security, and — perhaps most of all ensuring end users are engaged and empowered to make use of it. *Wireline* canvassed the OGUK Heads of IT and Service Organisations Cyber Security (SOCS) Forum to learn how organisations have made this particular digital switchover a success.

Making remote working work

For many organisations, remote working and the socalled 'Modern Workplace' has already been embedded for some time. Alan Norrie, IT user enablement lead at TAQA — a proponent of these technologies — says that on the whole, the business was well set up to respond. Only a handful of disciplines dependant on physical workstations required a laptop to be provisioned, followed by arranging additional home working equipment such as docks and monitors.

The challenge was in adjusting home working across the company en masse. Some work was needed "to bulk out remote access solutions and prepare for far more home workers," he says, and to establish effective routines for home workers. The next phase involved helping staff through various smaller issues: "Some specific assistance was required to help our people be as effective as possible — this could be basic support with home broadband or how to use specific toolsets to aid collaboration. This has allowed us to ensure the majority of the workforce received a positive experience," Norrie continues.

For Repsol Sinopec Resources (RSR) UK head of IT and digital, Martin Ogden, it has been proof of IT professionals' ability to deliver: "I think what it demonstrated is that generally speaking IT are pretty good in a crisis scenario because it's what we do — we just get things sorted out."

Martin says RSR had a very short window to deliver equipment to staff in the weeks preceding lockdown, in this case around 170 new Surface Pro machines. Far from technical issues however, the biggest problem his team encountered was simply tracking down people to hand them over. Notably, he says that the transition was already planned for later in the year; the advent of the

"I think what it demonstrated is that generally speaking IT are pretty good in a crisis scenario because it's what we do – we just get things sorted out."

pandemic simply accelerated the roll out.

Other than requests for peripheral equipment, he also believes staff engagement has been good. The use of Microsoft Teams in particular — which had not seen extensive engagement prior to this — has been encouraging: "You go into lockdown, everyone's using it to do conference calls, collaborate on documents, and after a week we've got 15 teams. We've now got 65 different teams, and lots of positive feedback," he adds.

Scalability

For Premier Oil, working across multiple global offices presented varied challenges. Group information services manager David Edwards explains: "In the UK, the scenario of supporting all office staff in working from home mode was not one the business had ever contemplated. Our disaster recovery plans extended to catering for up to 40 key staff, with ensuing business continuity always assuming that one of our two main UK locations (London and Aberdeen) would be available as temporary workspace in which displaced staff could work."

In other Premier offices across Southeast Asia and Brazil, the response varied according to the location. While Indonesia implemented a UK-style lockdown, the impact in Vietnam was less severe, allowing the office workforce to split into three cohorts to maintain distance — one at home, one in the existing office and one in new temporary office space. Brazil also followed a home-working policy, co-ordinated by staff in the UK.

While remote working was available, David says a scaleup was needed to meet demand across the board, with the exception of geological, geophysical and reservoir engineering (GGRE) staff who could work remotely via an existing portal. "Fortunately, we had just adopted a cloud-based firewall service," David says, "Part of whose attraction was a highly flexible and scalable, secure, remote access gateway. This has proved ideal for all our "Remote access was baked in at the start. This has really helped during COVID-19 and the concept of simplicity has been key to make something easy to use."

laptop users, who although mostly not familiar with the new log-in process, adapted well to using it."

The concept of scalability is a common thread for those organisations who have reported successful transitions to home working. Alan Norrie notes that TAQA had already moved services to Microsoft's cloud-based Office 365 package and an always-on VPN, meaning the move to remote working for many was relatively seamless.

He adds: "The IT working environment was designed iteratively from the ground up, which took longer to deliver but remote access was baked in at the start. This has really helped during COVID-19 and additional 'bolton' technology has not been required. The concept of simplicity has been key to make something easy to use."

For Schlumberger, a move in recent years to more software-defined infrastructure proved advantageous, especially as it moved to scale up connection capacity as the volume of remote staff services grew. Global network services operations manager Maged Elmenshawy explains: "If you have a traditional internet connection in a data centre, internet service providers [ISPs] were saying 'OK, we can get extra capacity to you in a month.' But we have these software defined ports where we could allocate 10GBps in a matter of two days." Repurposing these ports offered additional



TAQA offered a drive-in collection system for those requiring extra IT and equipment.

infrastructure to dynamically add new services according to demand.

Similarly, the widespread move to cloud-based services can also help balance network capacity. Maged observes that while full VPN services remain popular for providing security and oversight, it can be more efficient to offload some safe services to reduce congestion. He adds: "When you have such a large mass of people working remotely, it's much more efficient from a capacity and performance perspective that they are able to reach cloud-based services directly through the internet. So there is some evolution in remote access design and infrastructure to offload large-volume, lowrisk traffic."

Security questions

IT security is of course a key priority for most businesses, but even more so when staff may be logging in on new hardware across various locations and connections. To help guide safe and effective response, the National Cyber Security Centre (NCSC) — the UK's independent authority on cyber security — has prepared six cyber security questions for businesses to consider, including the kinds of technology they use and whether they need cyber insurance. This includes advice specifically aimed at businesses who have had to adapt quickly to the impact of COVID-19.

An NCSC spokesperson explained to *Wireline*: "It's important employers can offer secure home working and the NCSC has published actionable advice on setting up new user accounts, helping staff look after devices and ensuring VPN technology is up to date. The NCSC has also published guidance on using video conferencing services securely."

They continued: "Whilst the overall level of cyber crime is stable, the proportion of phishing attacks related to coronavirus has increased. Phishing is a common tool and we strongly encourage organisations to follow our guidance on setting up multi-layered defences, including how to block spoof emails getting through and to help staff members with identifying attacks." (See the boxout overleaf for more).

With phishing being one of the primary security concerns for Schlumberger as well, the IT team helped feed into a new app called Coronavirus Stay SAFE, designed to support staff working through the pandemic. Although primarily assembled by HSE teams, cyber security governance manager Simon Tong says that this was also a great opportunity to help with cyber security messaging: "With people working remotely in a new environment we were concerned about information overload. When you think about how large organisations respond to the pandemic, you don't want the average user being inundated with messaging from everywhere. The app serves as a hub for the latest HSE and cyber security updates to help our employees stay safe during the pandemic."

This raises an interesting avenue for future staff engagement. Given the existing emphasis on safety "Whilst the overall level of cyber crime is stable, the proportion of phishing attacks related to coronavirus has increased."



"Our strategy already was to head for an anytime/anywhere mode of operation, but COVID-19 will probably accelerate plans for that."

within industry, including cyber security best practices together with HSE principles could be a route for building greater knowledge amongst personnel — particularly as home working looks set to become the norm for the foreseeable future.

Planning for the future

With these initiatives now rolled out, IT managers are also reflecting on lessons for future scenarios. David Edwards of Premier was emphatic around the benefits of planning as far in advance as possible, adding: "Get more notice! Having one 'practice' day was crucial; two or three would have been better though."

Beyond practice, also make sure your IT support is adequately supported. David adds: "Stay close to your service desk — ours did a brilliant job dealing with a huge spike in low-level/simple calls but were unnecessarily concerned they were failing to meet expectations. The thing to expect is that a large proportion of your staff may never have logged in remotely and need to know what to expect."

There are of course opportunities to be seized during this time, particularly as modern workplace IT concepts have now been brought to the foreground of every business. Alan notes: "COVID-19 will hopefully strengthen the benefits of IT as no longer conceptual, but based on real experience," he explains. "We will continue our drive to simplify and where possible make services that we offer accessible from a multitude of access methods. Embracing newer technologies and challenging the way that IT is delivered has been essential to providing the offering we have, and we'll continue with this approach into the future."

David is similarly optimistic, and hopes that the past few months will spur action on Premier's standardisation program: "Our strategy already was to head for an anytime/anywhere mode of operation, but COVID-19 will probably accelerate plans for that. More Phishing scams are likely to affect every business, and each will company have its own policy on how to report and deal with these attempts.

The NCSC's Suspicious Email Reporting Service also allows individuals to take personal action against dodgy emails. If you receive something that doesn't look right, you can forward to report@phishing.gov.uk and the NCSC will analyse whether it is malicious and act to remove sites if necessary.

In the first two weeks, the public reported 160,000 suspicious emails, some of which were coronavirusthemed, resulting in more than 300 fake sites being taken down.

The NCSC also supports individuals. Its recently launched Cyber Aware campaign provides six steps everyone can take to protect their accounts and data online. More information can be found at ncsc.gov.uk/ cyberaware.

OGUK has also created dedicated cyber security resources for the oil and gas industry. To request an information pack, contact editorial@oilandgasuk.co.uk.



tactically it has also provided an opportunity to spark digital initiatives to overcome some logistic hurdles."

The experience of deploying IT quickly and across entire business units may even stoke support for smaller, targeted, projects in future. Martin notes that the 'fail fast' mantra of the tech industry does not transfer easily to the engineering-led disciplines of oil and gas. "My view is that [we should focus on] looking at much smaller building blocks, and how we get data in near or real-time from an operation directly into a system and then push that data wherever it needs to go." These small low-risk steps, he hopes, may pave the way for more ambitious transformations and greater efficiencies.

For Maged, a future with more remote working and greater digital connectivity raises new questions for businesses to examine. "Do we consider how we might alter the IT infrastructure if there is reduced occupancy in the office, and then what kind of policies do you set?" he notes. "If you're asking people to work from home, what is the industry standard for that?" In particular, companies (and users) will need to consider 'last mile' problems like household bandwidth and work environments. As a result, he adds that building awareness and developing best practices for maintaining a home working space will be key topics of discussion in the months to come.

Low commodity prices inevitably mean tighter budgets. But Martin is keen to press the importance of not underinvesting in these targeted projects which could have far-reaching implications in terms of business effectiveness and cost reduction. In this regard, he believes every potential avenue should be explored: "For the survival of the industry here we need to look at every efficiency we can. That involves embracing IT, taking some risks in how we approach IT — a more agile approach — and learning a lot from other industries."

Applying the lessons of Macondo

Ten years on, OGUK colleagues consider the safety and operational legacy of the Macondo well disaster.

acondo: one of the most significant events in the history of the oil and gas industry took place on April 20 2010. Ten years after the explosion on the Deepwater Horizon drilling rig in the Gulf of Mexico led to a tragic loss of lives and a massive volume of oil entering the marine environment, how are the tough lessons of Macondo being applied in the UK North Sea?

OGUK operations director Katy Heidenreich, emissions improvement manager Louise O-Hara Murray, and environment manager Caroline Brown consider Macondo's legacy.

LOM: "The immediate response focused on what prevention measures the UK had in place to avoid the potential escape of hydrocarbons from wells on the UK Continental Shelf (UKCS). By May 2010, OGUK had convened the Oil Spill Prevention and Response Advisory Group (OSPRAG) to look at developing a well capping device as well as considering whether effective spill response strategies and appropriate financial arrangements were in place.

It was a massive industry effort and one that has given us a legacy of collaboration. We share a drive to deliver continual improvement and increase connectivity across both the wells and oil spill response communities. It was also a catalyst for strengthening broader industry and international engagement."

KH: "The degree of collaboration was evident in the different organisations who contributed to OSPRAG. They comprised representatives from the Health and Safety Executive, Department for Business, Energy and Industrial Strategy, the Maritime and Coastguard Agency and the trade unions, RMT and Unite. In addition, OSPRAG communicated regularly with the International Association of Oil & Gas Producers, the American Petroleum Institute and the International Association of Drilling Contractors."

CB: "A key aspect of OSPRAG's work looked at regulation and arrangements for oil spill prevention and response on the UK Continental Shelf. As a result of this work, UK operators now have access to the ground-breaking OSPRAG Cap, designed to swiftly seal off an uncontrolled well and to be ready for deployment in the unique met-ocean conditions that exist in the UKCS. It forms a key element in the UK offshore oil and gas industry's oil spill emergency contingency plans."

LOM: "OGUK established the Oil Spill Response forum,

now a technical group, as part of its ongoing work post-Macondo. It operates as a permanent mechanism for sharing knowledge and driving forward continuous improvement. Over the past few years, members of this group comprising representatives from operators, duty holders, response organisations, government advisors and regulators have been translating lessons learnt from the Macondo response to produce eight Oil Spill Response Implementation Guides and attuning them to the different challenges operators face on the UK Continental Shelf."

CB: "The oil spill toolkit has been substantially enhanced. Not only do we have the OSPRAG Cap, but also advanced well intervention equipment that allows Blow Out Preventer [BOP] intervention, debris clearance and subsea application of dispersant at a wellhead, all aimed at containing and controlling a leak from a well. Following OSPRAG's Oil Spill Emergency Response Review we have increased our local and global stock of dispersants and improved our understanding of the effect of dispersants on the marine environment."

KH: "Macondo stimulated the development of OGUK's well guidelines — as the first of their kind, they've been recognised as outstanding by the Institute of Materials, Minerals and Mining, and referred to the world over. We now have 11 guidelines which are regularly reviewed to improve safety and performance on all aspects of well operations including design, construction and

"OGUK established the Oil Spill Response forum as part of its ongoing work post-Macondo. It operates as a permanent mechanism for sharing knowledge and driving forward continuous improvement."



Above: One of the central responses to Macondo on the UKCS is the ground-breaking OSPRAG Cap, designed to swiftly seal off an uncontrolled well. management and intervention operations.

"Initially these were produced by OSPRAG's Well Life Cycle Practices Forum. That work continues under the banner of OGUK's Wells Forum whose members are drawn from both the operator and contractor community. This is where industry meets regularly, to share good practice and lessons learned and to discuss well life cycle cross-industry issues. The Wells Forum also provides a place for industry to come together with key stakeholders like the Competent Authority, the HSE, the Oil & Gas Authority and the UK's Offshore Petroleum Regulator for Environment and Decommissioning (OPRED)."

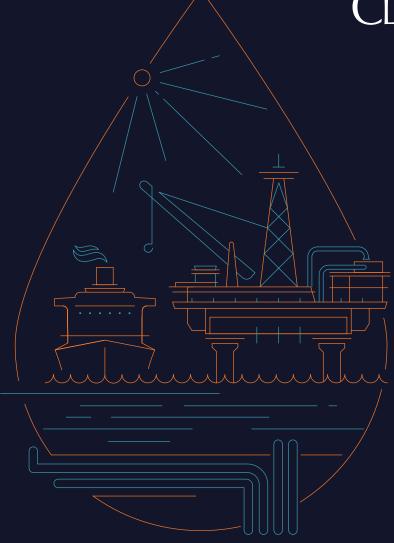
LOM: "Ensuring that sufficient financial arrangements are in place to cover the response to any spill was a key priority for the OSPRAG team, who produced the Financial Liability Guidelines and studies to estimate the cost of clean-up and third party compensation should a spill occur in the UK North Sea.

In 2018, we published a new edition of these under the title of The Liability Provision Guidelines for Offshore Petroleum Operations. They cover exploration, appraisal and production assets and aim to simplify the process and increase transparency for operators by establishing an industry-agreed level of expectation. We've used the latest 3D modelling techniques, to model theoretical hydrocarbon releases using eight UKCS locations under different conditions for a range of release volumes, enabling us to more accurately gauge the level of financial provision licensees need to have in their preparedness plans should an oil release occur."

CB: "The lasting impact of Macondo has come in many shapes and forms including improved understanding of the marine environment and datasets such as offshore seabird data, shoreline habitats and met ocean data. We now have stronger links with local authorities and the international community to increase awareness of response arrangements, make connections and understanding of shoreline response plans."

KH: "OSPRAG was only active for 16 months, but it had a major impact in its relatively short lifetime. Created with a single purpose in mind, it focused on ensuring that drilling operations on the UKCS were robust, safe and fit for purpose. We must never become complacent but instead strive to take every effort to minimise accidental releases to sea, through our continued work alongside industry and key stakeholders. In this way, along with our efforts to reduce our emissions, oil and gas can continue to underpin a diverse energy mix while supporting the UK in delivering a lower-carbon economy."

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Spiritual support



With seismic changes seen across industry in recent years, *Wireline* caught up with Reverend Gordon Craig to discuss the evolving role of the UK oil and gas chaplaincy and the support it offers.



"The industry-wide work on mental health wellbeing is a really welcome development. It's been fascinating to see how well it has been received at all levels."

n the five years since *Wireline* profiled the role of UK oil and gas chaplain Reverend Gordon Craig, the purpose of the chaplaincy has not altered, but the industry which it serves has. Much strategic change has been seen across industry, especially following the prolonged downturn during 2015-16 — and the COVID-19 pandemic, combined with the plunging oil price, has had a fundamental impact in recent months.

Numerous mergers and acquisitions across the operator and contractor communities, the emergence of new players, the development of the decommissioning agenda, the rapid growth in energy transition work — all amid a new economic landscape — had already served to reshape the North Sea industry before the pandemic took hold.

Gordon assumed the role of oil and gas chaplain in 2012 after a long career in the military, where he spent more than 20 years as a chaplain with the Royal Air Force, stationed in a variety of international locations as well as in the UK. "Having spent most of my previous career in the military, where you typically moved around every two years or so, I guess my initial expectation in this role was that things in UK oil and gas were pretty much set in place," he says. "That hasn't been the case at all in recent times. So much has changed, and in some ways our role has changed with it."

Working on wellbeing

The industry's collective decision to prioritise mental health wellbeing in the workforce, as well as to invest in sources of support, has been one of the key developments Gordon has witnessed over the past two years. It's also a topic that has increasingly become an area of focus for the chaplaincy. Gordon has been regularly involved in supporting mental health training offshore, focusing in part on how people can help colleagues who may be experiencing difficult times.

"The industry-wide work on mental health wellbeing is a really welcome development," he says. "It's been fascinating to see how well it has been received at all levels — I was a little sceptical initially about whether that would be the case, but it's had a very positive reception."

The issue, inevitably, is assuming an ever-greater profile in the industry as the dual challenges of the COVID-19 pandemic and the low oil price take a toll on people offshore and onshore.

"The one word I'd use to describe the prevailing



Above: The Piper Alpha Memorial statue at Hazlehead Park, Aberdeen. atmosphere in the industry at the moment is 'anxiety'," says the chaplain. "People are experiencing the unknown: they simply don't know what is going to happen in the coming months.

"Even the 'luckier' ones — those who have been continuing to work — still have anxieties over issues such as keeping safe at work and the security of their job in the longer term. So many things are making people anxious and that inevitably raises stress levels."

Gordon suggests there are broad principles that companies and organisations can embrace to help their people deal with the prevailing uncertainty.

"Companies can't give definitive answers to lots of questions at the moment as they themselves don't know precisely what is going to happen. But if their communications can be as honest and transparent as possible — if they can build up a level of trust through that transparency — then that certainly helps.

"If employees feel that their employer is genuinely concerned for them and is being open with them, that goes a long way in supporting people."

Virtual connection

The chaplaincy was set up in the late 1980s, with a mission to provide pastoral and spiritual care to those

who work or have worked in the industry, past and present, and their dependants. Funded by the industry through OGUK, it was for many years based in the offices of Total E&P UK in Aberdeen. Following Total's acquisition of Maersk Oil in 2018, it moved to presentday host operator Shell Exploration and Production. "Total was great to us over a long period of time, and we're equally grateful to Shell for its support today," says Gordon.

The team, which also comprises assistant chaplain Reverend Dr Ian McLean and administrator Lynne de Boer, has of course had to reshape its working practices during the COVID-19 restriction measures.

Lincolnshire-based Gordon has effectively been working from home, but the requisite use of virtual technologies has in some respects had a positive impact. In particular, he says it has potentially heralded new ways the chaplaincy could engage in future.

Early during the lockdown, the April 1 anniversary commemoration for the 16 people who died in the 2009 Super Puma crash off Peterhead went ahead with the use of technology. "We held a virtual act of remembrance on YouTube and it was fascinating to see it receive well over 2,000 views from people in the wider industry," explains Gordon. "We had anticipated it would mainly be a familyoriented remembrance, but the numbers indicate otherwise. In addition, many viewers posted comforting comments that the families might not otherwise have seen. It's given us food for thought; we might want to consider using such technologies again when appropriate."

In the immediate future, it could offer a means of helping to mark the 32nd anniversary of the Piper Alpha disaster in July this year.

More broadly, Gordon says the wider commemoration aspects of the chaplaincy's duties have evolved in recent years. "I detect a growing wish in society at large to mark past events and remember those who have lost their lives, and I think that's reflected within our industry.

"Whenever someone loses their life in oil and gas work it's a very sad event, but also a significant one, and remembrances are increasingly including an emphasis on the importance of safety.

"It's certainly a feature that's developed over the past few years, and it's good to see. It shows that people not only want to remember; they want lessons to be learned and pledges made that such things can't happen again."

Supporting role

One of the key practical dimensions of the chaplaincy's work is a trust that has been in existence since 1990 to provide financial support for people facing hardship through circumstances such as illness or injury.

Supporting the administration of the trust is still part of the chaplaincy's role, as is Gordon's everyday contact — remotely at the moment — with vulnerable individuals and families who value pastoral and spiritual support more than ever during these difficult times.

"We want to provide them with whatever support we can, and in the process it helps to reassure them that the industry hasn't forgotten them, amid all its current challenges," he says.

For now, Gordon's usual schedule of offshore visits has been postponed, and he expects this will be the norm for the foreseeable future as operators continue to enforce safety measures to contain the spread of coronavirus. In the meantime however, the doors of the chaplaincy are always open, and anyone seeking help or support can visit the chaplaincy website at ukoilandgaschaplaincy.com or call 01224 883355. "I detect a growing wish in society at large to mark past events and remember those who have lost their lives, and I think that's reflected within our industry."

Gordon has been routinely directing people to several websites which carry useful information related to COVID-19, in areas ranging from mental health wellbeing to practical aspects of working life.

OGUK: oilandgasuk.co.uk Step Change in Safety: stepchangeinsafety.net NHS: nhs.uk/oneyou/every-mind-matters NHS Scotland: clearyourhead.scot Military: headfit.org

"These sites, and others, offer great information and support. But we appreciate that people, if they are feeling down or anxious, sometimes won't find the energy to look at these sources themselves," says Gordon. "We'd encourage others – perhaps family members or employers – to support them in accessing these resources."

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At a time when the oil & gas industry is facing a "triple whammy" and is embarking on a fundamental re-set, the Gibson Dunn energy team is here to help.

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