# WIRELINE

ISSUE 37 - AUTUMN 2016



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The Offshore Safety Awards winners share their stories and the new Oil & Gas Technology Centre takes shape

# HOW ARE YOU DELIVERING STABLE OPERATIONS WITH AGEING AND OBSOLETE PLANT IN A "LOWER FOR LONGER" MARKET?

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# Oil & Gas UK's Mike Tholen on the key findings of this year's Economic Report - the definitive guide to the industry. The definitive guide to the industry.



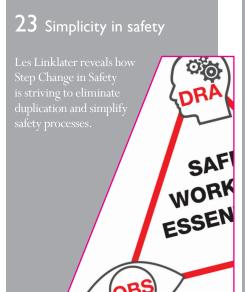
#### **REGULARS**

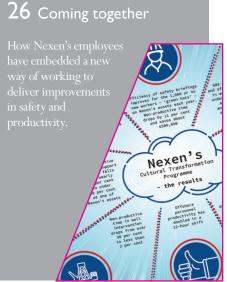
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#### 10 Membership matters Twelve new companies join our professional network.

12 Dates for your diary Save the dates and book online for Oil & Gas UK's industry-leading events. Here's your chance to network with colleagues and gain valuable knowledge on the sector's hot topics.









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In our 2016 Economic
Report (p14), we show how the industry is improving its competitiveness to put the sector on a stronger footing during the current downturn and beyond. We have significantly improved our efficiency and are delivering a substantive reduction in our unit operating costs while generating a 10 per cent increase in production.

It is also a sign of our spirit that even in the most difficult of economic climates, individuals and teams are still seeking to continuously improve health and safety performance. As we reflect on the winners of this year's Offshore Safety Awards (p35) and the robust performance reported in our latest *Health & Safety Report* (p5), safe operations remain at the heart of what we do, regardless of the oil price.

Our publication on Maintenance Optimisation Reviews (p5) was certainly produced with continuous improvement in mind. It has been pulled together by specialists from our membership, so that we can make sure our maintenance regimes are fit for purpose and target backlogs systematically, responsibly and with a focus on safe production.

In this issue, we put a spotlight on how TAQA has transformed its maintenance regime (p18), putting maintenance up there as one of the "pivotal drivers" for its business to maximise safety, and in turn efficiency and asset reliability.

Sharing stories like these was the focus of the revamped and interactive Safety Awards this summer, which we held with our colleagues at Step Change in Safety.

Indeed, Step Change is also leading work to create more consistent and streamlined safety processes (p23) by identifying and removing unnecessary duplication. So that this activity is truly effective, the Simplification Steering Group is taking on board feedback from offshore workers piloting a new "Safe Working Essentials" toolkit, as well as confronting any barriers to change head on.

INSIGHTS FROM THE ECONOMIC REPORT 2016 p14

After all, it's only when individuals are empowered to challenge the norm and propose better solutions that a new way of working can be embedded – great examples include Nexen with its focus on delivering safety results, efficiency and production gains (p26), and TAQA with its tangible improvements in its maintenance activity.

We know that industry must involve and engage with the people behind its success to help shape its future and we have some great examples of where this is now happening.

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Deirdre Michie, Chief Executive, Oil & Gas UK

Wireline is published by Oil & Gas UK, the voice of the UK oil and gas industry.

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

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#### I. OFFSHORE SAFETY CONTINUES TO IMPROVE

Oil & Gas UK's annual *Health and Safety Report 2016* demonstrates that safe operations continue to be intrinsic to activities on the UK Continental Shelf (UKCS). The report provides a summary of the industry's health and safety performance across a range of metrics (see infographics below), and describes many of the issues and activities influencing that performance.

Mick Borwell, health, safety and environment policy director at Oil & Gas UK, says: "This is a testing time for the industry and our commitment to safety has at times been questioned. The report is a reminder that safety remains at the top of our agenda and there is no place for compromise or complacency. The favourable performance (see right) reflects well on the contributions from everyone involved – offshore and onshore – and their unstinting efforts to manage and control hazards and to continually improve safety performance."

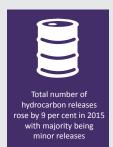
The full report is available to download at www.oilandgasuk.co.uk/healthandsafetyreport.

Also see p35 for the winners of the Offshore Safety Awards 2016.



















#### 2. PROMOTING GOOD PRACTICE FOR OPTIMISING AND IMPROVING MAINTENANCE

A new publication from Oil & Gas UK on *Maintenance Optimisation Reviews: Sharing Experience and Learning* aims to promote improvements in major accident hazard management and operational efficiency. It captures the experiences of specialists in maintenance and asset integrity to raise awareness of how industry can best carry out maintenance reviews to deliver safe, reliable and sustainable operations and reduce the backlog in safety-critical maintenance.

Trish Sentance, Oil & Gas UK's health and safety manager, comments: "We appreciate the efforts of our members who have delivered a document that we believe will support robust and effective maintenance optimisation reviews. This will in turn contribute to the industry's goal of maximising economic recovery from the UK Continental Shelf."

The document is available to download at http://bit.ly/maintenanceoptimisation. Also see p18 to find out about TAQA's Maintenance Improvement Programme.

#### 3. ECONOMIC REPORT HIGHLIGHTS INDUSTRY'S IMPROVED COMPETITIVENESS AND NEED FOR FRESH INVESTMENT

Around 450 delegates turned out to hear the findings of Oil & Gas UK's latest *Economic Report* at events in Aberdeen, London and Newcastle from 26 to 29 September. The report reveals that the cost of extracting a barrel of oil or gas from the UK Continental Shelf (UKCS) has fallen by almost half since 2014, improving the basin's competitiveness, and there has been a 10 per cent increase in production. However, the UKCS is in urgent need of fresh investment to boost exploration and drive activity, particularly for the supply chain, which has seen an average fall in revenues of almost 30 per cent since 2014.

The publication provides insights into the current health and future prospects of the industry, including the UK supply chain for the first time. It offers updated forecasts on exploration, production, investment and revenues in 2016 and beyond and highlights the industry's contribution to the UK economy and energy supply.

See p14 for a Q&A with Mike Tholen, Oil & Gas UK's upstream policy director, for a breakdown of the key facts, figures and messages coming out of this year's report. And download the full publication at www.oilandgasuk.co.uk/economicreport.



Around 450 delegates attended

Economic Report briefings in Aberdeen,
London and Teesside

#### 4. MATCHING JOBS TO EMPLOYEES AT RISK OF REDUNDANCY

The Energy Jobs Taskforce, run by Scottish Enterprise, has developed an Employee Loan Scheme that matches staff at risk of redundancy with job opportunities both inside and outside the industry. Skills Development Scotland (SDS) is co-ordinating the exchange and a number of job opportunities have been identified within health and safety; continuous improvement; business/strategic development; human resources; and organisational change management. The SDS would like to hear from companies with potential candidates.

Mike Duncan, director of Energy Skills Scotland, adds: "The scheme provides the opportunity for staff to maintain and deepen professional skills and for their employers to retain talent in the long term. While for organisations that are looking for individuals, there's the opportunity to utilise high-calibre talent for short-term roles."

For more information, contact Mike Duncan on mike.duncan@sds.co.uk.





#### 5. OIL & GAS UK CONSULTS WITH MEMBERS ON BREXIT

Following the UK's vote to leave the EU, Oil & Gas UK has been monitoring developments closely, gathering intelligence and analysing the implications for the oil and gas industry. A survey of members on the key issues impacting the industry will help to inform the association's policy positions on Brexit. Oil & Gas UK has also issued a briefing to political stakeholders on the industry's initial reaction to the vote and the current challenges facing the sector.

Trisha O'Reilly, Oil & Gas UK's external affairs and communications director, comments: "We are committed to representing our members' interests throughout the transition. We will use our government relations work group, other forums and workshops to engage with members on technical, regulatory and policy issues."

If you have any concerns or views that you would like to share, please get in touch with Ailsa Nicol on anicol@oilandgasuk.co.uk.

#### 6. MEETING THE NEW SECRETARY OF STATE FOR BUSINESS, ENERGY AND INDUSTRIAL STRATEGY

As part of ongoing engagement with the new UK Government, Oil & Gas UK's chief executive, Deirdre Michie, met with Greg Clark MP, Secretary of State for the newly formed Department for Business, Energy and Industrial Strategy on 9 August. The Energy Secretary and the Oil and Gas Authority committed to holding an early meeting this year with the MER UK Forum to discuss the immediate challenges of low investment and activity on the UK Continental Shelf.

Mr Clark confirmed that the government regards the industry as strategically important and that it needs to be at the heart of the new industrial strategy. Oil & Gas UK will represent industry's views as the strategy is developed and delivered.

Deirdre says: "We look forward to working with Mr Clark and his team to help create a robust industrial strategy that recognises the importance of oil and gas as an indigenous, secure supply of energy and a bridge to a lower carbon economy, as well as remaining a vital contributor to the UK economy."



#### 7. SCOTLAND'S FIRST MINISTER MEETS INDUSTRY LEADERS

Nicola Sturgeon MSP, Scotland's First Minister, met with senior industry leaders of Oil & Gas UK's board on 19 September at the trade body's offices in Aberdeen. She was given an update on the performance of the UK offshore industry and an overview of what the sector is doing to manage its way through the current downturn by significantly improving its efficiency and lowering its costs. Oil & Gas UK's chief executive, Deirdre Michie, and the First Minister also attended the official opening of Statoil's new office in Aberdeen.

Ms Sturgeon says: "I am under no illusions about the significant challenges that remain. We must be ready to capitalise when the upturn comes, and it is encouraging that companies like Statoil are continuing to invest in the North Sea. I am pleased to say that the Scottish Government is delivering on the support announced earlier this year, with over 600 people having their applications for support approved through our three-year Transition Training Fund and, separately, we've committed £1.1 million to projects to boost business resilience. I'm also pleased to confirm that around 70 innovation projects with a total project value of around £16 million have benefited from £7 million of Scottish Government support to help firms reduce the risks associated with research and development."







#### 8. DEIRDRE MICHIE AND LOCAL PARLIAMENTARIANS VISIT REGIONAL OIL AND GAS HUBS

Oil & Gas UK's chief executive Deirdre Michie visited companies in Thurso and Dundee over the summer to better understand the challenges facing contractor businesses in these areas. While in Thurso, Deirdre hosted a roundtable meeting with representatives from local businesses working in the oil and gas sector to discuss the current market conditions and what Oil & Gas UK can do to help support members. In Dundee, she visited member company Safehouse Habitats to hear about their innovative approach to operating in hazardous working environments, before touring the port with local parliamentarian Joe FitzPatrick MSP to learn more about the decommissioning opportunities.

Deirdre, along with Alex Burnett MSP, Liam Kerr MSP and Peter Chapman MSP also toured CHC Helicopter's North Hangar, flight terminal and briefing room in Aberdeen to get a first-hand overview of flight operations and crew safety equipment.

Regional visits are important to raise awareness of the vital economic contribution made by the UK oil and gas sector, as well as the challenges that companies face and the safety consciousness of their activities.

If you are interested in hosting a site visit, please contact Ailsa Nicol on anicol@oilandgasuk.co.uk.

#### 9. PETROFAC'S WALTER THAIN LEADS EFFICIENCY TASK FORCE

Walter Thain, managing director of Petrofac's Engineering & Production Services West business, is the new chairman of Oil & Gas UK's Efficiency Task Force (ETF), which aims to be a catalyst to boost the UK Continental Shelf's competitiveness. Walter succeeds John Pearson of Amec Foster Wheeler, who has stepped down from the role having been appointed group president, Americas, at the end of May.

Walter says: "I look forward to getting on with the sizeable tasks ahead. It's more vital than ever that our industry pulls together and makes a collective commitment to work more effectively, efficiently and co-operatively in order to make a difference. A change in culture is the key to finding a better way to do business."

Sign up to the Efficiency Task Force's Industry Behaviours Charter at www.oilandgasuk.co.uk/charter.



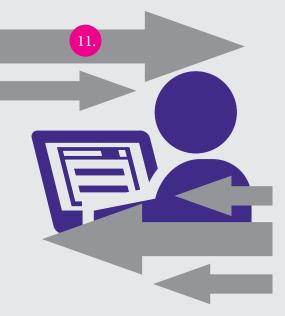
#### 10. COMPANIES JOIN FORCES TO STREAMLINE INVENTORY MANAGEMENT

Twenty-one companies from the oil, gas, construction, chemical and food processing sectors are now sharing information about a pool of over 200,000 inventory items on an online trading platform commissioned by Oil & Gas UK's Efficiency Task Force. Companies are sharing resources to reduce individual stock holdings and cut lead times for access to vital equipment. The platform, developed by Ampelius Trading, holds items large and small, ranging from valves and drill bits to gas turbines and subsea equipment.

"Our ambition is for industry to use a trading system that includes the inventories of all relevant UK Continental Shelf companies and to document industry good practice. This is progressing well," enthuses Stephen Marcos Jones, business excellence director at Oil & Gas UK. "Trading activity is helping to reduce costs, gain faster access to equipment and ensure continuity of offshore operations."

For more information, email efficiency@oilandgasuk.co.uk.





#### II. TRANSFERRING KNOWLEDGE THROUGH THE RAPID EFFICIENCY EXCHANGE

Over 50 case studies showcasing how companies are working smarter, innovatively and co-operatively have been posted on the Rapid Efficiency Exchange – a portal for knowledge sharing developed by the Efficiency Task Force.

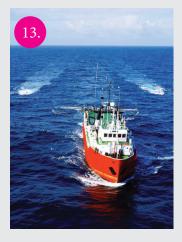
For example, Halliburton has installed a vendor-managed inventory machine in its Aberdeen workshop to dispense fast moving consumable workshop items such as personal protective equipment (PPE) abrasives and glue. This gives technicians controlled access to these goods and saves them time, avoiding trips to stores or raising requisitions. The machines are connected directly to the internet and send stock usage information to the vendor's office for replenishment, while weekly and monthly usage reports are automatically emailed to facility supervisors. The average consumable spend has dropped by almost 60 per cent.

Share your story on the Rapid Efficiency Exchange at http://portal.oilandgasuk.co.uk.

#### 12. IMPROVING LOGISTICS MANAGEMENT AND PROCUREMENT

Two work groups under the Efficiency Task Force's business process theme are kicking off activity to streamline and standardise tendering processes and examine how regional collaboration could improve logistics management. A test case is under way in the Mariner Area to explore how helicopter and vessel movements between companies could be shared and optimised. Meanwhile, a procurement work group has surveyed industry's tendering processes to investigate the man-hours and money-saving potential of applying standard industry tools. The results from these two projects are expected to be delivered later this year.





#### 13. GOVERNMENT-FUNDED SEISMIC PROGRAMMES

In the second round of the UK Government-funded seismic programme, PGS and WesternGeco have been contracted to carry out seismic surveys on the East Shetland Platform and in South West Britain, respectively. The £20 million programme is expected to collect between 10,000 and 15,000 kilometres of new seismic data from under-explored frontier areas, to be released in early 2017.

The Oil and Gas Authority has also allocated over £200,000 for a trio of geoscience companies to add value to the data acquired from the Rockall Trough and Mid North Sea High (MNSH) regions in the first-round government-funded seismic programme. The aim is to increase understanding of these frontier areas ahead of the 29th Licensing Round that opened last month.

Frogtech, based in Australia, will model the areas to provide greater insight into their geological foundations. Kingswells-based Geop4ysics will integrate rock physics into the overall interpretation of the MNSH data sets. And Geoscience Wales will record potential effective petroleum systems.



#### 14. LEGAL COMMUNITY COMES TOGETHER AT ANNUAL CONFERENCE

Over 130 delegates attended Oil & Gas UK's Legal Conference on 22 September in Aberdeen – an opportunity for the industry's legal community to come together and keep abreast of the latest news and developments. Delegates heard about the initiatives to improve efficiency; efforts to deliver transformational change in legal and commercial behaviours; political developments on Brexit; employment law in difficult market conditions; insolvency issues; and mergers and acquisitions.

Dr Russell Richardson, the Oil and Gas Authority's General Counsel, delivered the keynote speech on the Authority's new regulatory powers and the day's activities concluded with an after-dinner speech from Sir Bernard Eder QC, a leading expert on the principles of contractual interpretation.

The presentations are available to download at http://bit.ly/legalconf16.

#### 15. ACCESS TO FINANCE EXPLORED AT BREAKFAST BRIEFING

The access to finance needed to fuel the future of the North Sea was the subject of Oil & Gas UK's breakfast briefing on 23 August in Aberdeen. The highly topical event brought together leaders in the field of oil and gas finance to reflect on how best to persuade the financial community to invest in UK oil and gas businesses, as well as outlining alternative sources of funding and how to capitalise on them.

Graham Stewart of Faroe Petroleum described the innovative methods his company used to finance exploration, appraisal and production activities in both Norway and the UK. Richard Knox of EC-OG shared his success in securing new investors to develop and commercialise technology for subsea power generation, while Will Dowson of the Bank of England discussed the outlook for investment and growth. Tom Wheeler from the Oil and Gas Authority also spoke about how the regulator engages with infrastructure owners, operators, prospective developers and contractors on strategies to maximise economic recovery.

The presentations and webcasts are available at http://bit.ly/access2financebb.

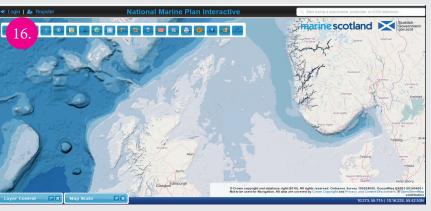


#### 16. DATA RELEASED TO ASSIST WITH EMERGENCY RESPONSE

Oil & Gas UK's Oil Spill Response Forum has facilitated a study to collate and map information about coastal areas required for oil spill planning and response in Scotland, including environmental and socioeconomic data. The data are now available to view (and as a Web Map Service) through the Marine Scotland National Marine Plan interactive website.

Louise O'Hara Murray, environment manager at Oil & Gas UK, comments: "This information is a very useful resource for our sector. It is freely available to industry and the regulator. Its publication also demonstrates the success of the Oil Spill Response Forum and its links with industry and government."

Access the data at http://maps.marine.gov.scot. For more information, contact Louise O'Hara Murray on lmurray@oilandgasuk.co.uk.





#### 17. OGA AWARDS SURFACE AND SUBSURFACE STUDY CONTRACTS

The Oil and Gas Authority has awarded four contracts with a combined value of more than £6 million for surface and subsurface studies. The contracts will run over three years to improve geotechnical understanding for exploration, development, production, late-life planning and decommissioning on the UK Continental Shelf. The companies carrying out this work are Lloyds Register, Schlumberger and the British Geological Survey.

Find out more at http://bit.ly/2cbSe3o.

#### 18. FIRST STUDENTS ENROL FOR GRADUATE CERTIFICATE IN PETROLEUM DATA MANAGEMENT

The pioneering Graduate Certificate in Petroleum Data Management has taken its first intake of 25 students. The course, developed by Common Data Access Limited (CDA) and Robert Gordon University, is aimed at those looking to begin a career in petroleum data management or to formalise knowledge already gained on the job. CDA has awarded four fully-funded scholarships for the 2016-17 academic year. The course is available online and gives students flexibility of where and when they can study while still offering access to tutors and other class members.

Malcolm Fleming, CDA chief executive, says: "The value generated by exploration and production activities relies on accurate information — the key to which is high quality data management. It is therefore crucial that the industry recognises the importance of promoting the professionalisation of petroleum data managers."



Find out more about the course at http://bit.ly/Pdmcourse.



#### 19. ABERDEEN UNIVERSITY DEVELOPS MASTERS IN DATA MANAGEMENT

The University of Aberdeen is teaming up with key players from the industry to offer a new Masters degree in Petroleum Data Management. The programme has been set up through agreement with Common Data Access Limited (CDA), and will be sponsored by leading multinationals, including Shell, Total and Chevron.

The MSc will be delivered on a multi-disciplinary basis across the departments of Geography, Geology, Computing Science and Law, and will cover subjects such as data governance, data quality management, information security management, and service and project management. The programme launches in 2017, initially on a part-time basis. Distance learning and full-time options will follow in 2018.

University of Aberdeen programme co-ordinator, Professor Judith Masthoff, comments: "The course is being developed with input from our industrial partners to ensure the programme is tailored to their needs. It will provide graduates with job-ready expertise that will allow them to meet a growing demand for skills in this area."

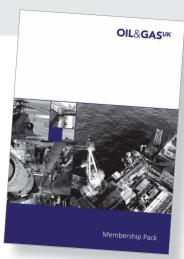
#### **MEMBERSHIP MATTERS**

#### **NEW MEMBERS JOIN OIL & GAS UK**

We are pleased to welcome the following companies that have joined Oil & Gas UK since the last issue of *Wireline*:

Aberdeen Radiators Ltd; Agilis KLM Ltd; Chris Dykes International Ltd; Drug and Alcohol Testing Services Ltd; Independent Oil & Gas plc; Interventek Subsea Engineering Ltd; Kongsberg Maritime Ltd; Prodrill Engineering Ltd; Quadrant Chambers; The Decommissioning Company Limited; University of Strathclyde Oil and Gas Institute; and Zennor Petroleum.

Our membership relations advisers — Johanna Campbell and Mark Mullins — are committed to ensuring that Oil & Gas UK membership is carefully tailored to your needs so please contact them with any queries on membership@oilandgasuk.co.uk.





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#### Dates for your diary

#### **EVENTS**

2 November

Share Fair

Aberdeen

3 November

Oil & Gas UK Awards

Aberdeen

Principal Sponsor



14 to 16 November

Offshore Decommissioning

Conference in partnership with Decom North Sea

St Andrews

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#### **BREAKFAST BRIEFINGS**

#### **Aberdeen Breakfast Briefing**

• 6 December

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Deloitte.

#### **London Breakfast Briefing**

• 22 November

Sponsored by







#### **SEMINARS**

29 November

**Environmental Seminar** 

Aberdeen



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THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION
2016

## Insights from the Economic Report 2016

Oil & Gas UK's Mike Tholen discusses the key findings of the *Economic Report 2016* – the definitive guide to the current status of the industry. This year, for the first time, the report includes an in-depth review of the UK industry's supply chain.



#### Q: What are the key findings of the *Economic Report?*

A: These are challenging times but the report demonstrates the tenacity of the UK offshore oil and gas industry. Production is up, costs are coming down and the industry is becoming more competitive despite the very difficult market conditions. Few industries could have achieved such performance improvement over the last 18 months.

Regardless of this good news, however, major challenges remain to sustain the future of the industry. Exploration has fallen to record lows, development drilling is declining and there is an urgent need to attract fresh investment into the basin to stimulate activity.

#### Q: What has industry achieved since last year?

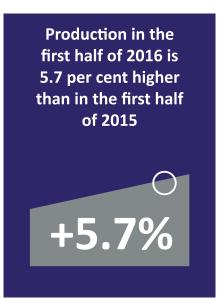
**A:** Industry has been proactive and has significantly improved its efficiency, squeezing the cost of operations down even further. Unit operating costs have reduced by 45 per cent in the last two years from over \$29 in 2014 to an expected \$16 this year, while production efficiency has increased from 65 per cent in 2014 to over 70 in 2015. These improvements, alongside field restarts and new start-ups, are the drivers behind the upturn in production of over 10 per cent that we saw last year. This was the first increase in output in 15 years with further upside assured this year.

When you look globally, unit costs have fallen far less rapidly by about 17 per cent from their peak in 2014. This suggests that efficiency improvements, rather than natural cost deflation, are the main driver behind our cost base reductions and these should be sustainable even when the price recovers. We are carrying out further analysis, to be published soon,





Bucking a 15-year trend, production increased by over 10 per cent in 2015



Efficiency improvements are the main driver behind our cost base reductions and these should be sustainable even when the price recovers.

to confirm to what extent. These lower unit costs have meant that fields were able to continue operations that would have otherwise been uneconomic.

#### Q: What does the report tell us about the UK oil and gas industry's supply chain?

A: Revenues across the supply chain are forecast to fall by around 21 per cent this year, resulting in an average drop of almost 30 per cent since 2014. This will bring market revenue below £30 billion for the first time since 2010.

Companies specialising in wells or reservoir-based activities appear to have suffered the most, with revenues declining on average by half over the past two years.

While companies in the facilities segment (engineering, operations and maintenance), which represent roughly a third of the total supply chain, have faced less of a downturn than the wells sector — facilities as a whole has still seen a fall in revenues of nearly 20 per cent over the last two years.

Marine and subsea revenues are estimated to have fallen by 14 per cent in 2015, with a further decrease of 11 per cent expected in 2016 to £8.4 billion. While revenues in the support and services segment (made up of a wide range of businesses including catering, facilities management, warehousing, logistics, etc) are forecast to contract by 13 per cent in 2016, roughly on par with the 14 per cent fall they saw last year.

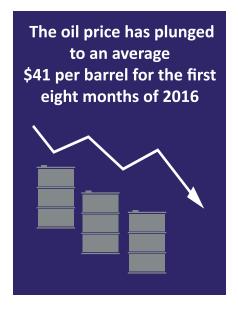
#### Q: What about the outlook for jobs?

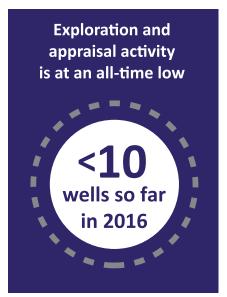
A: The industry has had to make difficult decisions in order to survive in the current climate. The oil price has plummeted from above \$100 per barrel in 2014 to an average of \$41 per barrel over the first eight months of 2016, hitting revenues for operators and the supply chain.

Ongoing job losses are the personal cost to individuals and families across the UK, with up to 120,000 jobs supported by the industry expected to be lost by the end of this year. The majority of these job losses have taken place onshore, with offshore employment falling five per cent since 2014.

The interventions we make now are critical to shape the industry's direction and help stem future losses. While we can't forecast the future, the total employment the industry can continue to support depends on the level of fresh >

There is an urgent need to attract fresh investment into the basin to stimulate activity.



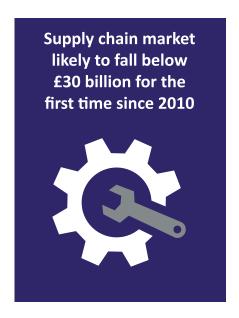


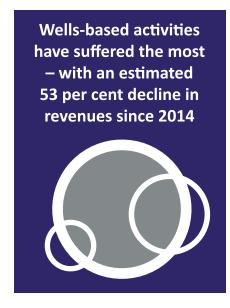
Investment is forecast to fall from a record £14.8 billion in 2014 to around £9 billion this year

**4 100**MILLION
of fresh capital has been committed so far in 2016, with only one new field approved

The supply chain has been hard hit with an average fall in revenues of almost

30%
in the last two years





investment coming into the basin. If investment levels continue to fall, then so too will jobs, resulting in a drain of the high value, skills and expertise built-up over decades.

#### Q: How much exploration is taking place?

**A:** Not nearly enough. The report shows we are producing at four times the rate at which we are discovering new reserves.

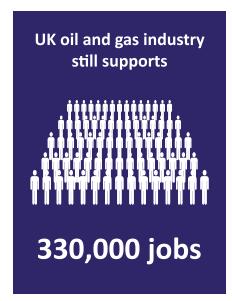
Last year we discovered only 150 million barrels of oil equivalent, this compares to the 600 million barrels of oil equivalent produced in 2015. Clearly, this is unsustainable.

#### Q: What is industry doing to promote activity?

A: The industry's focus continues to be on driving competitiveness through reducing costs and improving efficiency. However, there is a lot more work to be done to ensure we come through the downturn ready to make the most of any potential upturn.

The recent increase in UK production is a testament to what can be achieved when the basin's competitiveness is addressed and the tax regime reformed. The UK's offshore oil and gas industry is an increasingly investable proposition with world leading capability from front-end exploration to late-life operations and decommissioning.

Investment is needed now to ensure the sustainability of the UK Continental Shelf and encouraging all forms of drilling, including development, over the next 12 to 18 months is vital for the industry's future.





#### Q: How can we drive fresh investment and stimulate activity across the UK Continental Shelf?

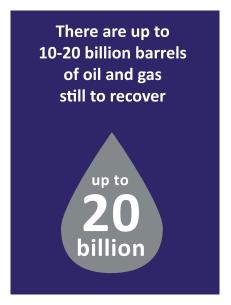
**A:** The industry will continue to build on its achievements to date of cost reduction and efficiency improvement and as such we would encourage all of the industry to engage with the cross-sector tools available to support this.

In addition, maximising economic recovery from the basin will require continued collaboration of governments, HM Treasury, the Oil and Gas Authority, and the new Department for Business, Energy and Industrial Strategy.

We are calling on government to help stimulate activity through three coherent measures:

 Firstly, for HM Treasury to re-affirm its continued commitment to its *Driving Investment* fiscal strategy, first published in 2014, which recognises the need





for a more competitive, simple and predictable fiscal regime as the basin continues to mature.

- Secondly, for HM Treasury to complete constructive work over recent Budgets by introducing measures for decommissioning tax relief to transfer upon an asset's sale. This will present fresh investment opportunities by facilitating the trade of late-life assets.
- Finally, for governments to promote the capability of the UK's oil and gas supply chain, both nationally and internationally, as part of the UK's new industrial strategy, recognising that it is a key element of the economy. (w)







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#### Heading in the right direction

Sharing experiences and lessons learnt is critical to continuously improve major accident hazard management. Wireline caught up with TAQA to find out more about the changes being made to its maintenance regime to drive safe, efficient and sustainable operations.

From the outset, the team charged with creating a "radically new maintenance regime" at TAQA has worked to the mantra – doing the right maintenance, at the right time, by the right people, to the right quality.

It's a slogan that has become familiar to everyone across the organisation since a major review of its maintenance regime was launched in early 2015.

"The main priorities for any operator are safe, efficient and sustainable operations," says maintenance manager Stuart McIntosh. "If you can have maintenance at the forefront, then you can be safer, have higher levels of equipment reliability and better production performance."

TAQA operates five installations that produce from 13 fields across the northern and central North Sea. With a portfolio of mature assets, some of these platforms are operating beyond their originally conceived life span and are now in the extended life phase.

The maintenance regime on these assets prior to the review was characterised by increasing maintenance backlog; difficulty in determining the factors that influence maintenance outcomes and associated operational performance; outsourced maintenance management; overreliance on specialist vendors; an imbalance in the preventative to corrective maintenance ratio (50:50); knock-on negative effect on equipment reliability and operational efficiency; and inconsistency in safety-critical element performance standards and preventative maintenance regimes across assets.

With responsibility for maintenance also fragmented across its operations, the company realised that something needed to change if it was to continue to operate effectively.

#### Own it and optimise it

Stuart has re-examined TAQA's UK maintenance environment in its entirety, both onshore and offshore. An onshore team is managing the review, drawing on technical expertise.

One of the early strategic decisions was to create a new and simplified maintenance management structure. Previously, supervision and delivery of maintenance lay with third parties. TAQA wanted to bring ownership and accountability in-house.

An onshore hub for each of TAQA's five assets in the UK North Sea was formed, featuring a maintenance superintendent and a dedicated electrical, mechanical and instrument engineer. These teams work collaboratively with each other to provide consistent support across the company's operations.

This onshore approach was also set up to broadly mirror the maintenance function offshore, made up of a supervisor, a team leader for each of the electrical, mechanical and instrument disciplines, and technicians.

Simultaneously, Stuart and his colleagues embarked on a large-scale exercise to review TAQA's total maintenance commitment. Offshore technicians are pivotal to this process with their understanding of the assets operation, equipment history and maintenance routines.

Around 14,000 individual preventative maintenance tasks requiring about 140,000 man-hours annually are being reviewed. And a staggering



130,000 pieces of information are being verified. The aim is to make sure that the right maintenance is being performed at the right frequency; the working environment is suitable; the activity is assigned to the most appropriately skilled individuals; as well as identifying and eliminating obsolete tasks, duplication and even over-maintenance.

"We've always been at pains to make sure everyone understands that it's never been about doing less maintenance, but doing the right maintenance when required," explains maintenance and reliability improvement team lead Trevor



Macleod. "Our edict was to own it, optimise it and get best value."

The review was split into two areas — the first being safety and environmentally critical elements (SECEs), to which performance standards apply (see box-out above for more on these standards), and

the second being business-critical maintenance.

"Safety-critical maintenance of course takes top priority, but business-critical activities are important for plant reliability and optimum performance," says Stuart. "By optimising safety-critical maintenance and getting it right, there should be more time to

Maintenance is now up there as one of the pivotal drivers for the business. By implementing TAQA's maintenance improvement plan, the business is maximising safety, efficiency, reliability and value, reducing costs and ultimately extending field life.

#### PERFORMANCE STANDARDS

As part of TAQA's maintenance improvement plan, legacy performance standards for safety and environmentally critical elements (SECEs) were re-examined alongside best practice guidance from Step Change in Safety. The main features of the revised standard format are that it:

- Covers both design and operational requirements
- Includes clearer and concise descriptions of the SECE's scope and role
- Has clearer functionality requirements with contingency actions in the event of equipment failure
- Lists maintenance routines to assure the required functionality

focus on business-critical elements and that in itself provides further safety and efficiency gains."

#### Measure and manage

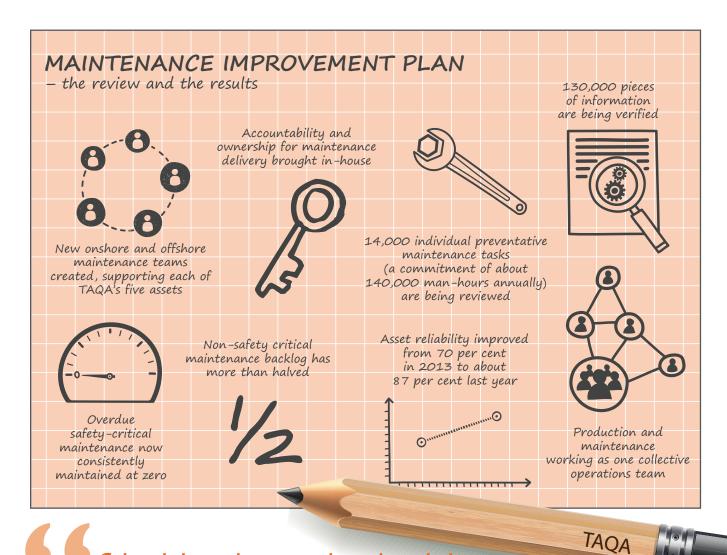
The maintenance improvement review has resulted in a step change in TAQA's performance. Overdue safety-critical maintenance is now consistently maintained at zero while the backlog of non-safety critical maintenance has more than halved in the last 18 months. Asset reliability has also improved from 70 per cent in 2013 to about 87 per cent last year, with similar performance levels achieved so far this year.

Everyone in the maintenance team can follow these figures through a web-based process safety dashboard that features a host of live key performance indicators (KPIs).

"Our belief is that we can't manage what we can't measure," adds Stuart.
"We can all now see how each asset, and the business overall, is performing and the quality of data feeding those maintenance KPIs is getting better all the time."

#### **Cultural** shift

Workforce engagement and participation has been at the heart of this project's success. Trevor explains: "Cultural change has come about through the reorganisation. >



Cultural change has come about through the reorganisation. People know they can now make a direct contribution to maintenance optimisation.

"People know they can now make a direct contribution to maintenance optimisation. The technicians can raise queries on procedures or challenge the validity of tasks. Those are subject to a swift onshore review and approval process and, where appropriate, change is implemented."

The programme is also creating opportunities for technicians to upskill to perform tasks previously undertaken by vendors. Maintenance strategy lead Kevin Bruce notes that "once people understood why the review was necessary, and it became clear that we were doing it for all the right reasons, there was great buy-in. Every day we see the maintenance numbers trending in the right direction so it's good to see the hard work paying off."

Rigorous induction training is now also given to senior offshore maintenance personnel. "A great deal of effort went

into ensuring they understood the context; that they know they have a good onshore team behind them; and know what is expected of them," explains Stuart. "They've been excellent in cascading those principles to the wider offshore teams."

#### Smart thinking

What started as a pure safety initiative has ended up adding broader value by driving smarter operations during the oil price downturn and beyond.

"If you think of the reliability of your own car, the same principles apply," asserts Trevor. "If you want your car to start every morning and to run well, for as long as possible, you look after it and have it serviced and MOT'd.

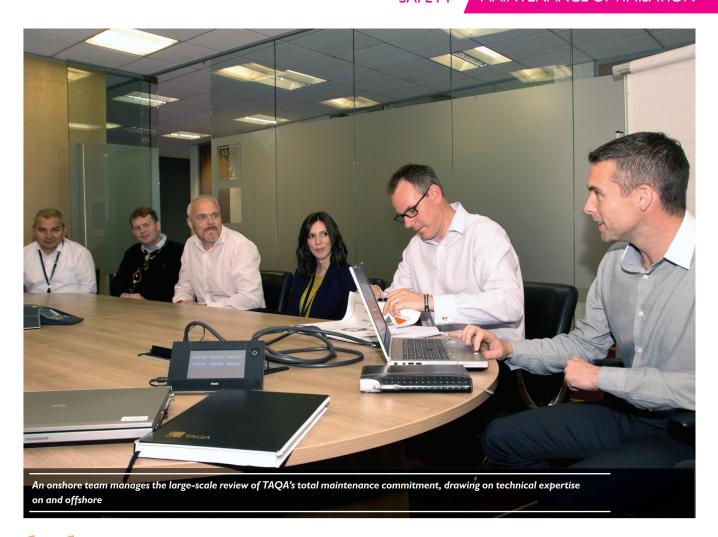
"If you get an advisory note for your car, it might cost a few pounds to get it repaired there and then. If you don't, it might end up being fixed at the

roadside and costing an awful lot more."

And with many members of the new-look offshore maintenance teams recruited from production roles, it's changing the nature of asset operations.

"We're no longer working as separate entities, with the production team responsible for the operation of equipment and the maintenance team responsible for its upkeep," says Cormorant Alpha maintenance supervisor Gavin Christie.

"We're working as one collective operations team, setting out repair priorities and taking equipment down on a planned basis for all departments to work on. Previously, this would have been completed by teams in isolation, causing increased downtime and a reduction in performance levels."



We're no longer working as separate entities, with the production team responsible for the operation of equipment and the maintenance team responsible for its upkeep.

#### SAFETY-CRITICAL MAINTENANCE BACKLOG

Oil & Gas UK's *Health & Safety Report* (see p5 for details) provides a high level snapshot of overall industry performance with regards to safety-critical maintenance backlog.

It reveals that man-hours in backlog increased significantly from mid-2013 to the end of 2014 and prompted increased cross-sector focus to reverse this trend. Operators carried out structured reviews of their maintenance practices to improve equipment reliability. This effort was supported by an increase in the number of core maintenance crew working offshore by 125 workers over the first five months of 2016 compared with the same period in 2014. Year-on-year reductions are now being reported across all three categories of planned, corrective and deferred backlog.

In December 2015, Oil & Gas UK formed a work group to bring together technical specialists in the fields of maintenance and asset integrity. The work group has produced a document on *Maintenance Optimisation Reviews* — *Sharing Experience and Learning* to help make sure maintenance regimes are fit for purpose.

The publication is available to download at http://bit.ly/maintenanceoptimisation.

He adds: "Having a better understanding of the production side of the business also helps to deliver better process uptimes, increased equipment availability and improved data quality."

Stuart certainly believes that the company is in a stronger place. "Maintenance is now up there as one of the pivotal drivers for the business. By implementing TAQA's maintenance improvement plan, the business is maximising safety, efficiency, reliability and value, reducing costs and ultimately extending field life." W



TAQA's maintenance review features in Oil & Gas UK's latest publication on Maintenance Optimisation Reviews — Sharing Experience and Learning, which is available to download at http://bit.ly/maintenanceoptimisation.

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#### Simplicity in safety

To ensure consistent and efficient safety processes both onshore and offshore, Step Change in Safety's Simplification Steering Group is leading work to identify and eliminate unnecessary duplication. Wireline learns more from executive director Les Linklater

#### Q: What is Simplification?

**A:** Step Change in Safety's drive to simplify, engage and sustain was a strategic output from our annual planning day in 2014, in response to a recognition that as an industry we were moving into a different cost environment.

Simplification is the standardisation of common elements of the oil and gas industry's control of work system, which in time will fulfil the expectation of process simplification. The common elements were derived in principle from the components of the Minimum Industry Safety Training (MIST).

#### Q: How did Simplification come about?

A: The steering group undertook the need to address permit process simplification raised by the workforce through strong alignment with Oil & Gas UK's Efficiency Task Force and further endorsed as an outcome from the Energy Jobs Task Force's Shared Principles and Values event in May 2015.

#### Q: How is Step Change in Safety delivering Simplification?

A: In the first set of deliverables, new processes for Toolbox Talks (TBT) and Dynamic Risk Assessment (DRA), as well as a Single Observation Card (OBS) with prompts and hazard icons, were deemed to be the least contentious and as such the most feasible in terms of visible first steps.

The steering group (chaired by Erik-Jan Bijvank of Stork and Kate Simpson of ConocoPhillips), supported by trade unions and the Health and Safety Executive, created two working groups — Tools and Processes (chaired by Simon Miller of Wood Group PSN and Andy Robb of Centrica) and Pilot Site and Engagement (chaired by Deborah McBeath of Amec Foster Wheeler and Kevin Bayne of TAQA).

The **Tools and Processes** group analysed current industry documentation for TBT and DRA and investigated practices used in other industries, such as the military, police and fire services. It became clear that new processes for all three >

(TBT, DRA and OBS) could be delivered at the same time. The draft suite was completed on 4 April 2016 and is called Safe Working Essentials (see image right).

The **Pilot Site and Engagement** work group identified the six sites to pilot the toolkit: Golden Eagle (Nexen), Hummingbird (Wood Group), Forties Pipeline (BP), Barrow (Centrica), Clipper (Shell) and Heather (EnQuest), which supported effective workforce engagement and a continuous feedback cycle. The pilot was conducted in three phases on 21 April, 2 May and 16 May, with lessons being learnt throughout the process enabling a continuously improved tool to be delivered to each site.

More than 240 pieces of individual feedback were received from the six pilot sites with approximately 190 resulting in changes to the tool in terms of design, formatting and wording, as well as identifying the need for a more detailed guidance document and supporting frequently asked questions. In summary, the feedback primarily related to the following areas:

- Checklists
- Hazard icons/prompts
- Work party declaration
- · Ability to trend data
- Management of routine work

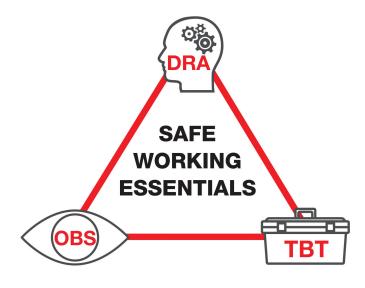
Furthermore, for the cultural element of change management, the following areas were highlighted as potential blockers that had to be addressed at the pilot sites:

- Do not underestimate the reluctance of people to change this is a significant driver of success or not
- Ensuring that the message from the top is not lost through the line and local decision makers take control – clear and visible support
- Need for a thorough understanding of the reasoning not just for simplification but of the Safe Working Essentials toolkit
- Invest in the time upfront to get the landing right
- Get the "why can't this work here" conversations started early
- Consider a worksite's cultural maturity versus actual maturity

This has resulted in the creation of a deployment readiness review process which is, in principle, a gate review process designed to determine an organisation's,

then a particular worksite's, ability to implement and sustain the change. Assessment is made across the areas below:

- Culture
- Resources
- Leadership
- Stakeholder interface
- Field life
- · Change maturity
- Business integration
- Communications



The production of the readiness review is likely to offer industry a secondary product in support of other industry-wide change initiatives.

#### Q: How much has been invested in this process and project?

A: To date, industry, through Step Change in Safety, has invested an estimated 750 hours directly in the project and about £45,000, resulting in the development of all the necessary materials for the six pilots, the commissioning of the deployment video which was £30,000, and the manufacturing of 25 boxes containing everything that a worksite would need to go live. This would not have been possible without the considerable support of the pilot sites and their organisations' commitment at every level.

#### Q: What next?

New processes

for Toolbox Talks

and Dynamic Risk

Assessment, as well

Card, were deemed

first steps.

as a Single Observation

to be the most feasible

**A:** Following a successful pilot, the project will move into an adoption phase before full release in 2017. While the tool has gone through a significant revision and is ready to use, there is a recognition of the need to further test the deployment

methodology to support sustainable industry-wide implementation. The adoption phase will focus on the following areas:

- Maintaining engagement with the six initial pilot sites including direct engagement around the feedback from the pilots
- Building momentum in the pilot organisations through a request for an additional six sites
- Engaging early adopters from wider industry (an additional six sites)
- Testing the readiness of organisations to adopt industry-wide change

Feedback will be consolidated in quarter four 2016 with a revision being available for industry-wide deployment in 2017, which can be implemented into annual health and safety plans within organisations more readily.

It is incredibly important to maintain momentum from a workforce engagement perspective — delivery demonstrates that we have truly listened to their feedback. Simplification could be industry changing. It could save time, money and most importantly give a safer outcome. N





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Michael Emery in association with KSi



#### Coming together

As Nexen marries principles with practical application, Wireline finds out how workforce involvement and engagement have been essential to embed a new way of working.

hen Nexen launched a cultural transformation programme in 2011 with the goal of attaining best-in-class operator status, it set in motion a process that is delivering safety results, production and efficiency gains and put it ahead of the curve when the oil price dropped.

"We were quite fortunate in laying the groundwork ahead of the oil price fall,

albeit not by design," says Mike Backus, UK operations vice president. "We'd been building momentum, training people and embedding the new culture in the organisation.

"When the oil price dropped, we were able to take advantage of good practice in our business. In truth, it's good practice regardless of the oil price. In times of low price, it protects your business and in times of high price it increases your margins. We don't want to lose sight of the discipline around it."

#### **Promoting the principles**

Eight cultural beliefs form the heart of the organisation's new way of working. The beliefs are: Safety First, Be The Best, Results Matter, Do It Right, Be Bold, Step Up, Value Feedback and Win Together.



"It's no accident that safety sits at the top of the list," notes UK managing director Ray Riddoch. "It's central to what we're doing in terms of changing the culture and driving efficiency improvements."

Nexen's leadership team understood that workforce collaboration and communication were crucial in achieving the cultural transformation it wanted. Since launching, Ray has personally fronted more than 120 hours of training and there are around a dozen cultural champions across the business who promote the beliefs throughout the company.

"The key thing is that the workforce has a very clear understanding of expectations, of individual roles and of how they fit in," asserts Ray. "They know that they're very important to the business — that their

contribution matters as much as mine or any other manager."

Other tools used to embed these values into everyday tasks include Focused Recognition Cards that acknowledge individual contributions to the improvement agenda, and storytelling, whereby employees share how a colleague has demonstrated one of the beliefs to deliver key business results. Constructive feedback to colleagues is also promoted and individuals are encouraged to solve problems with a 'Steps to Accountability' tool that guides them to take accountability based on a methodology developed by Partners In Leadership.

A new onshore support manager role was also introduced in 2013. In charge of the onshore asset team, this position >

We wanted to give the whole workforce visibility of where we stand operationally. People have sight of areas they are not directly responsible for, but they are increasingly interested in how we are doing overall and how they connect to that. We work hard at using our communications processes to that end.

#### **NEXEN'S CULTURAL BELIEFS**



SAFETY FIRST



BETHE BEST



**RESULTS MATTER** 



DO IT RIGHT



**BE BOLD** 



STEP UP



VALUE FEEDBACK



WINTOGETHER

is fulfilled on a rotational basis by offshore installation managers (OIMs) and superintendents and bridges the gap between onshore and offshore. The strategy behind introducing this new role was to ensure both parts of the business are aligned around common goals to drive performance and improve efficiency and to work collaboratively to achieve safety and environmental targets.

#### Small steps... significant solutions

When the company's cultural beliefs were married with the sporting world's marginal gains concept in 2014, it "proved a watershed", says Ray. Marginal gains are about making small incremental improvements that collectively deliver significant benefits. By posting a marginal gains scoreboard, featuring key performance indicators, now means the entire business can measure - and see the benefits of this approach.

"We wanted to make the link between a marginal gain idea, its implementation and the measured output - be it how many barrels we've added, what savings we've made, or what safety benefits we've seen - and that's what the scoreboard does for us," outlines Mike.

"We wanted to give the whole workforce visibility of where we stand operationally, how we are doing against targets and where the challenges lie. People have sight of areas they are not directly responsible for, but they are increasingly interested in how we are doing overall and how they connect to that. We work hard at using our communications processes to that end."

#### Open and transparent

This holistic approach has resulted in tangible initiatives and developments in

several areas. The company has created

**Awareness of** major accident hazards and safety-critical elements is now much greater. People are more comfortable with not starting work until they're totally confident in the job at hand, or stopping when they feel something needs to be cleared up.

#### **COMPETENCE MANAGEMENT**

Nexen embraced the opportunity to gain OPITO Competence Management System approval to ensure high quality performance and safe working practices. Around a third of its UK workforce were involved in implementing the scheme across all three of Nexen's North Sea assets. The project involved refining Nexen's in-house employee development process and led to additional roles and responsibilities being identified and created.

OPITO then carried out a series of audits covering 15 different safety-critical roles across the business, including offshore installation managers, superintendents, supervisors and technicians.

John McDonald, managing director of OPITO UK, comments: "Having a system for managing workforce competence that is independently approved to industry best practice not only ensures there is measured development of employees' skills sets, but also helps to set and maintain a framework for continuous improvement and performance management, driving efficiencies and delivering cost benefits across a business."

Courtesy of Partners In Leadershi



a 'buddy system' of seasoned and new contractors working together for more rapid and effective dissemination of safety information. This has improved the efficiency of its safety briefings to the 1,000 or so new workers — 'green hats' — who work on its North Sea assets each year. Non-productive time associated with 'green hats' has therefore dropped by 11 per cent and saved about £500,000.

Nearly 600 workers onshore and offshore have meanwhile participated in Raising the Bar workshops over the past year, set up to boost understanding of major accident hazards and safety-critical elements offshore. And more than 200 personnel will have completed hazard awareness training at the RAF Spadeadam test site in Cumbria by the end of this year. By encouraging the workforce to raise concerns, challenging them to discuss improvements and take accountability, Nexen has seen an increased awareness offshore of major hazards, which will ultimately lead to improved safety and better asset reliability.

The commitment to more open and transparent working is exemplified by efforts to bolster links with — and among — offshore safety and environmental representatives. Recognising the key role they play in driving health, safety and environmental performance and achieving a target of 0/0/0 every day,

a monthly meeting involving reps from all assets and a member of the Aberdeen management team is now the norm.

There have been no new processes or tools involved in improving productivity – it's just down to the people working more closely together and planning well ahead. It's a great example of the workforce making a difference.

Buzzard safety rep and production technician Glen Sheppard adds: "There are also now more responsibilities for reps with a greater emphasis on educating, guiding and coaching people. More time is dedicated to rep activities at platform safety meetings."

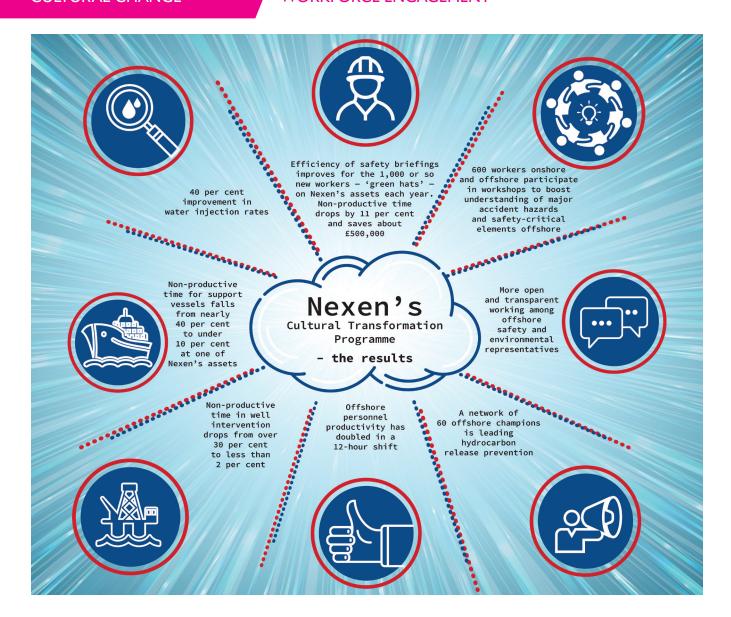
He continues: "Generally, awareness of major accident hazards and safety-critical elements is now much greater. People are more comfortable with not starting work until they're totally confident in the job at hand, or stopping when they feel something needs to be cleared up."

Furthermore, a network of 60 offshore champions is leading hydrocarbon release prevention (HRP) activities, making it part-and-parcel of everyday working life. They are involved in leak and gas detection, audits and promoting a prevention ethos offshore. Tools to bring together the onshore focal point and the offshore champions include a monthly cross-asset video conference to share best practice and lessons learnt, as well as a dedicated Jive page and social media. Each asset also holds two champion meetings a month.

"It's not an initiative any more — it's just how we work within Nexen today," says onshore HRP focal point Emily Whiteman. "The workforce has embraced HRP as part of the culture and understands that everyone, no matter their job, has their own part to play." She supports the offshore network by visiting all three UK assets regularly.

#### Injecting change

Securing the business' sustainability through greater efficiency is also pivotal to the cultural programme. "We've wanted to avoid 'slash and burn' when it comes to saving costs," notes Ray. >



Offshore personnel productivity on average doubled from January to June 2015 in a 12-hour shift (which includes two hours for meals and breaks). And non-productive time in well intervention has also dropped from over 30 per cent in 2014 to less than 2 per cent at the end of last year.

"There have been no new processes or tools involved in improving productivity — it's just down to the people working more closely together and planning well ahead. It's a great example of the workforce making a difference," says Ray.

Nexen also reports that non-productive time for support vessels has fallen from nearly 40 per cent to under 10 per cent at one of its assets. "That again comes down to good planning, good communication and collaboration between onshore and offshore to use our vessels more effectively," explains Mike.

The operator is also recording its best water injection performance to date. In 2015, the subsurface team in Uxbridge called upon Nexen's senior management to make this issue a priority in improving production efficiency. A series of multi-discipline workshops were held to enhance understanding of how water injection rates influence production levels.

This has helped drive a 40 per cent improvement in water injection rates and water injection efficiency is now the top line of daily reports and weekly management meetings.

#### The bigger picture

For Ray, this shift in culture is about more than just the here and now. He says: "Our industry is facing a huge challenge today but we also need to think about the next five, six, seven years. We have to make good business decisions and explain them clearly to the workforce so that they understand their crucial role."

Every week Nexen's senior leaders and the offshore assets hold a ten minute 'weekly cascade', where they relay the key messages to each team. During this time, office activity stops and individuals take time out to listen and engage in the briefing. An extended 30-minute cascade is also held once a month at the Aberdeen office and video-linked to offshore assets. This provides in-depth information on key subjects and issues.

At a recent employee focus group, participants praised the effectiveness of this approach saying it prevents important news getting stuck in a bottleneck or lost in translation. They added it increases each team's awareness outside of their own departments and enhances overall morale as people feel more connected to the business.

Ray believes that "by doing the right things today we'll get to 2020, and then to 2025 and beyond". w

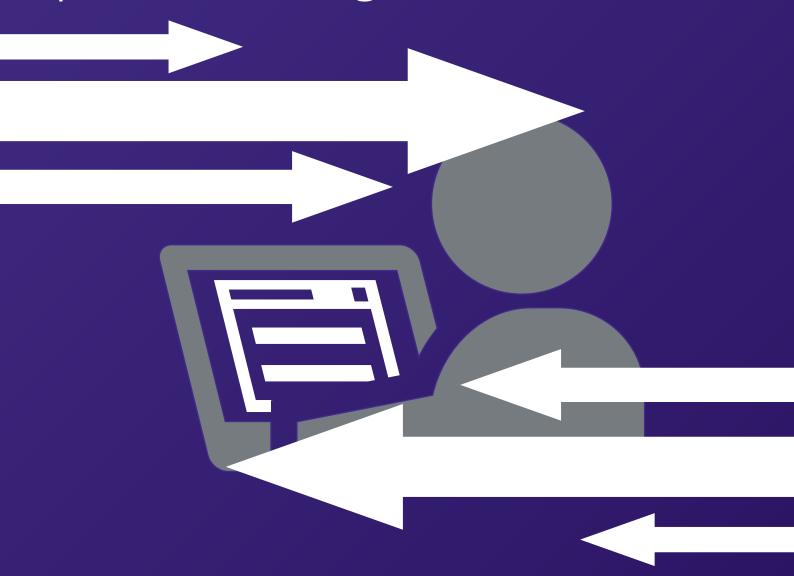
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#### The Oil & Gas **Technology Centre**

As the new Oil & Gas Technology Centre begins to take shape in Aberdeen, its chief executive Colette Cohen provides an update on the centre's goals and priorities going forward.



#### Q: Can you tell us why The Oil & Gas Technology Centre (OGTC) was set up, what its role is and who it aims

A: The OGTC is being established to become the go-to global centre for developing solutions to offshore mature basin, subsea and decommissioning technology challenges. It is outwardly focused, private-sector led and driven by industry needs. Its clients and partners will be Oil & Gas UK members, the Oil and Gas Authority (OGA), the Technology Leadership Board (TLB), the supply chain, and academic and research institutes with expertise applicable to the industry.

supply chain exports. The 2016 UK Energy Act formally established the OGA as an independent regulator. The OGA is working with industry to deliver six sector strategies, including technology. As a result, the TLB, co-chaired by the regulator and industry, is driving collaboration based on the MER UK (maximising economic recovery) technology strategy.

The OGTC, set up and led by industry, is essentially the enabling organisation to accelerate technology development, adoption and deployment in the UK to maximise economic recovery and create a sustainable, exportable, technologyled environment in the north-east of Scotland, which will establish the region as a worldwide centre for mature oil and gas technology developments and anchor more of the supply chain here for the long term.

#### Q: What are your key priorities as the new chief executive to support the industry through the current downturn and how will you seek to tackle these?

A: Working through Solution Centres, local centres of excellence and with access to other industry technology centres in the UK and overseas, The OGTC will enable, lead, support and facilitate market-led technology programmes appropriate to the mature basin in tandem with a strong focus on subsea and decommissioning excellence.

We will also facilitate, stimulate and accelerate supply chain-led research and development (R&D) through the Technology Accelerator, with the potential to double the UK's oil and gas supply chain exports from £16 billion to £32 billion over the next 10 years (see organogram right).

It is critical we focus on quickly adapting and adopting

We will facilitate,

stimulate and accelerate

supply chain-led research

and development with

the potential to double

the UK's oil and gas

technologies that will have an immediate positive effect on the basin development programmes to influence

as well as commencing longer term the sustainability of the basin. To support that, we are establishing a strong team and the right funding and governance framework to deliver those critical programmes.

#### Q: What will set The OGTC apart from other bodies that already facilitate oil and gas technology development and deployment? **A:** The OGTC will be co-funded by both government and industry, which

enables it to provide some gearing to industry to maximise the impact of its R&D spend. We have £180 million available from government over ten years to be matched by funding from industry and research partners. The availability of government funding de-risks the projects for industry and will demonstrate practical results, initially through the Solution Centres. This model has been very successful for other industries such as automotive and aeronautical.

In addition, the TLB's areas of focus are being passed over to The OGTC to ensure that it will be working on the priority technology challenges. The OGA is also very active in promoting the appropriate use of new technology to positively impact the basin's cost structure and efficiency. The combination of highly leveraged funding, clear industry need and regulator support should result in The OGTC delivering the results the industry needs in the time frame required. It should also result in a sustainable demand and a region that will be known for its innovation and for successful deployment.

Critically, industry has been involved in the development of The OGTC concept from the beginning and there is a solid commitment from the operators to facilitate the testing and deployment of new technologies, which has hitherto been a major stumbling block for innovation in the sector.

#### **Solution Centres working on** mature field challenges

- · Take forward TLB MER theme-led programmes initially - well construction, small pools, mature asset integrity - to be followed by decommissioning and digital
- · Use adopt, adapt and develop principle
- · Support operators developing their specific field technology plans and deployment

#### **Building momentum and technology** in the supply chain

- Stimulate and accelerate supply chain innovation
- · Facilitate a substantial increase in supply chain demand-led R&D into mature basin needs
- Facilitate working with operators and service companies, arranging test and deployment opportunities
- · Provision of incubator facilities

#### Market-led technology programmes



Commercial ready technology for industry to bring to market

#### Globally recognised centres of excellence

- · In-house capability team to work with the two local universities and industry on the development of globally recognised centres of excellence (avoiding duplication)
- Scope including mature basin subsea, robotics, big data, subsea flow assurance, composites, enhanced oil recovery, decommissioning

#### The mature basin technology hub

- Highly networked into other UK and global oil and gas centres of excellence and related disciplines
- · Contribute significantly to Solution Centres and Accelerator projects
- Experienced management team, circa 30 staff technical, intellectual property, commercial, legal, marketing,

The Oil & Gas

**Technology Centre** 

and universities to

programmes that

outcomes.

intends to work very

closely with the supply

chain, SMEs, operators

create business-driven

have clear time-bound

- Facilities laboratories, specialist plant and equipment, testing facilities and incubator space Clients operators and supply chain, including securing prominent industry anchor companies Where appropriate, facilitating financing and commercial agreements for collaborative technology projects

#### Q: How will The OGTC feed into the MER UK Technology Leadership Board to ensure technology is developed around aligned themes?

A: The starting process is that the TLB and the OGA Technology Committee are providing the programme themes for The OGTC and we envisage that this

will continue, building on the connection with The OGTC Solution Centres. Both the TLB and OGA are represented on The OGTC Board and our objectives are clearly aligned.

#### Q: Given the difficult business climate that industry is operating in, how will you ensure industry's money is well spent?

A: The link to the TLB and industry needs, and the commitment to matched funding, will ensure that The OGTC will only be spending money in areas that industry has identified as priorities and is prepared to commit to. In addition, The OGTC intends to work very closely with the supply chain, SMEs, operators and universities to

create business-driven programmes that have clear time-bound outcomes. This partnership and co-funded basis for The OGTC will ensure that all investment is controlled, strongly market orientated and appropriately leveraged.

#### Q: How will you make The OGTC an accessible resource for industry across the UK, and not just the north east of Scotland?

**A:** One of the key pillars of The OGTC is the Innovation Network Hub, which will bring UK-wide oil and gas technology into one interactive area where anyone looking for and providing technology solutions can get connected. This is a key element of ultimately delivering The OGTC. A lot of the relevant expertise will reside in

and around Aberdeen but equally we are going to work with the right people and organisations wherever they are based to achieve the desired outcomes. As we develop, our outlook will become more global, with our ambition to become the go-to global centre for mature basin technology challenges.

#### Q: What are the next steps to take this initiative forward and when do you forecast to be established and running?

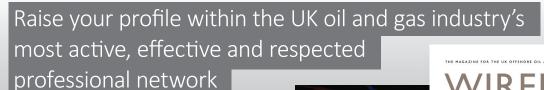
**A:** The OGTC is the primary innovation project within the Aberdeen City Region Deal and should have its £180 million of ten-year government funding from Westminster and Holyrood confirmed and first funds to be received by the beginning of October. We have established premises in Aberdeen and the new leadership team has been recruited.

I am very proud to be the first chief executive, and my initial team includes Luca Corradi as network innovation

director; the university and government relations director is Mark Lappin; the solution centre managers are Malcolm Banks for well construction, Rebecca Allison for asset integrity, and Chris Pearson for small pools. The team is currently working on the start-up plan and can be reached by email (firstname. lastname@TheOGTC.com). The team will be hosting a series of workshops and engagement sessions in the coming months to hear industry's ideas and develop an aligned forward plan. With government funding in place for 1 October, projects will get under way in the last quarter of this year. (w)



#### WIRELINE









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#### Honouring safety champions

With a new interactive format, this year's Offshore Safety Awards encouraged attendees to celebrate and learn from the people, teams and companies who are practising safety offshore and onshore in innovative and inspiring ways. Wireline reports

he most inspirational leaders, the brightest up and coming people and the quick-thinkers going the extra mile for North Sea health and safety were celebrated at the revamped Offshore Safety Awards on 17 August in Aberdeen. A total of 18 companies and individuals were shortlisted as finalists in six categories.

Jointly organised by Oil & Gas UK and Step Change in Safety, with Maersk Oil as principal sponsor, this year's event took on a new and interactive approach. "This is our sixth safety awards and the time was right for a complete refresh to make it more about learning and sharing," explains Les Linklater, executive director of Step Change in Safety. "Instead of the formality of previous events, the new look Offshore Safety Awards was a more energetic affair with zoned areas for finalists that allowed them to explain to guests what they had done to earn their place in their category. Finalists also made their own video 'selfies' that showcased the work that had been done by the individual, team or company."

Over 300 guests – comprising representatives from across industry, MPs, MSPs and other stakeholders – then voted live for the winners via text message.

"All of the finalists are taking steps to make our industry the safest it can be and should be applauded. The six who emerged triumphant from their respective categories are exceptionally worthy winners," says Mick Borwell, health, safety and environment policy director at Oil & Gas UK.

"I hope that those who attended our event left feeling inspired and armed with fresh ideas to take back to their own workplace to help keep safety at the top of the agenda."

The new approach was praised by Gretchen Watkins, chief operating officer of Maersk Oil, as she addressed the audience: "This year's change of format is, I think, a fantastic way to celebrate the winners, but also to share the learnings from all the finalists in a meaningful and rich way. I certainly enjoyed visiting each of the zones and picking up some inspiration." >

#### **SAFETY LEADERSHIP**

For an inspirational leader who motivates and engages their team to work safely. Sponsored by Nexen Petroleum

The Award went to Derek Ellington of EnQuest, whose leadership has transformed the culture on one of the North Sea's mature assets. As Heather's offshore installation manager, Derek re-wrote several procedures to drive improved standards, including for emergency response, lifting operations and confined space entry. He coached individuals on the platform, building relationships with them to better understand their values, skills and experience, while ensuring they recognised the high safety standards and expectations.

Under his leadership as an operations manager, Heather has significantly improved in efficiency and productivity while maintaining an excellent safety record. Production efficiency is now around 90 per cent (compared to about 60 per cent several years ago) and Heather is a leader in process and personal safety within EnQuest, with 10 April 2016 marking two years since its last hydrocarbon release.

Derek explains: "I've been in the industry for about 30 years now. My biggest influence would have to be my dad who survived the Piper Alpha incident in 1988. Being able to share his experience with my team has proved a really powerful tool to get people to change their attitudes towards safety."





#### SAFETY REPRESENTATIVE OF THE YEAR

For an enthusiastic and committed safety rep who is driving the safety agenda at their worksite.

Sponsored by Wood Group PSN

Dave Thomson, offshore inspection engineer and elected safety representative, was nominated by CAN Group for his ability to identify unique and innovative ways to raise awareness of important safety issues. He has produced light-hearted and humorous videos, often starring crew members, to increase engagement and address safety issues on the Forties Delta platform. His video on barrier safety has successfully been rolled out across the Forties and Beryls fields, and another on rope access safety has been shared throughout CAN Group. Personable and approachable, he is held in high esteem by his work colleagues, management and clients. He firmly believes in the importance of protecting those who work around him.

Dave enthuses: "I have been an active safety rep for over eight years and during this time have spotted some key areas for improving safety. These range from producing new engaging ways for communicating with the workforce and managers to challenging outdated procedures and formats. I've found that

information needs to be both relevant and memorable to engage the workforce."





#### **INNOVATION IN SAFETY**

For a company that has established a clever process or technique to improve safety either across an organisation or at an individual worksite.

Sponsored by Bureau Veritas Marine & Offshore

April 2016 marked a milestone in Baker Hughes' company history with the best HSE performance in the UK — a full year without recordable incidents. This was achieved through a novel approach of using gamification principles to spark a fresh look at HSE challenges and foster safety leadership. The company introduced a points-based game called the "HSE Tour of the UK" to track progress against a HSE scorecard. The product line teams compete against each other and gain points by taking actions to improve workplace safety and proactively address potential risks for the operations. Scores are published each month displaying both stage and overall tour scores, developing engagement loops that sustain a healthy desire to compete and create a stronger sense of progression and accomplishment.

Lamberto Nonno of Baker Hughes adds: "We realised that we had reached a HSE performance plateau and needed to encourage a stronger commitment to safety leadership.

Introducing the interactive HSE scorecard has led to 365 perfect HSE days — days without injuries, accidents or harm to the environment. I do hope we have inspired many organisations and leaders to set their own course and engage at a whole new level."





#### **WORKFORCE ENGAGEMENT**

For an individual or team that has actively embraced workforce engagement on safety matters.

Sponsored by Halliburton

Allan Smillie, TAQA's telecoms technical authority, reinvigorated the company's network of safety representatives from a largely inactive group with no central support to an energised, motivated and actively supported community. Allan developed a multi-faceted training programme that includes behavioural safety sessions, major accident hazard courses, guidance documents and training videos, as well as video conferences to allow reps to share information, experiences and lessons.

Allan adds: "With the support of the reps and TAQA, I've also introduced a points-based system for our reps for activity that contributes to asset safety. This includes module inspections and reviews of safety-critical elements, as well as the raising of new work orders. TAQA reps completed no fewer than 1,633 separate safety-improving activities in 2015, which is a magnificent effort. Prizes included charity donations and letters from the managing director, ensuring appropriate recognition for a strong commitment to safety on



our platforms." The programme has attracted interest from other operators and major contractors who are keen to explore if they can replicate the approach.



#### **OCCUPATIONAL HEALTH**

For an individual/team or company who has taken steps to actively improve the health of its workforce with clearly demonstrable positive effects.

Sponsored by Aker Solutions

Stork, a Fluor company, earnt this award for its continued commitment and investment to support its workforce through an in-house occupational health centre. Rather than relying solely on an external medical provider, Stork opened the facility last year to specifically address the trade requirements and needs of its workforce. It provides screening and surveillance programmes for employees exposed to occupational health hazards, as well as general health and wellbeing support and return-to-work schemes. Stork encourages face-to-face drop-in consultations as well as phone and email contact.

Simon Walker, occupational health and hygiene manager, says: "This facility truly allows us to tailor our support to the specific needs of our employees. They benefit from a streamlined service and access to colleagues who understand their medical requirements and can empathise with the challenges associated with their roles. For our clients, we are able to ensure that all employees arrive on site fit and ready to perform their roles. This has helped reduce downtime on platforms due to ill-health."





#### **SHARING AND LEARNING**

For an individual/team or company that can demonstrate a learning and sharing culture within their organisation, or who has made a significant contribution to health and safety through active participation in, or engagement with, Oil & Gas UK or Step Change in Safety.

Sponsored by Centrica

Russell Gould of Bristow Group and Malcolm Garrington of CHC Helicopter lead HeliOffshore's Health and Usage Monitoring System (HUMS) support work group. HUMS is a sensor-based system that measures the health and performance of mission-critical components in aircraft. Malcolm and Russell brought together the offshore helicopter industry's top HUMS specialists from across the world to share data, policies and experiences and produce HeliOffshore's *Health and Usage Monitoring System Best Practice*. In addition, an implementation guide together with video and online collaboration tools were developed to promote adoption of best practice. The guidance has been downloaded globally more than 300 times and the video has amassed over 1,000 views.

Gretchen Haskins, CEO of HeliOffshore, says: "HUMS gives engineers the information they need to determine whether an aircraft is safe to depart. The goal is to use the system to its greatest potential so that the number of component failures and resulting in-flight accidents are reduced, protecting the lives of those who travel offshore."













#### PROJECT COLLABORATION TOOLKIT

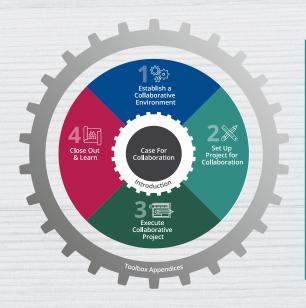
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