Introduction

1. The oil and gas industry is important for the UK’s economy, energy security and jobs. There are an estimated 10 to 20 billion\(^1\) barrels of oil equivalent (boe) remaining within the UK Continental Shelf (UKCS). While exploration rates remain challenging, confidence is returning to the sector, which has increased efficiencies while maintaining high safety standards during the sustained low oil price environment. The industry continues to deliver significant economic benefits to the UK, by supporting more than 300,000 jobs\(^2\), and meeting around half of the UK’s primary energy demand. It has also provided revenue to the Treasury amounting to £330 billion from production alone since it began just over 50 years ago.

2. The Government is committed to the future of the oil and gas industry in Scotland. We have provided a £2.3 billion fiscal package and policy support for the sector in reaction to the challenging times which the industry has faced. This has included jointly funding the Aberdeen City Region Deal with the Scottish Government and providing a £90 million contribution over 10 years for the establishment of the Oil and Gas Technology Centre (OGTC).

3. In line with the recommendations of the Wood Review\(^3\), Government has established the Oil and Gas Authority (OGA) as a strong and independent regulator and industry steward, with the principal objective to maximise economic recovery of petroleum from the UK Continental Shelf (MER UK). This Aberdeen head-quartered body has the leadership and powers necessary to drive the legally binding Strategy.

What challenges does Scotland’s oil and gas industry face, and how can they be addressed?

4. The UK oil and gas industry has had a challenging few years following the steep drop in global oil price from $115.06 in June 2014 to its lowest of $28.55 in January 2016\(^4\), and subsequent loss of jobs. However, as we push further into 2018, the Government believes that “cautious optimism” could lead to a sustained period of growth and renewal. Industry optimism is evidenced by $8

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2. [Oil & Gas UK Workforce Report 2017](https://www.gov.uk/government/groups/wood-review-implementation-team)
3. [https://www.gov.uk/government/groups/wood-review-implementation-team](https://www.gov.uk/government/groups/wood-review-implementation-team)
billion worth of merger and acquisition activity taking place in the UKCS in 2017, and a number of major investment decisions already made in 2018, with more believed to be in the pipeline. Nevertheless, challenges remain, particularly for the supply chain. The main challenges and mitigations are set out below.

5. Turnover within the supply chain has reduced dramatically during the global downturn, from £41bn in 2014 to £30bn in 2016 as a result of the collapse in capital investment and downward pressure on costs. Whilst cautious optimism returns to the UKCS it will take time for order books to fill. The OGA continues to work collaboratively with the industry and trade associations to support and develops stronger supply chain, which can compete globally.

6. The OGA published Supply Chain Action Plans (SCAP) Guidance in December 2017\(^5\). The purpose of SCAP is to assist operators in demonstrating their contract strategies and concepts are comprehensive and well-positioned to deliver ‘best value’ in accordance with their Field Development Plan or Decommissioning Programme. SCAPs will help ensure operators work appropriately with the supply chain and derive maximum value from project activity. These plans will require operators to develop action plans to work with the supply chain throughout the life of their project.

7. The delivery of the industry’s Vision 2035 and the successful up-skilling of the UK workforce to service oil and gas, as well as other energy sectors, will be critical to ensure the UK remains a world leader in energy related skills. The OPITO Workforce Dynamics Review 2018-2035\(^6\) reports that while overall direct employment is likely to fall, the UKCS will require over 40,000 new people in the industry to deliver Vision 2035.

8. Automation and artificial intelligence (AI) may displace workers from tasks they were previously performing, but helps diminish risk exposure, reduces repetitive tasks and enhances productivity. Although every job family is affected, some job families are likely to be more susceptible than others. AI and machine learning could speed up the existing trend of computer-related automation, requiring people to acquire new skills. There will also be a critical role for training providers, vocational institutes and universities to help ensure the future workforce will reflect the future needs of the UKCS.

9. There is a need to encourage new entrants into the industry as activity picks up, as well as retain existing skills, as the oil and gas sector is showing signs of improvement. The Engineering Construction Industry Training Board (ECITB) is an executive non-departmental public body, sponsored by the Department for Education. ECITB’s graduate retention scheme for the oil and gas sector has enabled industry to retain over 400 graduates during the recent downturn; skills that otherwise would have been lost. In 2017 the ECITB supported 1,220 engineering construction apprenticeships, with 416 apprentices completing their programmes. This included 22 learners on the ECITB-sponsored, Oil and Gas

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\(^6\) OPITO Workforce Dynamics Review 2018-2035
Technician Apprenticeship Programme (OGTAP) who completed their Higher National Certificates with Forth Valley College.

10. Another challenge faced by the industry is the demographics of its workforce both by age and gender. For the industry to continue to attract a highly skilled workforce, it is important that they can attract a diverse population, competing for these new skills and capabilities with other industrial sectors.

11. The UKCS is one of the more mature basins in the world and as a result the majority of the economically extractable oil and gas has already been produced, thus depleting oil and gas reserves. Following Sir Ian Wood’s 2014 Review of the UKCS, Government committed to a new strategy for Maximising Economic Recovery from the UKCS and established the MER UK Strategy\(^7\). The Strategy is binding on the OGA, petroleum licence holders, operators appointed under those licences, the owners of upstream petroleum infrastructure, and those planning and carrying out the commissioning of upstream petroleum infrastructure.

12. The OGA has estimated that there are between 10 and 20 billion boe still remaining in the basin, but many of the remaining discoveries are in areas which may be more challenging to exploit. Many of these discoveries are ‘small pools’ of oil and gas so far uneconomical to develop and Government recognises that innovative solutions will be required to help unlock the potential and maximise economic recovery. The UK Government and Scottish Government co-funded the Oil and Gas Technology Centre, which in partnership with the OGA is taking forward work on technological solutions such as an optimised subsea infrastructure that could have an important role to play in reducing the cost of developing small pools.

13. There has been a decline in the number of oil and gas exploration and production wells that are being drilled each year in the UKCS, from 31 wells in 2014 to 22 wells in 2016\(^8\). To support the issue of declining wells being drilled, the Government has provided £45 million to the OGA to acquire seismic survey data to encourage exploration in under developed areas.

14. Since the 2016 referendum on withdrawal from the EU, the Department has engaged with oil and gas sector businesses and representative organisations to deepen our understanding of their key business priorities and opportunities after our withdrawal. This dialogue has included hearing businesses views on issues such as supply chain preparedness and on the importance of issues such as the need for an Implementation Period. The agreement on the Implementation Period gives businesses the clarity and confidence that market access and common regulatory rules will remain in place until the end of 2020, meaning oil and gas businesses will be able to trade on the same terms as now and that businesses will have the time to respond to one set of changes. Government recognises the importance of minimising disruption to businesses and will continue to engage with the sector as we progress.


\(^8\) OGA overview 2017
15. BEIS engages with Oil and Gas UK on a regular basis, helping to ensure that the views of the offshore oil and gas industry are represented, and the Government welcomes further engagement with the sector as EU exit negotiations develop. Ensuring a good outcome for British business is a key priority.

How can the economic return from Scotland’s oil and gas reserves be maximised?

16. The Government recognised that, whilst the UK’s oil and gas industry is one of national importance and makes a substantial contribution to our economy, energy security and employment, it was facing unprecedented challenges in a very different exploration and production environment compared to when production peaked 13 years previously. In June 2013, the Government commissioned an independent review of UK offshore oil and gas recovery, led by Sir Ian Wood. The review received support from industry and other stakeholders and the Government committed to implementing the recommendations in the subsequent report. In particular, the Government established the Oil and Gas Authority (OGA) as an independent regulator focused on licensing and maximising economic recovery of the UK’s oil and gas reserves in the short, medium and long term. This gave way to the Wood Review recommendations and the resulting legislative changes.

17. The Infrastructure Act 2015 set out in law the principles to maximise the economic recovery of UK petroleum, and following the recommendations of the Wood Review, the Government established the Oil and Gas Authority to develop a strategy to achieve this through acting as an independent regulator. The Maximising Economic Recovery Strategy put into law the requirement for government, the regulator and industry to work together to ensure that the remaining economic oil and gas reserves are recovered. The Energy Act 2016 provided a range of sanctions powers, which the OGA can use to ensure companies comply with their obligations, including those under the MER UK Strategy.

18. The Energy Act 2016 makes collaboration between Government, industry and the regulator central to OGA’s way of working. It also provides a suite of new powers to support delivery of the MER UK objective. These include dispute resolution, meeting attendance and enforcement powers. Most recently, the Government has introduced regulations governing the retention and disclosure of petroleum-related information and samples. The aim of these provisions is to safeguard and share data which can improve understanding of the UKCS. Ensuring industry has timely and transparent access to such data should open up new opportunities and improve efficiency in operations. The OGA’s Projections of UK Oil and Gas Production and Expenditure\(^9\) report published in March, includes an updated long-term projection for production between 2016 and 2050. This is 2.8 billion boe higher than the production volume expected in the absence of the implementation of MER UK.

\(^9\) Projections of UK Oil and Gas Production and Expenditure
What action is the UK Government taking to support the long-term future of the oil and gas industry in Scotland, and how effective has this been?

19. The Government has provided a wide range of support to the oil and gas industry over the short, medium and long term. As set out previously (see paragraphs 16 and 17), the Government established the OGA following one of the recommendations from the Wood Review. The Government has encouraged the sector by providing fiscal and policy support, providing funding to the OGA and Aberdeen City Region Deal and by introducing a new tax relief policy to aid companies. These measures and their impact are described below.

20. In 2014, the Government published ‘Driving Investment: a plan to reform the oil and gas fiscal regime’, which set out three key principles for oil and gas fiscal policy. These were that the overall tax burden will need to fall as the basin matures. The Government will consider the wider economic benefits of oil and gas production when making judgments about fiscal policy. Finally, the Government’s judgement of what constitutes a ‘fair return’ for the taxpayer will account for competitiveness of opportunities, and both prices and costs. The Chancellor confirmed this commitment to the Driving Investment plan in the Autumn Budget 2017 and this was further confirmed by the Exchequer Secretary at a meeting with heads of oil companies in Aberdeen in April 2018.

21. Government has also provided a total of £45 million funding for the OGA to carry out its seismic programme. In 2015 and 2016, the UK Government provided a total of £40 million for seismic surveys in under-explored and under-developed areas of the UK Continental Shelf. This led to two new seismic campaigns covering the Mid North Sea High and the Rockall Basin in 2015/16 and the East Shetland Platform and South West Britain in 2016/17. The OGA has also announced several programmes of legacy seismic reprocessing to extend and complement the coverage to other areas.

22. In November 2017, the Oil and Gas Authority released the results from the 2016 round of seismic programmes to promote exploration activity. This data will support the 31st Offshore Licensing Round. The first round of seismic funding and OGA seismic programme, opened up new frontier areas for the 29th Offshore Licensing Round, where the OGA awarded 25 licences to 17 companies.

23. In the 2017 Budget, the UK Government announced the introduction of a Transferable Tax History – a world first – to give companies buying UK oil and gas fields certainty that they will be able to obtain tax relief for decommissioning the field at the end of its life. Late life assets could continue to produce oil and gas for years to come, but, without further investment, could reach the end of their productive lives and be decommissioned sooner. TTH will be made available for deals made on or after 1 November 2018. This will encourage new investment in older oil and gas fields, and levels the playing field.

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between existing participators and new entrants to the basin. The transfer of tax history allows the purchaser to value the asset on a similar basis to the vendor and removes a significant barrier to asset trading.

24. The UK Government has co-funded £250 million for the Aberdeen City Region Deal, jointly with the Scottish Government. This included £90 million over 10 years to establish the Oil and Gas Technology Centre.

25. The OGA and Oil & Gas UK are jointly leading and working with industry on Vision 2035\textsuperscript{12}. Vision 2035 provides a long-term plan for the industry which goes beyond the MER UK strategy which provides a clear long-term vision for the UK oil and gas industry (Figure 1). The purpose of Vision 2035 is to provide direction and instil confidence into the UKCS, inspire transformation and drive collaboration by people who work in the UKCS. It will also help to create a competitive advantage and secure investment and drive up value.

![Oil and gas: Vision 2035 plan](image)

\textit{Figure 1 - Vision 2035 opportunity}\textsuperscript{13}

26. The industry is starting to see the benefits that the MER UK strategy and recent Government support has provided. This has been reflected by the large amount of corporate activity that has taken place in the basin. In 2017 there was $8 billion worth of mergers and acquisitions activity in the UKCS. This is evidence that companies continue to see potential for oil and gas in the UKCS. Another example of confidence was demonstrated in the OGA’s 30th Offshore Licencing Round, which saw supermajors such as BP and Shell bid for many blocks. These companies have access to global exploration opportunities and choose to invest in the UKCS.

\textsuperscript{12} Vision 2035 – Creating the future
\textsuperscript{13} Vision 2035 – Creating the future
27. The UKCS is a mature basin. Therefore, much of the infrastructure utilised offshore is ageing and will require decommissioning over the coming years. Increasing numbers of offshore oil and gas fields are reaching the end of their economic life and forecasts from industry estimate that the annual expenditure for decommissioning over the next 5 years will be in the region of £1.7 to £2 billion. The Government’s Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) is currently working on 30 projects where decommissioning is underway and engaging with operators on plans for a further 60 projects.

28. Whilst decommissioning is a significant cost for industry, and to the taxpayer, it offers significant opportunities for the supply chain that will deliver the constituent elements of decommissioning activity. This encompasses a wide range of activities, covering a broad range of skills and expertise. With nearly 30 decommissioning projects currently being executed and estimates for 2017 suggesting that industry planned to spend 11 per cent of total expenditure on oil and gas on decommissioning, this activity is already benefitting Scotland and the rest of the UK’s economy.

29. The current estimates show that the total decommissioning costs are around £58 billion. The challenge is to ensure that the liabilities do not fall to the Government, and ultimately, the taxpayer. The OGA has set industry a target to reduce costs by at least 35%, to approximately £39 billion. This is driving innovation in new techniques such as automation, opportunities for companies specialising in decommissioning, and increased collaboration between operators.

How well do the different stakeholders (UK Government, Scottish Government, companies) work together? Does the current devolution settlement enable all stakeholders to support the sector?

30. There are a number of ways in which the UK Government works with the Scottish Government, industry trade bodies, oil and gas companies and the supply chain to support the sector. Working collaboratively brings benefit to the UK and to the oil and gas sector. The UK Government recognise the mix of devolved and reserved responsibilities.

31. The UK Government has worked with the Scottish Government to help support the industry. As already set out in sections above, the UK Government and Scottish Government have co-funded the Aberdeen City Region Deal.

32. The Government is committed to deliver the recommendations of the Smith Commission. It was agreed that powers related to onshore oil and gas licensing in Scotland, aside from those relating to royalties, would be devolved to Scotland. In February of this year, UK Government commenced sections 47 and 48 of the Scotland Act 2016, which transferred the existing UK onshore licensing regime as it applies in Scotland, to Scottish Ministers. This provided Scottish Ministers with the powers to administer the existing onshore oil and gas licensing regime in Scotland and to create a bespoke licensing regime if they wish.
33. UK Government and Whitehall officials work with Oil and Gas UK - the representative body for the UK offshore oil and gas industry. The Government engages bilaterally with individual UKCS companies, such as super majors, independent oil companies, contractors and SMEs in the supply chain.

34. The OGA, Oil and Gas UK and the industry, are jointly responsible for the MER UK Forum – a biannual conference focusing on taking forward MER objectives - and the different task forces that come from the forum. The last MER UK Forum took place in Aberdeen on 26 January 2018. Both Scottish and UK Ministers are invited to the forums.

35. In addition to the MER UK Forum, there are several task forces which focus on specific areas of interest for the UK oil and gas industry. Civil servants in both the Department for Business, Energy and Industrial Strategy (BEIS) and Department for International Trade sit with Scottish Enterprise on the Technology Leadership Board and the Supply Chain and Exports Task Force.

36. As the sponsor department of the OGA, BEIS works closely with staff at the OGA across all working levels. In addition, a senior BEIS official sits on the OGA board. The Department greatly values the work that the OGA does and the knowledge that they offer. BEIS holds regular formal meetings with the OGA to ensure that they perform their role effectively to the benefit of the UKCS.

37. UK and Scottish Governments currently work together in a constructive way to support the oil and gas industry along with other stakeholders including operators, the Oil and Gas Authority and key trade bodies. This cooperative working reflects the mixture of reserved and devolved responsibilities that cut across the sector whether it be fiscal and overarching energy policies at a UK level or other key areas such as planning and skills, which are the responsibility of the Scottish Government. The UK Government will continue to support the oil and gas industry and will work with the sector to explore its potential contribution to clean growth through technologies such as carbon capture, use and storage, and the hydrogen economy amongst others. We will also continue to recognise the mix of devolved and reserved responsibilities. Decisions on licensing and planning consents for onshore oil and gas in Scotland are a matter for the Scottish Government.

How can Scotland maximise its expertise, technology and infrastructure in the oil and gas industry to secure the industry’s future as reserves decline? What support is needed from Government to maximise these opportunities?

38. The Government is committed to the future of the UK’s offshore oil and gas industry. The Government has provided the industry with support in recent years, including fiscal measures which are aimed at increasing activity in the UK’s oil and gas sector. This has included the measures already covered in the sections above.

39. The Government has co-funded the Oil and Gas Technology Centre, which is based in Aberdeen. The Oil and Gas Technology Centre is currently focusing on
asset integrity, well construction, small pools, digital transformation and decommissioning. The use of technology will help the industry going forward to ensure that it has up to date resources to aid recovering the remaining oil and gas in the basin. As part of this, the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) have been working closely with the Centre to assess new technologies that are designed to support the sector.

40. As mentioned above, much of the UKCS infrastructure is reaching the end of its oil and gas life and operators are making plans to decommission it in accordance with their obligations. This involves considering opportunities to re-use or recycle installations and pipelines and the Government is working with stakeholders to explore the potential for redundant oil and gas infrastructure to be re-used for Carbon Capture, Usage and Storage (CCUS), where this is appropriate to reduce CCUS costs.

41. As more infrastructure is starting to come to the end of its life, there is an opportunity for the supply chain to build on their current strengths. North East Scotland is acting as a regional hub for decommissioning as well as subsea engineering. In this field, companies specialising in subsea engineering are already seen as a global leader in the fields of later life excellence and decommissioning.

**Update on the Department’s consideration of the Sector Deal Proposal.**

42. Sector Deals are a new approach to the way Government works with industry and several Deals have been announced and are in discussion since the publication of the Industrial Strategy Green Paper in January 2017\(^{14}\).

43. The oil and gas industry is one of a number of sectors currently engaged with officials to negotiate a Sector Deal. Officials are currently working with the sector to provide feedback on their proposal and The Rt Hon Claire Perry MP, Minister of State for Energy and Clean Growth met with industry sector deal champion Trevor Garlick and Jenny Stanning from Oil and Gas UK on 14 March 2018 to discuss the oil and gas Sector Deal proposal.

44. Sector Deals will drive transformation in investment and productivity across the economy and form part of our approach on the Industrial Strategy. Each Sector Deal must have a demonstrable impact on productivity across the UK and be balanced between asks of Government and commitments from the Sector. For oil and gas, which is a vitally important sector, we are committed to continuing to identify and explore work that we can take forward in partnership.

45. The Government expects to progress with further Deals that best meet the expectations set out in the Industrial Strategy White Paper\(^{15}\) in due course.


Update on the Oil & Gas Technology Centre application for Industrial Strategy Challenge Fund

46. The Centre’s proposal was submitted in response to the ‘expressions of interest’ process run by UK Research and Innovation for the third wave of the Industrial Strategy Challenge Fund. UKRI are now assessing this and other responses, of which the Government have received over 250 applications from a wide range of organisations, including those based in Scotland.

47. UKRI will be making recommendations to BEIS Ministers on the challenges to take forward for funding in the third wave of the Industrial Strategy Challenge Fund in the coming months.

July 2018