

Supply Chain Strategy



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1. Foreword

The Oil and Gas Authority (OGA) was established to regulate, influence and promote the UK oil and gas industry, in conjunction with other regulatory authorities, and has a range of powers to deliver this remit.

The development of a series of strategies and associated delivery programmes represents a key step in setting out how the OGA, government and industry should work together to maximise economic recovery (MER) from the United Kingdom Continental Shelf (UKCS) – a core recommendation of the Wood Maximising Recovery review.

The MER UK Strategy underpins the OGA remit and became a legal obligation on licensees in March 2016. It describes how MER should operate in practice, setting out a legally binding obligation on licensees and others to take the steps necessary to secure the maximum value of economically recoverable hydrocarbons.

The MER UK Strategy also sets out a range of supporting obligations and safeguards, as well as the actions and behaviours required to achieve collaboration and cost reduction.

The purpose of these strategies and delivery programmes, developed in collaboration with industry and the MER UK Boards, is to promote a new way of working across the oil and gas lifecycle. The strategies set the key direction and the delivery programmes provide further direction and detail on the implementation of each strategy.

2. Executive summary

The role of the OGA with regard to Supply Chain, Exports and Skills (SCES) is to encourage, influence and promote the UK oil and gas industry to achieve MER UK and to generate additional value for the supply chain. The OGA does not directly regulate the service sector but recognises that a strong supply chain is essential to achieve MER UK while improving and sustaining competitive advantage and investment for the UK economy.

The OGA is continuing to work with industry across all the MER UK Boards, governments and trade associations to support and develop a stronger and more competitive service sector, which can compete globally. This will sustain growing exports; reduce imports and anchor activities and expertise in the UK. In pursuit of this, the OGA will introduce Supply Chain Action plans with operators to bring greater focus to the role of the service sector.

The UKCS is acknowledged as one of the most technologically advanced and diverse oil and gas basins with a successful record of accomplishment over the past 50 years for pioneering new solutions. However, there have been only relatively low levels of collaboration to address issues such as cost escalation and slow technology deployment. New solutions and different ways of working across the whole asset lifespan are urgently required to improve efficiency.

This Strategy sets out a vision for the supply chain to 2035 to grow the UK service sector's share of both the domestic and global market. If the service sector builds on its global competitiveness and attracts the necessary investment, additional turnover of well over £200 billion can be generated over 20 years (see Figure 1).

The purpose of this Strategy is to help bring about the conditions to achieve this. Its achievement will depend on industry working closely with "relevant stakeholders" to:

1 Maximise the economic potential from the UKCS by:

- Making cost and efficiency improvements to unlock additional investment
- Creating new business conditions between operators and the service sector where risk and reward are appropriately balanced
- Increasing UK service sector share of domestic work from 50% to 65% through to 2035 (see Figure 1)
- Collaboration through regional and multi-operator work campaigns

2 Anchor the service sector in the UK by:

- Leveraging funding and expertise to maintain and build technological advantage in the UK
- Maintaining and developing a skilled workforce, bringing forward a new generation of trainees
- Creating a portfolio of diverse new work, including a special focus on offshore decommissioning and low carbon projects
- Providing a platform for the industry to contribute to the new UK Government Industrial Strategy process

3 Double the accessible international market share by 2035 (see Figure 1) by:

- Identifying and promoting accessible and growing international openings
- Using the UKCS as a base to develop new technological solutions and to match them to potential export markets
- Working with government departments and trade associations to prepare UK companies to exploit new and developing markets

The MER UK SCES Board will champion this Strategy and continue to monitor progress; they will also follow the development of the UK Government Industrial Strategy and adapt this document as necessary to ensure continuing alignment.

3. Context

Industry context

The UK oil and gas service sector is one of the UK's greatest industrial success stories. A wide spectrum of indigenous businesses has grown to serve the needs of not just the UKCS but global oil and gas markets. Its people, skills, experience and entrepreneurial spirt, as well as access to academic expertise, all contribute to the UK service sector's competitive advantage.

While oil and gas operators provide the capital, operational funding and expertise to explore, locate and bring hydrocarbon developments forward, it is the wider service sector that provides most of the highly skilled workforce and many of the technological enabling solutions. Annual turnover peaked at approximately £40 billion in 2014¹ of which around 40% was generated through exports. The supply chain supports approximately 80%² of the UK's oil and gas jobs and generates significant value throughout the UK. However, a combination of the current low oil price and high cost base has been eroding confidence and investment.

Government context

Government will continue to focus support on the oil and gas sector. The Scottish Government engages directly through the Industry Leadership Group (ILG), and the UK Government primarily through the Department for International Trade (DIT) and the Department for Business, Energy and Industrial Strategy (BEIS), including the future development and introduction of the Industrial Strategy.

MER UK SCES Board

The MER UK SCES Board has been established with a broad membership of expertise from the service sector, operators, trade and technology groups and government departments.

Four workgroups have been set up, with the overarching aims of increasing investment levels in the UKCS and creating more opportunities for the service sector. The workgroups cover: imports and exports, unlocking new investment, promotion of the sector and skills and people. A complementary Supply Chain Delivery Programme is being developed to detail a wider range of deliverable activities.

The Board meets at two monthly intervals and will monitor progress of the Delivery Programme. It will also report to the MER UK Forum.

¹ Oil & Gas UK Economic report 2015

² EY UK Upstream Oil and Gas Supply Chain Economic Contribution 2014

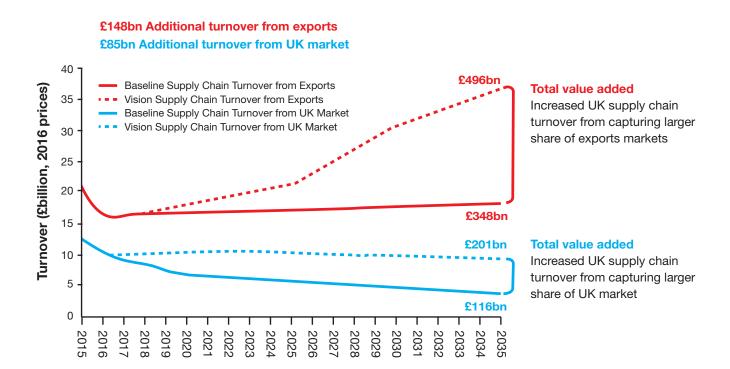
4. Opportunities and risks

Opportunities

The OGA and industry's shared vision for the supply chain is to develop efficiency measures, which will enhance competitiveness and, by 2035, significantly grow turnover from both UK and export markets. This approach will be linked to the wider industry and OGA vision for 2035.

Analysis by the OGA shows there is an opportunity to double the UK service sector's share of the global market and to increase the UK's share of the domestic market from 50% to 65% over the next 20 years. The incremental value from these could be worth around £150 billion from exports and around £90 billion from the domestic market. In relation to exports, it is anticipated new markets and capabilities will be developed during the first decade, with accelerated growth in the second decade (Figure 1 and Appendix A).

Figure 1: Supply chain vision for 2035

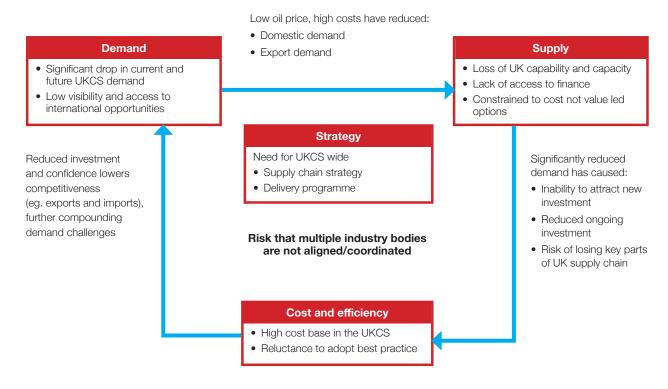


Risks

The UK service sector currently faces a number of strategic difficulties. These include the lack of clarity of investment plans, worsening supply-demand balance and competition from lower-cost countries. These issues must be addressed urgently, as existing contracts are completed and there are too few immediate future projects. There is a significant risk this could lead to a loss of experienced personnel from the sector and, if not managed, could prompt rapid cost inflation once the investment cycle changes. The interdependent risks are outlined in Figure 2.

Further market consolidation is inevitable; indeed market forces are already reshaping, resizing and redefining the service sector. While this Strategy cannot directly influence this, there is a role for the MER UK SCES Board to highlight where areas of contraction may negatively influence MER UK and wider UK value.

Figure 2: Supply chain risks



Cost and efficiency is key to becoming competitive, regardless of oil prices

5. Strategic themes and targets

The OGA Corporate Plan 2016-2021 defines the following priority for improving cost efficiency, skills and economic value through the supply chain by creating the right conditions in the UKCS.

OGA Priority Engaging with industry, government and others to create an operating environment and supply chain that supports MER UK, sustaining high levels of skilled employment, economic value and energy security for the UK.

The cost efficiency key performance indicator (KPI) is summarised below.

КРІ	Target	Timing	Who
Cost Efficiency	Sustained Improvements of 30% to 40% from supply chain	Q1 2021	Industry with OGA monitoring and support

In order to realise the shared vision for 2035, a number of changes in practice must occur. This Strategy describes three priority themes:

- Maximising the economic potential from the UKCS
- Anchoring the service sector in the UK
- Doubling the accessible international market share from 3.7% to 7.4% through to 2035

Progression of these three themes will create a potential increased turnover to the supply chain of up to an additional £239 billion through to 2035. Industry and the OGA have identified a number of immediate areas, which require actions by the OGA, industry and others over the next 18 months. A number of these actions are centred on tendering and contracting behaviours and the relationships between market players, in particular between operators and different tiers of the supply chain. These represent a key strand of the MER UK Efficiency Task Force's (ETF) activity. Alignment between the outputs of both the ETF and the Supply Chain Strategy will be paramount to success.

The Deloitte collaboration surveys³ commissioned by Oil & Gas UK clearly highlight the significant prize from collaboration and there are a number of examples where this approach is creating additional value including:

- Two SNS operators (Eni Hewett and Faroe Petroleum) with a common service sector duty holder have come together to share services and accommodation to maximise operational and maintenance efficiency.
- Via the ETF's trading platform, ConocoPhillips completed a trade with Marathon on a disc/ring for a valve. The trade value was significantly below the rate if purchased from the open market. Although the monetary cost was low, the perceived value was much greater than this. A safety critical piece of work could have been cancelled if the trade had not taken place. The part was picked up and dispatched offshore enabling the work to be carried out.
- The OGA has been able to influence seven operators in the SNS to openly share information on their wells together with lessons learnt from past well plug and abandonment (P&A) campaigns where significant cost reduction solutions have been developed with service sector partners.

5.1 Maximising the economic potential from the UKCS

The principles of MER UK should generate benefit across the industry, including the service sector. The OGA and government provide the framework in which to operate, while operators and the service sector should collaborate to invest in new enabling technologies, equipment and people in order to deliver projects and activities in a cost effective way.

As part of the asset stewardship process and in line with the MER UK Strategy, the OGA is introducing Supply Chain Action Plans with operators. These will summarise contract strategies, key activities and accountabilities enabling consideration of the best overall value in terms of MER UK, along with ensuring there has been a level playing field for the UK service sector. Themes covered include commercial, technology and skills. This approach has been successfully introduced in the offshore wind sector and is adding value in terms of new technology adoption and reductions in overall project and activity costs.

Deliverables:

The industry-led ETF, supported by the OGA, is developing good practice material and tools to encourage and promote greater efficiency in industry

Industry trade associations, supported by the OGA, are providing the supply chain with transparent information on upcoming projects through enhancement of the pathfinder database and the annual Share Fair

The OGA is developing Supply Chain Action Plans as part of the enhanced asset stewardship process

Industry trade associations and the OGA are promoting and encouraging industry to carry out regional/multi operator and multi contractor campaigns across all areas, building on the successful Southern North Sea (SNS) joint well P&A pilot campaign

5.2 Anchor the service sector in the UK

As the UKCS continues to mature and a greater proportion of the supply chain income comes from overseas markets, there is the risk that some UK-based service companies may elect to relocate their business overseas. However, there is an opportunity for the UKCS to become an established test base for the development and trialling of technologically advanced solutions (particularly in late life operations) which will be required globally. This approach builds on the success of the subsea sector in which the UK is acknowledged as a global centre of excellence.

Deliverables:

The Oil and Gas Technology Centre (OGTC), supported by the industry and the OGA, is working to drive investment in, and deployment of, appropriate technology

Industry trade associations, supported by the OGA, are promoting areas of the service sector such as subsea and project management where the UK can be competitive against perceived lower-cost countries

Government and industry bodies, supported by the OGA, will identify future skill needs and promote relevant training programmes to develop a multiskilled workforce of the right scale for the future

Industry trade associations, together with the OGA, support the work of government to help service sector companies affected by the downturn to diversify into other areas, such as renewables, low carbon and nuclear; retaining skills in the UK in preparation for a future upturn

As highlighted in the Decommissioning Strategy and Delivery Programme, the service sector, with support from trade bodies and the OGA, should maximise the opportunity of the emerging offshore decommissioning market to develop new and innovative solutions which can be deployed in the UKCS and wider on a global basis as other basins mature and come to decommissioning

5.3 Exports

The UK oil and gas supply chain has built a wealth of experience, which is recognised globally. The income from exporting goods and services has steadily grown and now accounts for almost half of the overall value of the UK service sector. New international markets are continuing to open up and there is an opportunity to increase the UK share. Setting a target to increase this market share of exports from 3.7% to 7.4% is credible given the UK's successful track record in the subsea sector.

Deliverables:

Trade associations and government departments will, supported by the OGA, develop an expenditure forecast for the global oil and gas sector from 2016 to 2026 and categorise targeted opportunities

The OGA will continue to support government efforts to negotiate favourable trade agreements with new and emerging hydrocarbon basins

The Department for International Trade (DIT), supported by the OGA and trade associations, is promoting UK high value technological solutions, equipment and service capability

UK Export Finance (UKEF) is assisting companies (especially small and medium sized enterprises) enter new markets

6. Implementation

6.1 Delivery

This Strategy will be delivered through collaboration with industry with the MER UK SCES Board championing this Strategy, and monitoring and communicating progress

The MER UK SCES Board will:

Act as the central conduit for industry to deliver this Strategy

Represent the service sector, operators, trade association groups and government

Be a collaborative body that acts on behalf of industry to continue to set strategic direction and drive

Oil & Gas UK will:

Promote the Supply Chain Strategy to its membership

Task its Supply Chain Forum and ETF to deliver on appropriate elements of the Supply Chain Strategy

Perform analysis to understand supply capability to match it with opportunity

Through the ETF, broker new ways of working between operators and the service sector to stimulate greater competitiveness

The OGA will:

Set the framework to enable the UKCS to prosper, encouraging investment in new projects as well as new ways of working in mature fields

Publish information on upcoming projects and activities as well as developing and promoting a vision to stimulate investment in new sectors with a special focus on decommissioning

Introduce Supply Chain Action Plans as part of the enhanced Asset Stewardship process to projects where the capital value is over $\mathfrak{L}25$ million in new and incremental developments and over $\mathfrak{L}10m$ in decomprojects

Regional and sector trade associations will:

Be key partners to communicate and promote the Strategy to the wider energy sectors

Provide regional and sector information and advice to the OGA and other parts of government and the MER UK SCES Board on evolving capabilities and capacities within the scope of their members

Contribute to the export and import targets through their business development promotion with their membership

6.2 Next steps

The OGA will publish the Supply Chain Delivery Programme, developed jointly with industry, which will provide additional details on the implementation of this Strategy. The MER UK SCES board will monitor progress across all action areas.

6.3 Engagement

The OGA will seek to enhance collaboration to deliver this Strategy and will develop communication plans using the network of trade associations, government departments and other agencies to ensure inclusion across the entire industry.

While not exhaustive, key stakeholders instrumental in delivering this strategy include those listed below:

- Department for Business, Energy and Industrial Strategy (BEIS)
- Department for International Trade (DIT)
- Decom North Sea (DNS)
- Engineering Construction Industry Training Board (ECITB)
- East of England Energy Group (EEEGR)
- Energy Industries Council (EIC)
- Highlands and Islands Enterprise (HIE)
- HM Treasury
- Innovate UK
- International Association of Drilling Contractors (IADC)
- Invest Northern Ireland (INI)

- Industry Technology Facilitator (ITF)
- MER UK Boards
- NOF Energy
- Oil and gas operators
- Oil and gas service sector companies
- Oil & Gas Technology Centre (OGTC)
- Oil & Gas UK
- Offshore Petroleum Industry Training Org. (OPITO)
- Scottish Development International (SDI)
- Scottish Enterprise
- Scottish Government
- Subsea UK
- UK Export Finance (UKEF)

7. Acknowledgements

The Supply Chain Strategy has been compiled with the help, input and advice of many people and organisations. In particular, the OGA would like to acknowledge EY and members of the MER UK Supply Chain, Exports and Skills Board.

- Acteon
- Aker
- AMEC Foster Wheeler
- Apache
- Babcock
- Bibby
- BP
- Department of Business, Energy and Industrial Strategy (BEIS)
- Department of Education (Skills)
- Department for International Trade (DIT)
- Diamond Offshore
- Decom North Sea (DNS)
- East of England Energy Group (EEEGR)
- Energy Industries Council (EIC)
- EnQuest

- Expro
- Global Energy
- IMES
- NOF Energy
- Oil & Gas UK
- OPITO
- PDL
- ROVOP
- Schlumberger
- Scottish Enterprise
- Scottish Government
- Shell
- Subsea UK
- Taqa
- Wood Group

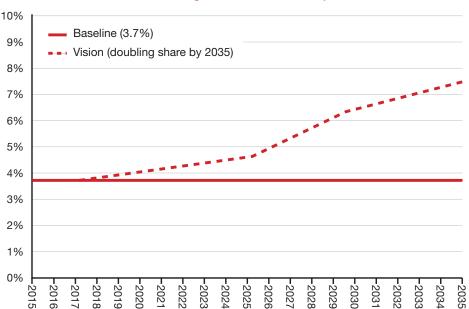
Appendix

Assumptions behind UK Supply Chain vision for 2035

Supply chain turnover from export market

The global technology, equipment and services market accessible by the UK is estimated to be £440 billion in today's money. It is assumed to grow steadily in real terms throughout the period to 2035 when it reaches £500 billion.

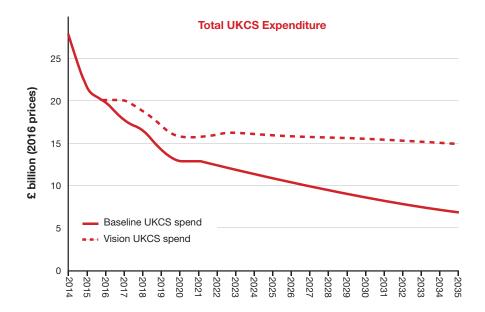
The estimated current UK share of this global market is 3.7%. The vision assumption is a doubling of the UK share (7.4%) of the global market by 2035 with growth towards that level following the path illustrated below.



UK % of global market assumptions

Supply chain turnover from UK market

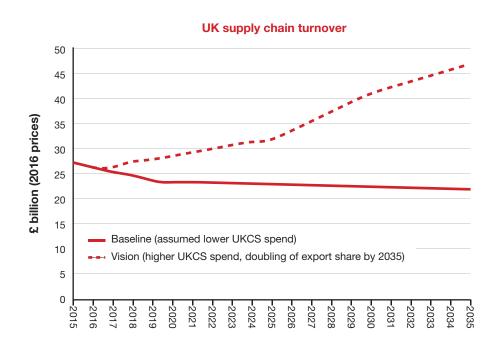
In addition to the turnover related to exports, the UK oil and gas supply chain generates turnover from supplying goods and services to the domestic market. The starting point is the size of the UK market. This was measured using the forecasts of total UKCS expenditure (on exploration and appraisal (E&A), capex, opex and decommissioning). These are illustrated in the following chart.



The baseline profile for total UKCS expenditure is based on the official forecasts published by the Office for Budget Responsibility (OBR) for the period to 2020 but adjusted down to reflect the lower production profile assumed. The forecast out to 2035 was constructed using a methodology based on that used by the OBR in its June 2015 Fiscal Sustainability Report.

The higher (Vision) profile combines greater E&A spend capex and opex. In line with the OGA's ambitions, it also assumes reductions in operating and decommissioning costs from greater efficiency.

Combining the estimates of the UK share of the domestic market and of the UK share of the global market, results in the estimates of the total turnover of the UK supply chain shown in this chart.





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