Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction from the Chief Executive</td>
<td>3</td>
</tr>
<tr>
<td>OGA background</td>
<td>4</td>
</tr>
<tr>
<td>Current context</td>
<td>5</td>
</tr>
<tr>
<td>MER UK strategy</td>
<td>6</td>
</tr>
<tr>
<td>Regulatory framework</td>
<td>7</td>
</tr>
<tr>
<td>Regulatory powers</td>
<td>8</td>
</tr>
<tr>
<td>Striking the right balance</td>
<td>9</td>
</tr>
<tr>
<td>Exercise of the OGA's powers</td>
<td>10</td>
</tr>
<tr>
<td>Measuring success</td>
<td>11</td>
</tr>
<tr>
<td>The big opportunity</td>
<td>12-13</td>
</tr>
<tr>
<td>Fiscal measures</td>
<td>14</td>
</tr>
<tr>
<td>Fiscally competitive</td>
<td>15</td>
</tr>
<tr>
<td>Mitigating barriers to investment</td>
<td>16</td>
</tr>
<tr>
<td>Assets changing hands</td>
<td>17</td>
</tr>
<tr>
<td>Project activity</td>
<td>18</td>
</tr>
<tr>
<td>UKCS resource progression</td>
<td>19</td>
</tr>
<tr>
<td>Revitalise exploration</td>
<td>20-22</td>
</tr>
<tr>
<td>31st Offshore Licensing Round</td>
<td>23-25</td>
</tr>
<tr>
<td>Leverage technology and data</td>
<td>23-25</td>
</tr>
<tr>
<td>Information management</td>
<td>26-27</td>
</tr>
<tr>
<td>Improve asset stewardship</td>
<td>26-27</td>
</tr>
<tr>
<td>Stewardship expectations</td>
<td>28</td>
</tr>
<tr>
<td>Drive regional development</td>
<td>28</td>
</tr>
<tr>
<td>Priority Area Plans</td>
<td>29-31</td>
</tr>
<tr>
<td>Create the right conditions</td>
<td>29-31</td>
</tr>
<tr>
<td>Collaborative behaviours</td>
<td>32-33</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>32-33</td>
</tr>
<tr>
<td>Improve decommissioning efficiency</td>
<td>32-33</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>32-33</td>
</tr>
<tr>
<td>Reducing decommissioning costs</td>
<td>34-36</td>
</tr>
<tr>
<td>Develop people, processes and systems</td>
<td>34-36</td>
</tr>
<tr>
<td>The OGA way forward</td>
<td>34-36</td>
</tr>
<tr>
<td>Experienced leadership</td>
<td>34-36</td>
</tr>
<tr>
<td>Oil &amp; Gas MER UK Forum, Steering Group and Task Forces</td>
<td>37</td>
</tr>
<tr>
<td>Who does what in UK Government</td>
<td>37</td>
</tr>
<tr>
<td>Key publications</td>
<td>38-39</td>
</tr>
</tbody>
</table>

Front cover: Ogilvie-Gordon 3D Audio-Visualisation Centre (OGAVC) based in the Lyell Centre at Heriot-Watt University, supported by the OGA.
Introduction from the Chief Executive

The Oil and Gas Authority works alongside the UK oil and gas industry and government to maximise the economic recovery of the UK’s oil and gas resources (MER UK).

This tripartite relationship has achieved a huge amount over the last three years. Production efficiency has increased each year; unit costs have decreased significantly; production rates have risen; and we are projecting more than 2 billion boe of additional production by 2050. We have highlighted the importance of having the right assets in the right hands and are pleased to see the large upturn in asset transfers, highlighting the increased attractiveness of the sector to investors.

We have seen some excellent stewardship and examples of collaboration. There are, however, still some instances of poor commercial behaviours acting as an impediment to MER UK. Where necessary we have the powers to act, and we do.

As current fields naturally decline a healthy pipeline of future projects is vital. We have already approved a significant redevelopment project and expect more high value projects to be sanctioned this year.

Exploration success is similarly vital, and I was delighted to note that two promising exploration discoveries were announced in January. In addition our 30th Offshore Licensing Round has attracted a large number of applications; we will announce the awards later this year, followed by the 31st Round, focusing on frontier areas. This will be supported by a substantial suite of data including the output from the 2016 government-funded seismic campaign. We are making unprecedented amounts of high quality data openly available as we plan for a National Data Repository.

Our Asset Stewardship Strategy is proving highly effective and helping to drive improved performance. Supply Chain Action Plans will ensure collaboration through the supply chain to maximise value for both operator and service companies. We are also holding operators to account to ensure that optimal technologies are used.

Key regions/hubs in the sector have been identified and we are working closely with industry who are developing priority Area Plans to maximise value in particular geographical areas.

I look forward to updating you on progress.

Dr Andy Samuel
Chief Executive
OGA background

Creating the OGA

New independent authority created April 2015, became government company (GovCo) on 1 October 2016

Effective stewardship of resources

New powers, better resourced and funded

Catalyst for change and facilitator of action

Encouraging collaboration and behavioural change

Focused on delivering a high-quality service and value-for-money to industry

Providing expertise and evidence to HM Treasury

Transparency

OGA role

The OGA regulates the exploration and development of the UK’s offshore and onshore oil and gas resources and the UK’s carbon storage and gas storage and offloading activities

The OGA has a critical role to influence and encourage a culture of greater collaboration on the UKCS, improve commercial behaviours, and help enable a more efficient industry

The OGA has an important role to promote investment in the UKCS, create value in the UK through exports and develop the prosperity of the industry including wider supply chain

OGA values: accountable, fair, robust and considerate
Current context

**Infrastructure**
- 10,000+ wells
- 250+ subsea systems
- 3,000+ pipelines
- 250 fixed installations

**Resources**
- Produced: 44.0bn
- Remaining potential: 20bn
- In production or under development: 5.7bn boe

**Costs**
- Unit costs down by over a third
  - Average unit operating costs have fallen from £19 per barrel in 2014 to £12 per barrel in 2017*

**Production (boepd)**
- 2014: 1.42 million
- 2015: 1.57 million
- 2016: 1.63 million
- 2017: 1.63 million*

**Production efficiency**
- 2014: 65%
- 2016: 73%
- 2016 range: 30% to 90%+
- 2017 data to be received

**Development**
- 2014: 31
- 2015: 26
- 2016: 22
- 2017: 23

**Exploration & appraisal wells**
- 2014: 31
- 2015: 26
- 2016: 22
- 2017: 23

**Supply chain**
- £30bn turnover
- 41% through exports and supporting c.80% of UK oil and gas jobs

**Jobs**
- > 300,000 jobs in the UK
  - Delivered through or supported by upstream oil and gas activity

*provisional data
MER UK Strategy

Underpins the work of the OGA

Legally binding on the OGA and industry

Describes how the ‘principal objective’ should be met in practice

Sets out central obligation, supporting obligations, and required actions and behaviours

Empowers the OGA to produce MER UK Plans

Provides safeguards

Safeguards

Include:

- consistency with legislation, including competition law and common law
- no investment or activity without a satisfactory expected commercial return
- investment and activity not to damage confidence of investors in UK oil and gas

Central obligation

Take the steps necessary to secure that the maximum value of economically recoverable petroleum is recovered from the strata beneath relevant UK waters

Supporting obligations

- Exploration, regional development, asset stewardship, technology, and decommissioning

MER UK Plans

Set out the OGA’s view of how any obligations in the Strategy may be met

Required actions and behaviours

- Timing, collaboration, cost reduction, and actions where a party decides not to pursue MER UK
# Regulatory framework

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Objective</td>
<td>The principal objective is that of ‘maximising the economic recovery of UK petroleum’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Central Obligation
- **MER UK Strategy**: ‘to take the steps necessary to secure that the maximum value of economically recoverable petroleum is recovered’

## Supporting Obligations
- **Exploration**
- **Regional development**
- **Asset stewardship**
- **Technology**
- **Decommissioning**

### Collaboration
- **Facilitation**
- **Licensing regime**
- **Strategies and delivery programmes**
- **MER UK plans**
- **Regulatory powers**

### Cost reduction
- **Non-binding dispute resolution**
- **Information and samples**
- **Meetings**
- **Licence model clauses**
- **Third party access**
- **Sanctions**

## Guidance
- **Statutory, non-statutory and Stewardship Expectations**

## Sanction Notices
- **Enforcement notice**
- **Financial penalty notice**
- **Operator removal notice**
- **Licence revocation notice**
## Regulatory powers

<table>
<thead>
<tr>
<th><strong>Non-binding dispute resolution:</strong></th>
<th>Powers to formally consider disputes and make a non-binding recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Licence model clauses:</strong></td>
<td>The terms and conditions of an oil and gas licence</td>
</tr>
<tr>
<td><strong>Information and samples:</strong></td>
<td>Requirements for the retention, reporting and disclosure of information and samples</td>
</tr>
<tr>
<td><strong>Third-party access:</strong></td>
<td>Powers to impose binding terms for access to upstream petroleum infrastructure</td>
</tr>
<tr>
<td><strong>Meetings:</strong></td>
<td>The right to attend meetings between companies operating in the UKCS</td>
</tr>
<tr>
<td><strong>Sanctions:</strong></td>
<td>Power to impose sanctions where a person has failed to comply with a ‘petroleum-related requirement’</td>
</tr>
</tbody>
</table>

### Guidance:
The OGA publishes a range of guidance on its website at [https://www.ogauthority.co.uk/regulatory-framework/guidance/](https://www.ogauthority.co.uk/regulatory-framework/guidance/). This supports industry, promotes good practice, facilitates action, and clearly outlines obligations.
Striking the right balance

Sanctions
- Enforcement notice
- Financial penalty notice up to £1m
- Licence revocation, Operator removal

Rewards
- Greater value via collaboration
- Transparency and better data access
- Timely, effective decision making
- MER UK benefits all

Combining regulatory powers with a more proactive approach

Use of Powers

Area Plans
Asset Stewardship
Strategic use of data
Exercise of the OGA’s powers

Case Register

Use of powers successes as at 31/12/17

<table>
<thead>
<tr>
<th></th>
<th>Successes to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitation</td>
<td>41</td>
</tr>
<tr>
<td>Enhanced facilitation</td>
<td>20</td>
</tr>
<tr>
<td>Formal intervention</td>
<td>13</td>
</tr>
<tr>
<td>OGA Powers</td>
<td>3</td>
</tr>
</tbody>
</table>

Occasionally MER UK requires more active facilitation and these issues are recorded on the OGA’s case register. Stewardship and facilitation are managed by the OGA’s Operations Directorate.

When an issue begins to threaten MER UK, the level of facilitation increases. Should enhanced facilitation fail to resolve the issue and the OGA considers that its resolution warrants the resources needed to do so, there is a further escalation to formal intervention. At this point the issue is transferred to the OGA’s Regulation Directorate.

In some cases formal intervention will lead to the use of one of the OGA Powers – non-binding dispute resolution, third party access and sanctions. In each such case the Regulation Directorate will decide which of these powers is most likely to secure MER UK and proceed accordingly.

Most issues are addressed and resolved through the stewardship process.

The Case Register tracks the progress of that issue through the escalation process outlined above right, or until the case is resolved. The diagram above left records the analyses of cases resolved by such escalation.
Measuring success

234 success stories were recorded, between 2015 and 31 December 2017, across the OGA in partnership with industry and government

<table>
<thead>
<tr>
<th>Success metrics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripartite barrels</td>
<td>1374 mmboe</td>
</tr>
<tr>
<td>Protect existing barrels</td>
<td>505 mmboe</td>
</tr>
<tr>
<td>New barrels added</td>
<td>869 mmboe</td>
</tr>
<tr>
<td>Costs mitigated</td>
<td>£492 m</td>
</tr>
<tr>
<td>Value of investments</td>
<td>£1.75 bn</td>
</tr>
<tr>
<td>Time saved to industry by fast-tracked consents</td>
<td>3401 Days</td>
</tr>
</tbody>
</table>

Impact on Industry

<table>
<thead>
<tr>
<th></th>
<th>Production Volume</th>
<th>Supply chain initiatives</th>
<th>Decommissioning Opportunities</th>
<th>Exploration Opportunities</th>
<th>Decom cost reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected future volume of oil and gas production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital expenditure committed to new projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced or avoided costs through improved or accelerated outputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The OGA has developed a success stories tracker, dashboard and methodology to allow impact to be quantified (relative to what would have happened in the absence of support or intervention) using three key metrics:
The big opportunity

Strong progress has already been made; latest production projection from 2016 to 2035 is well over 1 billion boe more that the pre-Wood Review baseline with a further increase of over 1 billion projected by 2050.

World class competitiveness

Expand service sector range, market coverage, double exports

Increase the prize by half again over the next 20 years

Realise full hydrocarbon potential of the UKCS

Baseline supply chain turnover from exports
Vision supply chain turnover from exports
Baseline gross production revenue
Vision gross production revenue

Total value added
Increased UK supply chain turnover from capturing larger share of exports markets

£150bn Additional turnover
£140bn Additional gross revenue

MER UK
Increased gross revenues from UKCS oil and gas production

£500bn
£420bn
£350bn
£280bn

Revenue/Turnover (£billion, 2016 prices)

2014 2035
The big opportunity

- Digital
- Simplification
- Efficient decom
- Use it or lose it
- Consolidation
- Transparency
- Extend life
- Halve well costs
- Job and skills
- Collaboration
- Technology
- Exports
Fiscal measures

Packages of measures worth £1.3 billion and £1 billion introduced in 2015 and 2016, in line with the ‘Driving investment’ principles.

- Supplementary Charge reduced from 32% to 10%
- 2 x £20 million for new geophysical surveys in 2016 & 2017 and £5m for exploration data in 2017
- Introduction of new basin-wide Investment Allowance
- Petroleum Revenue Tax permanently reduced from 50% to 0%
- Transferable tax history to give buyers certainty they can get tax relief for decommissioning at the end of field life

Tone for future fiscal policy set by HM Treasury in late 2014 in ‘Driving investment: a plan to reform the oil and gas fiscal regime’. It recognised that to maximise investment the overall tax burden would need to fall as the basin matures.
The blue bars in the chart show effective tax rates (using a 0% discount rate) for a model 20 million barrel medium cost oil field using a long-term Brent oil price assumption of $65/barrel (real, 2017 terms). The red diamonds show project post-tax internal rates of return.

UK was already fiscally competitive – made more so by Budget measures

Adding certainty

Strong commitment from government
Positive fiscal reform
Politically stable
The OGA provides expertise and evidence to HM Treasury
## Mitigating barriers to investment

<table>
<thead>
<tr>
<th>Barriers</th>
<th>OGA Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets in right hands</strong></td>
<td>The OGA flexible and enforcing MER UK Strategy</td>
</tr>
<tr>
<td>Licensees not investing or realising potential</td>
<td></td>
</tr>
<tr>
<td><strong>Access to infrastructure</strong></td>
<td>Infrastructure Code of Practice underpinned by powers to impose terms</td>
</tr>
<tr>
<td>Third parties cannot gain access or access on reasonable terms</td>
<td></td>
</tr>
<tr>
<td><strong>Price assumption misalignment</strong></td>
<td>The OGA correcting by testing assumptions independently</td>
</tr>
<tr>
<td>Disconnect between buyer and seller’s assumptions and evaluation</td>
<td></td>
</tr>
<tr>
<td><strong>Lack of capital</strong></td>
<td>The OGA working with investment community to promote opportunities and new models</td>
</tr>
<tr>
<td>Traditional funding models not available</td>
<td></td>
</tr>
<tr>
<td><strong>JOA structure misalignment</strong></td>
<td>The OGA assisting where required; standardised agreements and processes will help</td>
</tr>
<tr>
<td>Lack of sole risk provisions, pre-emption rights, and financial capability concerns</td>
<td></td>
</tr>
<tr>
<td><strong>Divestment packages</strong></td>
<td>The OGA clarifying area hubs or strategy synergies to help optimise asset packages</td>
</tr>
<tr>
<td>Do not necessarily ensure that assets are in the right hands</td>
<td></td>
</tr>
<tr>
<td><strong>Decom</strong></td>
<td>The OGA to issue cost norms and benchmarking; standardised DSAs needed</td>
</tr>
<tr>
<td>Cost uncertainty and lack of Decommissioning Security Agreements (DSAs) cause deal delay</td>
<td></td>
</tr>
<tr>
<td><strong>UKCS fiscal regime</strong></td>
<td>The government has announced it will introduce transferable tax history by 1 November 2018</td>
</tr>
<tr>
<td>Tax system may be deterring sales of assets close to decommissioning</td>
<td></td>
</tr>
</tbody>
</table>
The OGA does not provide endorsements or investment recommendations. Some transactions are still subject to OGA and other regulatory consideration, their inclusion on this slide is not an indication of the outcome of that consideration.

The transfers here are not a definitive list and locations are indicative.
Significant ongoing investment and an increase in project approvals anticipated

*Unsanctioned developments* include both new field start-ups and redevelopment of existing assets.

The OGA does not provide endorsements or investment recommendations. Those projects listed above are not necessarily a definitive list.
UKCS resource progression

2016 changes

- Low, Central and High Cases:
  - Billion boe added from new discoveries in 2016: 7.4 billion boe (5.1 from proposed new developments and other discoveries)
  - Billion boe moved into sanctioned from project approvals in 2016: 5.7 billion boe

Produced in 2016 with 73% production efficiency: 43.5 billion boe produced to date

Range of total potential resources ca. 10 to 20bn boe

2-6-9* prospective resources

* OGA yet to find number based on defined prospect and lead ranges with volumetric cut-off criteria applied. Yet to find update available end 2018.

Source OGA: https://www.ogauthority.co.uk/data-centre/data-downloads-and-publications/reserves-and-resources/
Revitalise exploration

The OGA is committed to maximising the economic recovery of hydrocarbons from the UKCS by creating an environment that stimulates exploration activity within the UK, allowing industry to create value through drilling of a balanced portfolio of frontier and mature area prospects, leading to the discovery of new oil and gas reserves.

Freely available subsurface data packages for 140 relinquished discoveries, including 60 technical montages.

Data-driven geological maps for Central North Sea, Moray Firth and Southern North Sea to promote enhanced regional understanding.

30th ‘mature’ round closed November 2017 with 96 applications covering 239 blocks from 68 companies. Licence awards expected Q2 2018.

Further £5m UK government funding for more high quality data ahead of 32nd Licensing Round.

Flexible ‘innovate’ production licensing now in place

Exploration
- Up to 9 years duration (variable)

Financial Tests
- Financial Viability
- Environmental Safety
- Legislative Requirements
- Rental rates £15/km²

Relinquishments of Licences
- Relinquish if criteria not met
- Up to 75% negotiable relinquishment
- No compulsory relinquishment

Phase A
- Studies and reprocessing

Phase B
- Shoot seismic

Phase C
- Drill E&A Wells

Appraisal and FDP
- Up to 6 years duration (variable)

Development and Production
- Up to 18 years duration (extendable)

OGA delivery review stages
31st Offshore Licensing Round

Frontier Round to open in 2018 supported with new, openly available, govt-funded seismic, delivered as workstation-ready products and to include:

- New 2D broadband acquisition from SW Britain and the East Shetland Platform
- Reprocessed legacy 2D seismic data from NW UK, SW Britain, E Irish Sea, and English Channel

The OGA is also releasing geological reports to investigate key subsurface uncertainties in SW Britain and East Shetland Platform areas
There is the potential for a vibrant onshore oil and gas industry, bringing economic benefit and improving security of supply.

The OGA is helping safely realise this potential through:

**Regulation**: ensuring that an effective licensing system and regulatory controls are in place, including mitigating the risk of induced seismicity

**Driving activity**: overseeing operators to ensure that commitments are being pursued on over 200 licences

**Collaboration**: recognising that high levels of public interest demand transparency, active engagement and close working with government and other regulators

### Highlights of OGA’s onshore activity

**Carboniferous shale gas**: Drilling underway, first hydraulic fracturing tests imminent and 3D seismic surveys underway

**Jurassic oil hybrid play**: Drilling and further tests planned to appraise the potential of the Kimmeridge resource play

**Ongoing exploration**: Final permissions and consents needed at three sites to drill in 2018

**Stewardship**: of over 50 onshore existing and producing oil and gas fields in England
Information management

The OGA is committed to providing industry and other relevant parties timely access to comprehensive, good quality data. **Enhanced and trusted OGA data**, together with improved information use, will support decision making, inward investment and value creation across the UKCS.

UK Energy Portal

Provides a platform for industry to apply for and receive consents or directions electronically on a wide range of activities.

Supports the annual OGA stewardship survey by gathering key data from licensees, providing strategic insights to the OGA, industry and government.

OGA Data Centre

Provides web services to essential header data such as licenses, wells and fields enabling key attributes to be queried and downloaded.

Supports the OGA strategy of making as much information and data publicly available as soon as possible.

National Data Repository (NDR)

Establishment of a UK NDR is expected to deliver very significant extra value.

The UK NDR, supported by new regulations on petroleum related information and samples will enhance industry collaboration, preserve data, and help create the conditions to drive investment and new technologies.

The UK Energy Portal, OGA Data Centre and a planned National Data Repository (NDR), will support the preservation, publication and analysis of data.
Leverage technology

We work with the industry to make sure that existing technologies are deployed to their full effect and relevant new technologies are developed and used to maximise economic recovery from the UKCS.

The OGA works closely with the Technology Leadership Board and the Oil and Gas Technology Centre.

- Sets priorities and themes
- Brings together industry, OGA, governments and technology bodies
- Takes forward themes into execution
- Government-backed and industry-led
- Solution Centres, Centres of Excellence, Innovation Hub and Technology Acceleration
- Oversees industry efforts
- Holds operators to account in their Technology Plans/Asset Stewardship Expectations
- Works with operators to share best practices, and understand use of new technologies
- Work with the TLB, OGTC and other technology organisations to accelerate technology initiatives through to deployment

MER UK Supporting Obligations Technology
- Operators to deploy technologies (new and existing) to their optimum effect to achieve MER UK
- Operators to consider all potential benefits for the UK from the development of these technologies

Asset Stewardship Expectations SE08 Technology Stewardship
- Expect all UKCS license operators have technology plans, supporting MER UK
- Request license operators to submit their plans as part of the Stewardship Survey

Technology Delivery Programme OGA Role
The MER UK Strategy requires licence holders to ensure that optimal technologies are used for MER UK. As part of its Asset Stewardship Strategy, the OGA expects that licence operators have technology plans which identify actions and timelines to access and/or develop the critical technologies needed for their assets.

### Operator’s Plans

**Technologies in Operators’ Plans**
- Seismic and Exploration
- Well Drilling & Completions
- Subsea Systems
- Installation & Topsides
- Facilities Management
- Reservoir & Well Management
- Well Plugging & Abandonment
- Facilities Decommissioning

### Development

- **Unmanned buoy (OPB)**
- **Versatile Production Unit Production club (Amplus)**

### Deployment

- **Inspection drones**
- **Corrosion under insulation inspection**
- **Thermite P&A (Interwell)**

- Asset integrity technologies extend asset life and reduce Opex
- Advanced inspection technologies piloted in UKCS last summer
- MER UK Award (Total and OGTC)
- Wells plug and abandonment nearly 50% of decommissioning cost
- Breakthrough technology piloted in the UK (Centrica)
Asset stewardship is crucial to maximising economic recovery from the UKCS and to deliver greater value overall. Effective stewardship means:

- Asset owners consistently do the right things to identify and then exploit opportunities
- Assets are in the hands of those with the collective will, behaviours and capabilities to achieve this

### Asset Stewardship Strategy regime proving highly effective

- Benchmarking data helping raise performance
- Expectations providing a highly effective self-assessment tool

### Benchmarking

- Benchmarking assets for:
  - production efficiency
  - recovery factor
  - operating cost
  - decommissioning cost

- Results communicated confidentially in a non-attributable way to help continuous improvement

### Stewardship expectations

- Expectations for industry, across the lifecycle, and underpins the MER UK Strategy and supporting obligations

### Stewardship reviews

- Proactive, structured and prioritised tiered reviews with operators to evaluate stewardship
- Priority given to the greatest MER UK impact

### Rationalised industry surveys

- Annual UKCS Stewardship Survey which replaced nine previous surveys. Reduces complexity, time, effort and burden on operators and the OGA

Asset Stewardship Strategy defines good asset stewardship and sets in place a framework for delivering, monitoring and measuring continuous improvement. Review of Expectations planned in late 2018
## Stewardship expectations

| 1. Hub Strategy          | • Documented Hub Strategy, agreed by JV Partners, updated at least every two years, submitted to the OGA on request  
|                         | • A Hub Strategy will demonstrate how the hub will deliver MER UK over its life time |
| 2. Exploration and Appraisal Subsurface Work Programme | • Submit to the OGA annually during the initial/second licence term:  
|                         | (1) An evaluation of resources on each licence, and (2) An associated E&A work programme  
|                         | • Engage fully with the OGA in pre-, syn- and post-well evaluations for E&A wells |
| 3. Optimum use of Subsurface Data | • Annually, through the E&P lifecycle, the JV should consider all relevant available subsurface datasets and their ability to cost effectively reduce uncertainty or increase recovery  
|                         | • Drive business decisions throughout the E&P lifecycle that are data supported and robust |
| 4. Licence Activity, Decision Points and Milestones | • Deliver to the OGA a signed JOA by the end of the first six months of the initial licence term  
|                         | • Notify the OGA at least one month prior to an investment decision to drill or drop  
|                         | • Notify the OGA at least one month prior to commencing any farm out/divestment activity |
| 5. Robust Project Delivery | • Create alignment with the OGA on cost/schedule, front end loading and formal review cycle at FDP approval  
|                         | • Dedicated organisation and established project management system to be in place  
|                         | • Demonstrate consideration to optimising new and existing infrastructure to achieve MER UK |
| 6. Production Optimisation | • Demonstrate a systematic approach to production optimisation including process, systems and people  
|                         | • Production optimisation should include production protection and production growth |
| 7. Information Management | • Comply with current obligations in PON9 detailing requirement to retain and report information/samples  
|                         | • Take necessary steps to prepare for information and samples powers in the Energy Act 2016 |
| 8. Technology Plan | • Submit a Technology Plan to the OGA annually, showing new and emerging technologies deployed to optimum effect across the full lifecycle |
| 9. Collaboration | • Complete a documented assessment of collaborative behaviour, agreed by JV Partners, every two years  
|                         | • Licensees to act in accordance with the various codes they have signed up to (Industry Behaviours Charter, CCoP and ICoP) |
| 10. Planning for Decommissioning | • Have a decommissioning preparation plan six years prior to CoP, available to the OGA on request  
|                          | • Prior to implementation, have decommissioning execution and contracting strategies in place, available to the OGA on request |
Priority Area Plans

Area Plans integrate exploration, development, production, late-life planning and decommissioning. This should ensure the optimum use of infrastructure, extend the life of hubs, and maximise economic recovery.

Area Plans vary in magnitude, scale and complexity and can be integrated with other Area Plans to drive regional development.

Guidance has been published in July 2017.

For the majority of Area Plans, the industry are leading on developing and delivering the plans.

Key
- West of Shetland Gas
- East of Shetland
- Quad 9 Gas
- Central Graben Area (CGA)
- West Sole
- Theddlethorpe Catchment Area (TCA)
- SNS Tight Gas

An Area Plan is a proposal for action initiated by the OGA and industry, which is then led and delivered by industry, as to how economic recovery should be maximised in a particular geographical area of the UKCS based on analysis of evidence.
Collaborative behaviours

New toolkit working – helping to drive the right conversations, and improving performance

An example assessment outcome

Collaborative Behaviours Quantification Toolkit (CBQT) measures 8 behaviours

We have seen some excellent examples of collaboration - however still seeing good opportunities delayed due to poor company commercial behaviours
The OGA is working in partnership with a broad range of industry stakeholders, as part of a Task Finish Group, to develop a compelling ‘Sector Deal’ for oil and gas that will support greater action towards achieving the Vision 2035 goals.
Supply Chain Action Plans (SCAPs)

SCAP process facilitates and demonstrates that operators are:

- Deriving maximum value from project activity
- Delivering Field Development Plan & Decommissioning Programme commitments
- Contributing to Total Value Add (TVA) through engagement with supply chain

**Evaluation Criteria**

- **Engagement**
  - Legally binding obligations
  - All projects requiring an FDP/DP should produce a SCAP
  - Tier 1 contractors should complete SCAPs for projects >£25m

**MER UK Strategy**

**Field Development Plan / Decommissioning Programme**

**Stewardship Expectations**

SE-05 Robust project delivery

SE-10 Planning for decommissioning

SCAPs designed to ensure operators engage appropriately with the supply chain and derive maximum value from project activity.
Decommissioning

It is essential that industry explores all viable options for infrastructure use prior to decommissioning. Where decommissioning takes place it must be executed in the most cost effective way without prejudice to, and in balance with, the maximisation of value from economically recoverable reserves.

Three clear priorities identified:

**Cost certainty and reduction:** Decommissioning cost report issued in June 2017 to communicate cost, target and intent. Joint OGA and industry taskforces to deliver key initiatives. Significant cost improvements expected in next 10 years towards £39bn target.

**Decommissioning delivery capability:** Supporting industry bodies and initiatives to develop delivery capability. OGA to act as a catalyst to implement a multi well P&A campaign targeting cost reduction and area decommissioning plans.

**Decommissioning scope, guidance, and stakeholder engagement:** Ensure that current decommissioning scope, regulatory requirements and policies are clearly understood, and aligned with MER UK goals of cost optimisation.

Delivering on these priorities will require increased collaboration and efficiency, and the design and implementation of more transformative solutions across commercial, operational, technical and environmental aspects to address constraints, liabilities and risks.

Decommissioning presents significant opportunities for innovation, cost reduction and development of UK skills and capability, and has the potential to deliver a competitive market advantage to the UK on the global decommissioning stage.
Reducing decommissioning costs

Minimum target of £39bn based on industry achieving 35% improvement on P50 probabilistic estimate of £59.7bn

The OGA will monitor industry’s performance towards the target and support their efforts through:

- Publishing an annual progress update report
- Benchmarking, using actual decommissioning costs to assess operators’ estimates
- Working with operators and the wider industry to share lessons learned, develop innovative approaches to contracting strategy and enhance capability of the supply chain
- Promoting innovative collaboration, for example the multi-operator well plugging and abandonment (P&A) campaign
The OGA way forward

<table>
<thead>
<tr>
<th>Way forward</th>
<th>2017/18 programme priorities – Top 10</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revitalise exploration</td>
<td>1. Increase in quality E&amp;A drilling</td>
<td>Attain 90% 2017 programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200mmboe additional recoverable resources</td>
</tr>
<tr>
<td>Improve asset stewardship</td>
<td>2. Enhance asset stewardship</td>
<td>90% Tier 1 reviews complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Production efficiency 80% by end 2018</td>
</tr>
<tr>
<td>Drive regional development</td>
<td>3. Area and MER UK plans to deliver barrels and value</td>
<td>50% of area plans identified in opportunity matrix 2017</td>
</tr>
<tr>
<td>Improve decommissioning efficiency</td>
<td>4. Delivery of efficient decommissioning</td>
<td>Review all operator decom programmes to improve cost and efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce abandonment expenditure by 35% from 2017 baseline estimate</td>
</tr>
<tr>
<td>Leverage technology and data</td>
<td>5. Delivery of Information Management (IM) and technology plans</td>
<td>Attain 75% IM programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attain 90% tech programme</td>
</tr>
<tr>
<td>Create the right conditions</td>
<td>6. Use powers to maximise economic recovery</td>
<td>Zero cases lost for process</td>
</tr>
<tr>
<td></td>
<td>7. Inform UK Government’s Industrial Strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Drive investment, efficiency, and new business models</td>
<td></td>
</tr>
<tr>
<td>Develop people processes and systems</td>
<td>9. Transform the OGA IT systems</td>
<td>Attain 75% IT programme</td>
</tr>
<tr>
<td></td>
<td>10. Make the OGA a great place to work</td>
<td>Development objective in place</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employee engagement %</td>
</tr>
</tbody>
</table>

Where KPI targets identify an achievement of less than 100% this is an acknowledgment of the ambitious nature of the target and/or the early phase of the work required within the OGA and industry to deliver these activities.
Experienced leadership

Board of Directors and Company Secretary

Chairman
Sir Patrick Brown

Chief Executive
Dr Andy Samuel

Shareholder Representative Director
Frances Morris-Jones

Non-Executive Director
Robert Armour

Non-Executive Director
Mary Hardy

Chief Financial Officer
Nic Granger

Company Secretary and General Counsel
Dr Russell Richardson

Executive team

Chief Executive
Dr Andy Samuel

Director of Operations
Gunther Newcombe

Director of Regulation
Tom Wheeler

Director of Strategy
Hedvig Ljungerud

Director of HR and Supply Chain
Stuart Payne

Chief Financial Officer
Nic Granger

Accountable to BEIS Secretary of State
## Oil & Gas MER UK Forum, Steering Group and Task Forces

### MER UK Forum

- Focused membership with industry task force chairs, ministers and officials, Oil & Gas UK and the OGA

### MER UK Steering Group

- Steers the Task Forces and reviews key strategic issues such as Industrial Strategy, collaboration and OGA/industry interface

<table>
<thead>
<tr>
<th>Task Force Area</th>
<th>Task Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration</td>
<td>Exploration Task Force</td>
</tr>
<tr>
<td>Technology</td>
<td>Technology Leadership Board</td>
</tr>
<tr>
<td>Asset Stewardship</td>
<td>Asset Stewardship Task Force</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>Decommissioning Task Force</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Efficiency Task Force</td>
</tr>
<tr>
<td>Supply Chain and Exports</td>
<td>Supply Chain and Exports Task Force</td>
</tr>
</tbody>
</table>

- Six industry-led Task Forces focused on core areas along with cultural/behavioural change
## Exploration and production including:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onshore, offshore, carbon storage, gas storage and gas unloading licensing</td>
<td>OGA</td>
</tr>
<tr>
<td>Field development plan consents</td>
<td>OGA</td>
</tr>
<tr>
<td>Cessation of production approvals</td>
<td>OGA</td>
</tr>
<tr>
<td>Offshore pipeline works authorisation</td>
<td>OGA</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>OGA</td>
</tr>
<tr>
<td>Commercial matters and changes of control</td>
<td>OGA</td>
</tr>
<tr>
<td>Flaring and venting consents</td>
<td>OGA</td>
</tr>
<tr>
<td>Metering and allocation</td>
<td>OGA</td>
</tr>
<tr>
<td>Production outages</td>
<td>OGA</td>
</tr>
<tr>
<td>Offshore decom efficiency, costs, technology</td>
<td>OGA</td>
</tr>
<tr>
<td>Offshore decom programme approval, execution and monitoring</td>
<td>BEIS – OPRED</td>
</tr>
<tr>
<td>Offshore environmental management and inspection</td>
<td>BEIS – OPRED</td>
</tr>
<tr>
<td>Health and safety management</td>
<td>HSE</td>
</tr>
</tbody>
</table>

## Oil and gas policy including:

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall oil and gas policy</td>
<td>BEIS</td>
</tr>
<tr>
<td>Legislation</td>
<td>BEIS</td>
</tr>
<tr>
<td>Oil and gas parliamentary processes</td>
<td>BEIS – OGA shareholder team</td>
</tr>
<tr>
<td>Offshore decommissioning</td>
<td>BEIS – OPRED, OGA, HMT</td>
</tr>
<tr>
<td>Fiscal and taxation</td>
<td>HMT The OGA provide expertise and evidence to HM Treasury</td>
</tr>
<tr>
<td>Supply chain and business impact</td>
<td>BEIS &amp; OGA</td>
</tr>
<tr>
<td>Environment</td>
<td>BEIS – OPRED</td>
</tr>
<tr>
<td>International relations and trade</td>
<td>BEIS, DIT, OGA, FCO</td>
</tr>
</tbody>
</table>

### Key

- **BEIS**: Department for Business, Energy and Industrial Strategy
- **DIT**: Department for International trade
- **FCO**: Foreign and Commonwealth Office
- **Office HMT**: Her Majesty’s Treasury
- **OGA**: The Oil and Gas Authority
- **OPRED**: Offshore Petroleum Regulator for Environment and Decommissioning
Key publications

**Strategic overview**
Published with industry sector strategies setting direction

**New stewardship regime**
Worked with industry to develop 10 expectations, and implementation guides, spanning the whole lifecycle and the stewardship review process
Guidance
Worked with industry to provide guidance on our powers and how they are being used

Sector wide data
The OGA provide reports, including reports using data from the annual stewardship survey, to help industry improve and benchmark performance