Exploration and appraisal

Lack of funding is a global issue for exploration

High well costs and JV misalignment

OGA work to ensure inventory is drilled

UKCS has a significant yet-to-find potential and E&A activity is picking up
# Incentivising frontier exploration

## 2015 & 2016 Programs

- **40,000 kms** new/reprocessed data
- **2016 seismic data acquisition complete**
- **CNS well review & palaeozoic study issued**

## Competition to define potential

- **£1m prize money shared between 2015 & 2016**

## New world-class visualisation facility

- **£700,000 funding for Lyell Centre in Edinburgh**

## New world-class visualisation facility

- **£750,000 for 3 post-doctoral appointments in geoscience & reservoir engineering**

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**£40m UK government funding to incentivise frontier exploration**
Discoveries

OGA, Technology Leadership Board and industry developing strategic approach

350+ unsanctioned discoveries¹, 3.4bn boe*

Small pools (<50mm boe) contain 2.4bn boe*

Over 150 small pools in unlicensed acreage

¹ Excluding potential developments currently under discussion
* P50 technically recoverable resources

Source: OGA

Producing fields

Ongoing developments

Currently locked discoveries

Central estimate of reserves/resources mmbboe

1 10 100 1000

Over 150 small pools in unlicensed acreage

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"Discoveries" graph showing the distribution of reserves/resources across producing fields, ongoing developments, and currently locked discoveries.
High activity levels between 2012-2014

CoP submissions significantly increasing

High volume DPs under review

OGA working closely with industry to promote and mature developments
Risk that currently unsanctioned post-2016 projects are deferred

Projects & well spend similar to pre-2012 levels

Post-2016, 50% projected spend is sanctioned

Decom projected run rate at ca £2bn pa from 2016

Source: Oil & Gas UK/OGA Activity Survey

Estimated/OGA forecasts
Reserves

UKCS production increasing, no large new projects in 2016, E&A successful.

- Mariner greater than 50% sanctioned
- PE lowest at 60% end 2012
- Catcher 25% sanctioned
- Industry focus starts on PE & Cost
- Culzean 80% sanctioned
- PE improved considerably to 71%
- Arundel sanctioned, 4 fields in progress
- E&A drilling at very low levels
Lifting costs/
boe

2016 target of $15/boe potentially achievable
Lifting costs/boe almost halved in last 3 years
Planning and workforce engagement critical

Significant industry improvements in managing costs
## OGA Regulatory framework

<table>
<thead>
<tr>
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<tbody>
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</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
  - Cost reduction

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

### Regulatory Powers
- 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 framework underpins approach and priorities
OGA Regulatory framework

Legislative Context
- Infrastructure Act 2015
- Petroleum Act 1998

Principal Objective
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Regulatory framework underpins approach and priorities
# MER UK Boards

## Forum/Boards’ Purpose

Drive tripartite action and deliver tangible benefits in support of MER UK and maximise UK value from the oil and gas industry as a whole.

## Membership

- Forum – OGA, government, industry and trade unions
- MER UK Boards – industry led with support from OGA and Oil & Gas UK

## Forum Objectives

1. Promote dialogue between industry, government and OGA
2. Provide strategic direction and oversight and support
3. Drive alignment, accountability, action and delivery on key priorities

## Core work areas and MER UK Boards

- Exploration
- Asset Stewardship
- Regional Development & Infrastructure
- Efficiency Task Force
- Technology Leadership Board
- Decommissioning
- Supply Chain, Exports & Skills

## Boards’ Objectives

1. Develop a clear strategy, priorities and plans
2. Create leadership alignment and leverage tripartite action – forum for consultation
3. Deliver tangible and quantifiable results

## Frequency

- MER UK Forum meets twice a year
- MER UK Boards meet a minimum of quarterly

## Secretariat

OGA external affairs team

Industry & OGA working together to deliver strategies & plans
Strategies & Delivery Programmes

All strategies issued with delivery programmes in progress
Asset Stewardship framework

**Asset Stewardship Expectations**

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 reviews

Proactive, structured and prioritised tiered stewardship reviews, based on intelligence gathered

Priority given to the greatest MER UK impact

Stewardship Expectations

Expectations for industry, across the lifecycle, which, if followed, are intended to help facilitate the delivery of the MER UK Strategy obligations

Rationalised industry surveys

New single, annual, UKCS Stewardship Survey which replaces nine previous surveys. Reduces complexity, time, effort and burden on operators and the OGA

Benchmarking

Rationalised industry surveys

Tiered stewardship reviews

Proactive, structured and prioritised tiered stewardship reviews, based on intelligence gathered

Priority given to the greatest MER UK impact

Benchmarking Expectations

Asset Stewardship Expectations key tool to evaluate performance
Asset Stewardship Survey

Existing Surveys

• Fallow & Licensing Review
• Exploration & Appraisal
• Reserves (PARS)
• Field Activity
• Production Efficiency
• Treasury Economic Forecast (TEF)
• Decommissioning (Insights)

New Survey

UKCS Stewardship Survey

- Rationalise numerous surveys into one high quality submission
- Data submitted by industry via new application on OGA Energy Portal
- Improve OGA asset stewardship capability & inform regional strategies

Currently socialising with industry with launch in November
# Asset Stewardship Expectations

## 10 Asset Stewardship Expectations

- JV Hub Strategy
- E&A Work Programme
- Optimum use of Subsurface Data
- Licence Activity, Decision Points & Milestones
- Robust Project Delivery
- Production Optimisation
- Information Management
- Technology Plan
- Collaboration
- Planning for Decommissioning

## Additional Information

- Link to supporting obligations of MER UK Strategy and/or Energy Act
- Set out minimum expectations of what good looks like
- Expectations have a one page overview & short guidance
- Issued in 4Q 2016 with implementation during 2017
MER UK tripartite framework

Industry input

- Industry SMEs
- Oil & Gas UK
- Task groups
- MER UK Boards

Asset Stewardship Expectations

Delivery Programmes

Strategies

MER UK Strategy

- Realise potential
- Avoid value loss
- Improve efficiency
- Sustainability
- Competitive UKCS

Working together to deliver a future for the UKCS
## Asset Stewardship timetable

<table>
<thead>
<tr>
<th>Year</th>
<th>MER UK Boards Established</th>
<th>OGA Corporate Plan</th>
<th>Revised Corporate Plan</th>
<th>Strategies worked &amp; issued</th>
<th>Delivery Programmes worked &amp; issued</th>
<th>Stewardship Expectations worked &amp; issued</th>
<th>Stewardship Survey</th>
<th>Tiered Stewardship process</th>
<th>Review</th>
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<tbody>
<tr>
<td>2015</td>
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<td>2018</td>
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</table>

*End 2016 asset stewardship framework complete with implementation 2017*
Key messages

- Improving asset stewardship is core to the MER UK Strategy and sustainable future.

- OGA and industry working together to deliver improved asset stewardship framework.

- Improvements already in place, new framework delivered by end 2016.

- OGA will review learnings with industry end 2017.