Oil & Gas Authority

# How has the OGA encouraged MER ?

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December 2018

# OGA background

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## 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 regulatory excellence and a high-quality service and value-for-money to industry

Providing expertise and evidence to HM Treasury

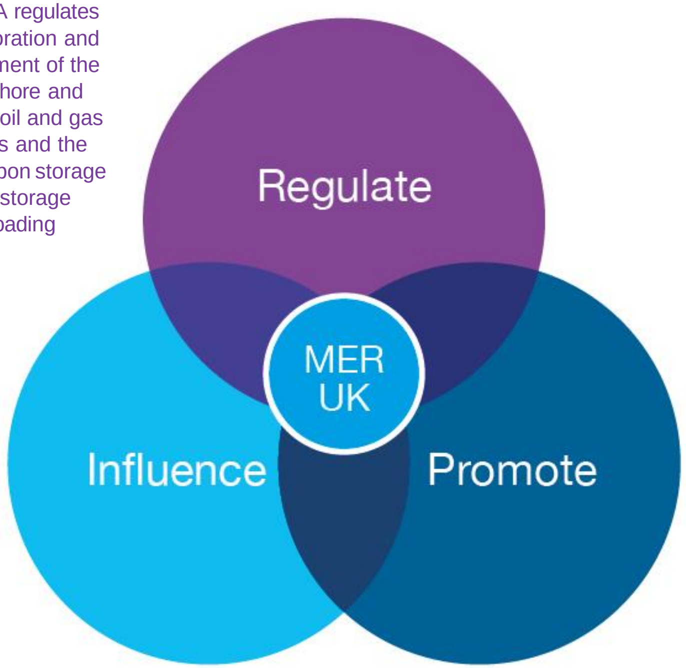
Transparency

Report to a Board of Directors

**OGA values: accountable, fair, robust and considerate**

## 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

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# 2014 – Crisis was looming

**UOC $30**

**Production down, PE 64%**

**Exploration all time low**

**No trust in fiscal regime**

**Lack of vision, leadership & strategic approach**

**Commercial vipers nest**

**Decommissioning headache**

**Many assets in the wrong hands**


**20th century technology**

## Governments thinking ahead


| Government | Regulator | Industry |
|---|---|---|
| Tripartite | | |

**UKCS has come a long way since 2014**

# Fiscal measures

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The three Driving Investment principles for tax policy-making:

**1** The overall tax burden will need to fall as the basin matures

**2** In setting fiscal policy the government will consider the wider economic benefits of oil & gas production, in addition to revenues

**3** A ‘fair return’ will take account of the global competitiveness of commercial opportunities in the UK and UKCS, commodity prices and costs

In line with UK Government’s Driving Investment principles, packages worth £1.3 billion and £1 billion introduced in 2015 and 2016

- **Supplementary Charge reduced from 32% to 10%**
- **2 x £20 million for new geophysical surveys in 2015 & 2016 and £5m for exploration data in 2017**
- **Introduction of new basin-wide Investment Allowance**
- **Petroleum Revenue Tax permanently reduced from 50% to 0%**
- **From 1 November 2018, transferable tax history gives buyers increased certainty they can get tax relief for their decommissioning costs**

**Delivering on UK Government “Driving Investment”**

# UK now performing favourably

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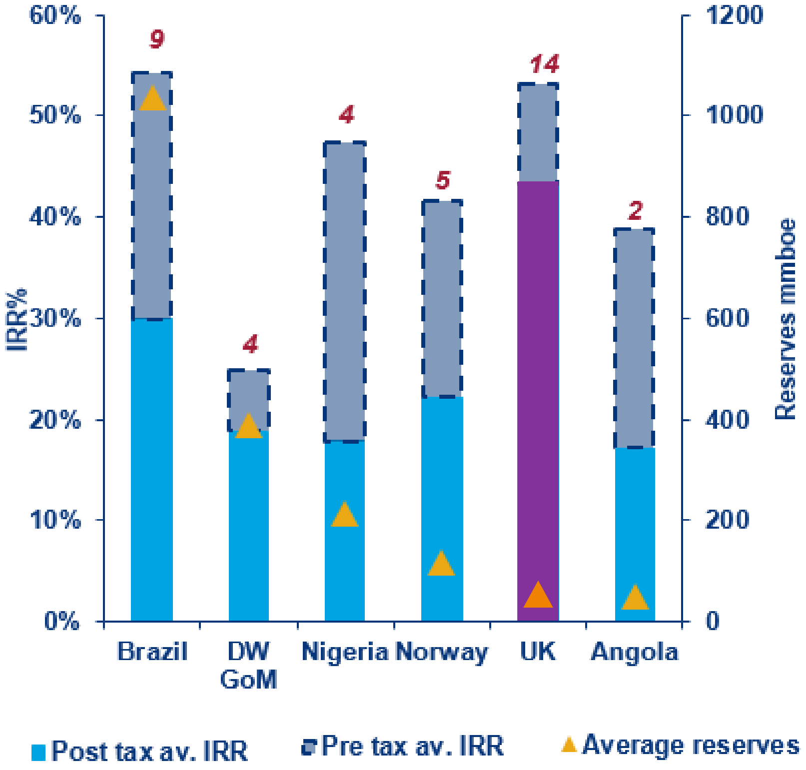
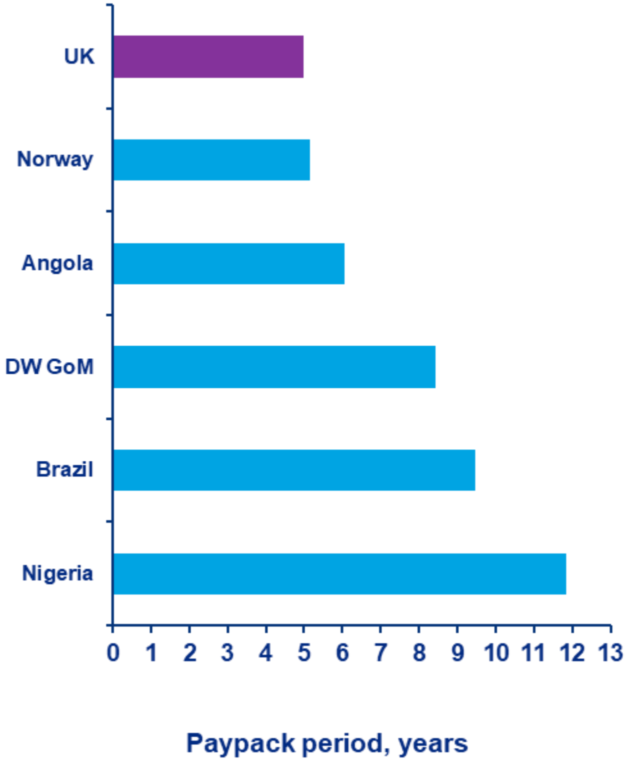
## IRR% and reserves

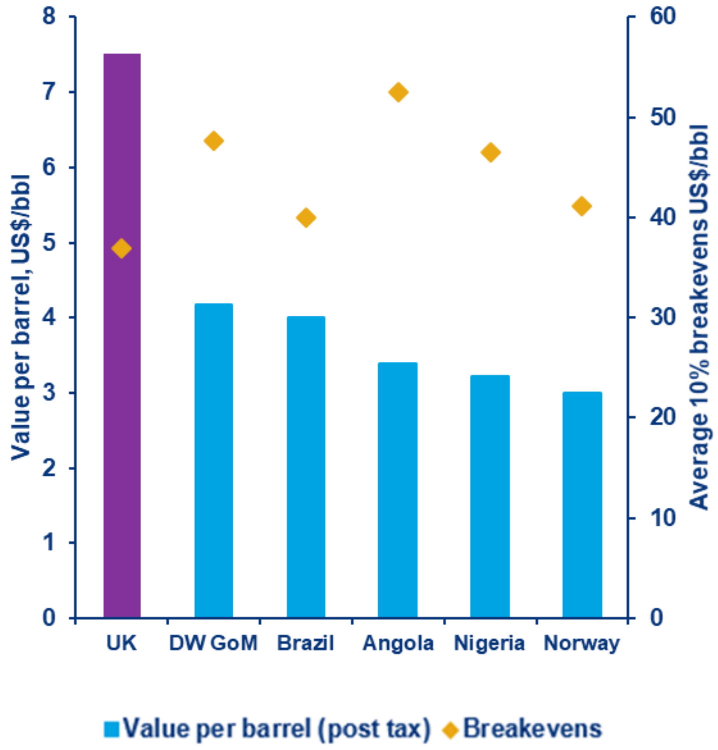



*Number of projects in each region*

## Payback periods




## Break-evens and value per bbl




Source: OGA/Wood Mackenzie 2018

**Leading on returns, payback, break-evens and value**

# Production efficiency & costs

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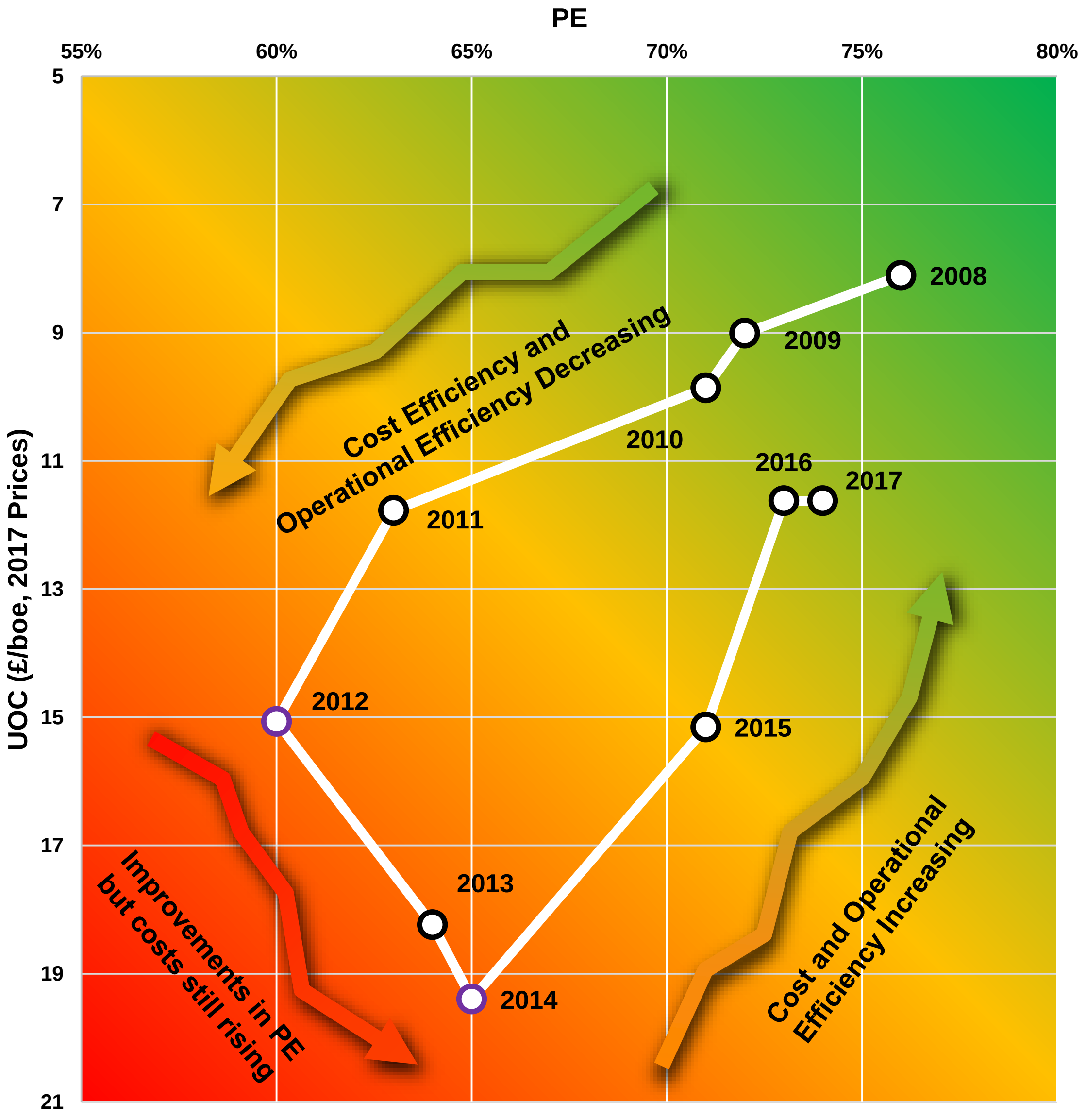




**Continued industry focus is absolutely vital**

# Investment

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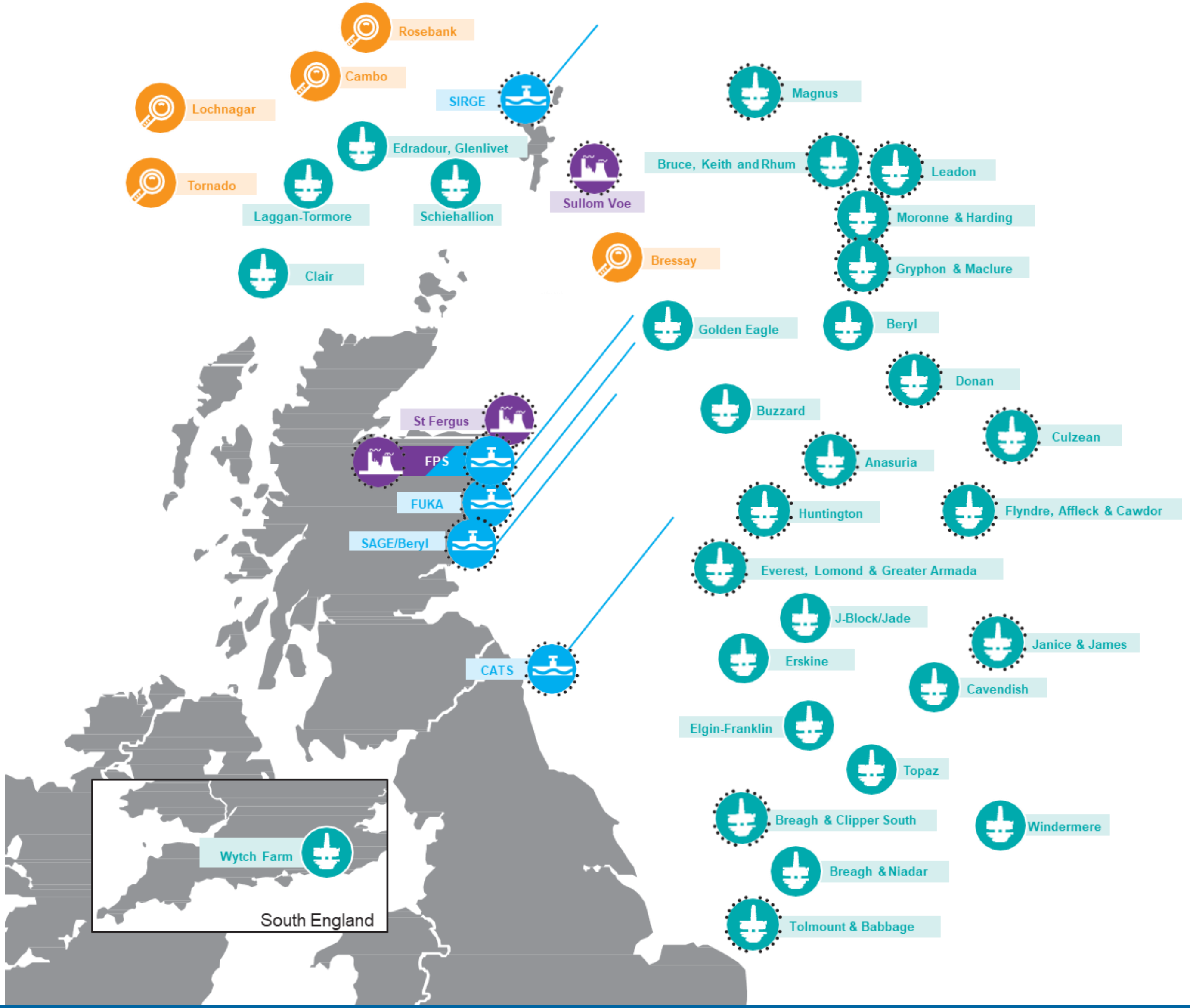


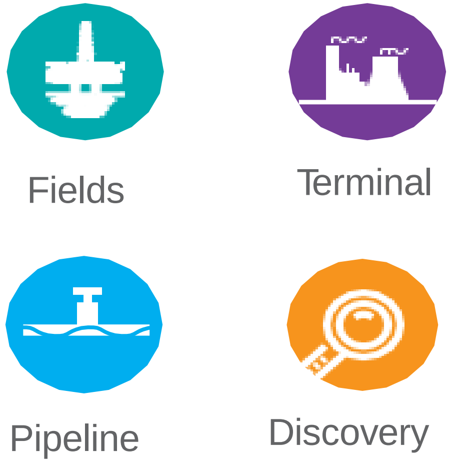


In 2017 UKCS deal activity estimated at $8bn

**Ownership changed significantly & investment continuing into 2018**

# Project activity

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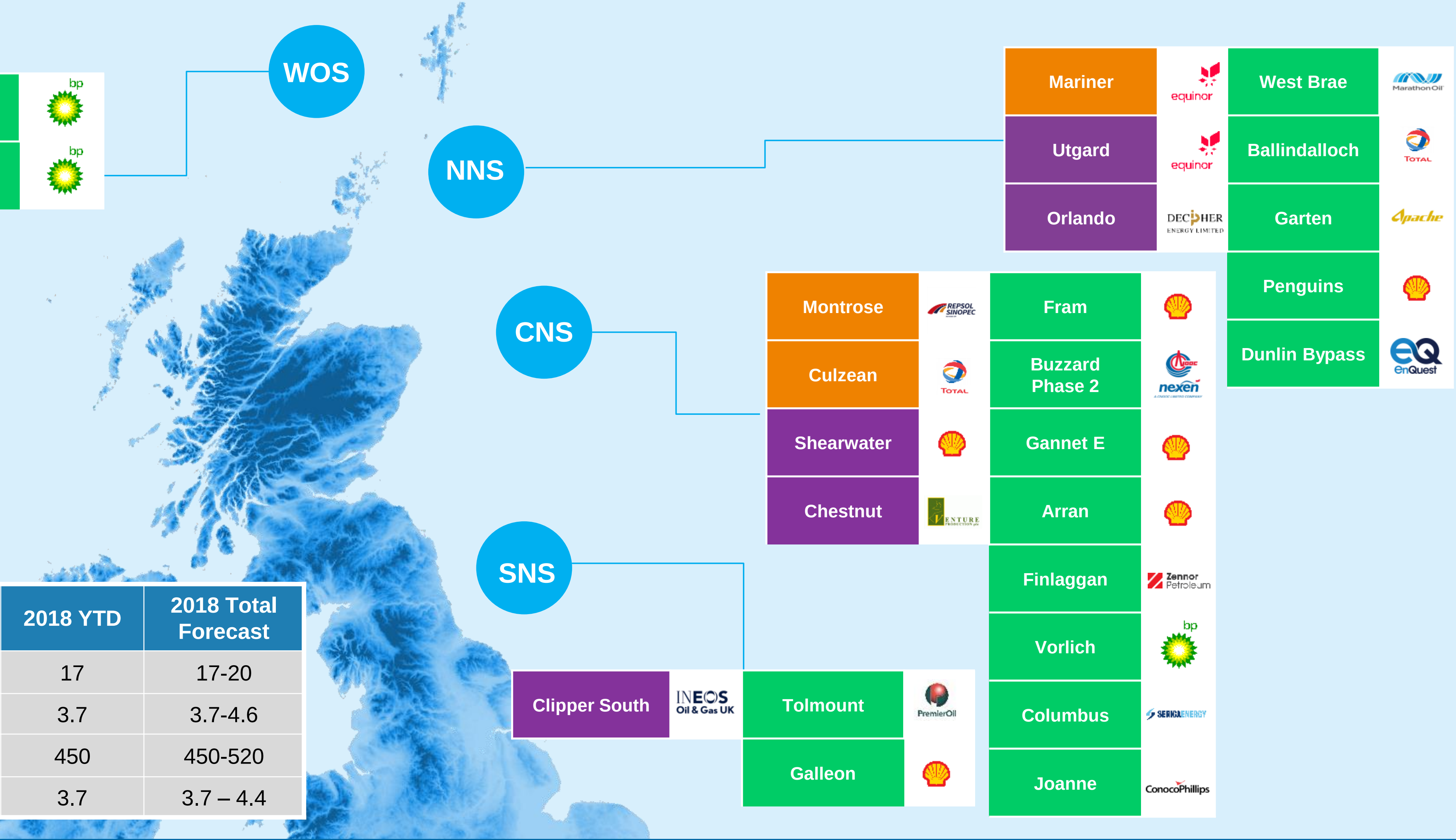


The OGA does not provide endorsements or investment recommendations.
Those projects listed are not necessarily a definitive list and the locations are indicative.

- Sanctioned 2011-2016
- Sanctioned 2017
- Sanctioned 2018

| | 2017 | 2018 YTD | 2018 Total Forecast |
|---|---|---|---|
| **Number of projects** | 7 | 17 | 17-20 |
| **CAPEX** (£ billion) | 0.7 | 3.7 | 3.7-4.6 |
| **Reserves** (mmboe) | 100 | 450 | 450-520 |
| **NPV10** (£ billion) | 1.1 | 3.7 | 3.7 – 4.4 |

**Highly encouraging turnaround in investment outlook**

# Strategic approach

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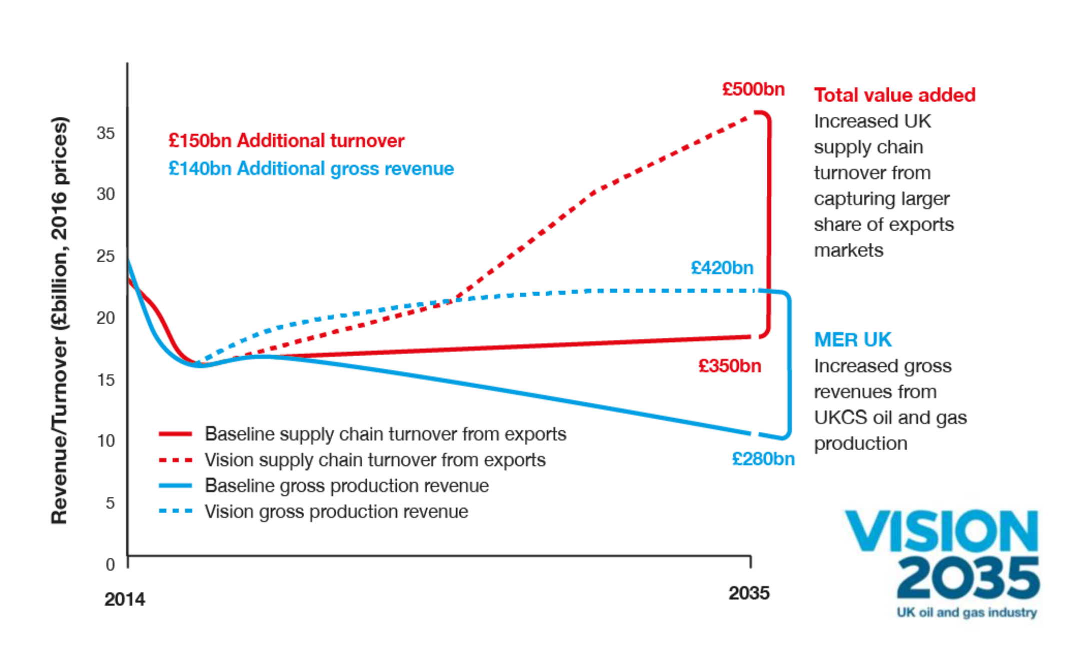


## Sector Deal – Industrial Centres of Excellence

- Transformational Technology
- Underwater Engineering
- Decommissioning

# Mitigating barriers to investment



### Basin maturity

Significant undeveloped discovered resource and exploration potential

### Access to capital

Working with investment community to promote opportunities and new commercial models

### UKCS exploration

OGA providing flexible licensing and high quality open data

### UKCS operating environment

Asset stewardship driving cost reduction and efficiency increase

### Access to infrastructure

OGA has well established powers to facilitate tie back developments and help resolve tariff issues

### Decom

Working with industry to develop strategic decommissioning plans to reduce cost

### Fiscal regime

Stable fiscal regime and introduction of transferable tax history

### Competing with renewables for capital

OGA considering the opportunities that the energy transition will present for UKCS

**Systematically removing barriers to deliver value for investors**

# Asset stewardship

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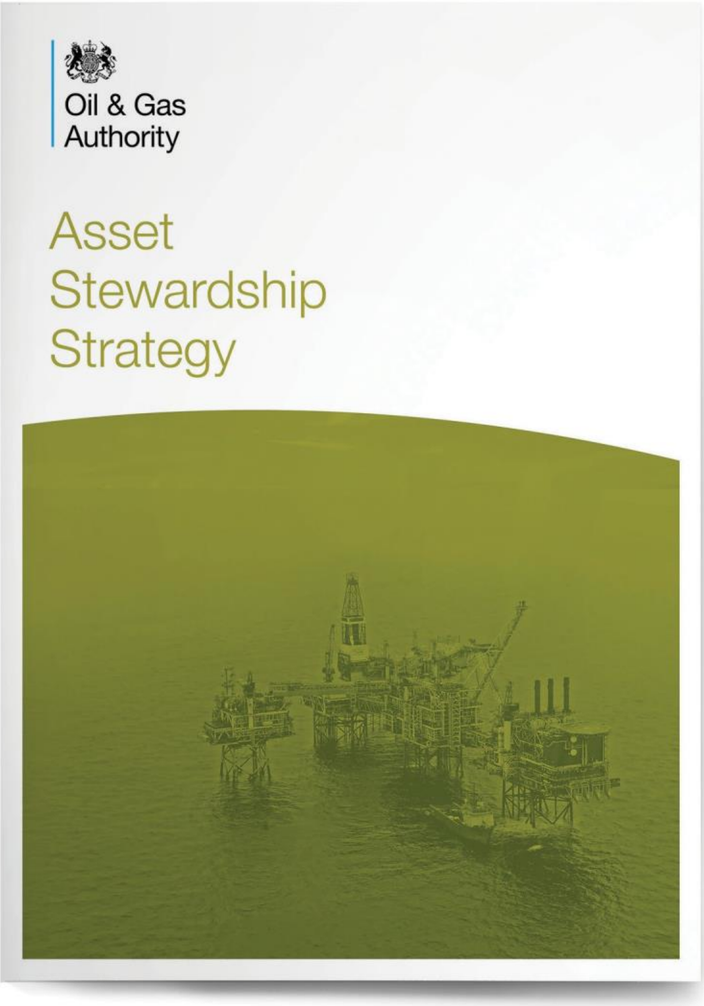



## Benchmarking

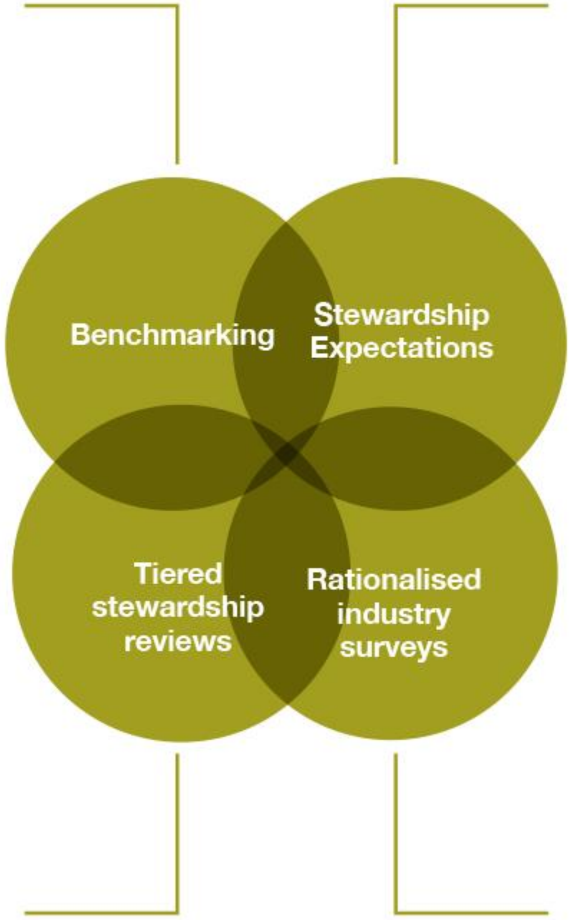
Benchmarking assets for:

- 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, which, if followed, are intended to help facilitate the delivery of the MER UK Strategy obligations




## Stewardship reviews

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

Priority given to the greatest MER UK impact

## Rationalised industry survey

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

**Asset Stewardship Expectations key tool to monitor and improve performance**

# Benchmarking

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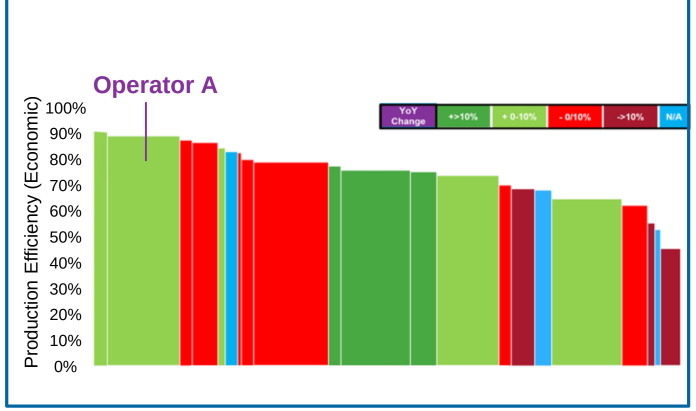
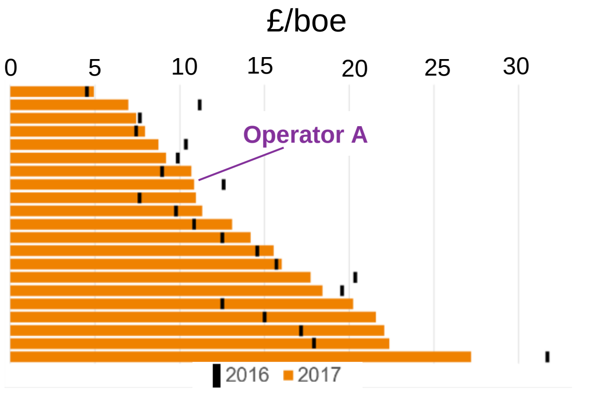
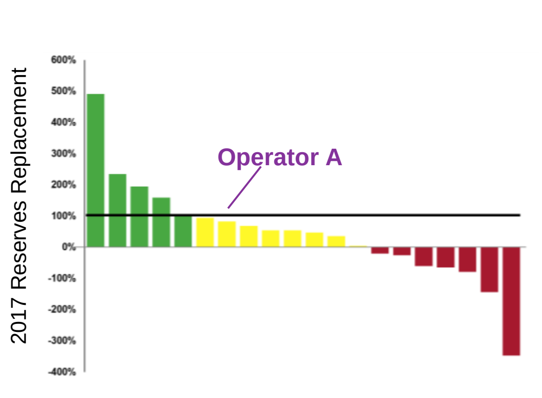
## Production Efficiency (PE)



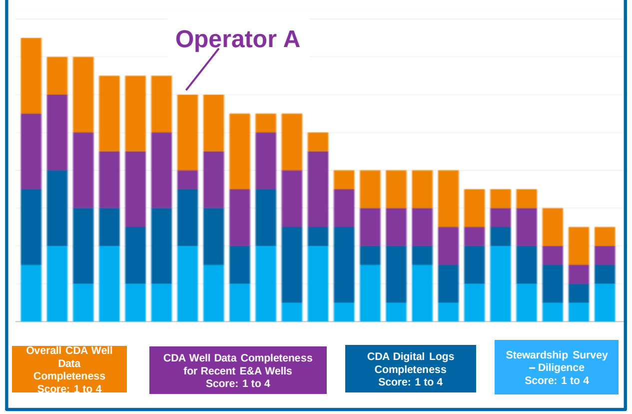

## Unit Operating Cost (UOC)



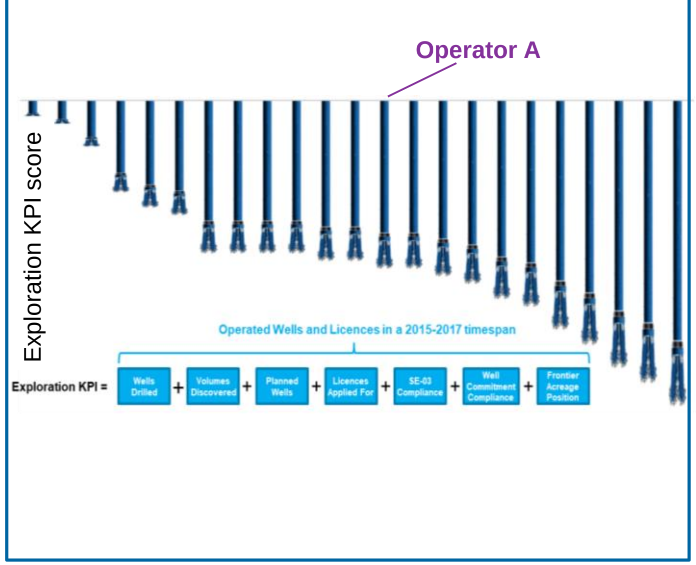

## Reserves Replacement



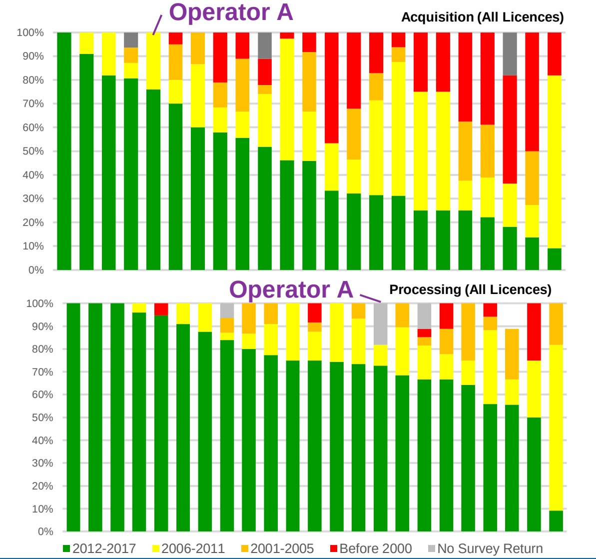

## Wells Data Cleansing



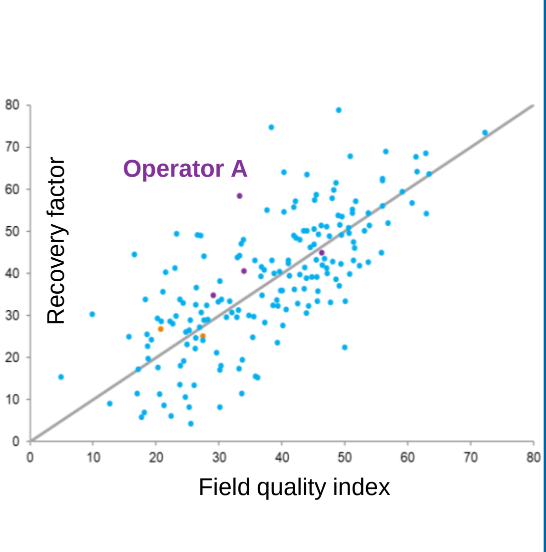

## Exploration Performance



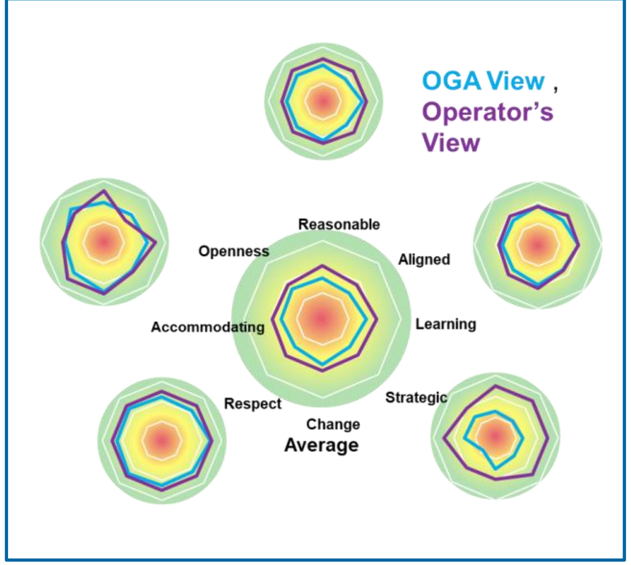

## Seismic Compliance




## Field Recovery Factor




## Collaboration




**OGA now benchmarks 18 different metrics with 69 sub elements**

# Area plans

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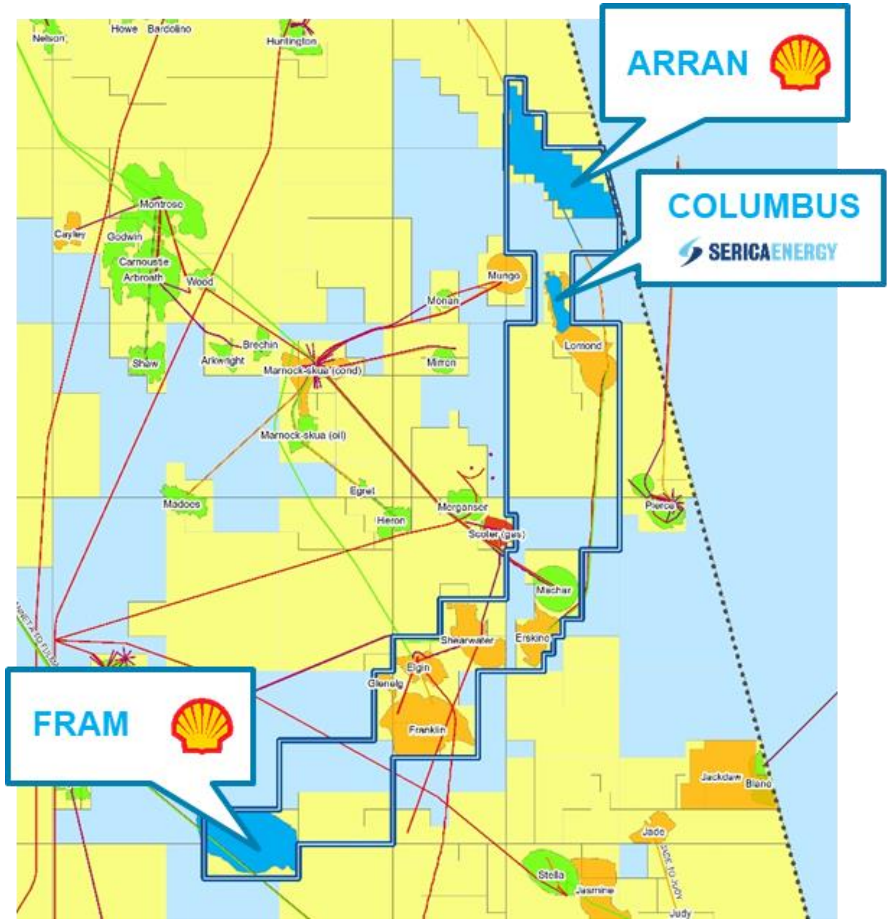


**Fram, Arran & Columbus part of Central Graben area plan delivering an additional 62mmboe**

# Technology

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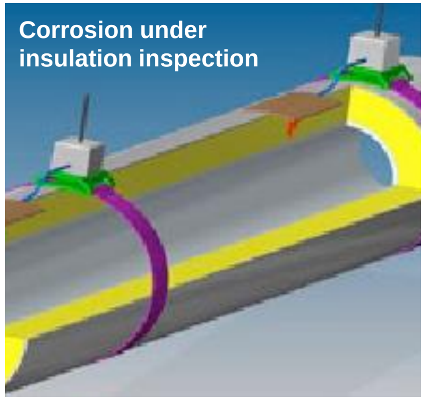
## Existing assets


Inspection drones


Thermite P&A


Corrosion under insulation inspection

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**£180m**

government funding

The Oil & Gas Technology Centre

Your Innovation Partner

## New developments

### Tie back of the future

- System simplification
- Plug-n-play
- Re-usable

### Innovative standalone facilities

- Low Capex / Low Opex
- Re-deployable (multi-use)

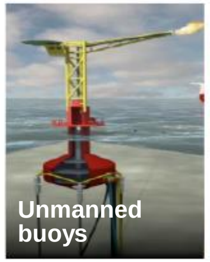

Mechanical connectors

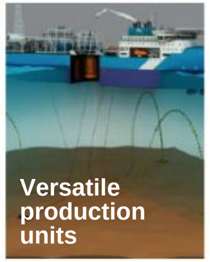

Composite spoolable


Low cost, reusable platforms


Subsea Chemical injection


Subsea power generation


Unmanned buoys


Versatile production units

**MER UK needs to adopt best-in-class, innovative technologies**

# Information Management

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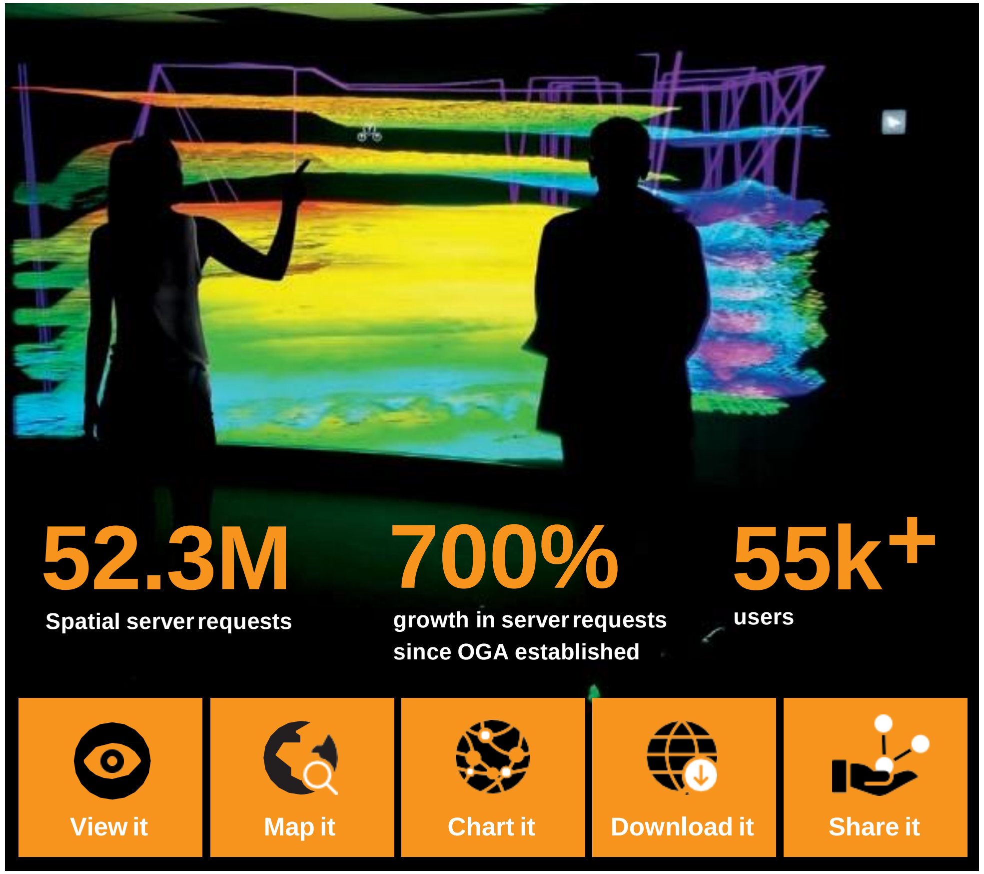


## National Data Repository (NDR)

Launches early 2019

Backed by industry, supported by regulations

Will enhance collaboration and preserve data as a strategic national asset

Huge value from access to timely, transparent petroleum data

Will create the conditions to drive data driven investment, analysis and technologies such as AI and machine learning

**OGA provides access to comprehensive, high quality data to be used in an innovative way**

# Revitalizing exploration

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**Lots to play for:**

| 10-20bnboe remaining | 5.4bnboe Reserves (2P) | 7.5bnboe Resources (2C) | 4.1bnboe Prospective (mapped leads/prospects) | 11.1bnboe (mean) Prospective resources (no mapped leads) |
|---|---|---|---|---|

## 30th round

### Mature regions

- 229 blocks
- 9 3D seismic commitments
- 8 8 firm well commitments
- 61 companies
- 14 Licences straight to second term (development) 14
- 123 licences

**Supported by openly available:**

Data packs on undeveloped discoveries and technical montages

- Impressive **diversity of applicants**
- **New plays, new prospects,** expect activity soon
- Encouraging for **unlocking small pools**

## 31st round

### High-impact frontier regions

**1779** blocks
**370,000** km²
of open acreage across:

West of Scotland
East Shetland Platform
Mid North Sea High
South West Britain
Parts of the English Channel

**Supported by openly available:**

- New and reprocessed government-funded seismic
- Datasets, analyses and reports
- Regional geological maps

Acreage available which has **not been explored in 15-20 years**

Supplementing Round Q1 2019 for Great Buchan Area Plan targeting **extra 300MMboe**

## 32nd round

### Mature regions

£5mm UK Government funding for rock physics analysis and a petroleum systems database

### Proposed Future Licensing Plan

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| 31st | Frontier Areas | | | |
| 32nd | | Mature Areas | | |
| 33rd | | | Frontier Areas | |

Annual rounds alternating between frontier and mature areas

**Significant changes to licensing round approach and availability of data but well count too low**

# Well activity

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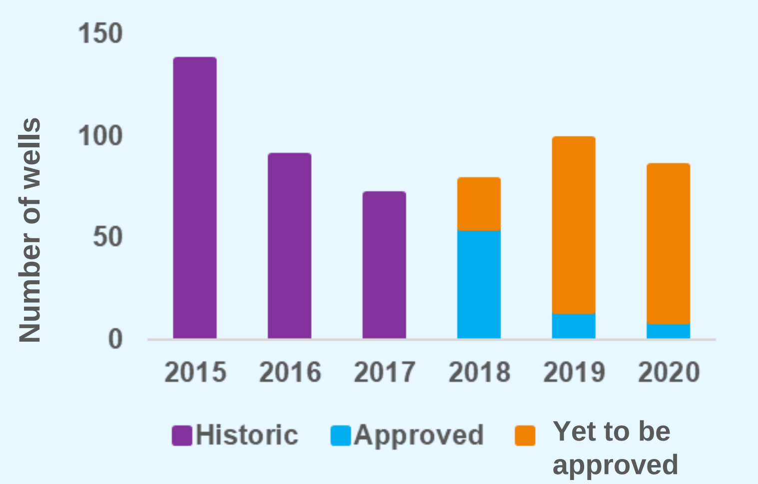
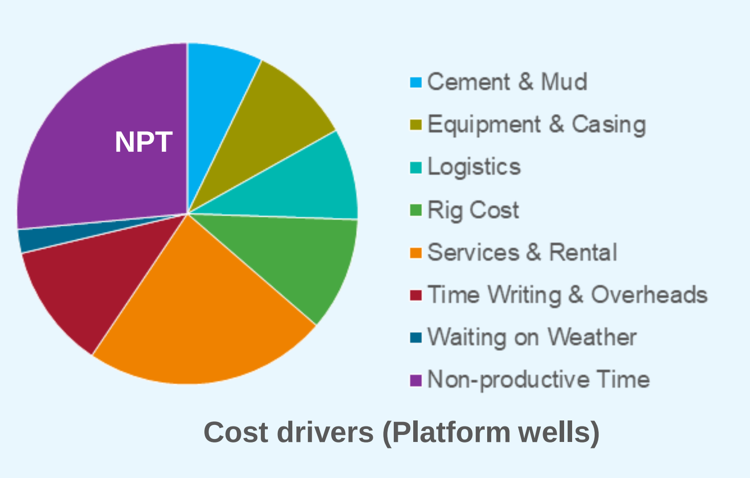
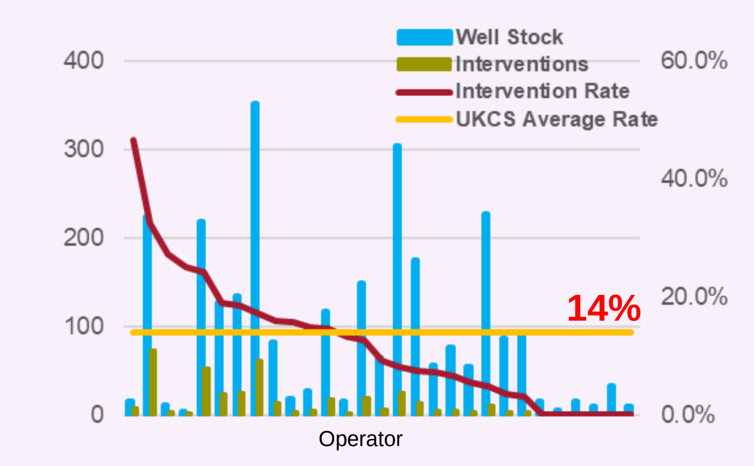
## Development well outlook



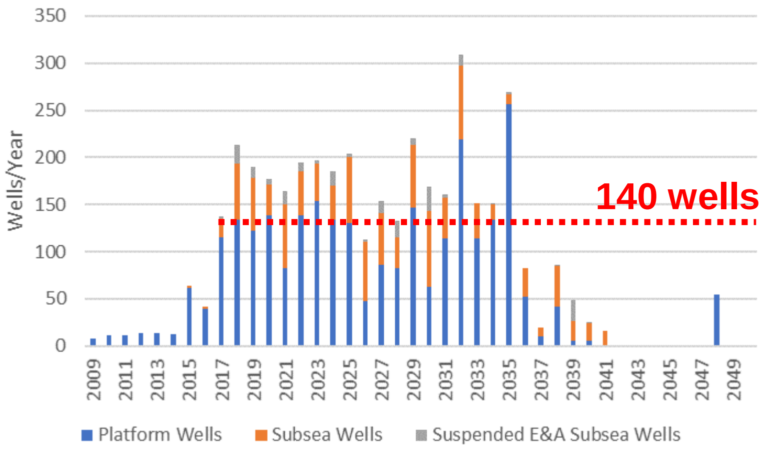

## Efficiency improvements required




## Intervention rate




## Annual well abandonment




**Need for additional cost effective new wells, improved base management & P&A planning**

# Conclusions

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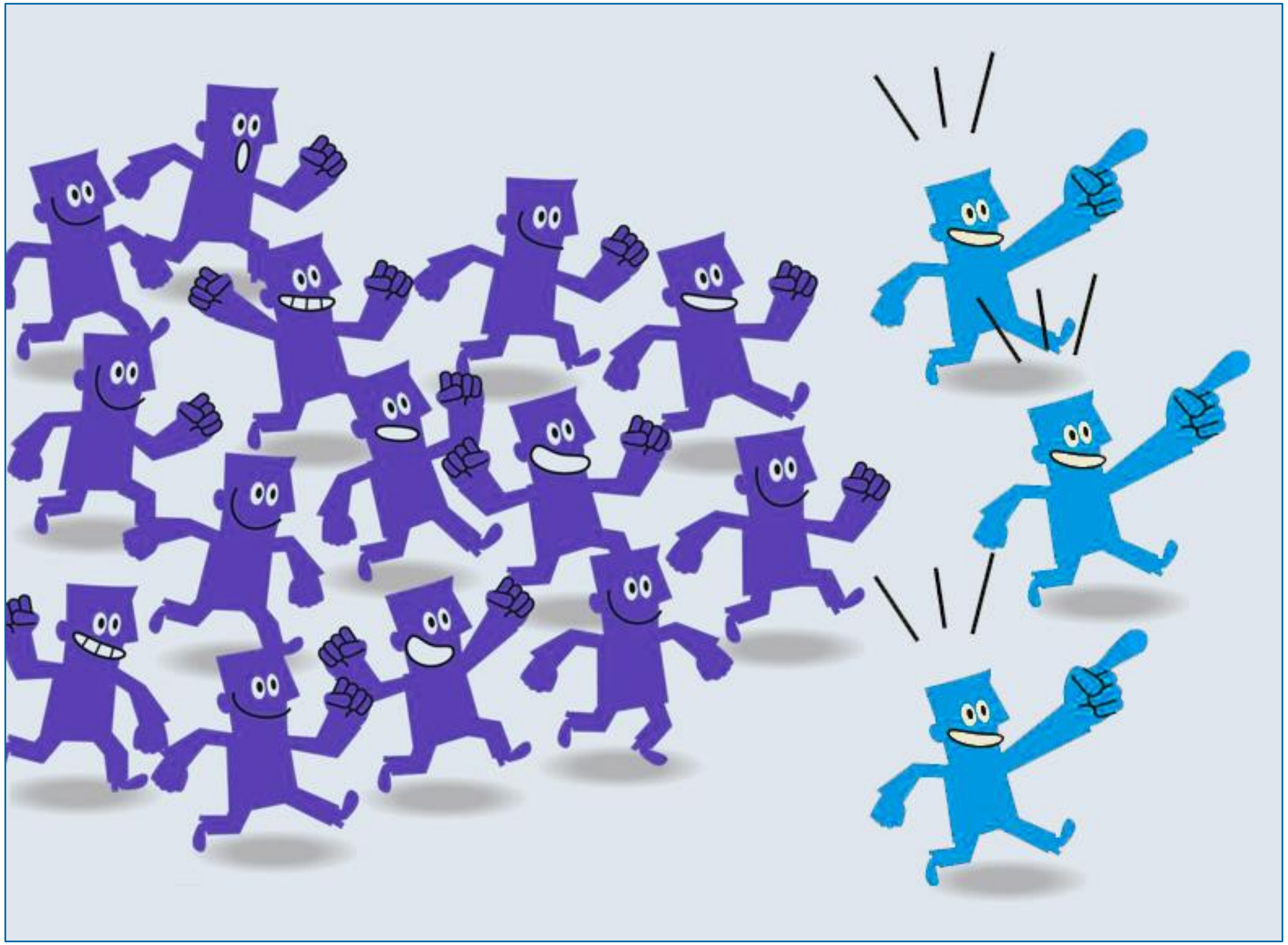
Huge value added through tripartite approach

Significant improvement in industry performance

Investor confidence in UKCS as a sector which generates value

Industry needs to invest in more drilling and well management



**Collaborative and focussed leadership is vital for success**