

UKCS Mature or Frontier Basin

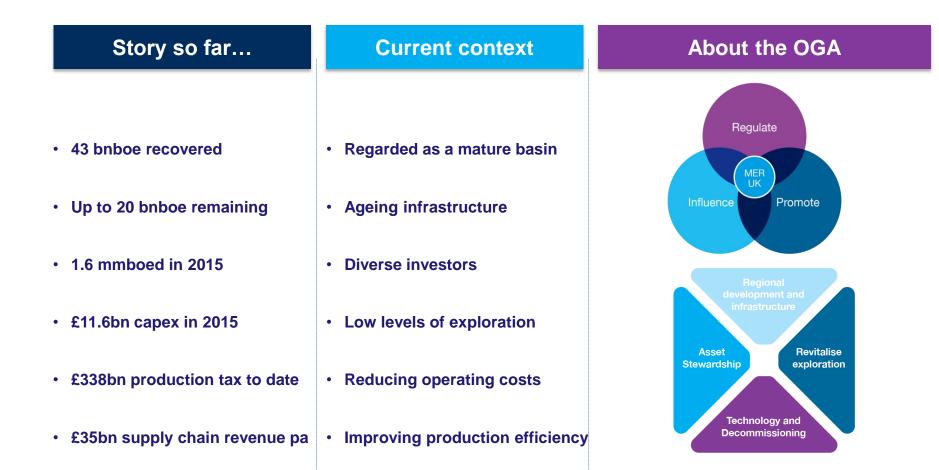
Gunther Newcombe Director

Exploration & Production

APPEX March 2016

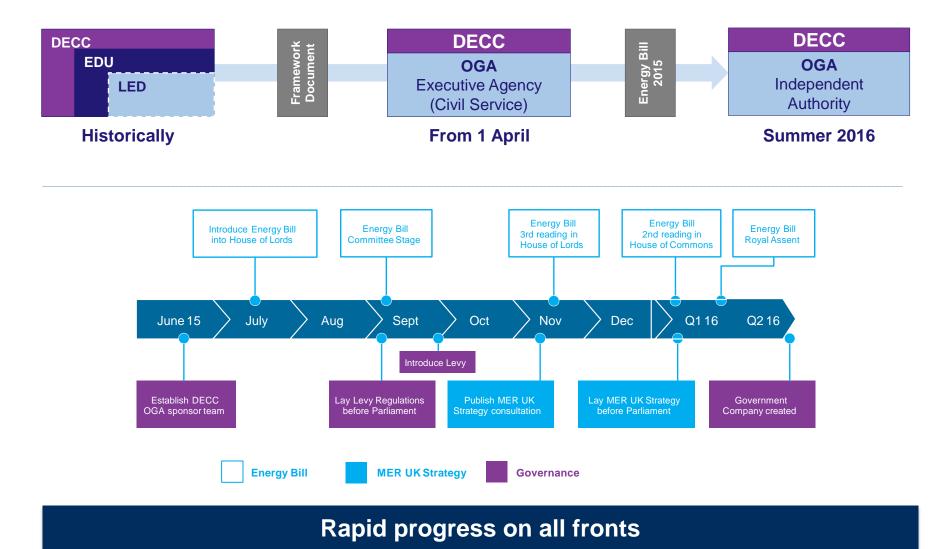


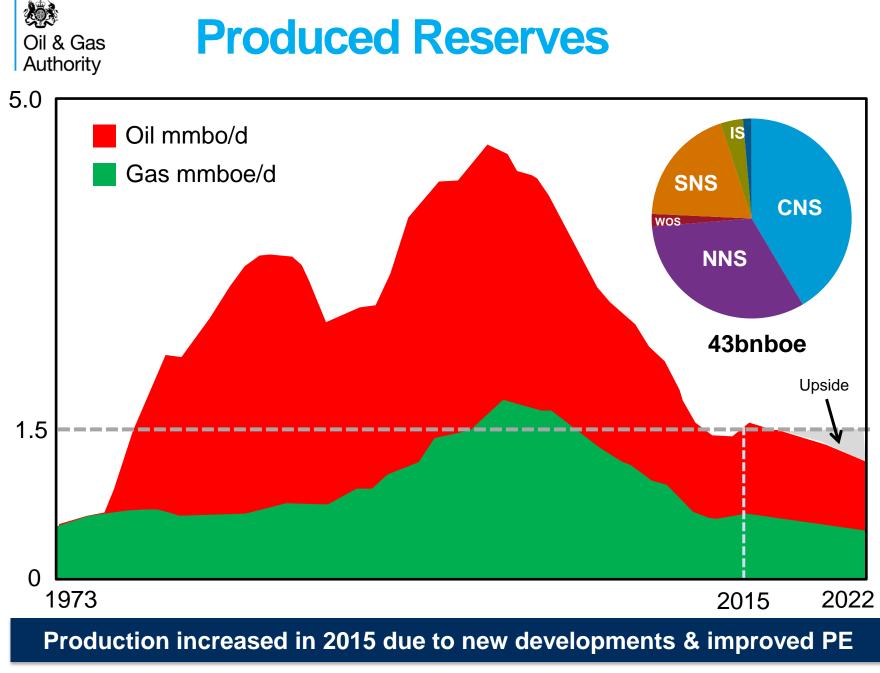




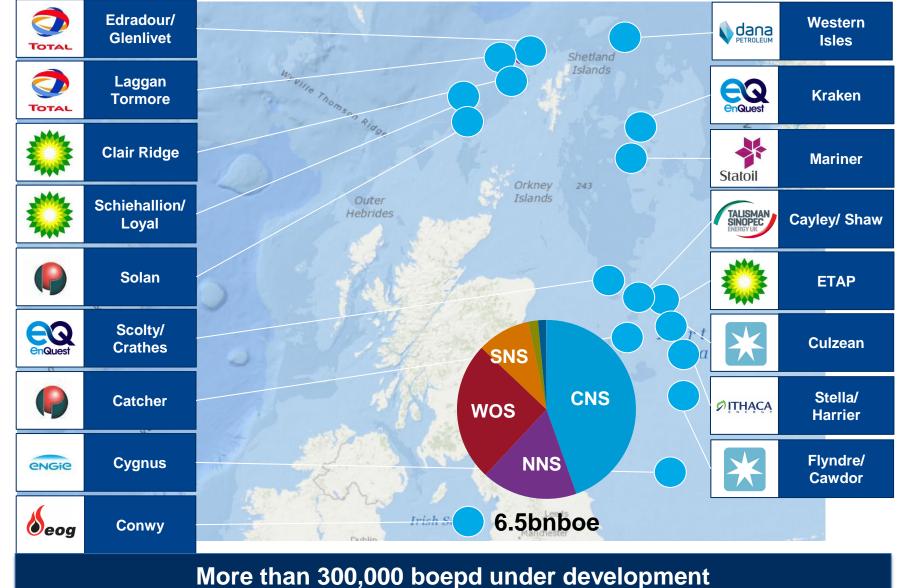
OGA focus is strategic and prioritized to MERUK







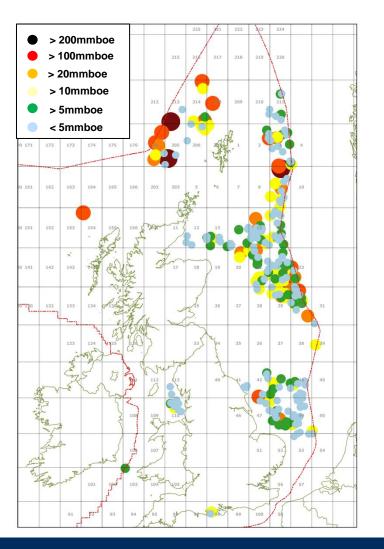
Developed & Sanctioned Reserves Authority



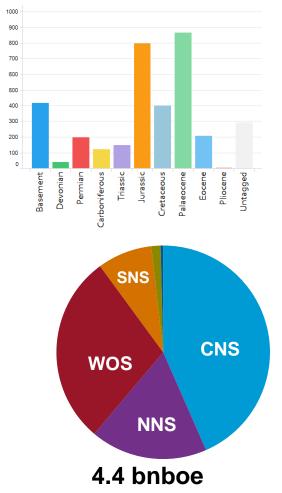
OGA Data Base



Unsanctioned Resources



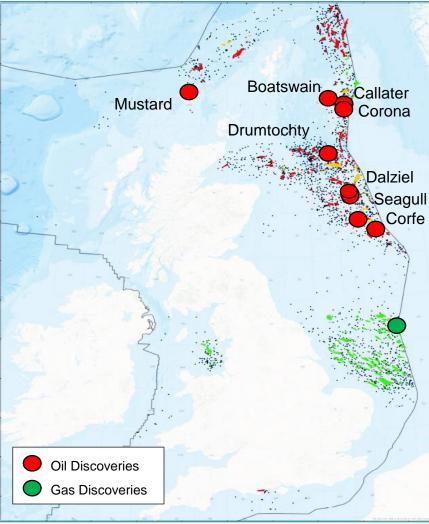
Fairway Undeveloped Resources (mmboe)

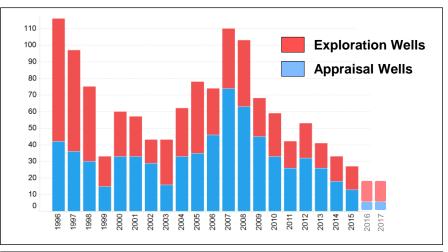


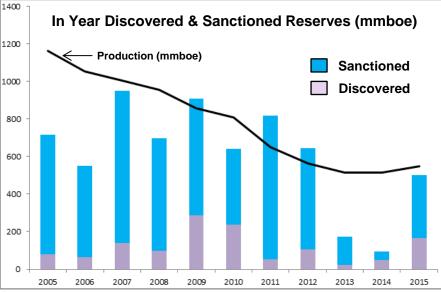
Over 300 discoveries with potential of over 4 billion boe



UKCS 2015 Discoveries

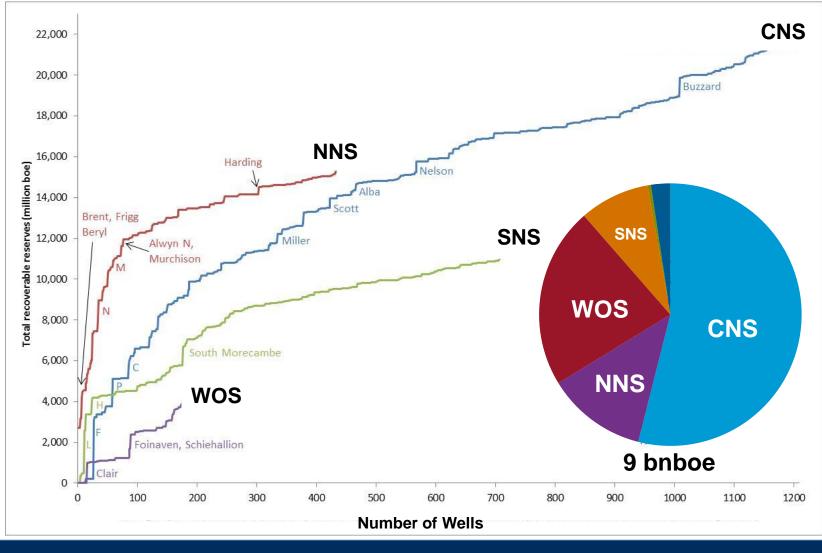






Technical Success Rate 60% with \$6/boe finding cost

Mature Yet-to-Find



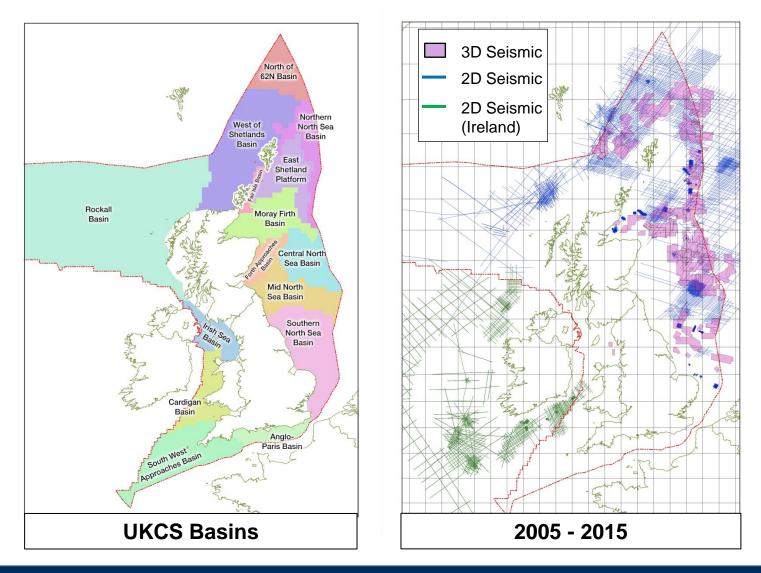
Significant additional potential in mature areas

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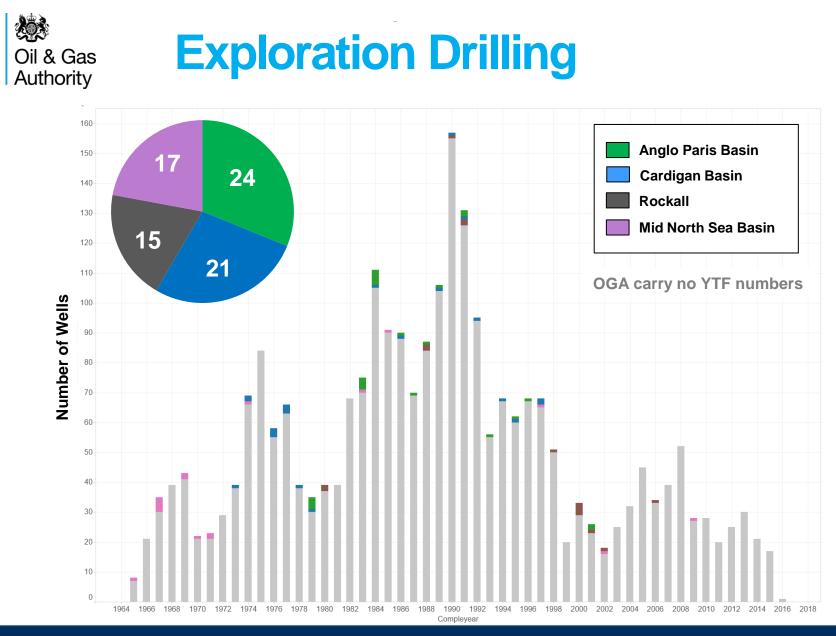
Oil & Gas Authority



Recent Seismic Acquisition



Limited frontier seismic acquisition in UKCS



Limited drilling in frontier areas especially last 10 years



OGA Exploration Plan

Initiative	Action	Timing
Promote & Incentivize	Work with industry & government to promote & incentivize frontier & mature areas in UKCS	1H16
Exploration Board	Establish a MERUK Exploration Board with clear priorities and action plan	1H16
Exploration Strategy	Work with Exploration Board to develop and issue an exploration strategy	1H16
Seismic	Undertake 2015 & 2016 government sponsored programs release data, set up £1m competition & implement £0.7m 3D Visualization Centre	1H16
Offshore Licensing	Develop a flexible licensing strategy & launch 29th Round Ensure licence management is fit-for-purpose for all licence holders including Promote companies	2Q16
Well Analysis	Share lessons learnt with industry & introduce a process of rigorous post-drill evaluation with operators	2Q16
Prospect Inventory	Undertake pre-drill technical evaluation and work with companies prospect inventories to stimulate drilling	1H16
Regional Studies	Promote regional studies, working with industry & academia to improve geological understanding of UKCS frontier and mature areas	2Q16
Geological Maps	Provide high quality geology maps such as fairway maps integrating with neighbouring countries including Norway	4Q18
Yet-to-find (YTF)	Deliver significantly improved regional prosepctivity and YTF analysis	4Q18

Discuss further

Target to double E & A well count by end 2020



MER UK Boards

Purpose	Deliver tangible benefits in support of MER UK					
Objectives	 Developing strategic approach & 5 year plans Deliver tangible and quantifiable results Tripartite approach with industry, regulator & government 					
MER UK Boards	Asset Stewardship	Regional Development & infrastructure	Cost & Efficiency			
	Technology	Decommissioning	Supply chain, exports & skills			
	Exploration	Licensing Strat	ic Group Shoots			

MERUK Meetings with Government, Industry & Regulator 3 x per year

Government Funded Exploration

2015 UK Government £20m funded seismic

Oil & Gas Authority



- 40,000km new & legacy data
- Rockall Trough & Mid-North Sea High
- Data freely available end Q1 2016
- 29th 'Frontier' Licensing Round in 2016

2015 & 2016 Seismic Acquisition Programs

• £40m UK government funding seeking to promote underexplored areas of UKCS

OGA Competition to Define Potential

• £1m prize money shared between 2015 & 2016 for best project and interpretation

New World-Class Visualization Facility

• £700,000 funding Lyell Centre in Edinburgh which is a JV between BGS and Herriot Watt University

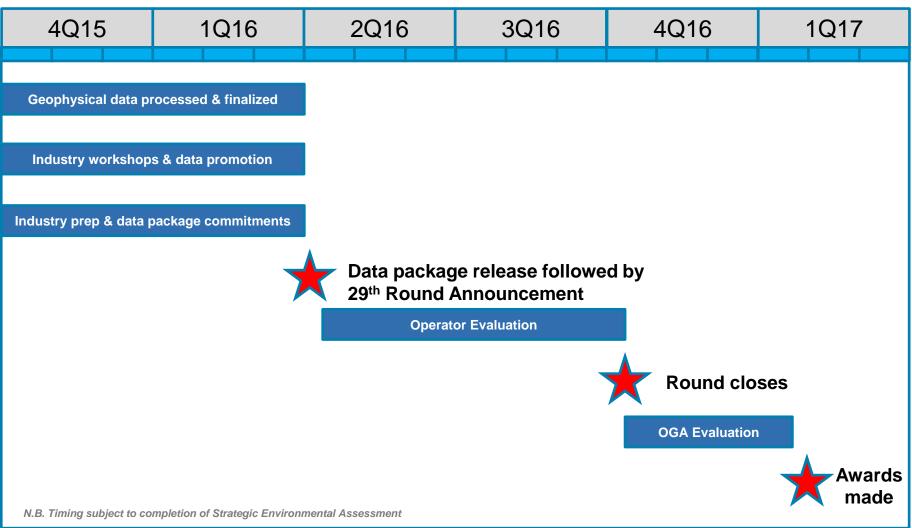
Post-Doctoral Appointments

• £500,000 for two post-doctoral appointments in geoscience and reservoir engineering

Over £40m government funding in last 2 years plus support to academia

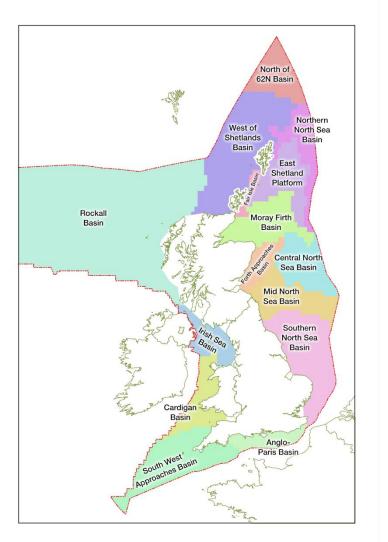


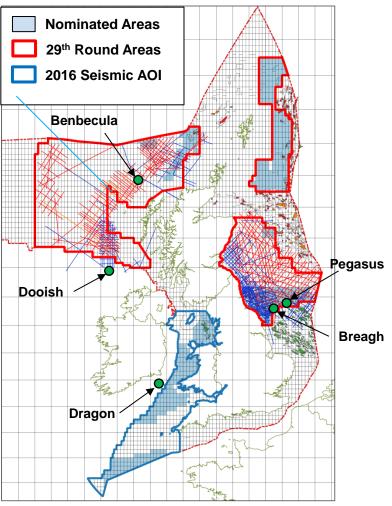
29th Licensing Round



29th Round will focus on under-explored areas

Oil & Gas Authority 2016 License Areas & Seismic





Subject to completion of Strategic Environmental Assessment

Focus on under-explored frontier areas with additional scope 2016 seismic



Current Licence Types

Licence Type	Traditional	Promote	Frontier	Frontier	7
Exploration (First Term)	4 years	4 years	6 years	9 years	
Development (Second Term)	4 years	4 years	6 years	6 years	
Production (Third Term)	18 years	18 years	18 years	18 years	6
Area (SEA)	Any	2,3,5 & 6	1, 4, 6 West, 7, 8 West	SEA 7 west of 7° W	Strategic Environmental A

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Exploration Licence Issues

- Complex area distribution with unclear definitions e.g. Frontier v Promote
- Promote licences limited time available to secure funding
- Licence requires Appropriate Assessment (AA) can result in award delay

Diverse industry task group established to develop new approach



Period up to a maximum of 9 years



* AA in some areas

Innovative Exploration Licence Advantages

- Applies to any offshore area with licence & phase duration determined by bidder
- 10 blocks with each Innovate Exploration License & maximum 4 licences per round
- Updated scoring system take into account new licence framework & collaboration

Innovate exploration license offers a flexible & pragmatic approach





- OGA working closely with Industry & Government to revitalize exploration
- Considerable potential remains in both mature and frontier areas of UKCS North Sea
- Government seismic programme & associated studies aimed at unlocking frontier potential
- Challenge on industry to increase seismic coverage & exploration drilling in UKCS

The UKCS North Sea has both mature and frontier potential