



Oil & Gas
Authority

MER UK Forum and Boards

Andy Samuel

MER UK Forum, 17 December 2015



MER UK Forum

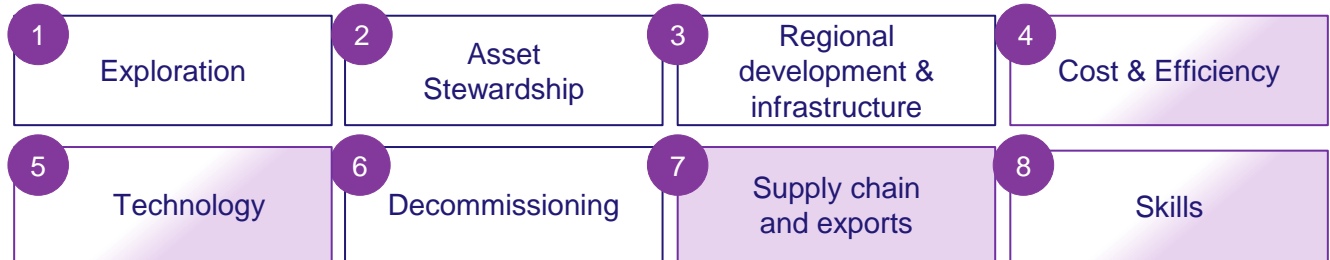
Purpose

Deliver tangible benefits in support of MER UK and maximise UK value from the oil and gas industry as a whole

Objectives

1. To promote dialogue between government, industry and OGA
2. To provide strategic direction, oversight, and support
3. To drive alignment, accountability, action and delivery on key priorities

Core work areas



Strategy & Plans

Principles

1. Each core work area has executive-level leadership from industry
2. Each core work area has a five-year plan
3. Each core work area has a maximum of three key priorities each year
4. The Oil & Gas MER UK Forum will therefore drive a maximum of 24 key priorities
5. Each key priority driven to completion before adding another

Reporting

The Oil & Gas MER UK Forum will produce an annual progress report

Frequency

3 x 2-hour meetings pa

Secretariat

OGA external affairs team

Oil & Gas Industry Council

Integration of PILOT and Oil and Gas Industry Council



MER UK Boards

Purpose

Deliver tangible benefits in support of MER UK and maximise UK value from the oil and gas industry as a whole

Objectives

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

MER UK Boards

<p>1</p> <p>Exploration</p> <p>Phil Kirk, Chrysaor</p> <p>Gunther Newcombe</p> <p>Previously Exploration Task Force</p>	<p>2</p> <p>Asset Stewardship</p> <p>Ray Riddoch, Nexen</p> <p>Gunther Newcombe</p> <p>Building on Production Efficiency Task Force</p>	<p>3</p> <p>Regional development & infrastructure</p> <p>Paul Goodfellow, Shell</p> <p>Gunther Newcombe</p> <p>Newly created to build on rejuvenation groups</p>	<p>4</p> <p>Cost & Efficiency</p> <p>John Pearson, AMEC FW</p> <p>Stephen Marcos-Jones</p> <p>OGUK Efficiency Task Force</p>
<p>5</p> <p>Technology</p> <p>Paul White, GE</p> <p>Angela Seeney</p> <p>Technology Leadership Board</p>	<p>6</p> <p>Decommissioning</p> <p>Colette Cohen, Centrica</p> <p>Angela Seeney</p> <p>Previously Decom Task Force</p>	<p>7</p> <p>Supply chain & exports</p> <p>Neil Sims, Expro Group</p> <p>Angela Seeney</p> <p>Previously in Oil & Gas Industry Council</p>	<p>8</p> <p>Skills</p> <p>Mike Horgan</p> <p>John McDonald</p> <p>OPITO Board</p>

Frequency

Quarterly

Support

OGA / OGUK / OPITO

■ Industry lead □ Support lead

Prioritisation and focus will be essential



Implementation

Establishing Boards

- One page summary terms of reference created (pre-read)
- Industry and OGA / OGUK leads appointed
- Initial meetings have taken place and will be quarterly during 2016

Agreeing priorities

- Each Board has developed draft priorities
- Important to keep focus and avoid overlaps
- Session with Board leads on 20 January to review priorities and integration

Communication

- Significant opportunity to leverage cross-working between Boards
- Communication across Boards and to wider stakeholders is vital
- OGA / OGUK developing communication plan

Priorities, structure and membership will be reviewed periodically



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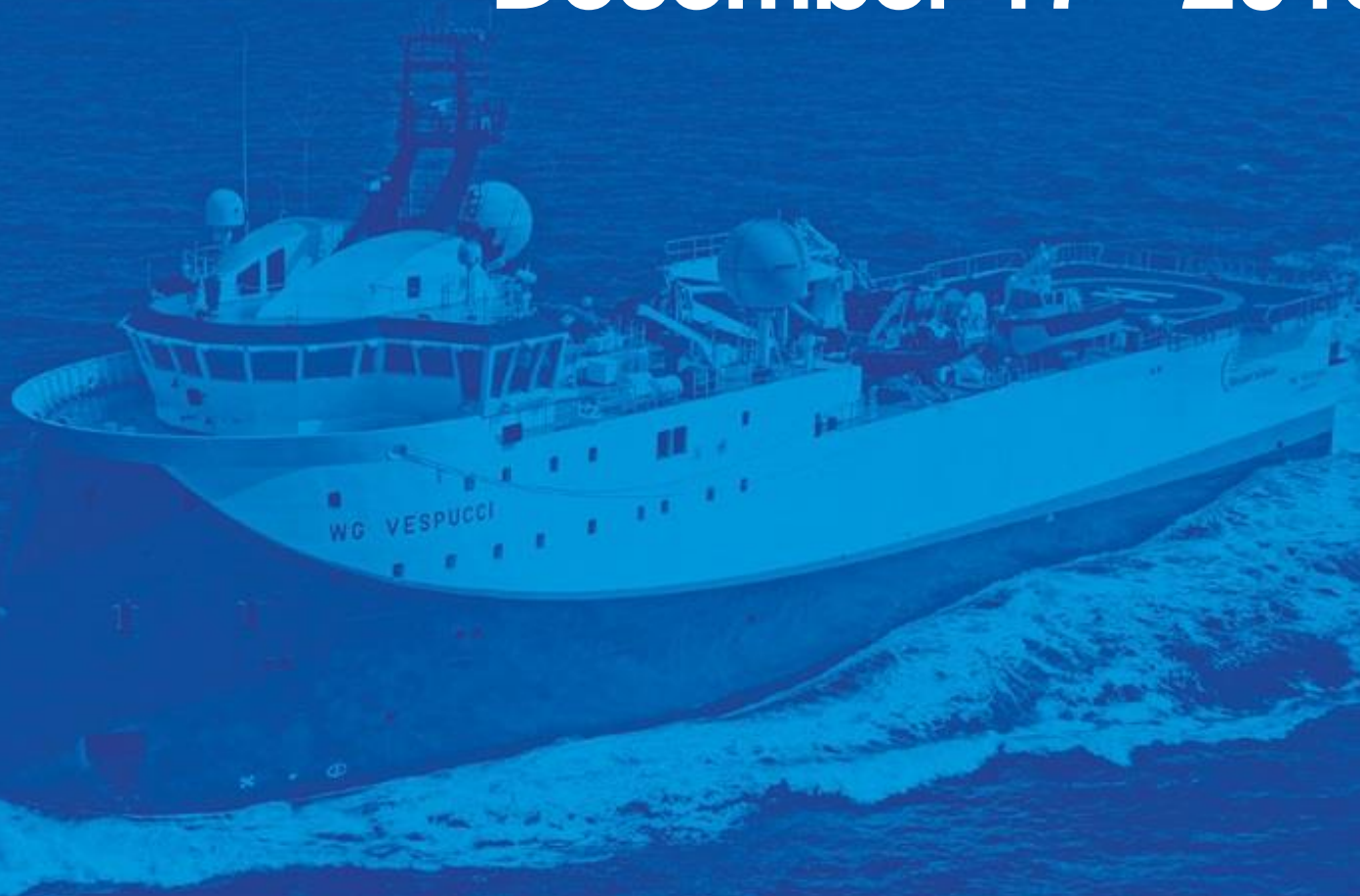
MER UK Boards

December 2015



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Exploration Review MERUK Oil & Gas Day December 17th 2015



Gunther Newcombe (OGA) & Phil Kirk (Chrysaor)



Exploration Board Summary

Purpose

To revitalise exploration in the UKCS in order to add reserves to replace production and secure longevity of the North Sea

Draft priorities

- 1. Revitalise exploration:** Promote exploration and incentivise investment
- 2. Technical understanding:** Improve technical understanding of the UKCS potential and undertake successful exploration campaigns
- 3. Licensing:** Optimise licensing terms and conditions to maximise frontier and mature potential

Industry lead

Phil Kirk (Chrysaor)

Support lead

Gunther Newcombe (OGA)

Members

Ron Roberts (Apache)
Chuck Guderjahn (BP)
Jon Parry (DONG)

Ruud Zoon (GDF)
Roberto Cerro (ENI)
Oonagh Werngren (OGUK)

Tom Dreyer (Statoil)
Kaj Hemmes (Shell)

Key relationships

- MERUK boards, especially RDI & TB
- North & Irish Sea Regulatory Bodies & IAGC

Funding and resources

- OGA support funded from OGA Levy
- Members support manpower and incidental costs from own budgets

Progress update

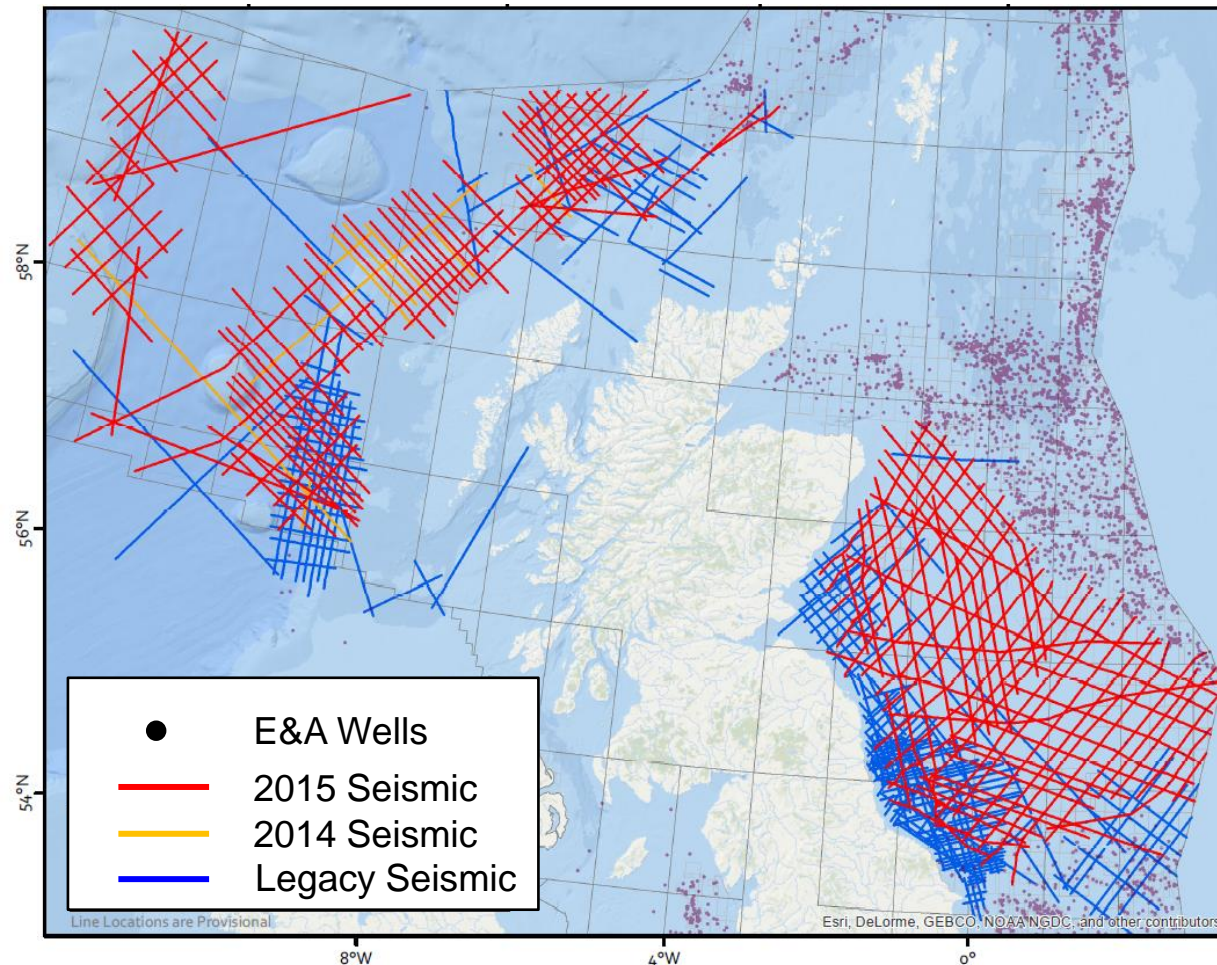
- First Board Meeting on 1 December
- Licensing strategy task group set up to deliver frontier approach 1Q16 (Nick Richardson OGA)
- Seismic Industry Group data acquisition task group being formed (Kaj Hemmes & Tom Dreyer)
- Investment incentives framework being developed post HMT workstream (Phil Kirk & Ron Roberts)

Risks / interdependencies

- Strong linkage with other core work boards & groups are required
- Exploration is undertaken by many different companies ranging from multi-nationals to promote companies and their approach to exploration will vary as will solutions to incentivise exploration
- Managing expectation of a short-term fix, revitalisation will be a gradual process



Government Funded Seismic



UK Government-funded seismic

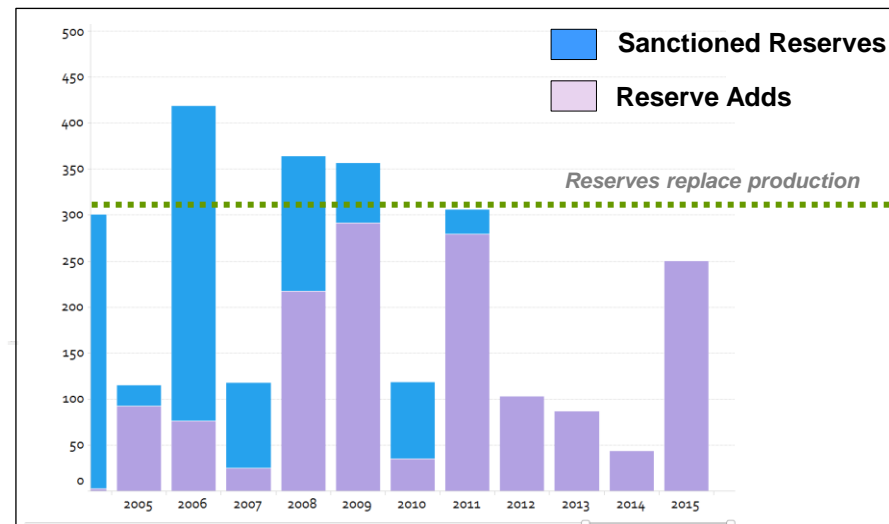
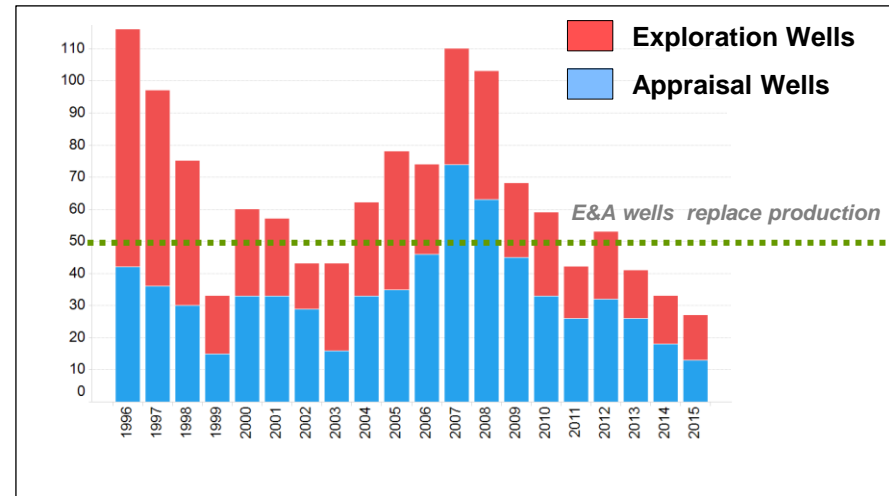
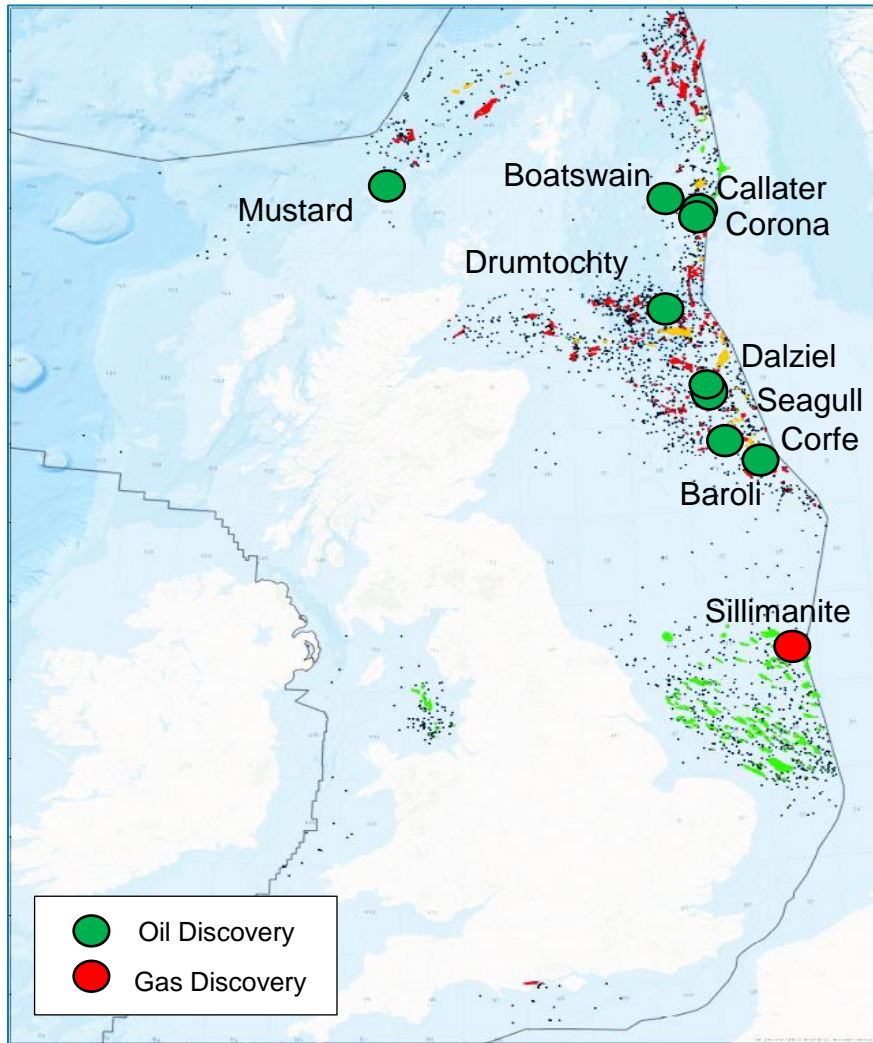
- £20m government funding
- 40,000km of new and legacy data
- Rockall Trough & Mid-North Sea High
- Total area 220,000km²
- Data freely available early 2016
- 12 months from financing to delivery
- 29th 'Frontier' Licensing Round 2016



High quality seismic data available for 29th Round



UKCS 2015 Discoveries



2015 numbers provisional

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

Exploration Board Initiatives

- **Licensing Strategy**
 - Develop a framework for future frontier and exploration rounds
- **Seismic Acquisition**
 - Promote group seismic programmes to improve prospect evaluation
- **Regulatory Optimization**
 - OGA work with EDU & HSE to optimize and streamline regulations
- **Explore investment incentives**
 - Build on ideas and outputs from HMT Exploration workstream

OGA and industry working together to revitalize exploration



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Decommissioning

MER UK Forum

December 17th 2015



Decommissioning Board Summary

Purpose/Vision

Establish a respected, stable & sustainable decommissioning industry, effectively minimising costs & maximising economic recovery through collaboration and fit for purpose lifecycle planning, policies, solutions and execution.

Draft Priorities

- 1. Cost reduction:** Deliver a >35% cost reduction through campaigns and by working with the Technology Board on new solutions
- 2. Policy and stakeholders:** Enhance understanding of current policies, legislation, related guidance and derogations and deliver effective stakeholder management
- 3. Supply Chain:** Understand supply-demand requirement creating capability, cost effective solutions and partnership models between operators and contractors

Industry lead

Colette Cohen

OGA lead

Angela Seeney

Members

Shell - Paul Goodfellow
BP - Win Thornton
Talisman - Bill Dunnet
Conoco Phillips - Dominic Macklon
Perenco - Brian James

AMECFW - Craig Shanaghey
Halliburton - Matt Betts
WG - James Crawford
Awilco - Jon-Oliver Bryce
Petrofac - Walter Thain

Plus representatives from DECC,
BIS, SE, UKTI NERC
OGUK - Mike Borwell,
DNS - Karen Seath

Key relationships

- MER UK Boards especially Technology and RD&I Boards
- HMT Workstreams Late Life Entrants and related Decommissioning constraints
- Supply Chain – building the decom market

Progress update

- 1st board meeting held on December 4th ; agreed ToR and key themes
- Agreed to build task work groups for priorities with executive leads by end of Jan 2016
- HMT Review is examining potential technical reforms to unlock M&A as well as cost reductions
- Agreed to develop a Decommissioning Strategy 1Q 2016 and publish it 2Q 2016 (OGA to lead)

Funding and resources

- OGA support funded from OGA Levy
- Others support own manpower and incidental costs

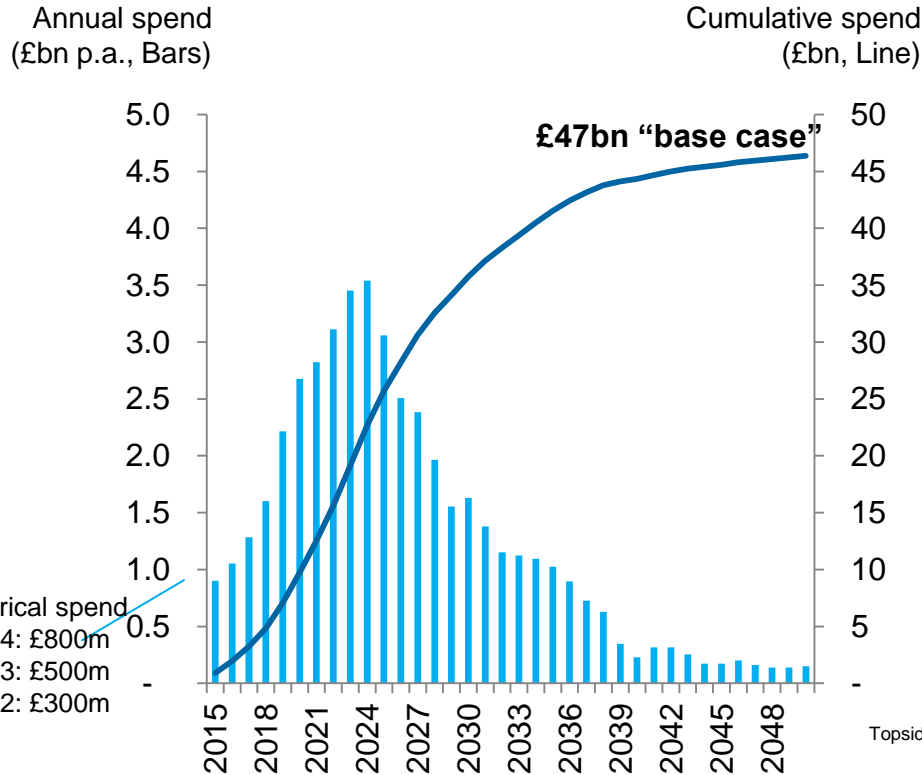
Risks / interdependencies

- Decommissioning accelerates and costs escalate and undermines MER
- Stable, sustainable Supply Chain market does not develop. New solutions not developed.
- Collaboration becomes anti-competitive



Projected Decommissioning Costs

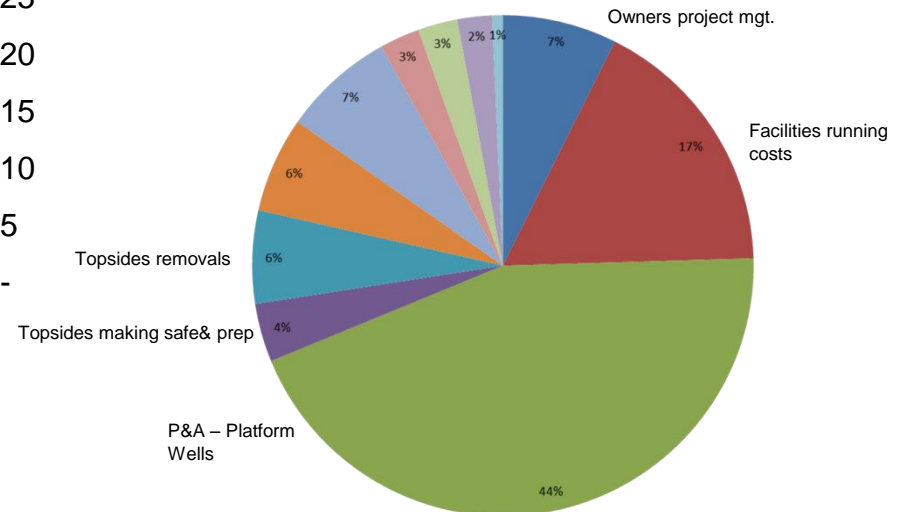
Annual & Cumulative cost estimate



Factors influencing timeline

Acceleration	<ul style="list-style-type: none"> • Drop in oil price • Integrity & maintenance issues • Opex escalation • UKCS lack of competitiveness & risks
Delays	<ul style="list-style-type: none"> • Rebound in oil price • Late life extensions • High decommissioning costs • Insufficient capital v liabilities

Factors influencing cost build up



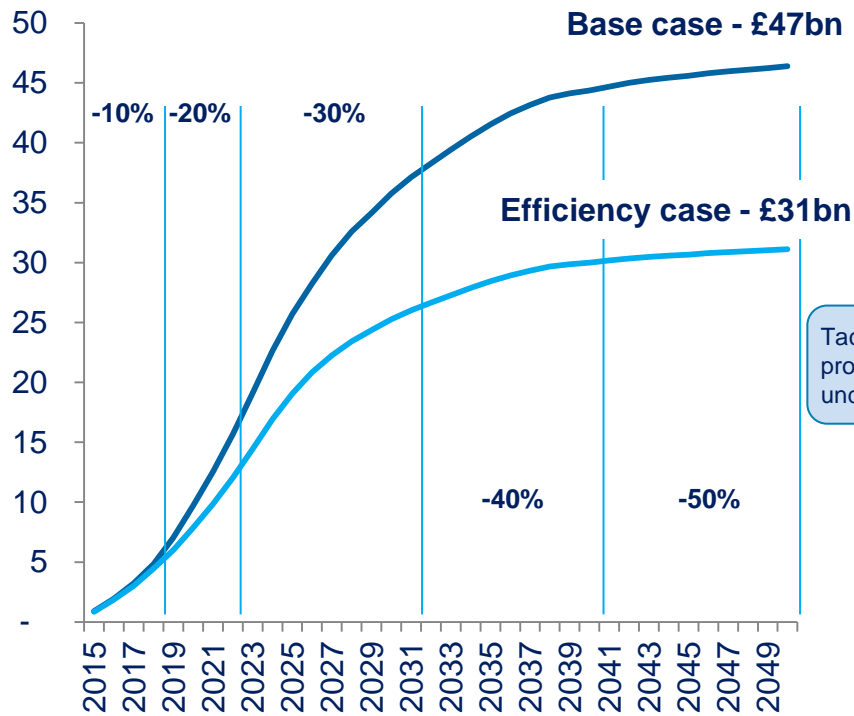
Sources: OGED/OGA spend model 2015 £bn, 2015 money
Field Cessation of Production dates are subject to change

Risk of creating an inflationary "hot spot" as decommissioning increases



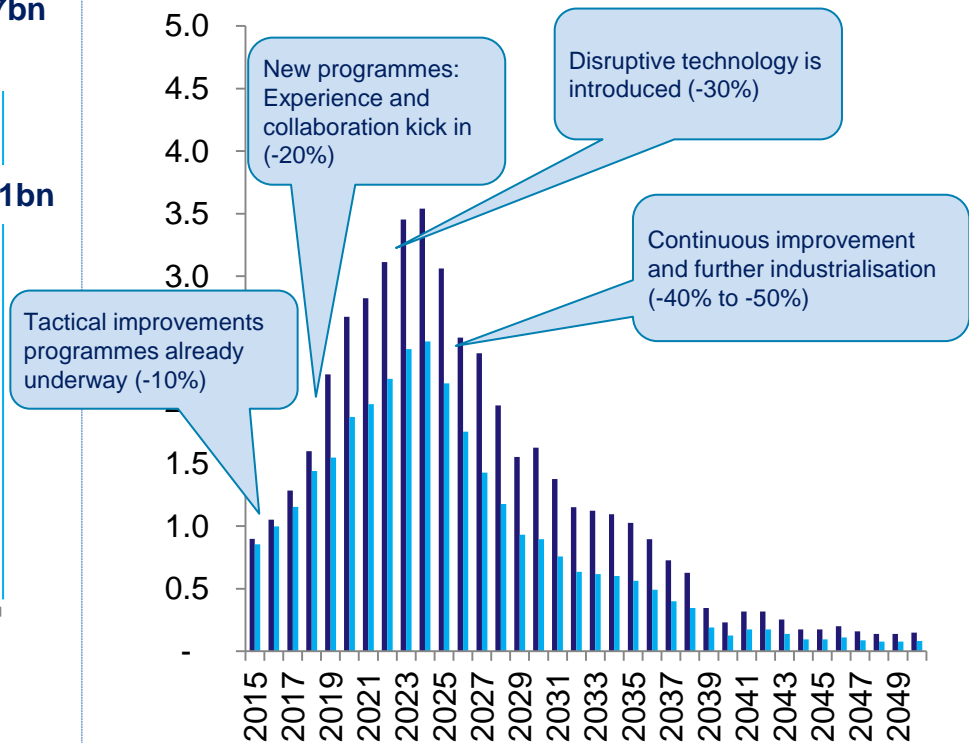
Decommissioning costs & efficiencies

Cumulative spend to 2050



(£bn, 2015 money)

Annual spend estimate (2015-50)



(£bn, 2015 money)

Targeting 40% reduction in overall cost



2016-18 Board Themes & Activities

Cost Efficiency

- Develop a transparent overview of industry decom plans and costs
- The Grand Challenges: Identify
 - the key drivers for cost in Decommissioning and a plan to unlock
 - technology demand vision as input to TLB and champion the development and deployment
- Identify cost-effective, compliant approaches to P&A wells, & decommission infrastructure/facilities
- Bring global/local best practice to UKCS Industry from O&G and other industries
- Create shared industry vision of supply-demand needs, and build regional campaigns aligning with RDI Board

Policies and Stakeholders

- Broaden understanding of current policies, legislation and related guidance
- Share best practice on decommissioning plans and evidence-based derogations
- Assess potential policy impacts on costs
- Prepare review on potential OSPAR impacts and align Tri-partite positions for 2018
- Provide strategic vision to OGUK/DNS for developing industry stakeholder plans and sharing learnings.

Competitive Supply Chain

- Promote Operator/Supplier alignment & collaboration
- Provide input to Supply Chain Board on decom demand plans to:
 - build Sector and Export positions
- Support Supply Chain Board to:
 - identify low-cost supply chain decom solutions (e.g. new biz/contractual/regional models, standardised T&Cs, partnerships capturing scale benefits)
 - Stimulate and ensure:
 - viable & competitive decom supply chain market
 - supplier collaborations (Alliances, JVs, etc.)



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Cost & Efficiency

MER UK Forum

December 17th 2015



Cost Efficiency Board Summary

<p>Purpose</p>	<p>Oil & Gas UK's Efficiency Task Force is a catalyst and vehicle for pan-industry improvement in efficiency by encouraging cooperation and focusing on value adding initiatives to create a sustainable sector.</p>		
<p>Priorities</p>	<ol style="list-style-type: none"> 1. Business process: Improve everyday operations 2. Standardisation: Develop simplified approaches and standardised solutions to deliver greater value 3. Cultures, cooperation & behaviours: Change the way we work – together – to benefit the whole industry 		
<p>Industry lead</p>	<p>John Pearson, Amec Foster Wheeler</p>	<p>Support lead</p>	<p>Stephen Marcos Jones, O&GUK</p>
<p>Members</p>	<ul style="list-style-type: none"> • Colette Cohen - Centrica • Paul Goodfellow - Shell • Neil McCulloch - EnQuest • Terry Savage - Global Energy Group • Morten Kelstrup – Maersk 	<ul style="list-style-type: none"> • Irene Hannah – Shell (Inventory Management) • Jules Schoenmakers – Shell (Well P&A) • Steve Duthie – Technip (Subsea Technology) • Susan Ingram – Centrica (Valves) • Ian Davidson – Score Group (Valves) • Mark Richardson – Apache (Culture & Behaviours) 	
<p>Key relationships</p>	<ul style="list-style-type: none"> • Oil & Gas UK Board • Oil and Gas Authority 		
<p>Funding and resources</p>	<p>Wholly funded by industry through Oil & Gas UK. Resources are a combination of Oil & Gas UK Staff and volunteers from industry.</p>		
<p>Progress update</p>	<ul style="list-style-type: none"> • Development of an electronic warehouse to facilitate operators sharing inventory on track • Compression Systems Study Completed • Subsea Standardisation project on schedule • Efficiency Charter launched • Rapid Efficiency Exchange launched • Share Fair and culture and behaviours events successfully completed • Leads all identified and regular meeting schedule established since September 2015 		
<p>Risks / interdependencies</p>	<ul style="list-style-type: none"> • Pace of delivery due to reliance on industry to adopt output of initiatives • Current work streams not disruptive enough • Individual companies constrained by international standards of practice • Inability of the task force to mandate change 		



ETF Steering Group

Business Process

Compressor
Systems)

Inventory
Management

Standardisation

Well P&A

Subsea
Technology

Valves

Cooperation, Culture & Behaviours

Industry
Behaviours
Charter

Rapid
Efficiency
Exchange

Share Fair &
Events





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**Efficiency
Charter
Signed by
Board**



**Rapid
Efficiency
Exchange Live**



**Inventory
Trading
Platform
Imminent**



**New approach
to Share Fair
2015 & Series
of Culture
Events**



**Well P&A
Analysis
Complete**



**Compression
Systems
Report
Complete**





Requests to Government

1. Ministerial support for the Industry Behaviours Charter
2. Recognition that industry *is* addressing its issues
3. Supportive and positive messaging about the industry from Government



Asset Stewardship Board Summary

Purpose	To enhance & improve asset stewardship by maximizing value by improving safety & efficiency and reducing cost		
Draft Priorities	<ol style="list-style-type: none"> Asset management and integrity: Improve asset management and integrity, Increasing production and reducing costs Project delivery: Deliver projects within schedule and budget Increase recovery: Improve overall recovery factor and deliver EOR reserves 		
Industry lead	Ray Riddoch (Nexen)	Support lead	Gunther Newcombe (OGA)
Members	Bruce Price (BP) Andrew Hyde (DEA) Steve Gardyn (Talisman Sinopec) Eric Henderson (Maersk)	Matt Nicol (Centrica) Neil Gordon (Subsea UK) James Crawford (Wood Group PSN) Tim Martin (Ramboll)	Selma Hunter (Doosan Babcock) Andrew Ferguson (Petrofac) Andy Leonard (OGUK) <i>Additional candidates INEOS & EDF</i>
Key relationships	<ul style="list-style-type: none"> MERUK boards, especially RDI, TB, SC& E and Cost & efficiency HSE & STEP Change 		
Funding and resources	<ul style="list-style-type: none"> OGA support funded from OGA Levy Members support manpower and incidental costs from own budgets 		
Progress update	<ul style="list-style-type: none"> First Board Meeting on 14th December Deliver cost, safety and efficiency improvements in operations and projects (TBD) Review & network OGA Asset Stewardship and EOR strategies and issue in 2Q16 (Board) Provide direction & support to PETF & Subsea Stewardship Board (Ray Riddoch) 		
Risks / interdependencies	<ul style="list-style-type: none"> Asset stewardship covers a broad spectrum from exploration through to decommissioning Close coordination required with established work groups: PETF, Subsea Stewardship and EOR Strong linkage with core work boards to ensure linkage and avoid duplication and confusion 		



RD&I Board Summary

<p>Purpose</p>	<p>Deliver strategic & behavioural change to maximise value for UKCS</p>		
<p>Draft priorities</p>	<ol style="list-style-type: none"> Regional reviews: Undertake prioritised regional reviews to mitigate risks and facilitate delivery of opportunities Infrastructures access: Build on HM Treasury infrastructure workstream output to deliver an improved infrastructure access plan Undeveloped resources: Work with the Technology Board to reduce well costs and unlock value of discovered undeveloped resources 		
<p>Industry lead</p>	<p>Paul Goodfellow (Shell)</p>	<p>Support lead</p>	<p>Gunther Newcombe (OGA)</p>
<p>Members</p>	<p>John Warrander (Addax) Cori Loegering (Apache) Trevor Garlick (BP) Craig May (Chevron)</p>	<p>Dominic Macklon (Conoco Phillips) Mike Smith (DONG) Neil McCulloch (Enquest) Morten Kelstrup (Maersk)</p>	<p>Vince Graham (OMV) Pete Jones (TAQA) Elisabeth Proust (TOTAL) Andy Leonard (OGUK)</p>
<p>Key relationships</p>	<ul style="list-style-type: none"> All MER UK Boards (especially Technology Board), OGUK Board & Commercial Behaviors WG 		
<p>Funding and resources</p>	<ul style="list-style-type: none"> OGA support funded from OGA Levy Members support manpower and incidental costs from own budgets Operators to provide (ideally) full time staff to undertake prioritised regional reviews with OGA 		
<p>Progress update</p>	<ul style="list-style-type: none"> TOR & structure agreed by all board members, first meeting held 4th December Infrastructure Task Group being set up - Eric Marston (OGA) & Elisabeth Proust (TOTAL) leads Fulmar (CNS) Task Group being set up - Scott Robertson (OGA) & John Warrander (Addax) leads West of Shetland Task Group being set up – Brenda Wyllie (OGA) & Mike Smith (DONG) leads 		
<p>Risks / interdependencies</p>	<ul style="list-style-type: none"> Strong linkage with other core work boards, in particular TB on small pools and well costs, to ensure linkages made where required and avoid duplication and confusion & OGUK Board Evaluation of key regions is part of a prioritised phased approach which in the short-term, next 3-6 months, operator support as, OGA is currently recruiting these skills and developing capability 		



Supply Chain & Exports Board Summary

<p>Purpose</p>	<p>Work with industry, government and trade bodies to promote and strengthen the supply chain and exports, improving sustainability, local and global competitiveness while anchoring activities in the UK.</p>		
<p>Draft priorities</p>	<ol style="list-style-type: none"> 1. Transformation: Transform the relationship between operators and service companies, increasing trust and collaboration 2. Supply-demand: Use supply-demand outlooks from key sources and other Boards to effectively prioritise and focus new or improved value-led, low-cost solutions 3. Strengthen supply chain and exports: Promote the UKCS supply chain and global exports working with BIS, OGUK, UKTI and Scottish Enterprise 		
<p>Industry lead</p>	<p>Neil Sims (Expro)</p>	<p>Support lead</p>	<p>Angela Seeney (OGA)</p>
<p>Members</p>	<p>Ali Talput (EnQuest) Chris Bird (MOL) Julian Rippiner (Shell) Mark Richardson (Apache) Brian James (Perenco)</p>	<p>Dave Stewart (WGPSN) K Hoeing/G Ballard (SLB) Terry Savage (Global Energy) Barry Macleod (Bibby) Dave Clark (Aker)</p>	<p>Alan Johnston (AMEC) Paul Charlton (PDL) Richard Male (Diamond) Paul Alcock (Aceton) Ken Cruickshank (OGUK)</p>
<p>Key relationships</p>	<p>Stuart Edwards (BIS) Maggie McGinlay (SE)</p>	<p>Campbell Keir (UKTI)</p>	<p>MERUK Boards especially Skills, Technology & Decommissioning</p>
<p>Funding and resources</p>	<ul style="list-style-type: none"> • OGA support funded from OGA Levy • Members support manpower and incidental costs from own budgets 		
<p>Progress update</p>	<ul style="list-style-type: none"> • ToR agreed by board, first meeting held on November 23rd • EY to preview its Supply Chain report ,with BIS, SE & UKTI updates, at next Board meeting Feb 2nd. • In the interim the Board will nominate working group leads to support the above priorities eg. Task Group to “Promote Supply Chain” agreed in principle – Ken Cruickshank (OGUK) to lead • Review Supply Chain Strategy 1Q 2016 and publish 2Q 2016 		
<p>Risks / interdependencies</p>	<ul style="list-style-type: none"> • Strong alignment with other MERUK Boards, government and trade bodies is key avoiding duplication and adding value by promoting and supporting new approaches collaboratively • Given the diversity of the supply chain, key to identify and focus on priority areas and phase effort 		



Technology Leadership Board Summary

<p>Purpose</p>	<p>Work with industry, government and stakeholders to adopt, adapt or develop oil & gas technologies, securing investments, to deliver high value MER UK benefits and strengthen industry competitiveness</p>		
<p>Draft priorities</p>	<ol style="list-style-type: none"> 1. Small pools: Unlock economic recovery of 1.5 billion boe of discovered reserves by reducing costs by 30 to 50% 2. Wells: Reduce total well costs by 50% to increase drilling activity and develop resources 3. Asset integrity: Enhance asset inspection to improve production efficiency and reduce maintenance costs 		
<p>Industry lead</p>	<p>Paul White</p>	<p>OGA lead</p>	<p>Angela Seeney</p>
<p>Members</p>	<p>Shell Paul Goodfellow, Centrica Colette Cohen EnQuest Neil McCulloch Total Elisabeth Proust BP Dave Lynch</p>	<p>Baker Hughes Crawford Anderson AMEC Andy Ewens Magna Charles Tavner Academia Prof John Underhill OGUK Andy Leonard</p>	<p>Plus representation NERC, NSRI ITF, OGIC BIS, SE and SG</p>
<p>Key relationships</p>	<ul style="list-style-type: none"> • Key MERUK Boards: RDI, Exploration, Asset Stewardship, Supply Chain, Decommissioning • City Deal & OGTC Team 		
<p>Progress update</p>	<ul style="list-style-type: none"> • 6th board meeting held on November 23rd ; agreed to update ToR in light of MER UK changes • Strong business cases developed for each theme; focusing priorities & supporting OGTC plans • SE Funding application progressing; OGTC letter of support under review • Develop Technology Strategy 1Q 2016 and publish 2Q 2016 (OGA to lead) 		
<p>Funding and resources</p>	<ul style="list-style-type: none"> • Members support own manpower and incidental costs • Budgets of £3-5m / theme pa estimated to ensure meaningful progress and dedicated project mgt. • Sources of funding to be defined – the TLB will take an active role in seeking a variety of investments 		
<p>Risks / dependencies</p>	<ul style="list-style-type: none"> • Funding for themes is not secured, investors' interest and discretionary industry funds are limited • Companies scale back operations, viable technology is not deployed to scale • IP constraints, commercial hurdles to sharing. Poor project management, disappointing progress 		



Skills Board Summary

<p>Purpose</p>	<p>To ensure a sustainable pool of skilled individuals is in place to support development strategies and the recovery process through effective collaboration.</p>		
<p>Priorities</p>	<ol style="list-style-type: none"> Critical roles and skills: Create model for identifying critical roles and skills to inform medium and long-term planning Development: Design initiatives to develop a flexible workforce with a global skills set through apprenticeship, graduate pathways and talent retention schemes Promote oil and gas careers: Ensure the long term flow of skilled individuals into industry by promoting STEM and careers in oil and gas 		
<p>Industry lead</p>	<p>Mike Horgan</p>	<p>OPITO lead</p>	<p>John McDonald</p>
<p>Board Members</p>	<ul style="list-style-type: none"> Kenny Dey, Archer (UK) Ltd. Martin Ellins, Fearnley Procter Group Neil Gordon, Subsea UK Rick Graves, BP David Hainsworth, Total Gary Holman, Awilco Drilling Paul Lindop, Lin'terim Ltd. 	<ul style="list-style-type: none"> Tom Milne, Oil & Gas UK Ray Riddoch, Nexen Simon Roddy, Shell John Taylor, Inter-Union Offshore Oil Committee (IUOOC) William Wallace, Inter-Union Offshore Oil Committee (IUOOC) Unite 	
<p>Key relationships</p>	<ul style="list-style-type: none"> BIS Scottish Government Scottish Enterprise Skills Development Scotland UK Commission for Employment and Skills 	<ul style="list-style-type: none"> Decom North Sea United Kingdom Onshore Oil and Gas ECITB Training providers Education providers (universities, colleges and schools) 	
<p>Funding and resources</p>	<ul style="list-style-type: none"> OPITO funding to include support of manpower and incidental costs Programmes arising from priority themes will be funded from a variety of investment sources including Industry investors, operators and supply chain, OPITO and potentially government bodies 		
<p>Risks / interdependencies</p>	<ol style="list-style-type: none"> Lack of accurate data to support effective skills forecasting Loss of skills and knowledge due to current workforce contraction Cost and time to re-establish workforce capacity Potential for a lost generation who do not see oil and gas as viable career option 		