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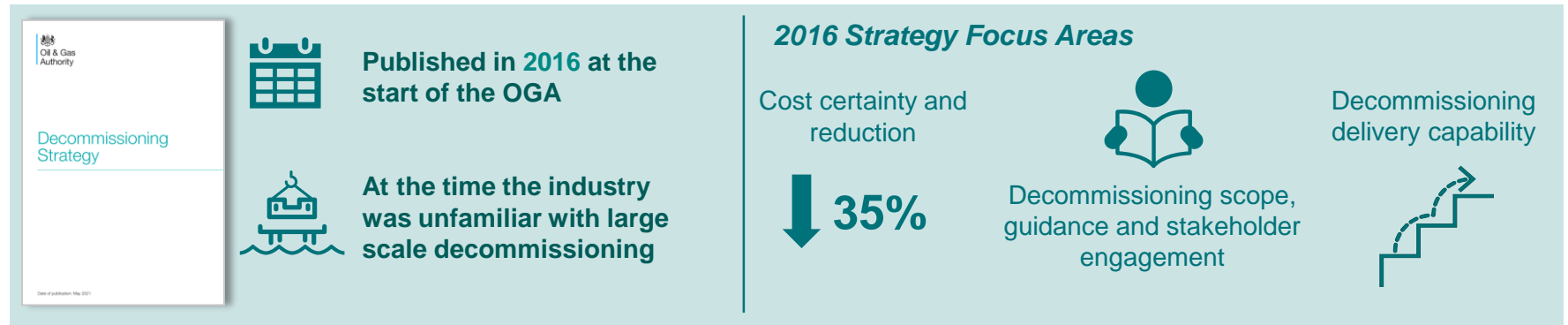
Well Decommissioning – Expectations and Opportunities

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Industry has come a long way since 2016 - Time for a refresh

What does the new strategy say?



Objective: Ensure that decommissioning is carried out cost effectively, in accordance with regulatory requirements, consistent with the OGA Strategy

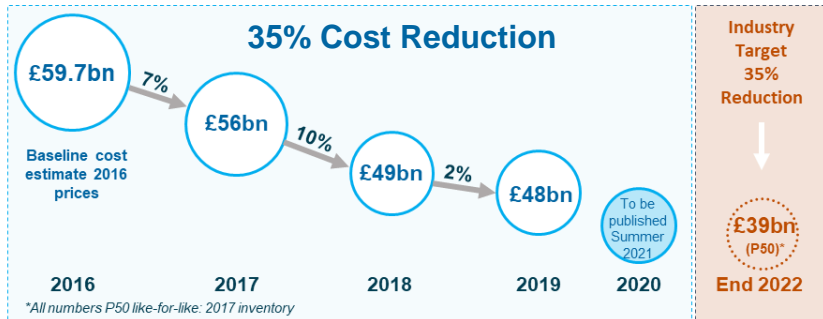
MER UK		KPI: 35% cost reduction*		Net Zero		
Strategic Priorities	Planning for Decommissioning	Commercial Transformation			Support Energy Transition	
	Late-life planning focussed on cost efficient delivery	Collaborative culture	Data transparency	Decommissioning at scale	Minimise greenhouse gas emissions	Re-purposing and reuse of infrastructure
	Technology, Processes and Guidance Development and deployment of technology cross regulator alignment; Clear guidance and expectations					
Strategic Themes	<ul style="list-style-type: none"> • Effective stewardship through late life into decommissioning • Right assets right hands • Promote learning, sharing of knowledge and continuous improvement 	<ul style="list-style-type: none"> • A client contractor relationship built on collaborative principles • A supply chain empowered to deliver attractive value propositions • Procurement and contracting models • Improve visibility on cost data (KPIs, benchmarking) • Improved visibility of the decommissioning pipeline • Improved data on assets • Asset information to support decommissioning • Decommissioning at scale: <ul style="list-style-type: none"> – Scope aggregation – Area based approaches – Campaigns 	<ul style="list-style-type: none"> • Improve transparency on the greenhouse gas impact of decommissioning • Develop decommissioning emissions KPI • Develop emission minimisation options • Effective late-life stewardship • to identify late-life pathway (reuse/ re-purpose or decommissioning) • Identify opportunities for reuse and re-purposing of redundant offshore infrastructure 			

*From 2017 base

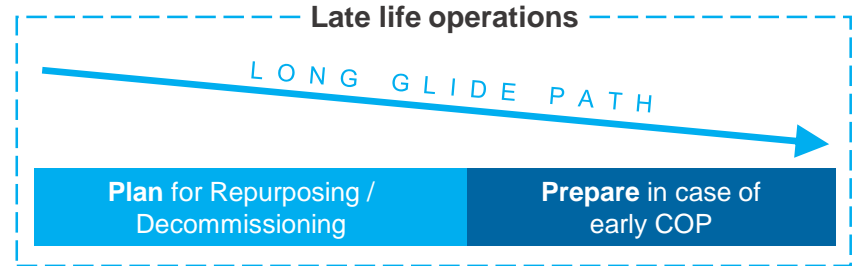
Progress and Next Steps



Celebrating progress



Areas for Improvement - Plan & Prepare



*Right assets, right hands – do you have the **skills** and **capability** to **deliver decommissioning**?*

OGA Priority Actions

Activity benchmarking

Mock data

Sharing lessons learned

Online portal

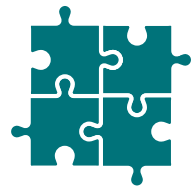
Real life case studies

20+ Success stories

Decommissioning dashboards

Integrated approach

Stewardship expectation



Commercial Models for decommissioning delivery



Structured Engagement



Lesson learning and knowledge sharing

Challenge

45%

forecast total spend associated with **well decommissioning**



Currently **758** inactive suspended wells

758

2021

1553

2026

Inactive suspended wells forecast to **double** by 2026

Expectations



Guidance for applications for suspension of inactive wells



2 years

OGA suspension consent period.

Cost Efficiencies



Decommission platform wells **prior or directly after COP**



Allows platforms to quickly become **hydrocarbon free**. Reducing Post COP

running costs which accounted for **9%** of forecast spend in 2020

(£3.3bn)



Plan early– (reactivate platform rig or HWU?)



Campaigning significantly reduces cost



Investigate use of **new technology**

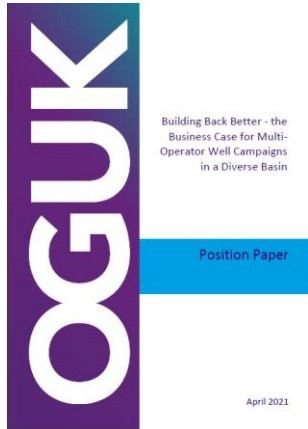
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Decommissioning offers a win-win opportunity. Cost efficiencies will come from market stability and certainty ... so why not *do things differently?*

Case Study: Campaigning



NST Wells Task Force

Benefits:

- Delivering high-cost activities for less
- Maintaining and attracting high-skilled jobs
- Developing exportable expertise
- Reducing emissions and improving safety performance

Developing a Collaborative Culture



Consider different ways of procurement and contracting



Build client contractor relationships on collaborative principles



Empower the supply chain to deliver attractive value propositions

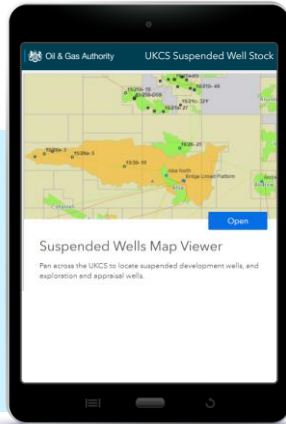


Collaboration with other operators – scope aggregation

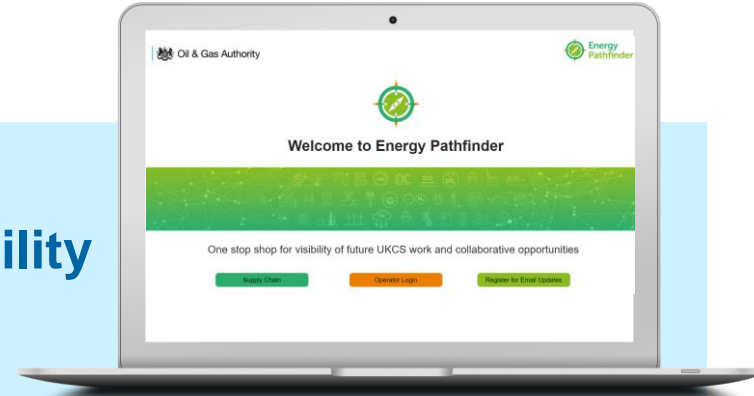
Insights



Datasets



Visibility

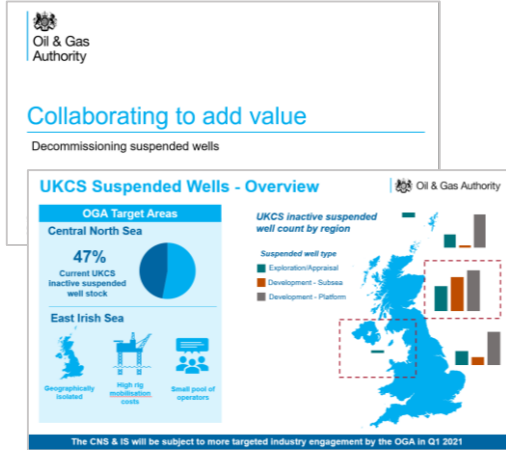


Decommissioning at scale – Campaigning



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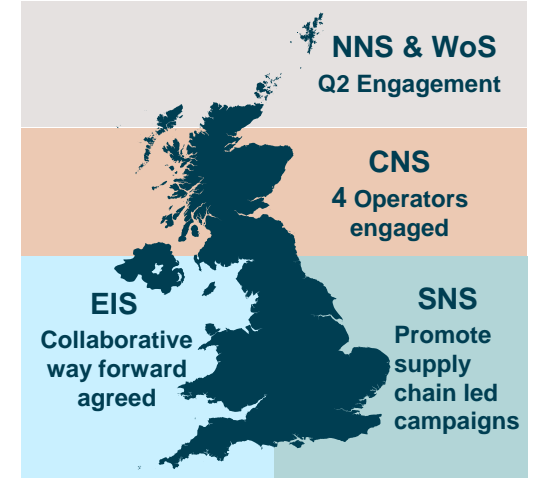
Q4 2020 lookback



November 2020 offshore Decommissioning conference - OGA announced a **step change** in well decommissioning is required.

OGA announced we would be engaging with operators to **promote and encourage campaigning**

Q1 2021 Progress



Campaign Types



Rig share only

Turnkey



Single rig contract & share supervisor

Wellhead Removal



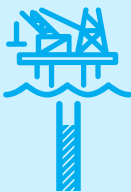
est Campaign Efficiency

Reuse of reservoirs only

Decommission wells with reuse of reservoir in mind



Design Considerations



Utilise barriers designed for a CO₂ environment



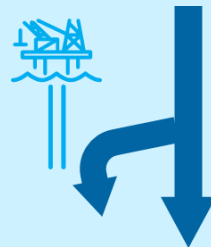
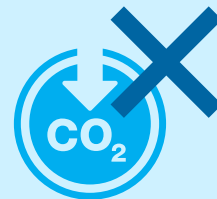
Primary barrier validated to pre development pressure

Direct reuse of Wells



Unlikely an existing well is in the optimal injection location.

A hydrocarbon completion will be unsuitable for CO₂

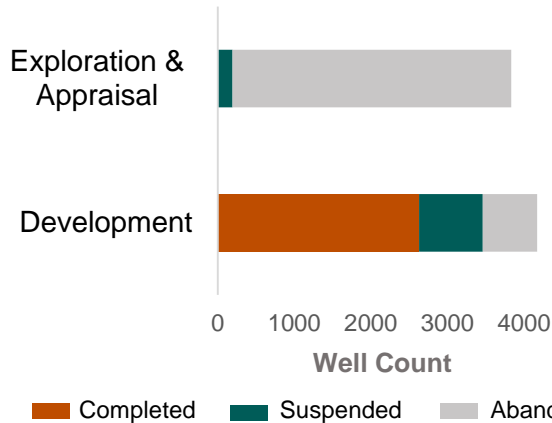


Hence an existing well may be sidetracked and the completion replaced

Scale of the Opportunity



Scale



UKCS skills in well decommissioning are still relatively immature; with **85%** of development wells still to be fully abandoned.

Target – 35% - 65% reduction

2017 baseline: £59.7bn		Target: 35% reduction to £39bn by 2022			
Cost Category	2017 Baseline		Reduction Target		Progress to 2020
Well P&A	46%	£27bn	35-65%	£9-18bn	17%
Removals	26%	£15bn	15-30%	£2-5bn	21%
Subsea Infrastructure	10%	£6bn	30-50%	£2-3bn	29%
Post CoP Running Costs	7%	£4bn	20-40%	£1-2bn	12%

Expectation



2 years

OGA suspension consent period.



Guidance for applications for suspension of inactive wells

Opportunity



35-65%

Delivery of **high cost** well decommissioning for less



Creation of **sustainable, competitive market**, anchoring skills for decommissioning and energy transition



UK export opportunities – over **49,000*** offshore wells globally

* Source Rystad



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Thank you
