



The Oil & Gas Technology Centre

May 2019

Your Innovation Partner

Moving the dial to overcome the Asset Integrity Challenges

Our Goals

Unlock

Unlock the full potential of the UK Continental Shelf

Anchor

Anchor the supply chain in North East Scotland

Inspire

Inspire a culture of innovation and transformation

£180 million funding from the Aberdeen City Region Deal





Technology Vision

Fix today



Data access



Asset inspection

Maximise recovery





Production optimisation

Efficient

decommissioning



Revitalise exploration



Alternative well barriers



Artificial intelligence



materials

Transforming the industry for the low carbon future



Transform tomorrow



Low carbon operations



Reusable infrastructure



Hydrogen delivery



Data driven



Our Track Record



Delivering strong results





Solution Centres

Driving	Digital	Subsurface	Decom	Wells	Marginal Developments	Asset Integrity
	10% increase in production efficiency	MER UK up to 20bn barrels	35% cost reduction	50% lower well construction costs	50% under development	50% cost reduction
	Digitally enabled supply chain	Discover more	Late life management	Optimise design	Tieback of the Future	Risk based inspection & data analytics
	Digital & data architecture	Develop more	Post COP OPEX reduction	Flawless delivery	Facility of the Future	Detection & condition based monitoring
	Smart facilities	Recover more	Innovative removal	Maximise production	Integrated energy	Enhanced inspection techniques
	Digitally enabled worker		Optimise abandonment	Optimise abandonment	*	Repair & mitigation solutions
	Production optimisation					

Delivering solutions to industry challenges



Fix Today

Delivering





Failforce actuator safety gauntlet

Simple, low cost protector for actuator valves

Improves safety and lowers cost by 90% or £8,000 per actuator

Potential £300 million in savings to UKCS

Increase safety

Delivering projects that move the dial

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Non Intrusive Inspection (NII)

Technologies delivering significant cost, safety and efficiency benefits

Reduce the need for confined space entry

Potential £242 million in savings to UKCS

Increased production

Maximise Recovery

Delivering





Electrical Impedance Spectroscopy (EIS)

Characterises electrochemical processes such as corrosion as part of a monitoring system

Reduces the risk of Corrosion Under Insulation (CUI)

Potential £130 million in savings to UKCS

Eliminating CUI

Delivering projects that move the dial

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GDi digital twin & inspection

3D modelling and 360 imaging of offshore installations

Improves asset integrity efficiency, including maintenance and repair

Potential £500 million in savings to UKCS

Reduce inspection costs

Transform Tomorrow

Delivering





Autonomous fabric maintenance

Robotic solution, embedded with pioneering AI software

Fully autonomous capable of blasting and coating complex structures

Potential £625 million annual saving to UKCS

Increased Efficiency

Delivering projects that move the dial

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Offshore Work Class Robot (OWCR)

Fully-Autonomous inspection system for remote operations

Self-driving robot, mission programmed to inspect and gather data

Potential £127 million saving to UKCS

Remote operations

A Changing World















The Social Wave



Greta Thunberg

"I don't want your hope. I don't want you to be hopeful. I want you to panic...and act as if the house was on fire. Because it is."



Damon Gameau

"If we simply embraced the best solutions already available to us to improve our planet and shifted them rapidly into the mainstream."

Driving demand for action





Sir David Attenborough

"If we have not taken dramatic action within the next decade, we could face irreversible damage to the natural world and the collapse of our societies."

Industrial Transition



Net zero carbon basin

Decarbonise operations

Integrated energy



Working across the energy sector to be part of the solution



Global net zero

Our contribution

Work With us

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Together we can transform the future