Managing Corrosion Under Insulation (CUI) using novel technologies

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Agenda

• Introduction to OGTC
• Overview of the challenges
• Inspection & sensor technologies
• Other Factors
The OGTC

We are all about technology innovation...

Inspire  Stimulate  Accelerate  Deliver

... working in partnership with industry.

£180 million of City Region Deal funding
### Strong delivery

<table>
<thead>
<tr>
<th>The story so far...</th>
<th>£18M+ of investment approved to develop and deploy new technology</th>
<th>9 offshore field trials of innovative technology</th>
<th>30 live projects to accelerate the adoption of innovative solutions</th>
<th>60+ members from major operators to SME technology providers</th>
<th>300+ technologies and projects reviewed for offshore trial or investment</th>
<th>100+ ideas generated through our 'Call for Ideas' process</th>
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Positive engagement with companies of all sizes
Current themes

Asset Integrity
Eliminating the impact of asset integrity on uptime

Well Construction
Reducing drilling costs by 50%

Small Pools
Developing up to 3.4 billion barrels of oil and gas discoveries

Decommissioning
Driving down the cost of decommissioning

Digital
Transforming performance and unlocking hidden data

Identified by industry through the Technology Leadership Board
The CUI challenge

£28 billion per annum
60% of pipework failures due to CUI
60% of pipework maintenance costs

Images courtesy of Inspecteering
CUI management - key inputs

CUI Management

- Inspection
- Maintenance
- Online Monitoring
- Personnel
- RBI
Inspection technologies - existing

Guided Wave  Pulsed Eddy Current  Low Frequency Electromagnetic Techniques  Ultrasonics  Acoustic Emission

Effective partnering is critical to our success
Inspection technologies - emerging

Microwave Sensing

Acoustic Resonance

Terahertz Spectral Imaging

Ultrasonic Tomography

Significant challenges require transformative solutions
Sensor technologies

CorrosionRADAR  Sacrificial Wires  Electromagnetic Impedance Spectroscopy  Ultrasonic Sensors

Condition monitoring is central to asset integrity
Other factors

- Working Practices/Guidelines
- Competency & Human Factors
- Risk & Operating Models
- Maintenance & Repair Requirements
- Information & Data Management

Wide range of influencing factors
Point for discussion
What can the OGTC do to reduce the impact of CUI through the development of technology?
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