

The
Oil & Gas
Technology
Centre

Your Innovation Partner

Managing Corrosion Under Insulation (CUI) using novel technologies

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Asset Integrity Solution Centre Manager



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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

The story so far...



£18M+

of investment approved to develop and deploy new technology



9

offshore field trials of innovative technology



30

live projects to accelerate the adoption of innovative solutions



60+

members from major operators to SME technology providers



300+

technologies and projects reviewed for offshore trial or investment



100+

ideas generated through our 'Call for Ideas' process



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



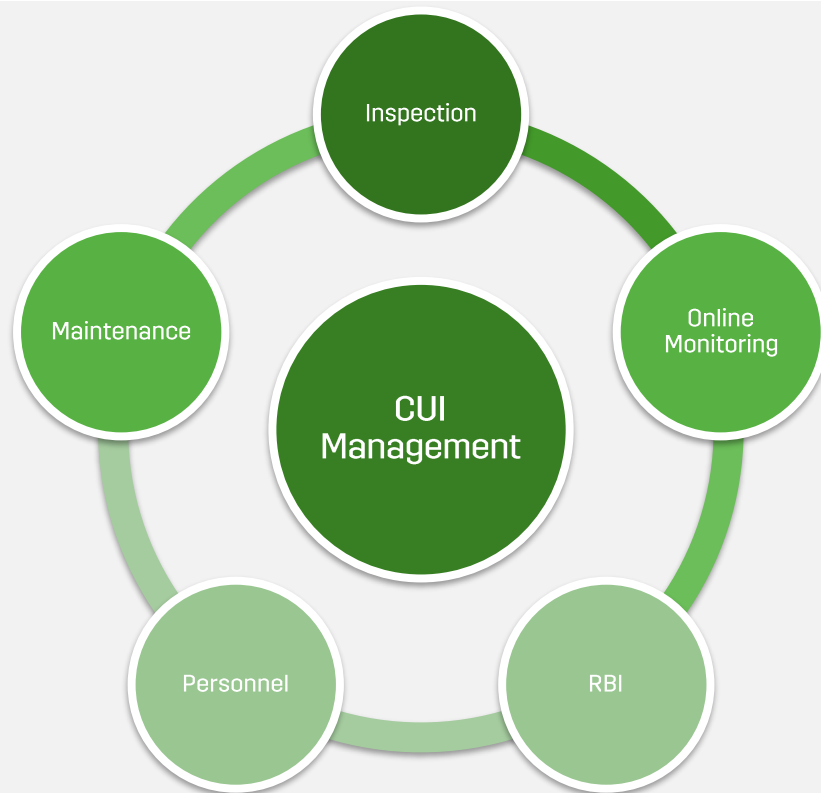
60% of pipework
failures due to CUI



60% of pipework
maintenance costs



CUI management - key inputs





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

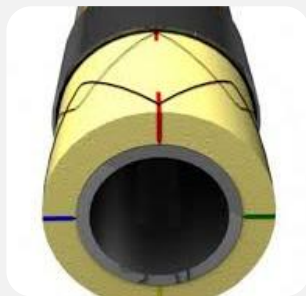
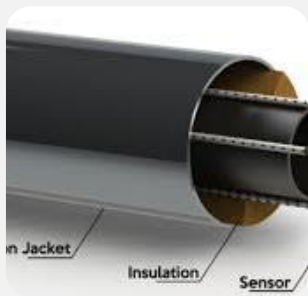


Ultrasonic
Tomography

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



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Point for discussion

What can the OGTC do to reduce the impact of CUI through the development of technology?



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