

# Your Innovation Partner



The  
Oil & Gas  
Technology  
Centre

Your Innovation Partner

Delivering More Value  
from Wells: The OGTC's  
Technology Vision

2 July 2019



# 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



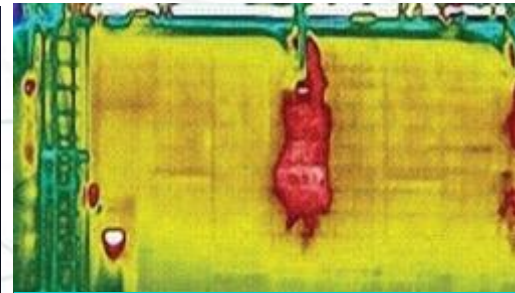
# Technology Vision



## Fix today



Data access



Asset inspection



Production optimisation



Revitalise exploration



Efficient decommissioning



Alternative well barriers

## Maximise recovery



Tieback of the Future



Integrated energy



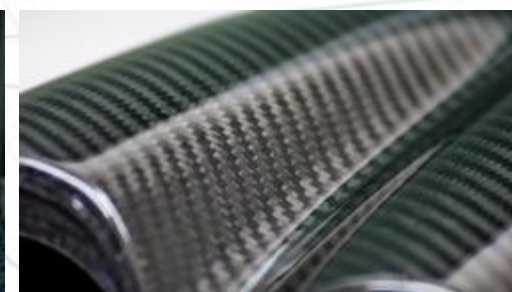
Automation



Remote operations



Artificial intelligence



New materials

## Transform tomorrow



Low carbon operations



Reusable infrastructure



Hydrogen delivery



Data driven



Unmanned facilities



Zero carbon developments

Transforming the industry for the low carbon future

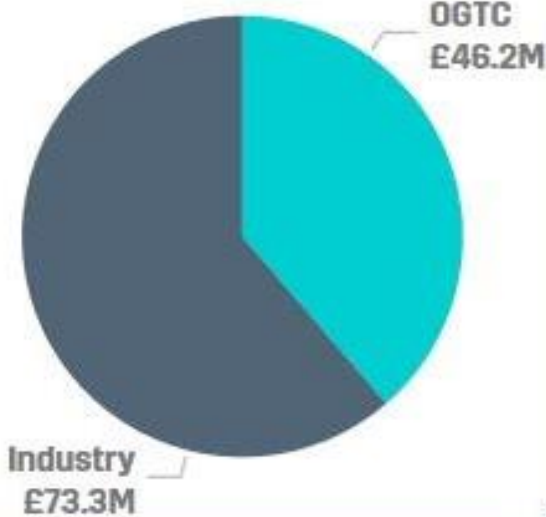


# Our Track Record



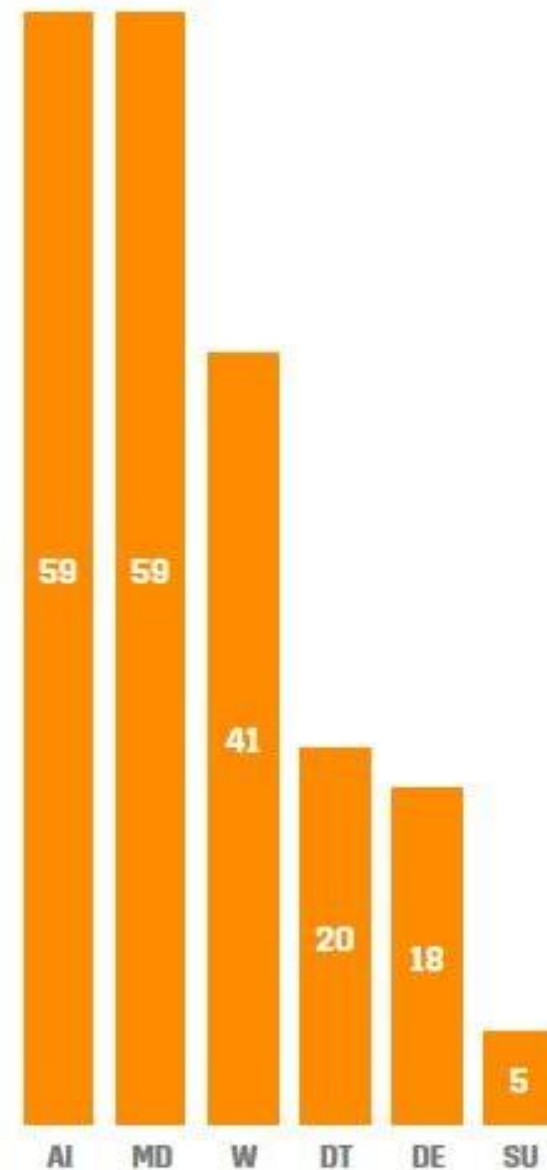
## £120... Invested

Co-investing in industry-led projects to develop and deploy new technologies.

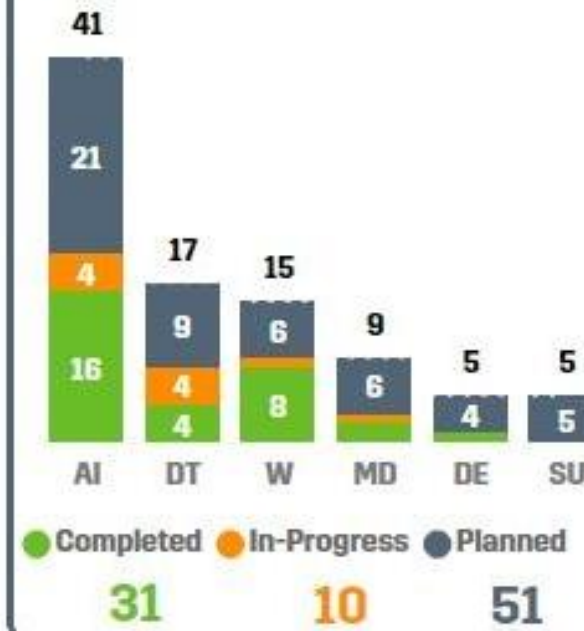


## 202 Approved Projects

Delivering technology projects to fix today, maximise recovery and transform tomorrow.



## Field Trials



## Memberships

123 Bringing together Operating, Supply chain and technology companies to drive innovative new solutions.



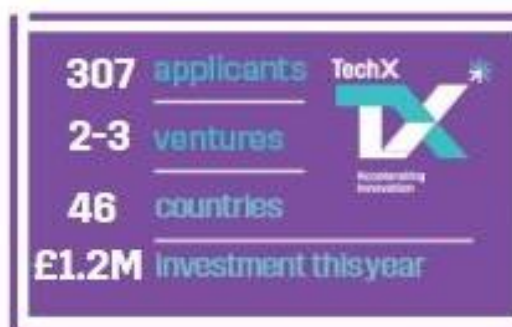
## 860+ Technologies Screened

Harnessing the power of an ever-expanding range of transformational new technologies.



## 22+ TechX Startups

Accelerating innovation by helping a new generation of entrepreneurs take their technologies to market - faster.



Government Industry Schools Community



Visitors  
**18,400+**

Creating a culture of innovation in the region through exciting events and workshops.

Strong Performance

# Solution Centres



## Driving

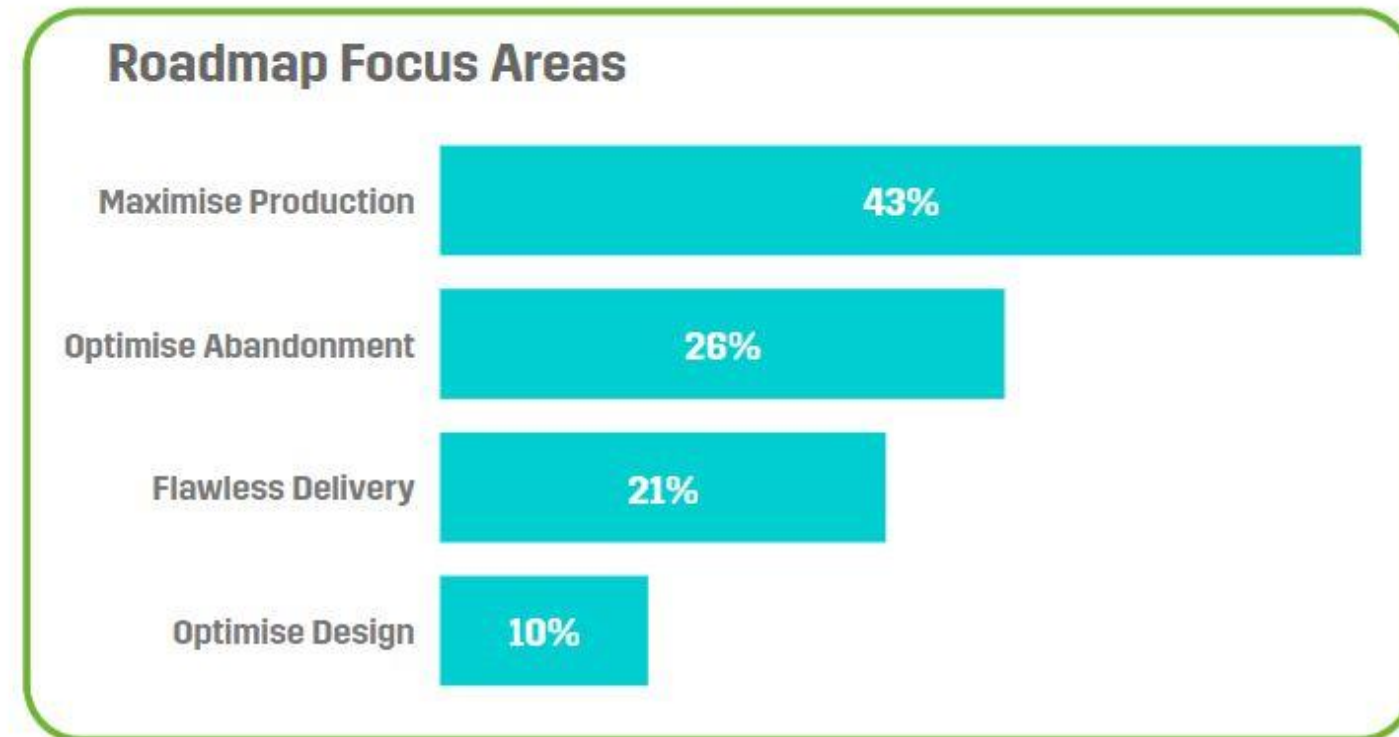
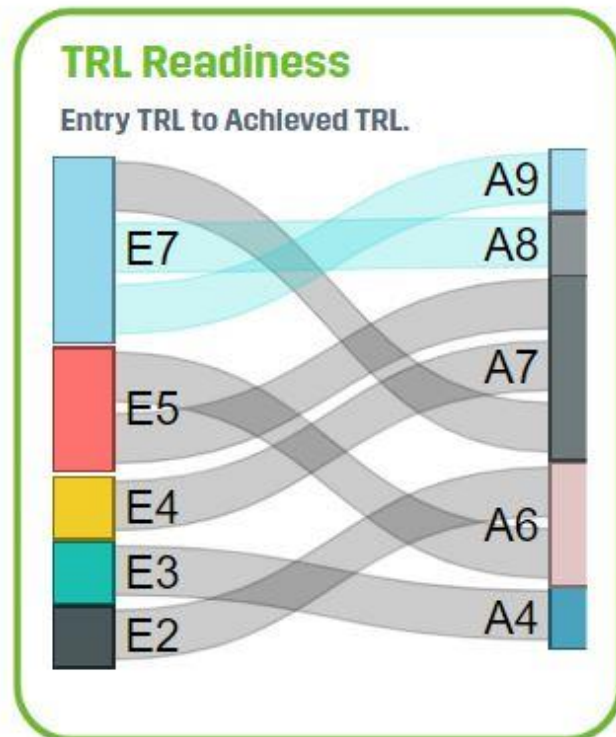
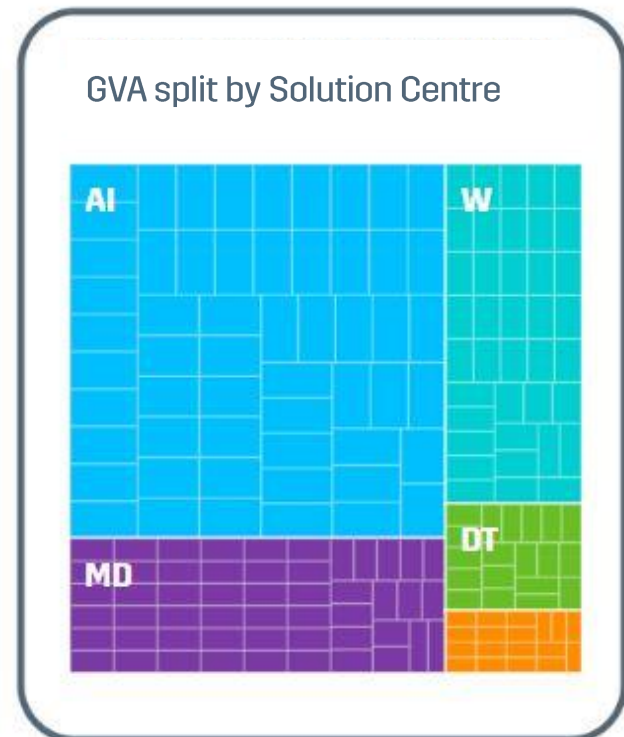
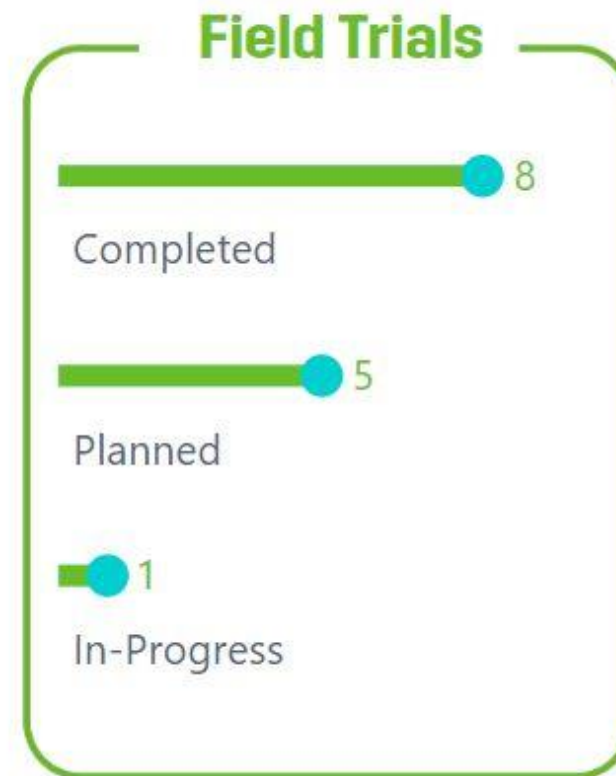
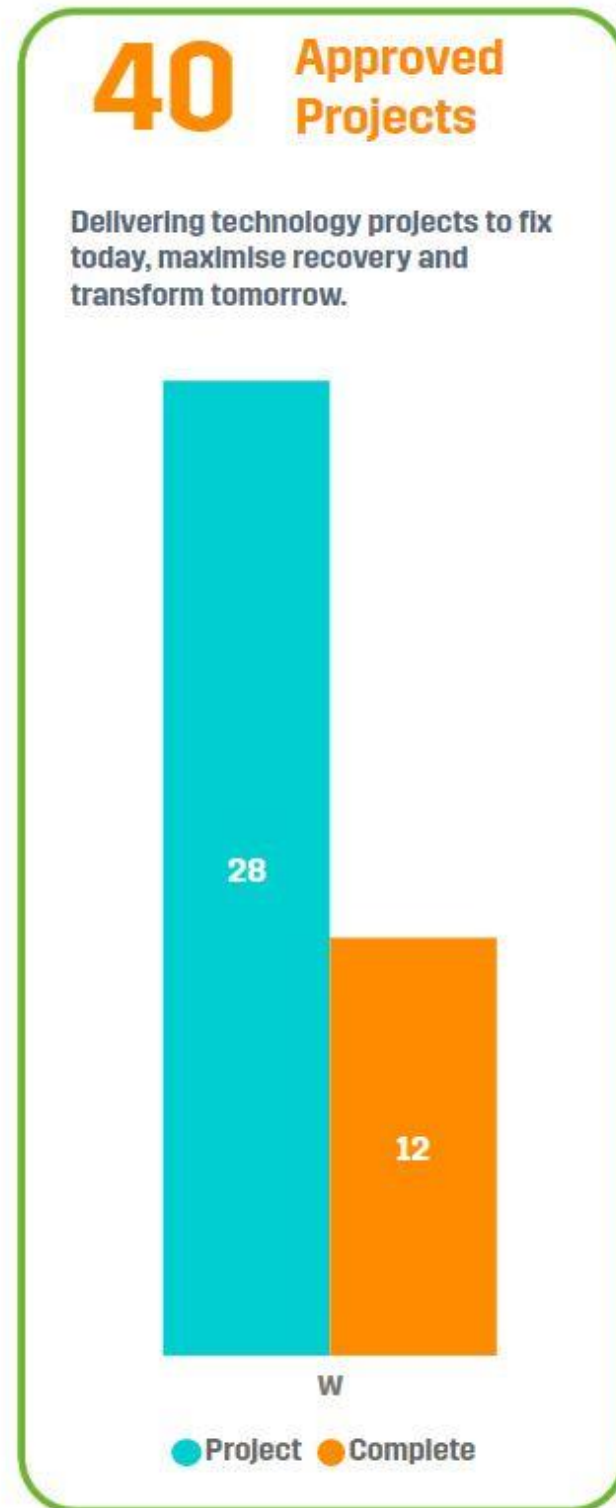
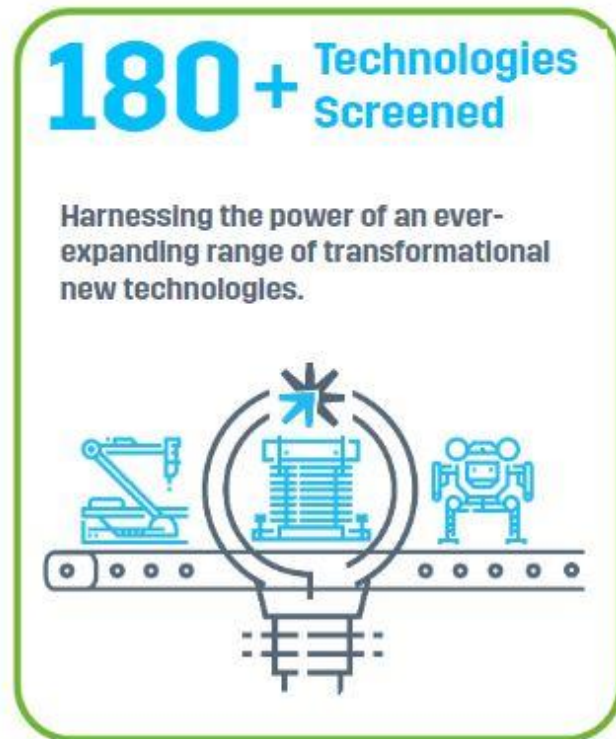
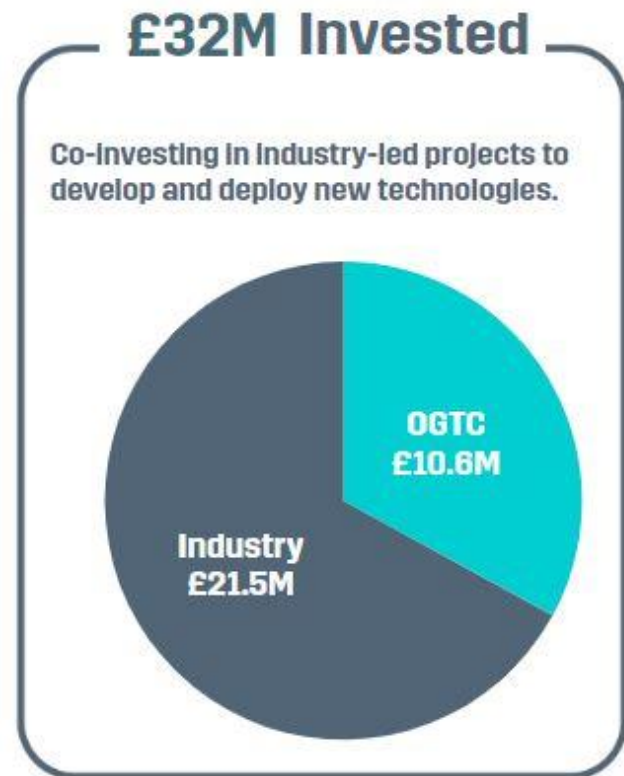


	Digital	Subsurface	Decom	Wells	Marginal Developments	Asset Integrity
<b>10% increase in production efficiency</b>	<b>MER UK up to 20bn barrels</b>	<b>35% cost reduction</b>	<b>50% lower well construction costs</b>	<b>50% under development</b>	<b>50% cost reduction</b>	
Digitally enabled supply chain	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	<b>Maximise production</b>	Integrated energy	Enhanced inspection techniques	
Digitally enabled worker		Optimise abandonment	Optimise abandonment		Repair & mitigation solutions	
Production optimisation						

Delivering solutions to industry challenges



# Wells Performance Dashboard



Over 40% of total Wells Project Activity is focussed on the Roadmap Strategic theme of “Maximise Production”

# Maximise Production – Project Overview








Directed Projects with industry partners

 WellSense – Fibreline Intervention	 Isealate - Springblade	 Multi Stage Fracing	 Tendeka – Wireless DHSV	 Wellvene – HAWP System	 SolaSense – DFOS Interpretation System	 Triple Bore Selector
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 Your Innovation Partner	Pragma – VICV	Downhole Energy Ltd – Additive Manufacturing Feasibility Study	UoA – Ultrasound cleaning of the wellbore
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OGTC Portfolio Projects – implemented through open call process

 <b>Expro North Sea</b> Development of a wireless downhole safety valve.	 <b>Oillectricity</b> Development of a new energy harvesting system based on nanomaterials.	 <b>Well-sense</b> One trip disposable tractor for deploying fibre optic cables into horizontal wells.	 <b>Steer Energy</b> Downhole tubing repair from fluid deployed both inside and out.	 <b>Aubin</b> Scale induced water shut-off for zonal isolation.
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Pending projects selected through “Restoring Shut-in Wells” – 3<sup>rd</sup> Call for Ideas

10 Active Projects supporting technology to deliver more value from wells



# SolaSense Technology Spotlight



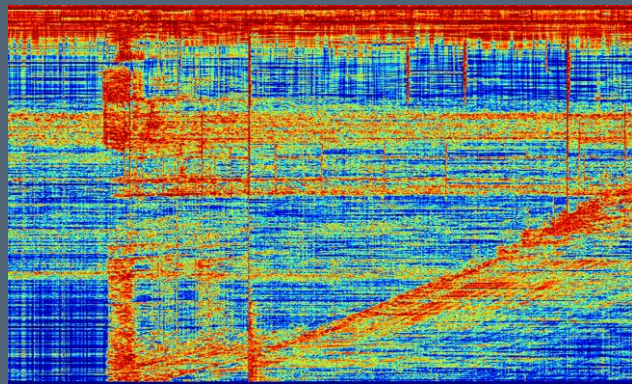
Technology ready for field trial and looking for partners



## SolaSense DFOS

Rugged optical interrogation units, fibreoptic data processing and viewing software

Delivering low costs portable, easy to use and effective surveillance technology to safeguard or reinstate production



**Potential to recover >£105m  
annual production revenue**

**Safeguard and improve production  
Restoring shut in wells**

Affordable and effective surveillance technologies can have a significant impact if applied to a portion of the following:

- 30+MMboe annual losses
- Re-instatement of some of the 600 shut-in wells,
- Improvement in the safeguarded/re-instated production.

An estimated 1% improvement in these areas alone would provide the UKCS with an additional revenue of £105m+ per year at today's oil price (assumes shut-in wells have 300boe/d potential).

Low cost well surveillance to maximise economic recovery and optimise abandonment



# What's Coming Up?



## September

- OGTC Presence at Offshore Europe
  - OGTC Main Stand
  - TechX at StartUp Village
  - Decom Zone
- Alternative Well P&A Barrier Collaboration Group
  - Multi-operator experience sharing

## October

- Wells Members Meeting
  - Update on project activity
  - New technology “sparks”
  - Developer presentations / Demos
  - Workshop / break out sessions

## November / December

- Digital Basin Workshop
  - UKCS Basin Insights to support New Entrants
  - Digital / Subsurface and Wells Solution Centres
  - OGTC / OGA / OGUK collaborative approach

What else is going on 2H '19 – are there opportunities for collaboration?





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## One-to-One Engagement

We are here to support you and we welcome the opportunity to come and listen to your issues - what are your key technology needs?

**Sarah Kirkwood**

**Project Engineer**

**Wells Solution Centre**

**[Sarah.Kirkwood@theogtc.com](mailto:Sarah.Kirkwood@theogtc.com)**