



The
Oil & Gas
Technology
Centre

Your Innovation Partner

Innovation will Unlock the Future

Malcolm Banks, OGTC
SPE Inwell Flow Surveillance & Control
Seminar

Oct 2017

In context



1999 peak production
5 mmboe/day

2016 Production:
1.65 mmboe/day



44bn barrels since 1970
£330 billion in corporation tax

10-20 billion barrels
potential remaining



330,000 jobs in UK
from oil & gas
(~ population of 4th,
5th & 6th Scottish
cities combined)

Every 1bn barrels produced generates £50bn of value for the economy

Current Position

UKCS production has increased by

16%

since 2014, following over a decade of continual decline


Unit operating costs fell to



\$15.30
/boe

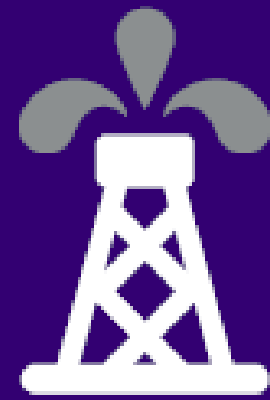
during 2016, down 48% from the peak of \$29.70/boe in 2014

Around 360 million boe of oil and gas was discovered in 2016



more than in any year since 2008

Around one third of total UKCS production in 2018



is expected to come from recent start-ups

Up to 14 new developments are being considered for approval over the next two years



Data source Oil & Gas UK : Business Outlook 2017

Positive Response over the past two Challenging Years

The future

COP 21

Driving change

Ambitious targets

195 countries

\$16 trillion spend



60% of global power by 2040



\$23 trillion on energy efficiency



150m electric vehicles by 2040



Oil demand up 11% by 2040



Gas demand up 33% by 2040



Composites worth \$105bn by 2021

More than power, heat and transport

Heating and transport:
50% - 60%

Industrial:
20% - 40%

Non energy:
10% - 20%



Critical feedstock

6,000 everyday items

Agriculture to plastics

Meeting our needs for energy, materials and climate change

Technology vision



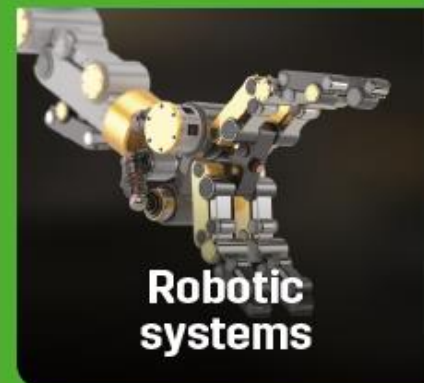
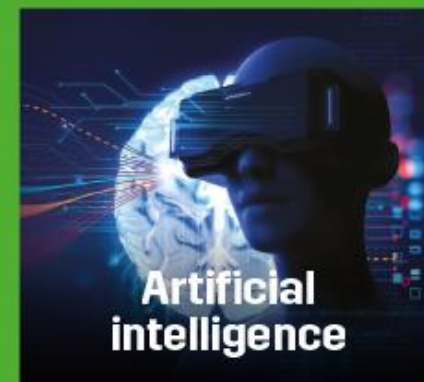
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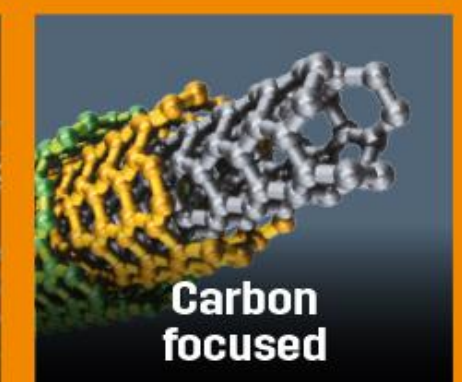
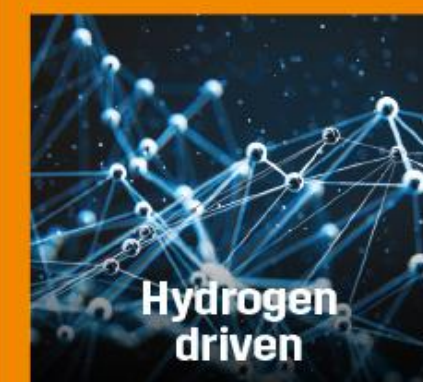
Fix today



Maximise recovery



Transform tomorrow



Technology can transform the oil and gas industry for the low carbon

Enabling MER UK



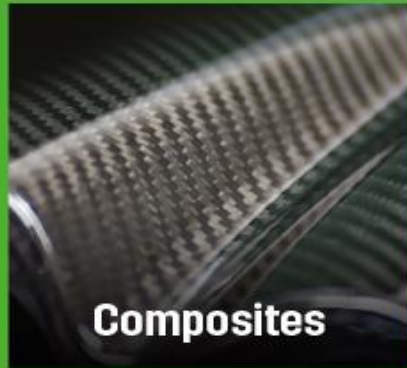
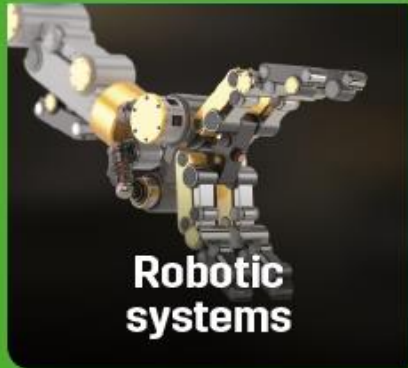
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Fix today



Maximise recovery



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 Transformation

Transforming performance and unlocking hidden data

Inspiring, accelerating and funding technology innovation

Creating value

Unlock the
potential of
the UK North Sea



Anchor the
supply chain
in North East Scotland



Create a culture of
innovation that attracts
industry and academia



£180m City Region Deal public funding



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Our purpose

Making sure the North
East of Scotland remains
a great place to live, work
and invest

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A not-for-profit research and development organisation