

**Technology
Driving
Transition**



Where it began



Our mission: to be the go-to technology centre for the oil and gas industry in the UK and globally

**Launched in 2017,
part of the Aberdeen
City Region Deal**



Strong delivery



£163m

invested with industry

25,100

industry guests and visitors to the centre

20

commercialised tech



1,260

technologies screened



£100m

leveraged from industry partners

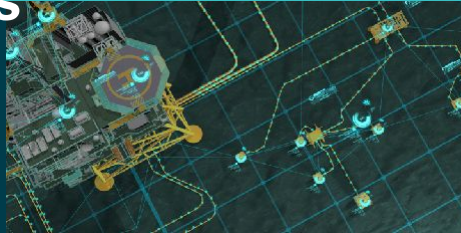


13

memberships

£10-15bn

GVA potential



265

projects

110+

field trials complete, planned or





Technology vision

Reduce Emissions



Offshore Electrification



Eliminate Flaring



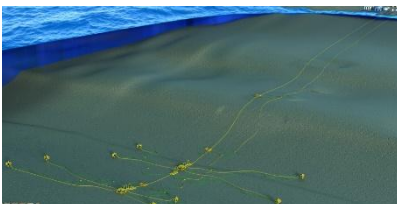
Production Optimisation



Eliminate Venting



Net Zero Developments



Net Zero Decommissioning

Unlock Potential



Tieback of the future



Data Driven



Carbon Capture Usage and Storage



Integrated Energy

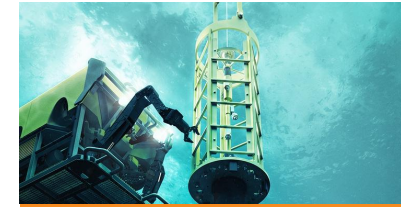


Remotely Controlled Operations



Green and Blue Hydrogen

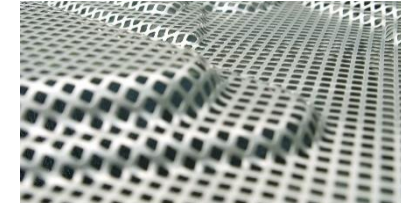
Transform to Net Zero



Net Zero Operations



Reusable Infrastructure



New Materials



Automation and Robotics



CCS for Industrial Decarbonisation



Zero Carbon Developments

Technology delivered



20 commercialised technologies in the first three years

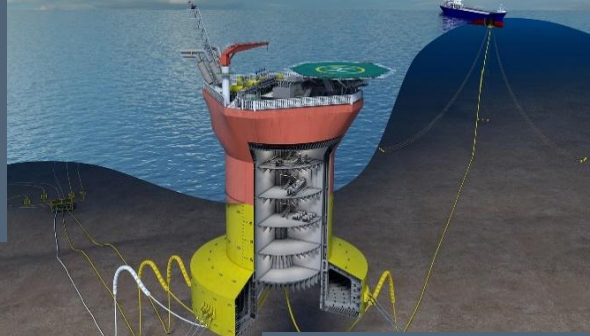
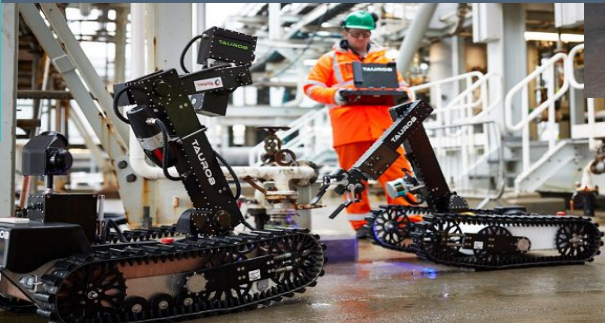

Increase efficiency




Harness automation

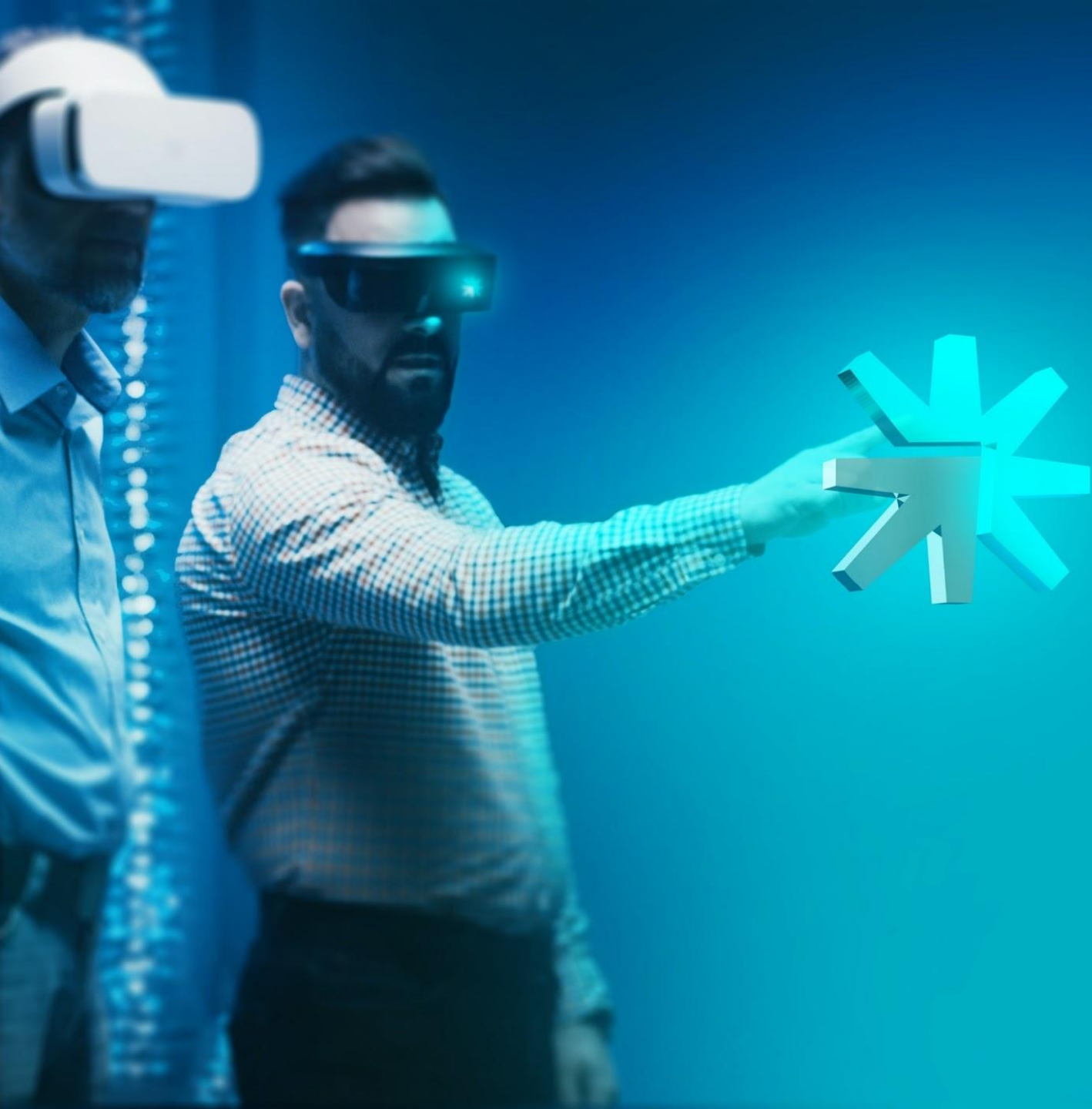
technology
in play **today**


Carbon footprint reduction



Spark activity remains strong year on year across all solution centres


Reduce costs

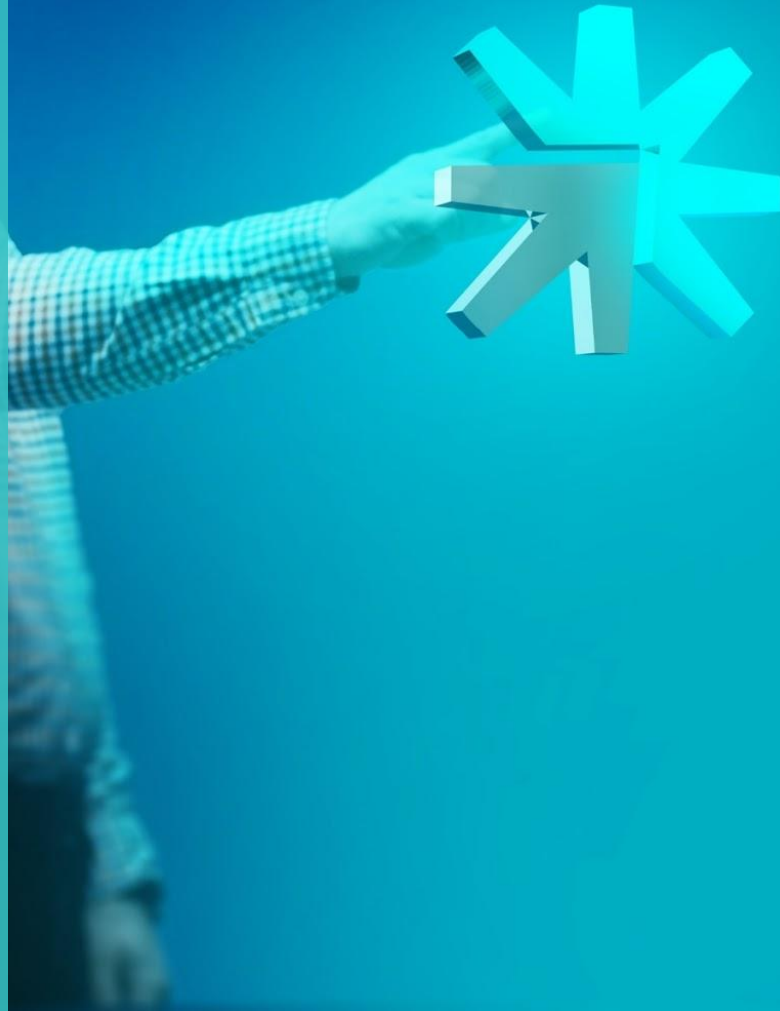


The world
has
changed

Equinor

Anders Opedal

This Equinor will be a much more sustainable company, able to thrive in the energy transition, delivering both profitable energy and major carbon footprint reduction.



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bp

Bernard Looney

We aim to be a very different company by 2030. And that's what the world needs. The next decade is critical in the fight against climate change



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Total

Patrick Pouyanne

The energy transition is not just a transition, it's adding new markets, new technologies. You don't get rid of the past. You see an evolution of the markets.

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Shell

**Ben van
Beurden**

Shell recognises it stands within a section of society that needs to move faster. By 2050, Shell intends to be a net zero emissions energy business

New focus
Same
purpose



Enable

oil and gas industry
diversification and
transition to a net zero
North Sea

Accelerate

technology to deliver an
affordable net zero North
Sea

Inspire

a culture of innovation and
transformation for a
reimagined energy future

Our mission: **Developing and
deploying technology for an
affordable net zero North Sea**



7 From seven...

1 ASSET INTEGRITY

2 WELLS

3 MARGINAL

DEVELOPMENTS

4 DECOMMISSIONING

5 DIGITAL

TRANSFORMATION

6 SUBSURFACE

1 ...one, with three programmes



EMISSIONS REDUCTION

Oil and gas are key parts of the future energy mix,
but we must decarbonise operations

ENERGY SYSTEM INTEGRATION

We need investment and innovation in new, affordable clean offshore power and storage solutions to create an integrated energy future

Roadmap to net zero

Programme

Theme

Outcome

Emissions Reduction

Field development

Production, operations and logistics

Late life and decommissioning



Technology to help reduce UKCS operational emissions to net zero

Energy System Integration

Renewables and energy storage

Hydrogen and other clean fuels

Carbon capture, utilisation and storage



Technology to help create an integrated net zero offshore energy system

Offshore Energy 4.0

Smart assets

Field automation and remote control

Robotics and autonomous systems



Technology to enable remotely controlled operations empowered by data, automation and robotics



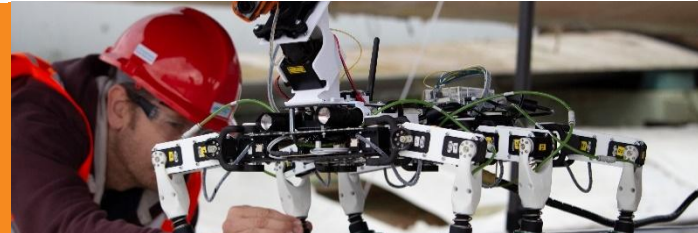
Collaborating for transition

Technology, innovation and
commitment to cross-sector
working are essential



Accelerating technology
development to achieve a net
zero North Sea energy system

Collaborating
to make a
difference





Research and insights

Aligning industry and academia through our Innovation Network



Tech 20
Insight 60



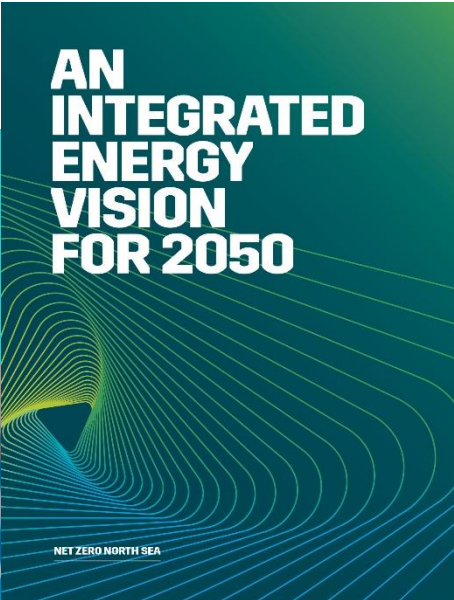
Let's Login



Let's Listen

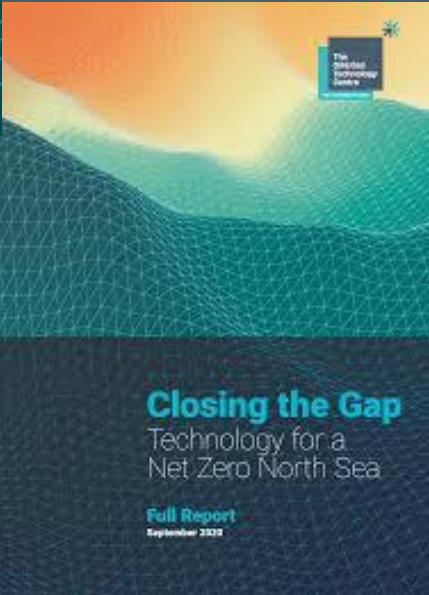


Let's Link In



Identifying and addressing key innovation

Producing world-leading research and thought leadership



Accelerating low TRL technologies



Offering deep technical advice and intelligence



Building the home of net zero cleantech

Challenging
the status quo

Partnering to build a
thriving ecosystem

Growing new
companies

Aligning TechX with the
industry's net zero technology
requirements

Flexing across education,
infrastructure and funding





Innovation
through
Partnership

Define
Design
Develop
Deploy
Decommission

National
Centres



National Decommissioning Centre

Developing cutting edge tools and techniques



Partnership with the University of Aberdeen



Delivering net zero decommissioning





National Subsea Centre

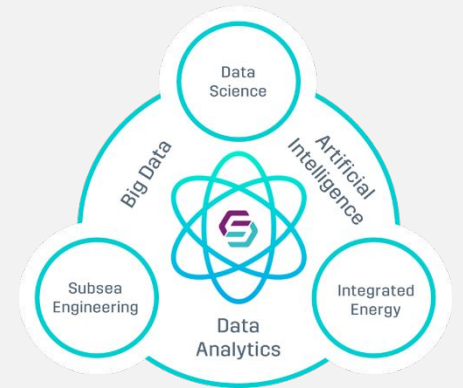


**Partnership with
Robert Gordon University**

**World-class research
and development**



**Focused on subsea
engineering, AI data
science and integrated
energy**



**Delivering subsea
electrification**





Partner and invest to deliver a net zero North Sea

Leveraging funding
to unlock impactful
technology

Shaping the future of
technology funding in the UK

De-risking technology
development through field
trials

Delivering value from
government funding

Connecting energy markets to
accelerate the transition





#HelloFuture

**Technology
Driving
Transition**





Closing the Gap

Short-term challenges



Clean offshore power



Blue hydrogen at scale



CCUS at scale and lower cost

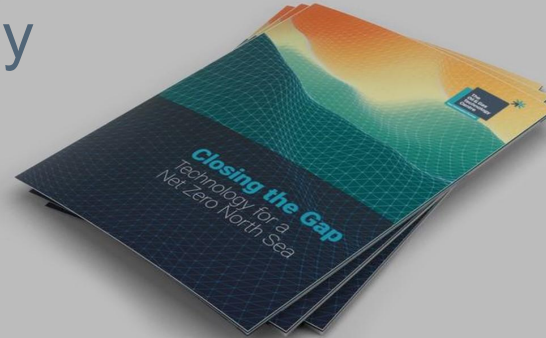


Scaling up floating offshore wind



Invest with
pace to
realise value

Technology
for a
net zero
North Sea



£2.5 trillion potential prize



£430 billion investment needed

**Technology innovation
needed**

Long-term

challenges



Green hydrogen at scale



Digitalisation and automation



Energy storage and transport



CO₂ utilisation



Lead in net zero
and create
200,000 jobs



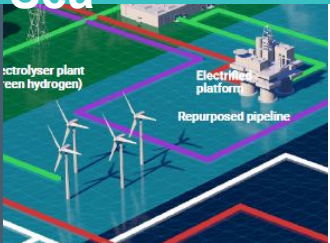
Integrated Energy Vision

Innovation to deliver
clean affordable energy
in a net zero world

**REIMAGINING
A NET ZERO
NORTH SEA**

The right actions, taken now, will
not only establish the path
towards net zero but result in a
positive, just transformation
across the North Sea

The opportunities of net zero will
multiply beyond UK borders



**JOBS
AND
ECONOMY**

The power of an integrated plan

230,000
offshore
energy jobs
by 2050

H2

**EMERGING
PROGRESSIVE
TRANSFORMATIONAL**

