

Grasping the opportunity - The role of the UK oil and gas industry in a low carbon future

Ross Dornan

December 2021

What does our industry bring?

The oil and gas sector remains vital to the UK's economy, its security of supply, and to the energy transition



195,500 jobs across the country

*80,000 of which are in Scotland
People and communities rely on the sector,
with jobs bringing local economic benefits*



Important economic contributions

*Contributing £390 billion in the last 50 years
to the UK economy
With £21bn to be invested in next 5 years*



Investment in low carbon

*Industry is actively investing in low carbon
sectors. Operators and supply chain are
involved in cluster projects across UK*



Security of energy supply

*Between now and 2050, oil and gas will
meet ~50% of the UK's cumulative energy
demand*

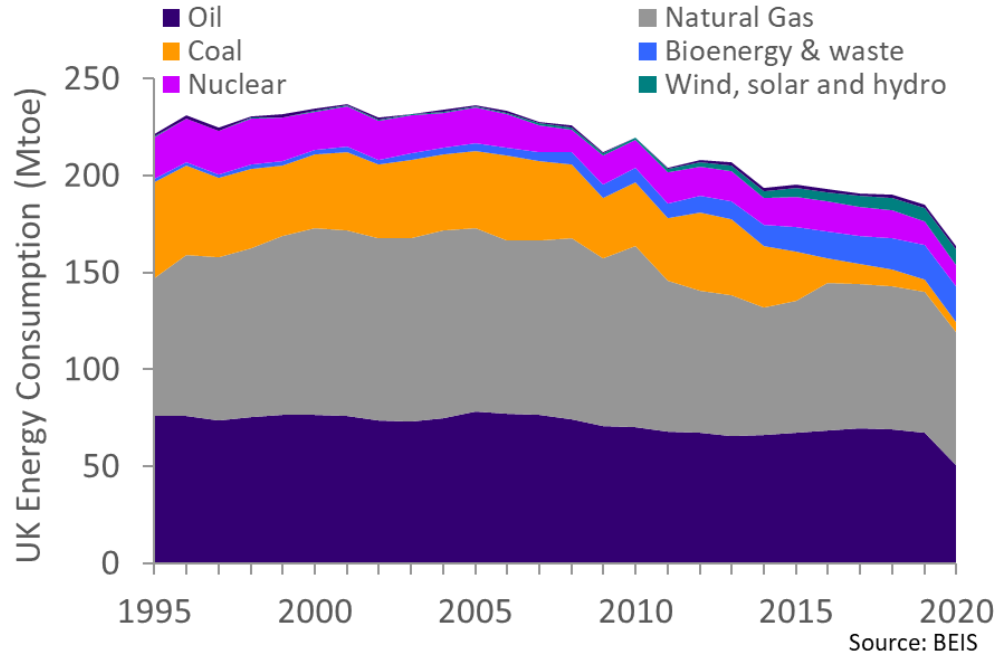


Skills for the transition

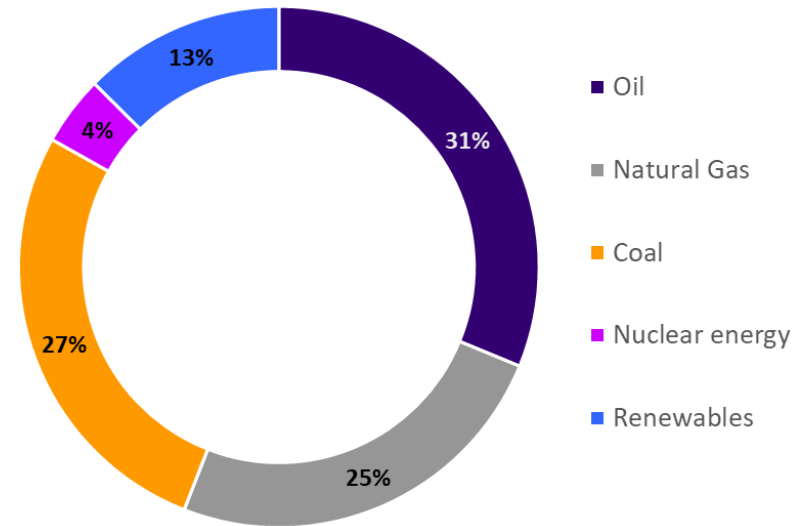
*Key skills and expertise from oil and gas are
transferable to low-carbon sectors, e.g.
engineering, HSE specialists, project management*

Oil and gas remains as the foundation of the UK and global energy mix

UK Energy Mix



Global Energy Mix



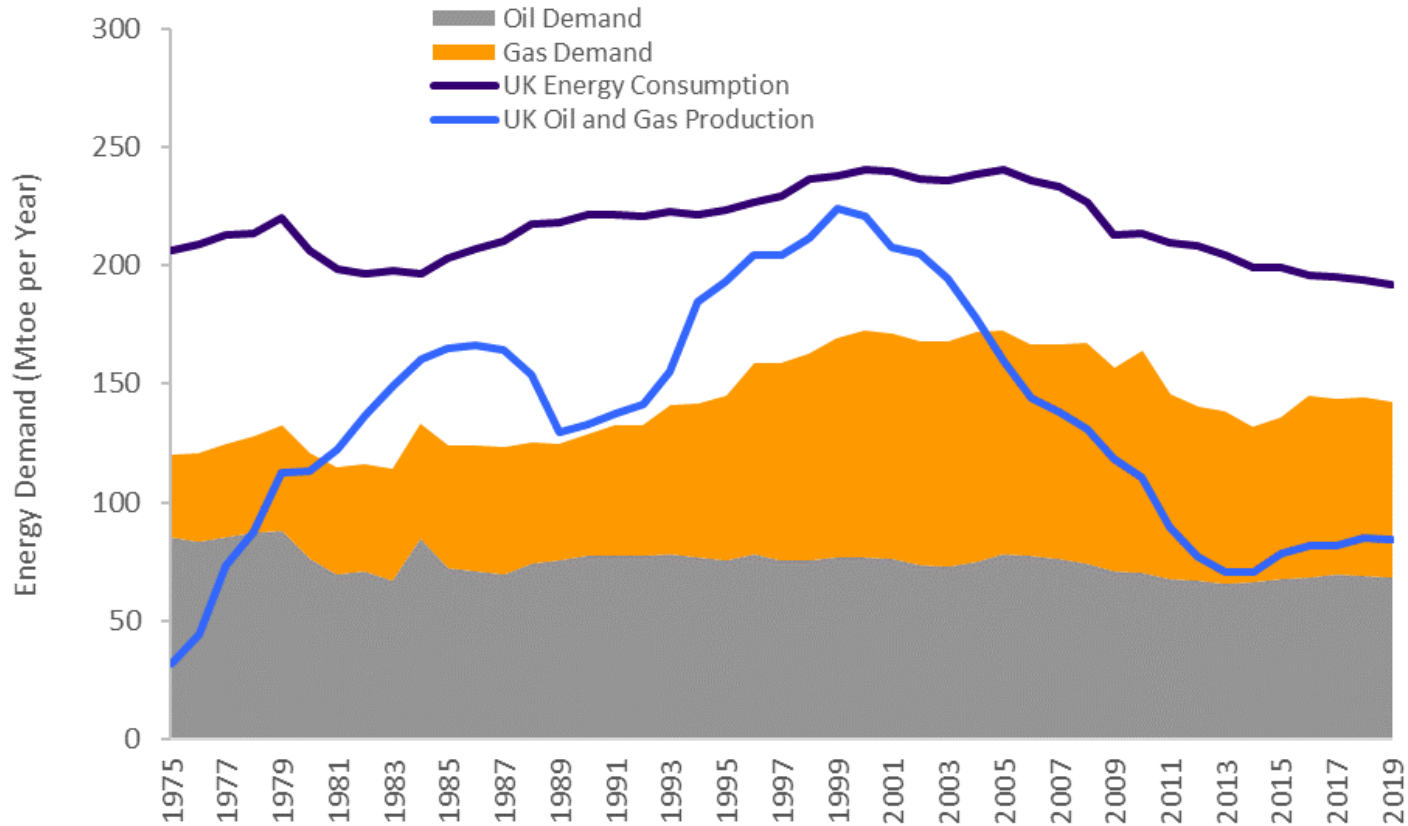
Source: BP

The debate around the future of oil and gas is becoming increasingly pressurised and polarised

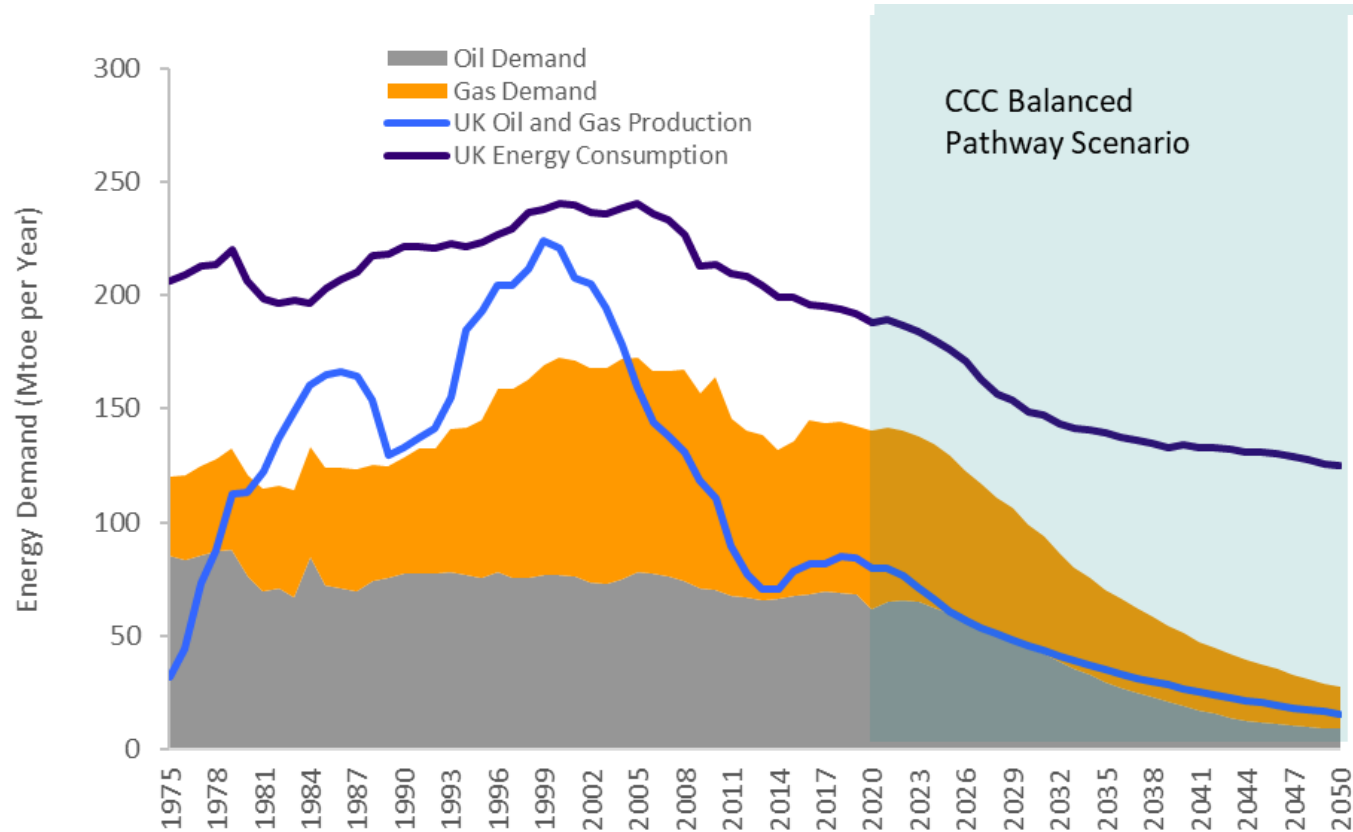


Black Black Oil

Oil and gas has powered the UK economy for over 50 years...

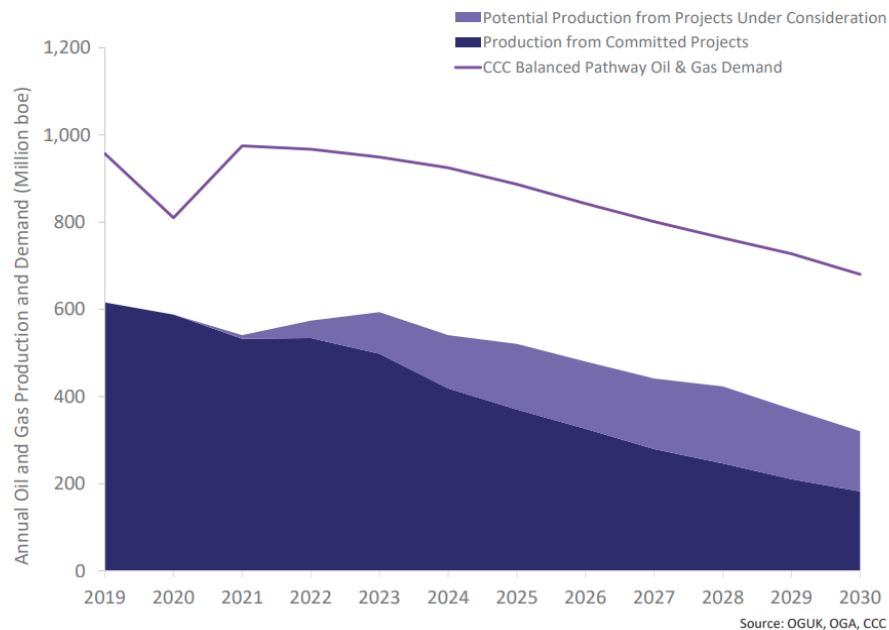


...and it will continue to have an important role in a future diverse, lower carbon, energy mix

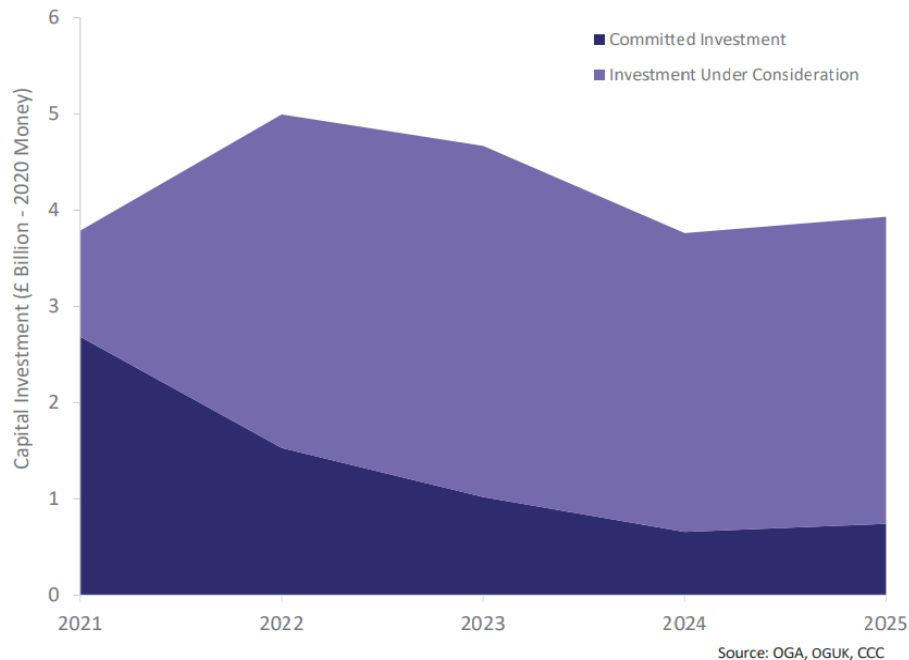


Attracting and retaining investment is crucial to our contribution to security of supply

UKCS Production & Demand



UKCS Committed & Non-Committed Investment



Production is being delivered with lower emissions
The UKCS has set itself challenging targets for emission reduction



CO₂e in 2020 and Methane action plan in 2021

North Sea Transition Deal

The UK North Sea Transition Deal, the first by a G7 country, will accelerate the energy transition, reduce UK emissions, and create new jobs across the UK

The Deal will require an internationally competitive and level playing field as part of a broader energy framework

Supply decarbonisation

cutting upstream Oil and Gas industry emissions through an ambitious production emissions reduction programme



Carbon Capture & Storage

enabling large parts of UK industry and society to eliminate emissions



Hydrogen

providing a realistic alternative for heating, heavy industry, and transport



Infrastructure delivery will be made reality through capability-related commitments that underpin the growth of the UK economy

Supply chain transformation

developing expertise that underpins energy-sector wide export growth from the UK, creating a globally competitive energy supply chain of international repute

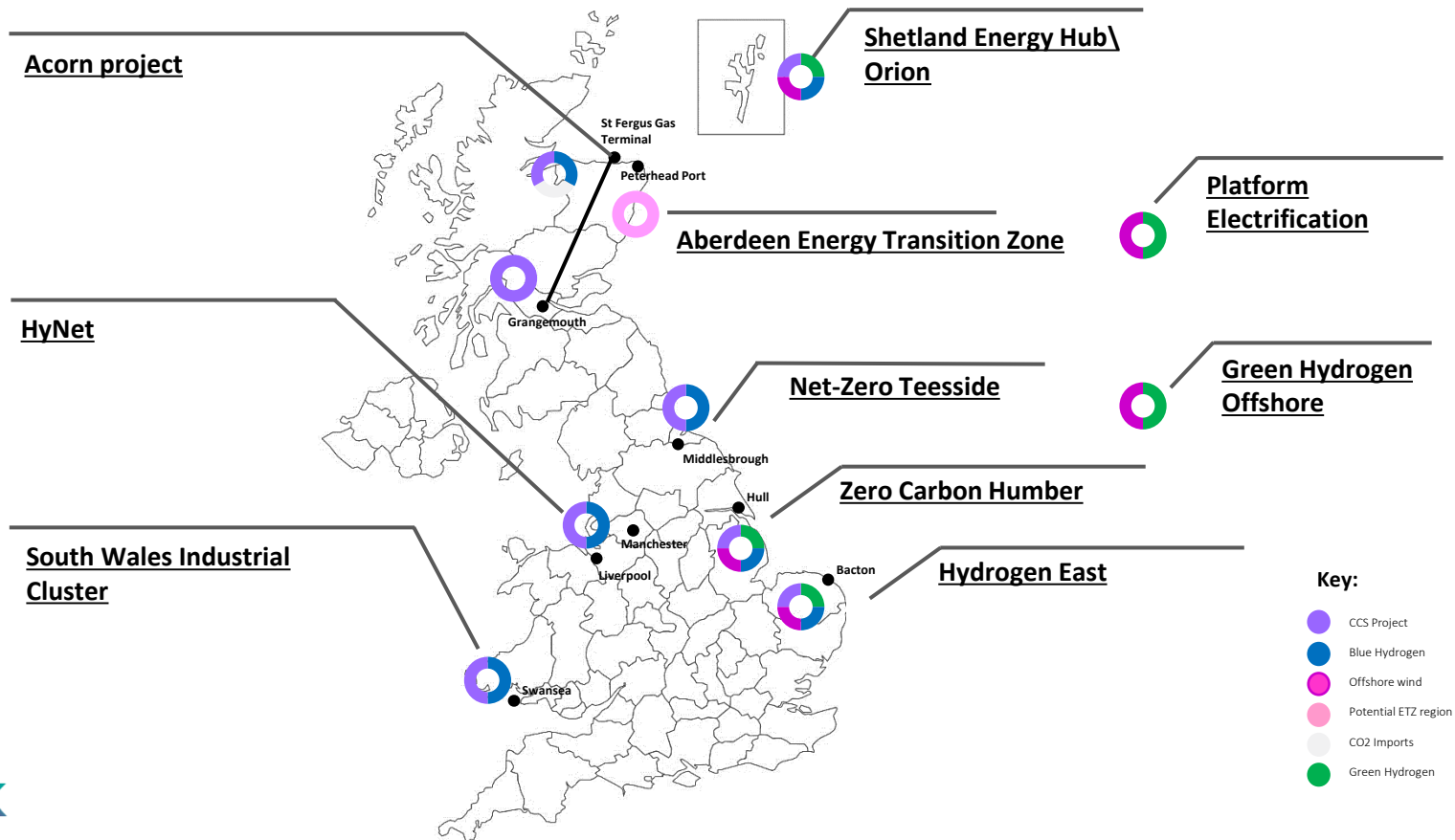


People & Skills

securing, stimulating, and creating tens of thousands of high quality jobs in industrial heartlands

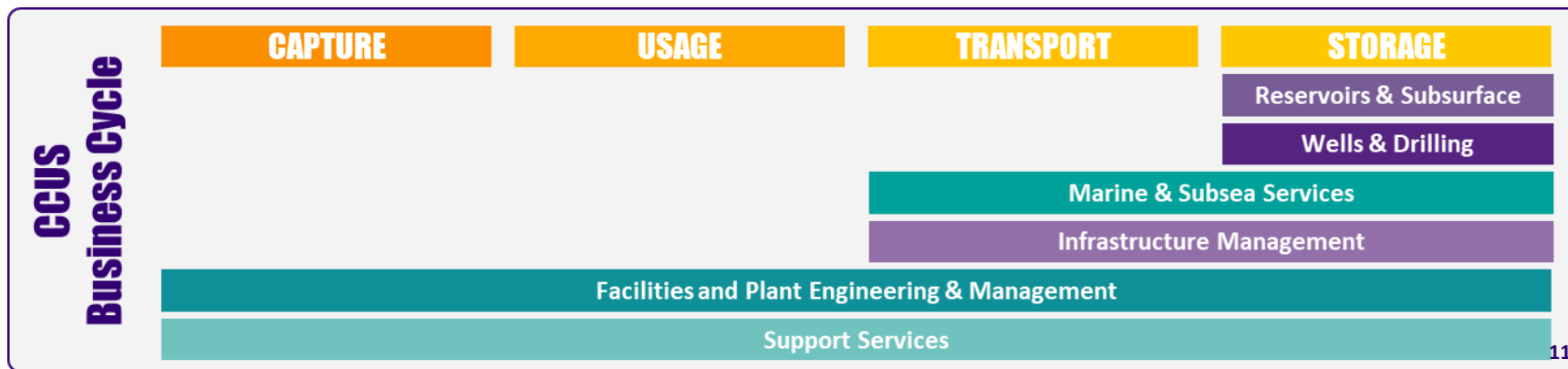
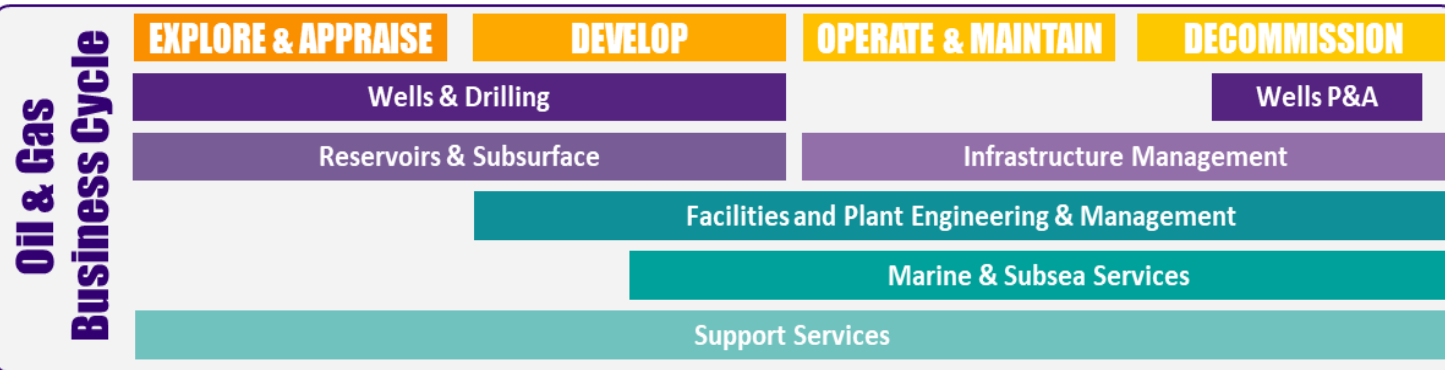


A North Sea in Transition - Enabling a low carbon future



The UK's Offshore Supply chain is well positioned to deliver net zero solutions

UK oil & gas supply chain businesses
£28 bn turnover,
46% as exports
of goods and
services in
2018



Carbon Capture & Storage / Hydrogen context

enabling large parts of UK industry and society to eliminate emissions

Industry

75m tonnes CO2
p.a.

38mt at existing
cluster locations

32mt dispersed

Cement, Steel,
Refineries,
Fertilisers etc.

Power generation

60m tonnes CO2
p.a.

30GW CCGTs to be
replaced by
dispatchable,
flexible plant

270TWh gas used
in generation

Growth in EfW

Transport

120m tonne CO2
p.a.

Personal and light
commercial ->
electricity?

Aviation, shipping
and heavy freight

Residential

70m tonne CO2
p.a.

400TWh gas used
in commercial and
domestic settings

H2 Boilers, Fuel
cells (including for
heat), District
heating

Industry is already delivering key energy transition projects

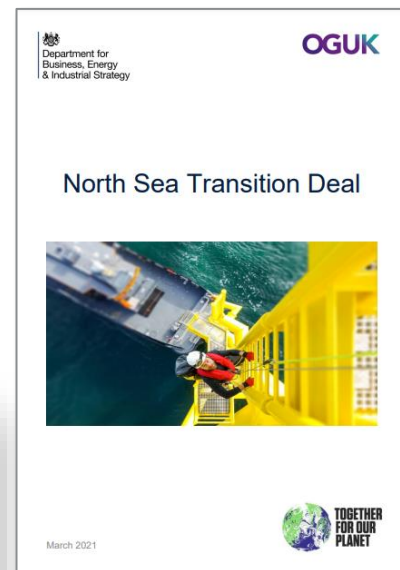
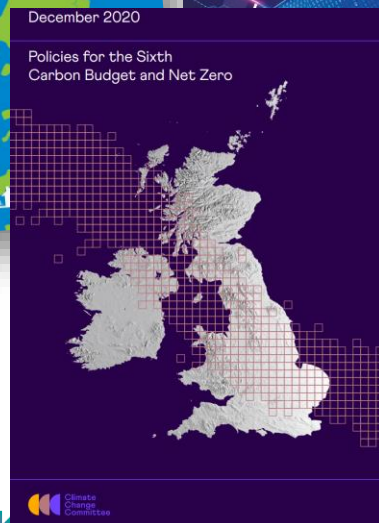


The oil and gas industry - leading by example in a changing world



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY



OGUK

www.oilandgasuk.co.uk
info@oilandgasuk.co.uk
#OGUK

© 2021 The UK Oil and Gas Industry Association Limited, trading as OGUK