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UKCS road to net zero

Technology Driving Transition

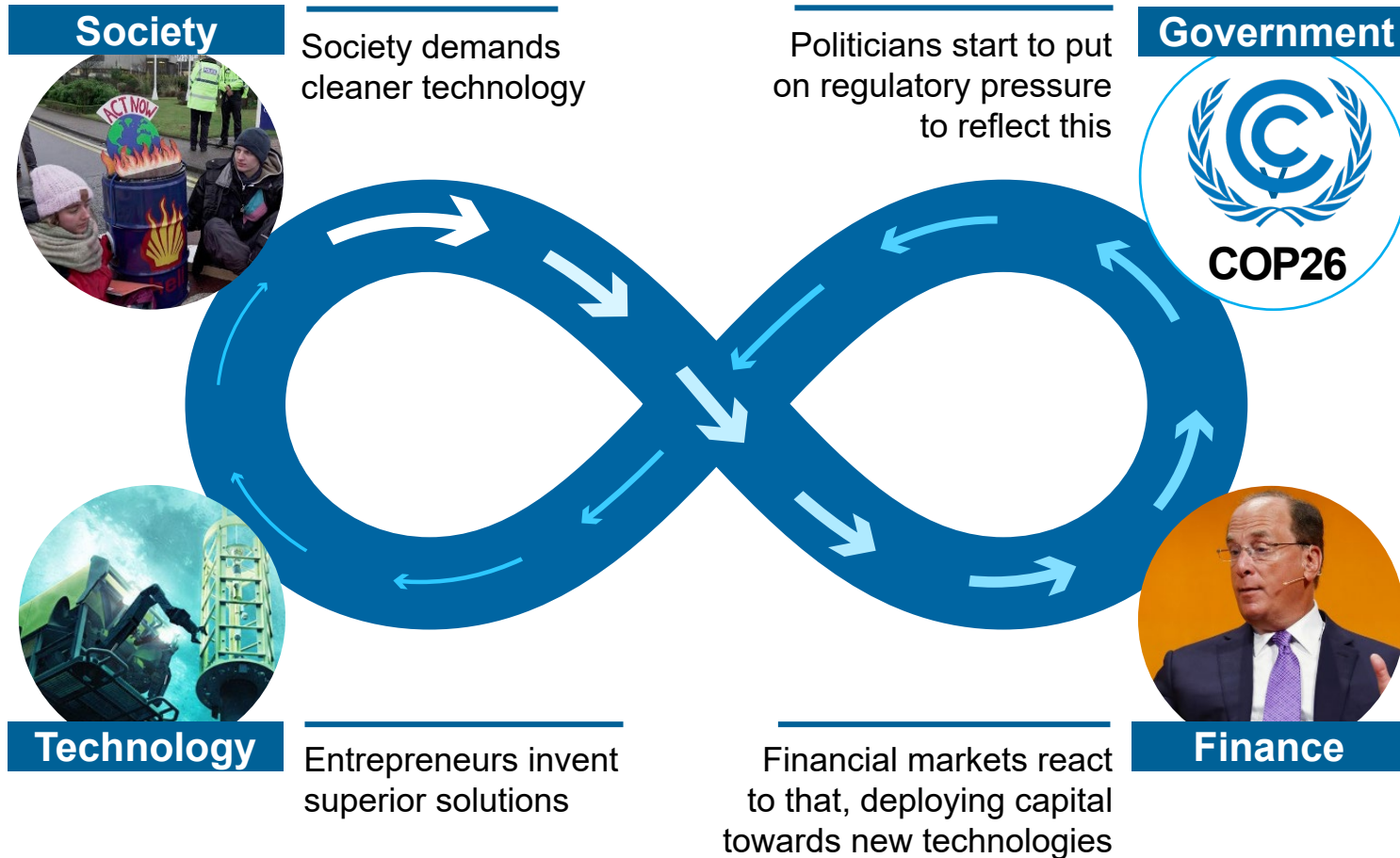
Dr Andy Samuel, Chief Executive

November 2021

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Pace of change – positive feedback loop

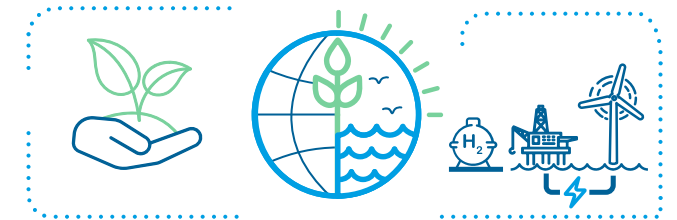


Modified from: World Economic Forum: The Speed of the Energy Transition

Leading with purpose



Climate change – Loss of Biodiversity – Social inequality



Unique opportunity post pandemic green and just recovery



Requires whole systems approach and down to all of us

Collaboration and sharing learning



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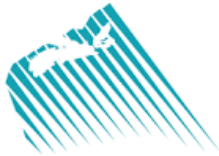


Australian Government
National Offshore Petroleum Titles Administrator



NORWEGIAN PETROLEUM
DIRECTORATE

CNSOPB



CANADA-NOVA SCOTIA
OFFSHORE PETROLEUM BOARD



JARÐFEINGI
Faroese Geological Survey



anp
Agência Nacional
do Petróleo,
Gás Natural e Biocombustíveis

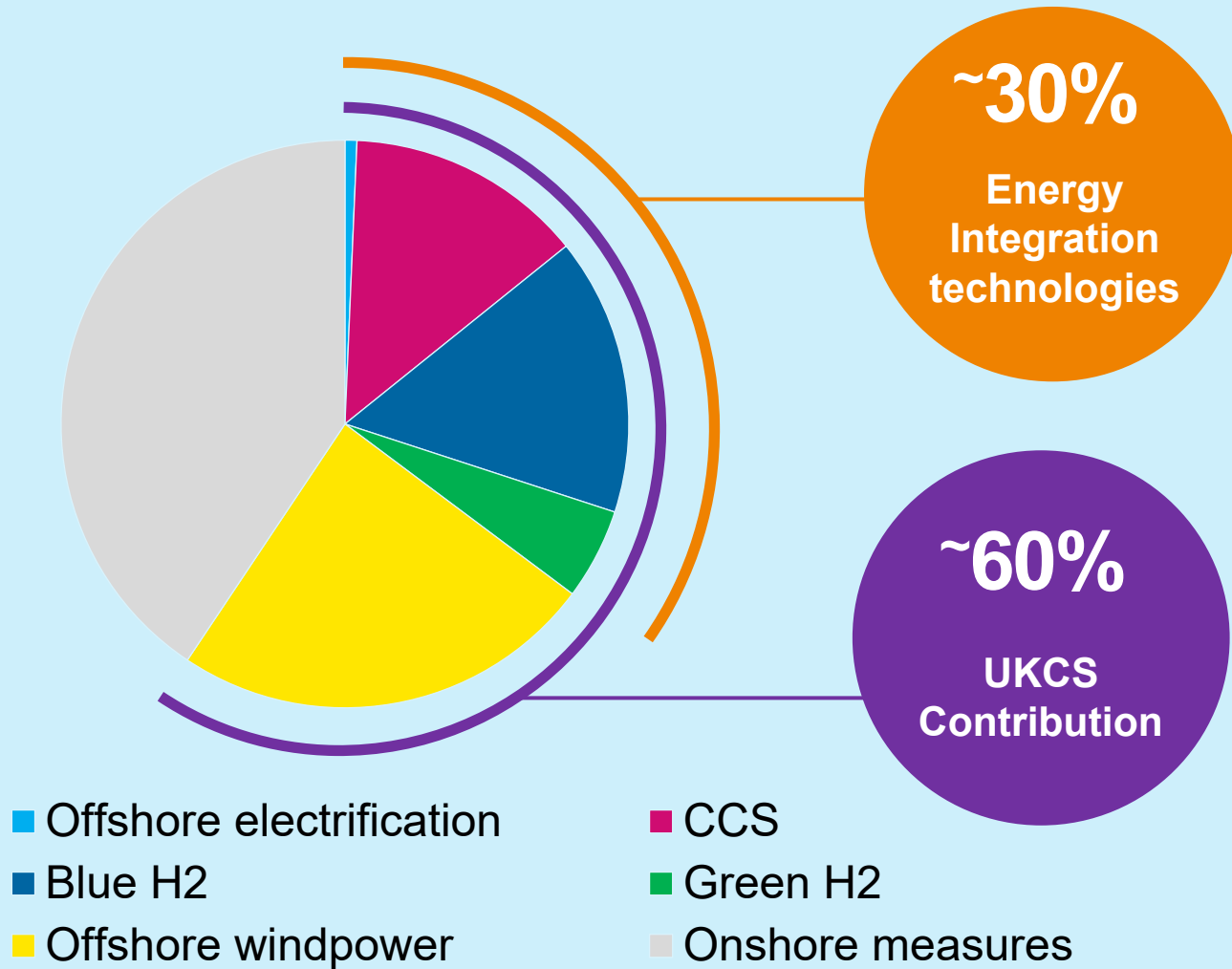


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Offshore contribution to UK net zero

2050 net zero emission abatement from 2018 baseline



North Sea Transition Deal

- Govt & industry commitment to transition
- First of kind for G7 country
- Future licensing climate checkpoint
- Quid pro quo

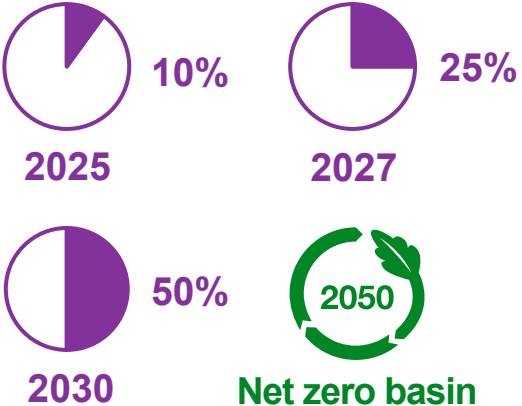
NSTD: £16bn investment committed

£10bn for hydrogen
 £3bn for electrification

£3bn for CCS
 50% local content

Supply Chain Champion

Industry commitment to reducing upstream GHG emissions



OGA tracking and monitoring progress

GHG target as OGA KPI

Annual OGA dashboard

Intensity benchmarks

Flaring & venting

Overall KPI target progress

Focus on technologies & further innovation to deliver net zero



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Emissions reduction

- Flaring and Venting reduction
- Energy efficiency
- Low-carbon power

Electrification

- Cost-efficient **brownfield modifications** to power existing platforms
- Reducing costs of **floating wind**
- Alternative **low-carbon power generation**

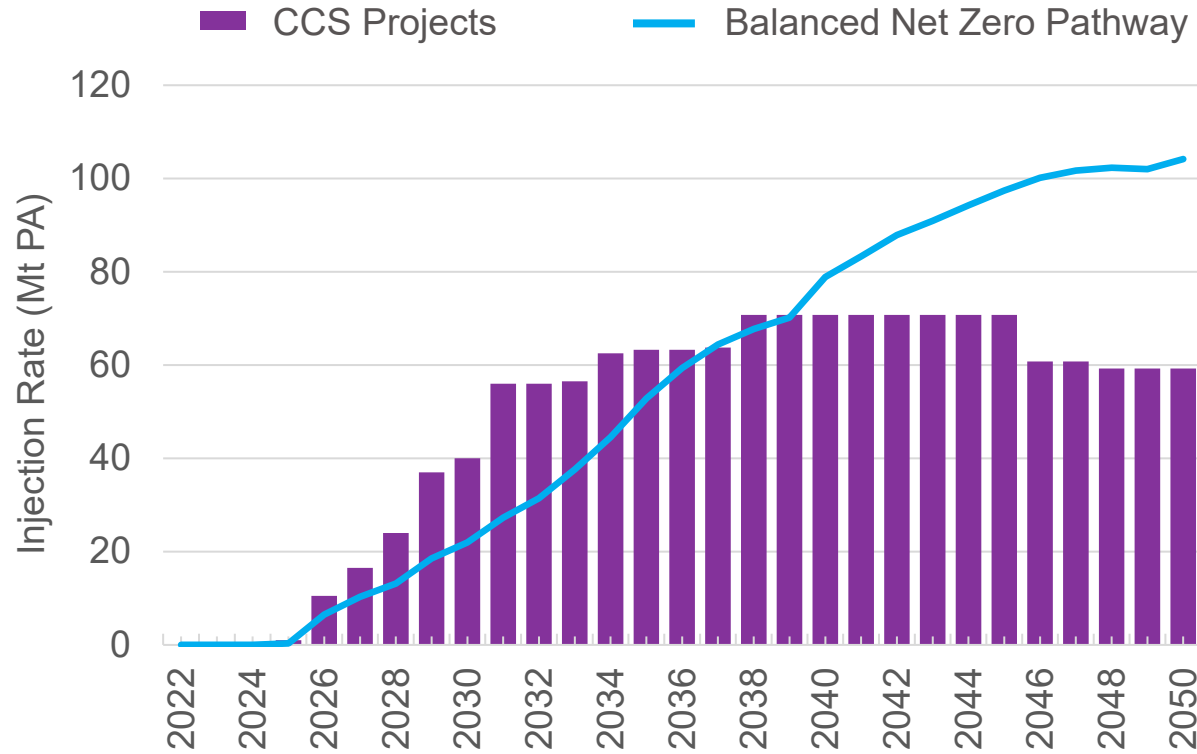
Hydrogen

- Large scale hubs
- Hydrogen supply
- Hydrogen transportation

Carbon Capture and Storage

- **CO₂ capture** is the largest CCS cost component
- **CO₂ transportation**
- **CO₂ storage**

CCS – the time is now



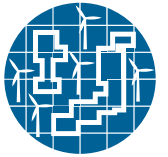
Potential to get ahead of the curve

78
GtCO₂

Total UKCS CO₂
storage resource
estimate

75-175
MtCO₂

CCC estimate
requirement
in 2050



Spatial planning
to high-grade
future sites

Northern Endurance Partnership, Teesside



HyNet, North West England



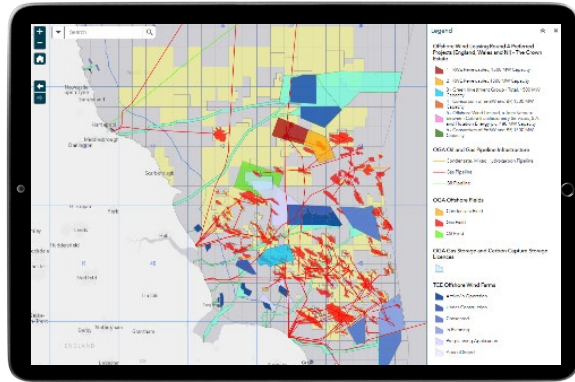
Acorn, St Fergus



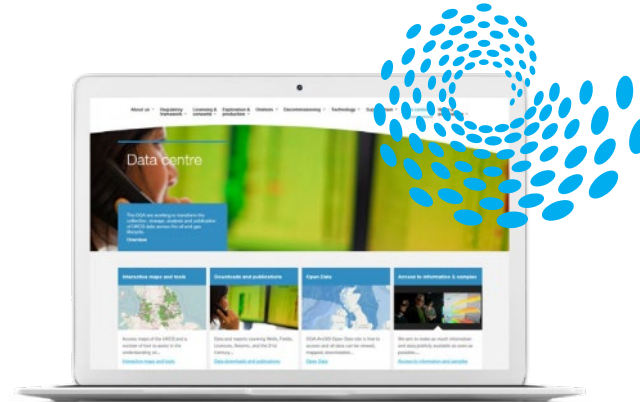
V Net 0, Immingham



Geographic Information Systems (GIS)



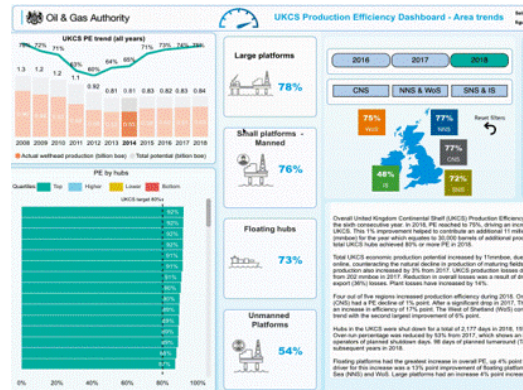
Digital Energy Platform



- Open to all
- Cloud based
- View & download data
- Integrated with other data sources
- Authoritative

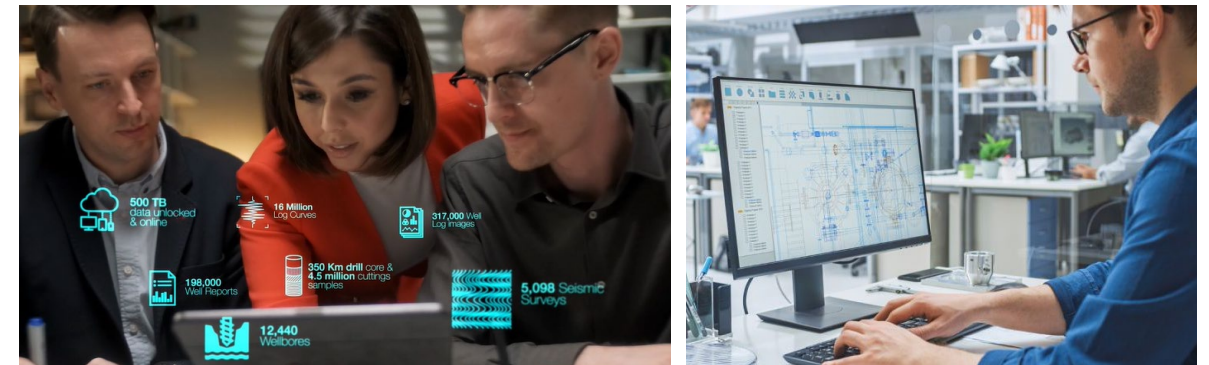
Insights

Data collected, analysed and disclosed to encourage action



Advancing the energy transition

New NDR already being used by industry & academia across multiple CCS & hydrogen studies





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Thank you
