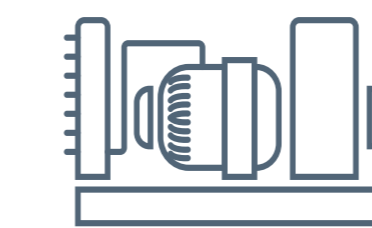
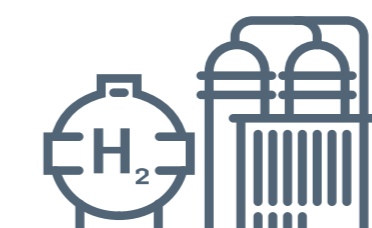




*Enabling the Future of the Energy Transition
through the adoption of remote operations.*



Alternative Fuel
Gas Turbines



Hydrogen
Backbone Link



Energy Hubs



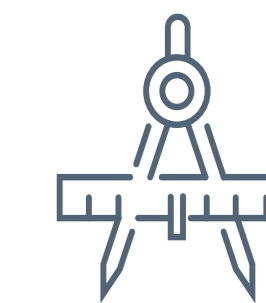
Advancing Remote
Operations



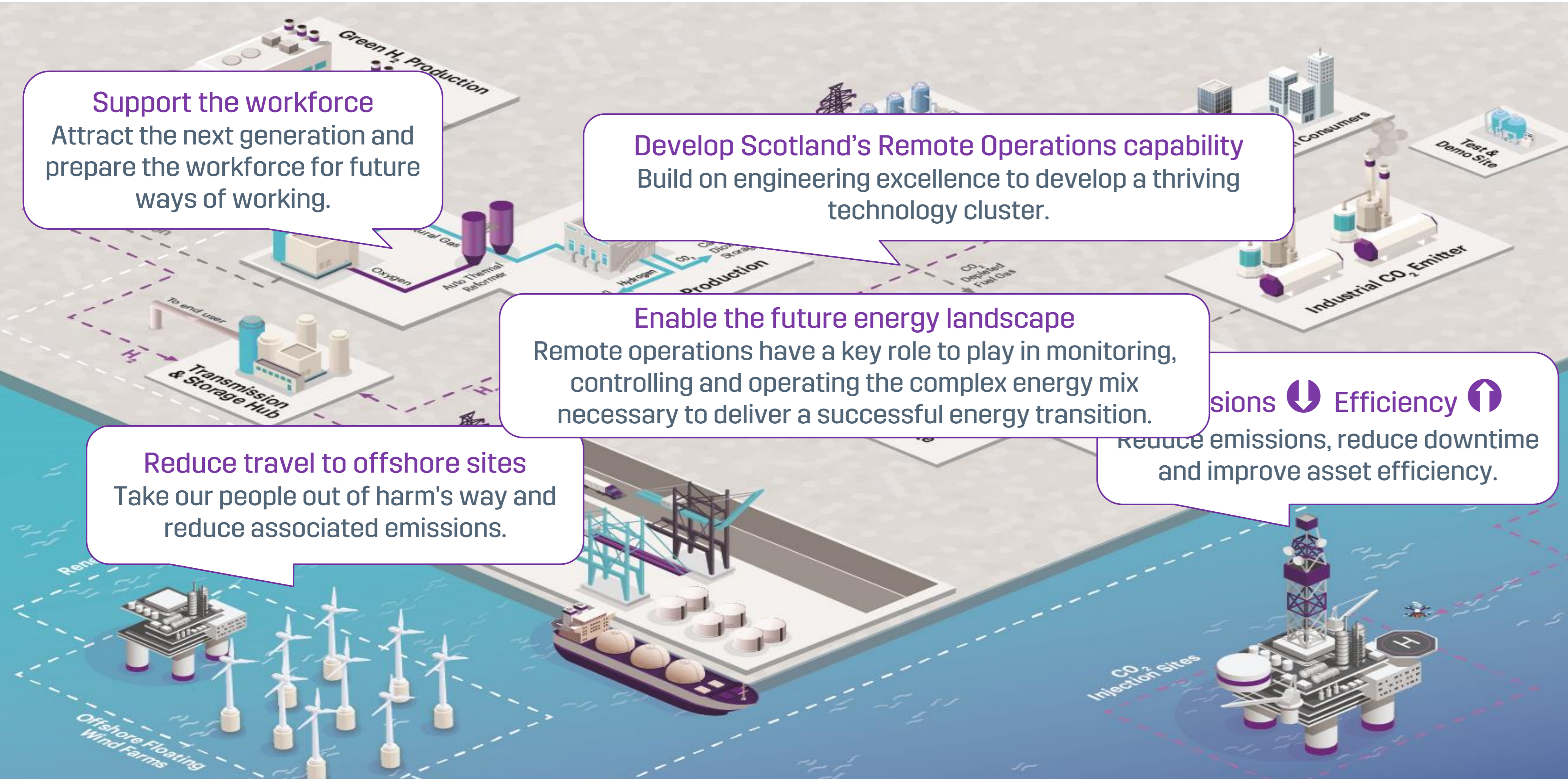
OLTER



Data 4 Net Zero



Offshore Energy
Data Architecture



- Support the workforce
- Reduce emissions and improve asset efficiency
- Reduce offshore travel
- Develop Scotland's Remote Operations capability
- Enable the future energy landscape

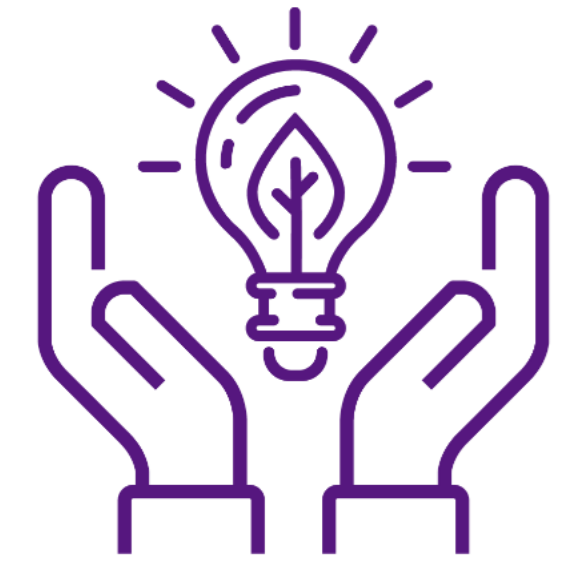
Digital Integrated Energy Vision – empowered by Digital, Remote Operations and Robotics



A lighthouse project to *equip* the energy industry with the knowledge, know-how and technology solutions needed to accelerate widescale *adoption* of remote operations.

How ARO is driving the adoption of remote operations

LEAD ROLE - NET ZERO TECHNOLOGY CENTRE



INSPIRE

- Industry Leadership
- Events, Conferences & White Papers
- Reach through Website & Media



EQUIP

- Essential Tools and Knowledge
- Proven Industry Approaches
- Playbook and Landscape Study



PROVE

- Pilot and Field Trials
- Technology Deployment

SUPPORTING ROLE - INDUSTRY

LEAD ROLE – NZTC & INDUSTRY



ADOPT

- Centre of Excellence to drive adoption of digital technology
- Adopt new technology & support commercialisation
- Embrace a new operating mindset
- Embed into Operations



INSPIRE

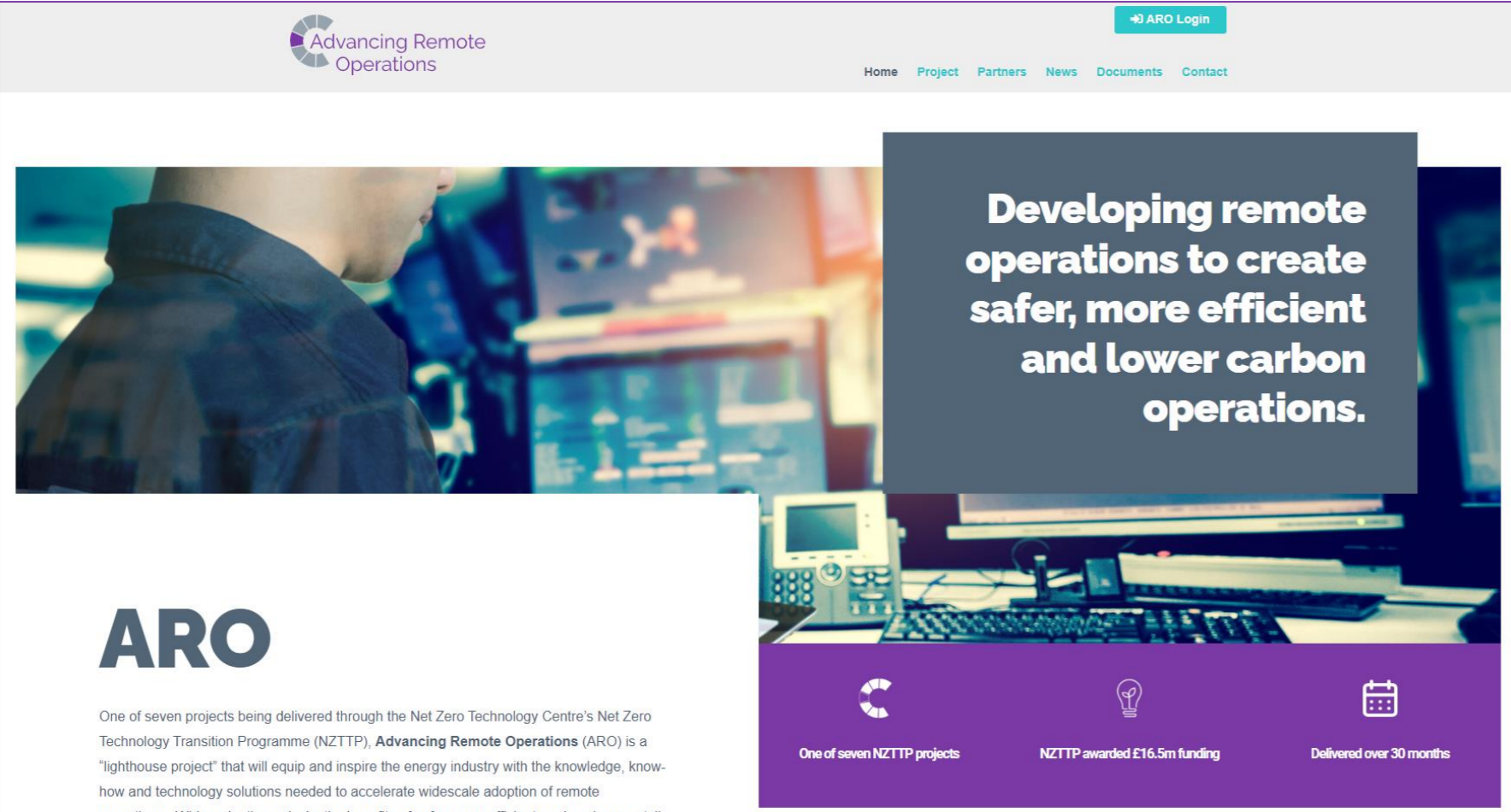


EQUIP



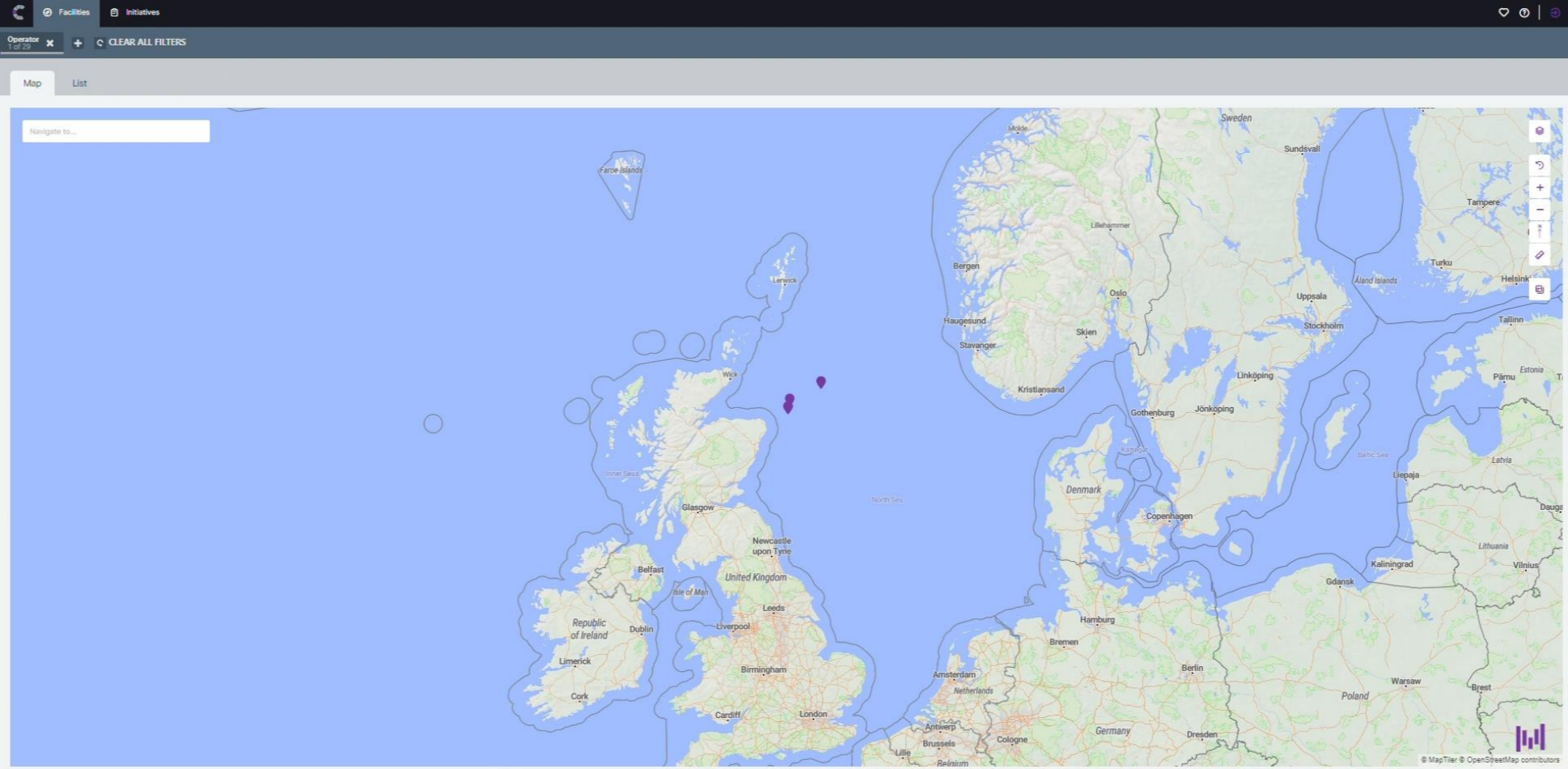
PROVE

Phase 1 – inspiring and equipping the energy industry



Web Portal

The external face of the project and the repository for the key deliverables.



Energy Asset Evaluation Tool

Remote Operations decision support tool that identifies and quantifies remote operations opportunities.



VR Pilot

VR asset familiarisation and contextualised training opportunities.



INSPIRE



EQUIP



PROVE

Phase 1 – inspiring and equipping the energy industry



ARO Playbook – 2025 Update

Practical guidance on the major business elements required to implement remote operations.



ARO Landscape Study

A detailed cross-industry, global, review of remote operations with key learnings for the ARO project and energy industry.



INSPIRE



EQUIP



PROVE

Phase 2 – inspiring, equipping and proving what is possible



Technology Playbook

Detailed technical guidance on the digital requirements for implementing remote operations in the energy industry.



ARO Project Whitepaper

A whitepaper that summarises the project, captures key lessons learned and lays a path for the future of remote operations



INSPIRE



EQUIP



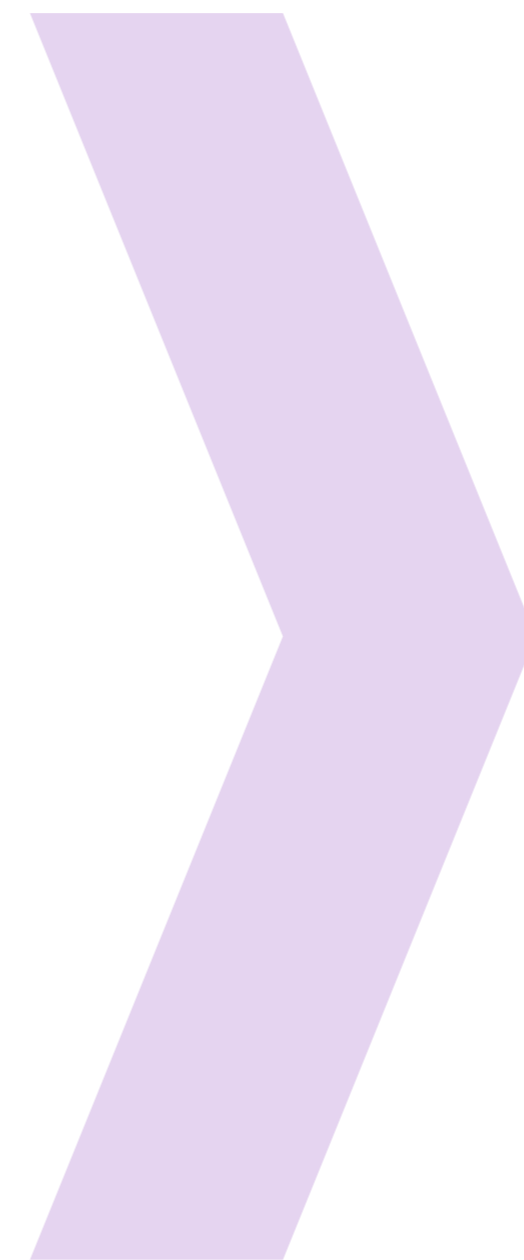
PROVE

Phase 2 – proving what is possible with **Field Trials**



Digital twin technology for remote operations

Demonstrating how digital twins can enhance and replace traditional offshore methods.



Fully automated drone delivery trial

Aiming to be the first autonomous BVLOS drone delivery to a UK windfarm.

Thank You!



The DEN – Digital Energy Nexus

- One investable business case for the DEN developed with OLTER
- State-of-the-art services designed to accelerate the adoption and commercialisation of digital technology in the energy sector



Digital
Energy
Nexus
(DEN)

Business Case

Net Zero Technology
Centre



INSPIRE



EQUIP



PROVE



ADOPT

ARO Into the Future - has a key role to play in ...



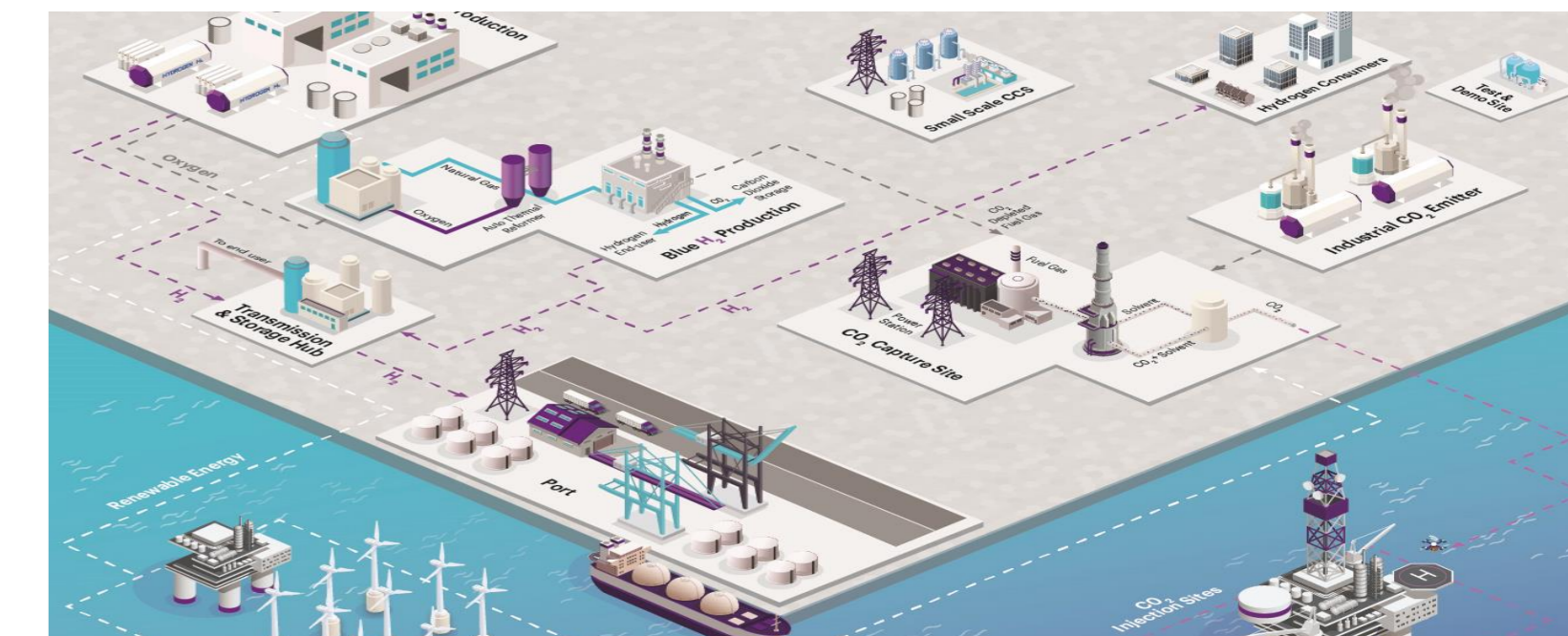
Current Energy Infrastructure

Unlocking new opportunities
Extending Asset Lifecycles
Improved Safety
Reduced Emissions



The formation of the DEN

Driving **adoption** of remote operations
and digital technology
Unlocking a new operational
philosophy and way of working
Enabling the future energy system



The Future Energy System

A transformational shift in energy
system design and operation
No replication of outdated
operating models



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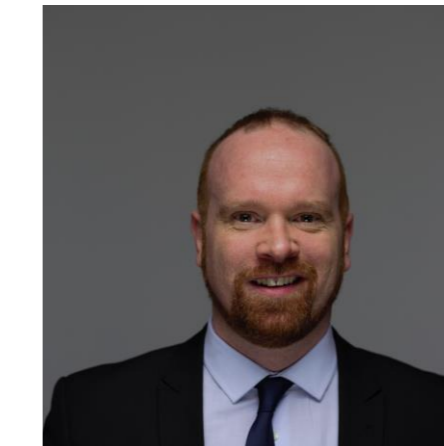
Get in touch



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