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Design the Future

Hydrogen

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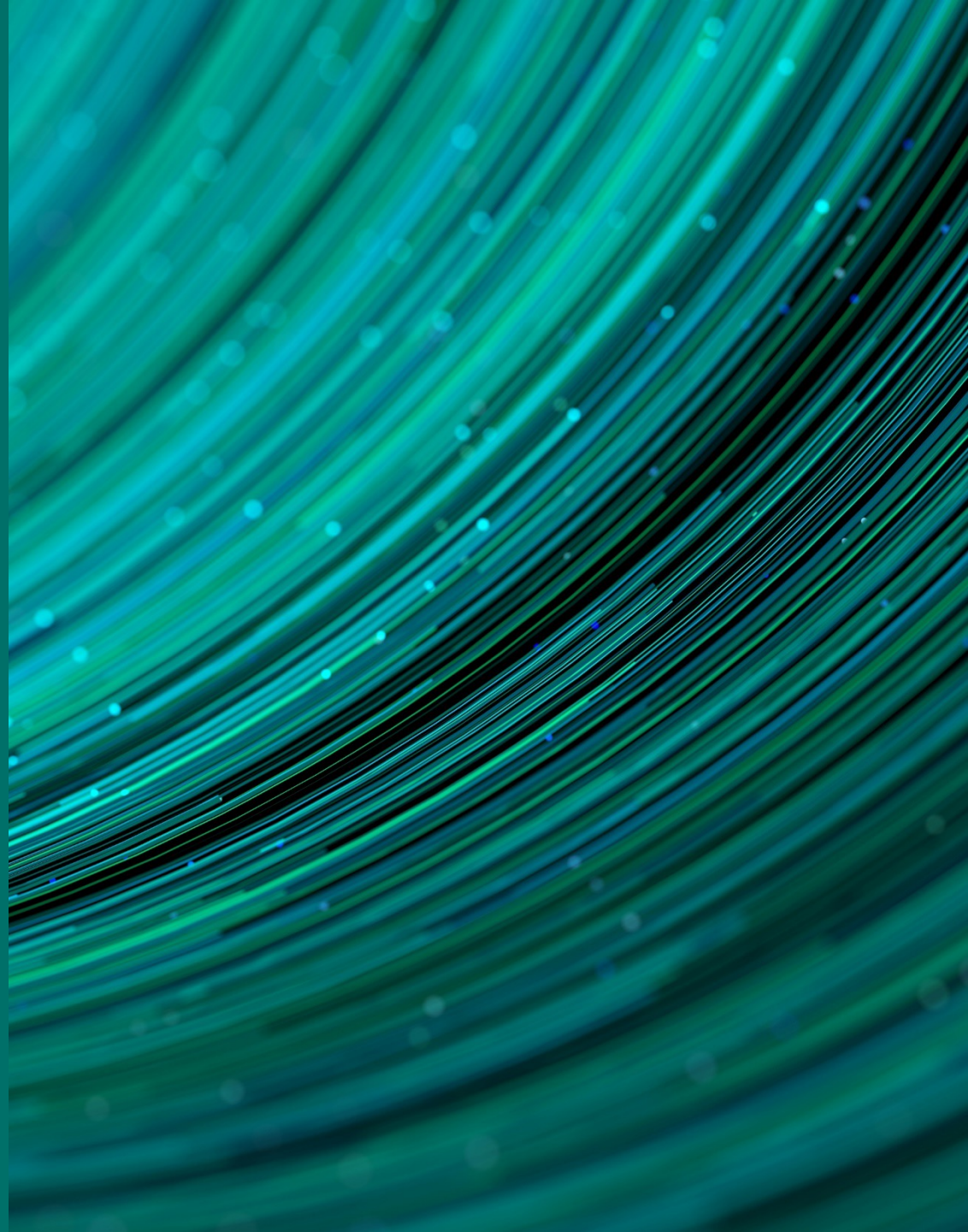

Expertise across the asset life cycle

Plan > Design > Build > Operate / Optimise > Repurpose / Decommission

Consulting

Projects

Operations

Sustainanable solutions from initial concept through to end of life, across multiple sectors

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Our hydrogen journey

130+ hydrogen units licensed and designed

Modular solutions

Expertise in production, storage and distribution

60 years H_2 **experience**

200 MMSCFD (550MW) **Largest** single train unit with no limit to top end

Experience in **integrated industrial developments** including Green Hydrogen

Emerging **Biohydrogen** technology

Sustainable **clean SMR** with 95% CO2 reduction. "**Grey to Blue" reconfigurations** to extend existing asset life

Ready-now Blue hydrogen **technology** with integrated carbon capture

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Enabling the hydrogen revolution

Make it

Proprietary blue hydrogen technology solutions that **capture 95% of CO2 emissions** and investing in bio-hydrogen

Move it

Study project to assess **technical readiness of cryogenic pipelines and offloading assets** for a range of different h2 vectors

Use it

Applying hydrogen in a range of sectors including **hydrogen powered ferries** on Scotland's West coast

World-class carbon capture and decarbonisation solutions

Removing 4m tons of CO2
through flaring reduction

Delivered the techno- economic case for the
first full-chain CCS project at Teesside

Capturing and storing **8m tons of CO2**
per annum at Humber Zero

Driving towards net-zero industrial clusters

Wood is currently developing decarbonisation roadmaps at **3 of the UK's 5 largest industrial clusters**

Partner with NECCUS to decarbonise **30 industrial sites that make up 80%** of Scotland's total industrial emissions

Working with SGN on roadmap to **repurpose gas network** to support decarbonisation of North-East Scotland

Broader decarbonisation policy is also influencing hydrogen growth

- Governments are setting out ambition and intent on decarbonisation, of which hydrogen is playing a vocal role
- Decarbonisation roadmaps are looking at hydrogen as one of a set of longer-term net zero measures
- Carbon pricing schemes are stimulating clean technology and market innovation
- Increase in research & development funding to accelerate transition

Policy momentum has never been stronger than right now, driven by popular opinion and the need for *leadership* on climate change.

Hydrogen policy will determine pace

EU	Very Supportive ■■■■□
Australia	Supportive ■■■□□
UK	Supportive ■■■□□
Japan	Supportive ■■■□□
USA & Canada	Growing Support ■■□□□
SEA	Emerging ■□□□□

The keys to unlocking hydrogen opportunities

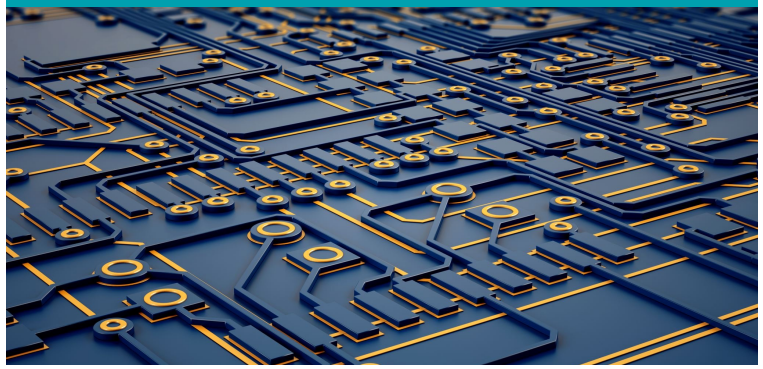
Financing

- The primary challenge is ensuring that investment levels are appropriate to meet demand.
- Crucially, it's not just about spending money, but about ensuring it's channeled towards the right blend of opportunities.
- Subsidies, export finance and incentives are important for some hydrogen projects to be realised

Engineering integration

- Collaboration with technology providers to build constructable solutions for challenging environments.
- Integrating a hydrogen element into the early stage of renewable developments to maximise value and minimise interfaces.
- Ensuring the right infrastructure is developed to integrate hydrogen solutions as part of the energy system

Technology



- Resolving the challenge of enabling green hydrogen production in water-stressed regions.
- Realising the end-user technology at scale required to establish a hydrogen economy.
- Selecting the right blue hydrogen technology configuration to support long-term profitability

The key to sustaining hydrogen opportunities

Skilled Personnel

- Training facilities to enable skills development and transition.
- Sufficient facilities to sustain Operations and Maintenance Teams.
- Repair infrastructure to support multiple sites.

Case studies

make it

Conversion of asset to improve sustainability

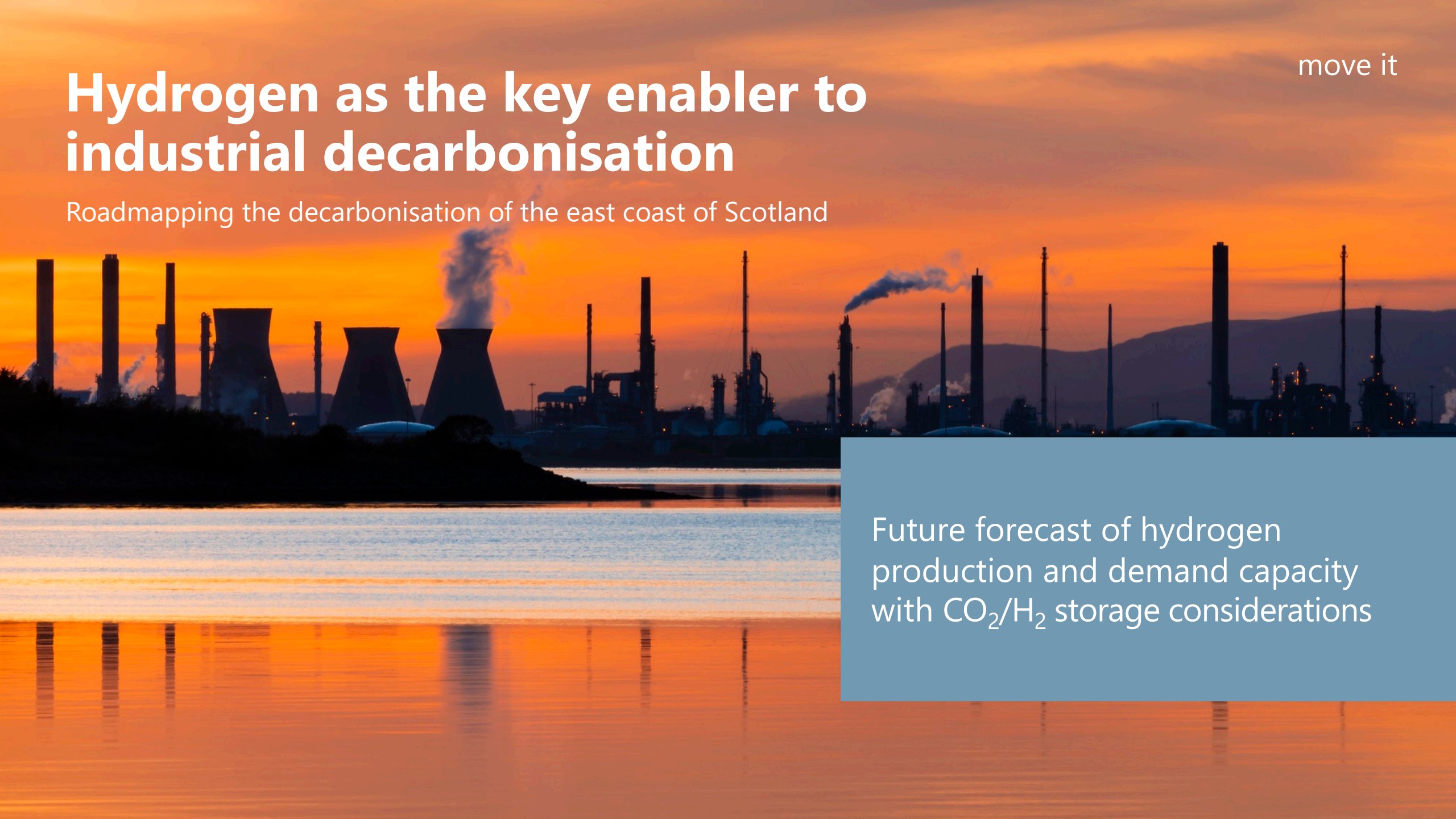
EPC of new 40,000 Nm3/h hydrogen production unit

Steam reforming technology supporting biorefinery development

move it

Hydrogen as the key enabler to industrial decarbonisation

Roadmapping the decarbonisation of the east coast of Scotland



Future forecast of hydrogen production and demand capacity with CO_2/H_2 storage considerations

use it

Hydrogen powered ferries fuel green transport ambitions

Feasibility and FEED studies for pilot local renewable hydrogen production network for ferries

Pioneered work on these early feasibility pilots

Transforming local economies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