

How marine data and evidence can enable net zero and nature recovery in the UK

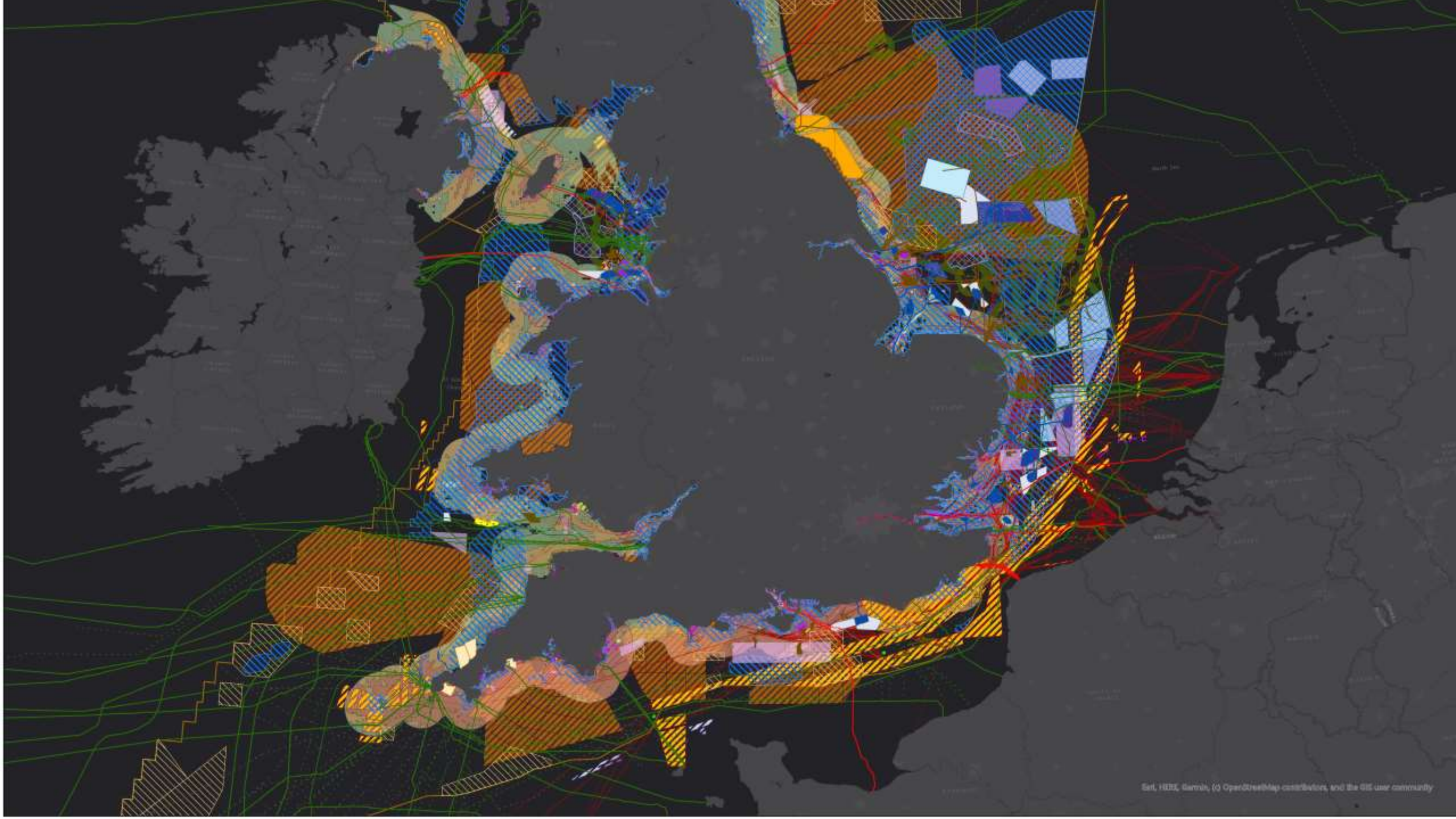
John Mitchell, Marine Data Manager

The Crown Estate



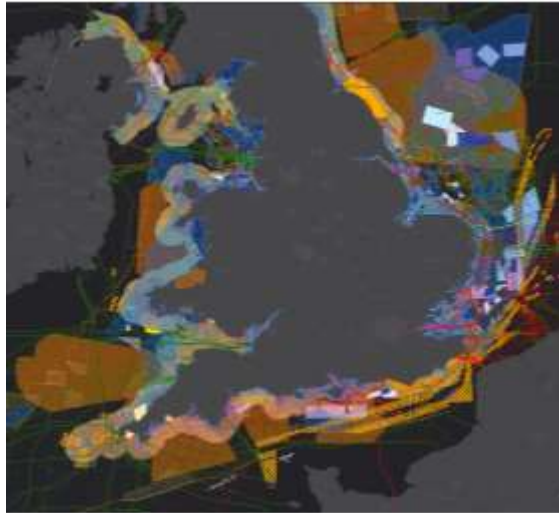
What am I going to talk about?

- What's the situation in the UK marine space?
- Who are The Crown Estate?
- Our role in the UK marine sector and our strategy
- Our role in data and evidence
- The Marine Data Exchange, how we've made it work
- How can we use industry data?
- Where next?



In the UK rapidly growing demands for marine space and the need to enhance nature means coordination is required

Net Zero accelerating growth in demand for seabed, and range of other key sectors rely on marine space...



Marine nature is in decline and urgent action is needed to protect and restore biodiversity...



More visibility and coordinated action needed to unlock investment...

Wind sector faces supply chain crunch this decade, industry body warns

UK renewable energy: the long wait for grid connections must end

Tim Pick, Offshore Wind **Champion**, April 2023...
“[TCE] should move to a system where grid connection capacity is pre-booked, and transmission system designs pre-agreed, for future leasing rounds”

THE CROWN ESTATE

Dating back more than 260 years, The Crown Estate is a unique business with a diverse portfolio that stretches across England, Wales and Northern Ireland



Established by The Crown Estate Act of 1961

As an independent commercial business with accountability to Parliament.



Active owners and managers of land and seabed

We are one of the UK's largest landowners, with some of the nation's most remarkable places and spaces. We manage the seabed around England, Wales and Northern Ireland, and around half the foreshore.



Return our net revenue profit to the Treasury

For the benefit of the nation's finances, with £3bn generated in the last 10 years.



Guided by a compelling purpose

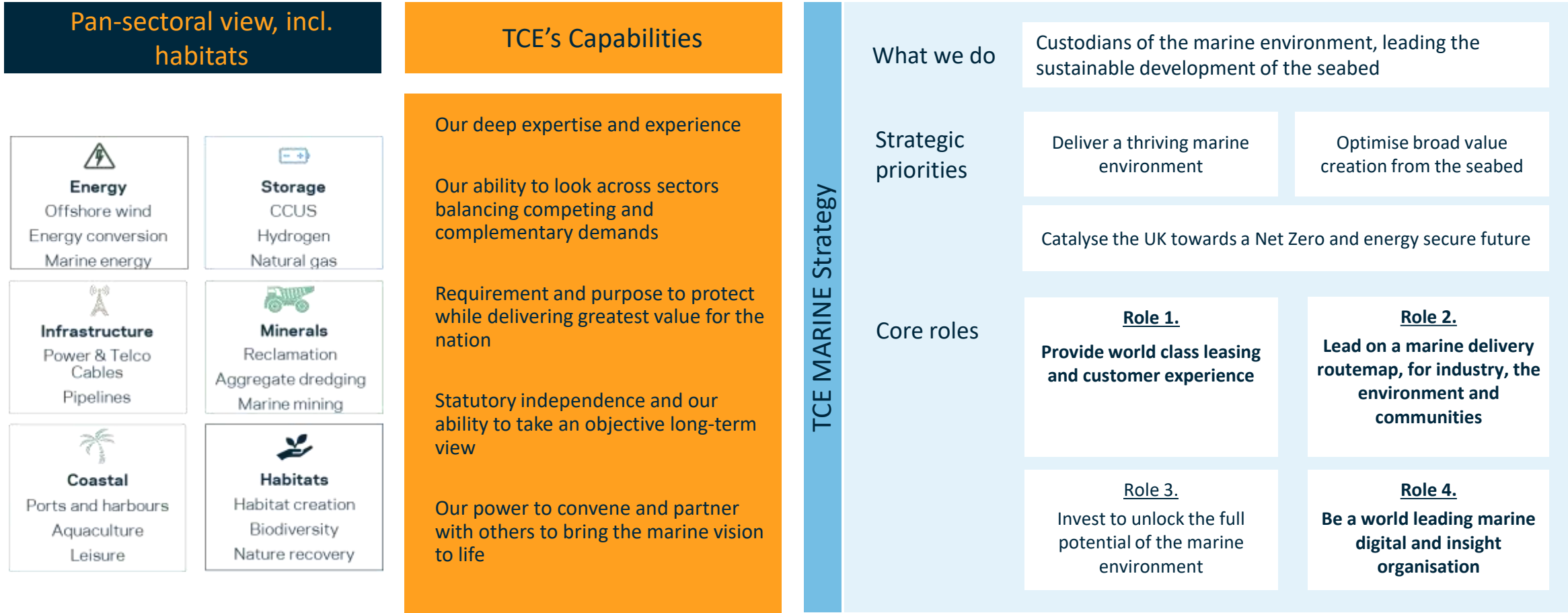
To create lasting and shared prosperity for the nation



Delivering an ambitious strategy

Guided by our purpose and informed by major trends impacting our business, we seek to create broad financial, environmental and social value for our stakeholders, customers and the nation.

As custodian of the marine environment, TCE leads sustainable development to protect the seabed while creating lasting value



Our role in data and evidence:

We have been proactively investing in world-leading marine data and evidence for over 20 years.

We do this in collaboration with others to drive positive change and to promote innovative and sustainable ways in how we collect, share and use data.

Marine 
Data Exchange

A WORLD LEADING REPOSITORY OF
MARINE INDUSTRY SURVEY DATA,
RESEARCH AND EVIDENCE

 Offshore
Wind Evidence
+ Change
Programme

**DELIVERING RESEARCH AND
EVIDENCE PROJECTS THAT
DRIVE CHANGE**

ENABLING BETTER DATA
OUTCOMES THROUGH
COLLABORATION
+ PROMOTING SUSTAINABLE DATA
COLLECTION

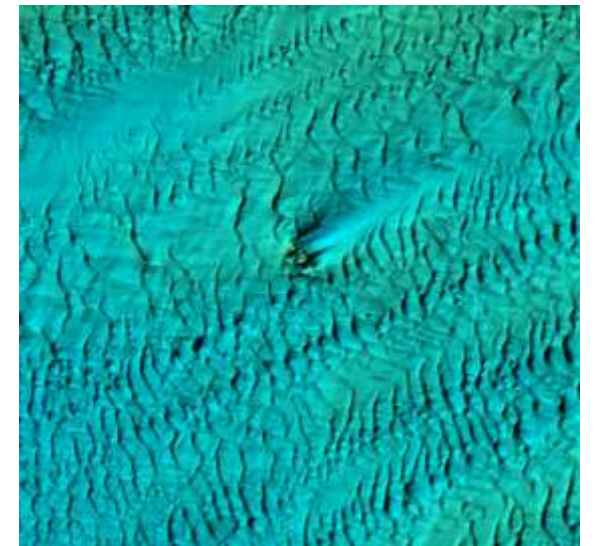
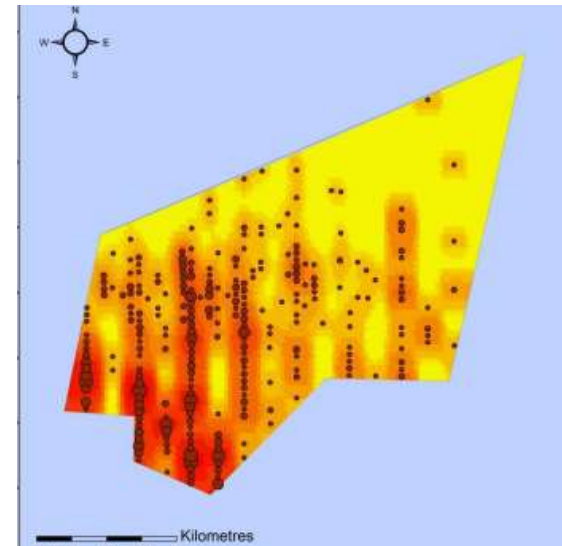
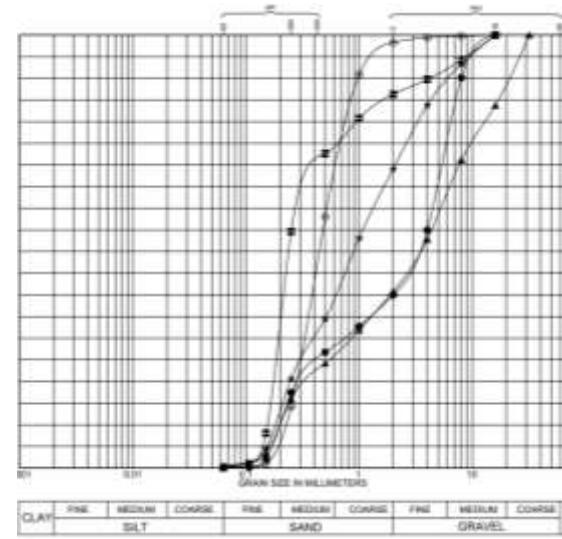
AWARD WINNING SPATIAL
PLANNING SYSTEMS – WHOLE OF
SEABED PROGRAMME

The Marine Data Exchange: An industry data success story

The MDE is The Crown Estate's world leading data management system used to store and publish industry survey data.

Industry survey data acquired through the 'Data clause', a contractual obligation in project leases.

- Set up in 2013
- 280+ TB
- Almost 3000 series, from over 150 offshore projects and research programmes.
- 60% publication rate.
- Data from feasibility studies to decommissioning.
- Covers the whole of the UK – Scotland back on board!



How have we made the MDE work?

1. Worked with industry

- Consistent customer focused approach to clause compliance and data acquisition.
- Clear and easy comms, data delivery, QA process.
- Reduced the time/effort ask of delivering large datasets.
- Strong relationships built with industry allowing us to understand and resolve strategic challenges sooner.

2. A middle ground on standardisation

- Survey data delivered to MDE must comply with relevant MEDIN guidelines.
- Don't ask for specific formats/file types etc.
- Positive: removes barriers to delivery, reducing time and costs required to deliver data.
- Negative: data holding not standardised, therefore slower and more intensive to draw insights from it.

3. Dialogue on Confidentiality

- Confidentiality process based on dialogue with industry.
- The data clause is broad in terms of confidentiality, leading to an adaptable set of publication gates.
- Ensures transparency and allows for adaptation as the industry changes.
- Any adaptations applied consistently across all projects.

4. Refocusing on FAIR

- In the first 8 years of the MDE, our focus was on data acquisition.
- In developing new platform we have focused on making our publicly available data as accessible and inspiring as possible.
- We still need to work on this, and apply the FAIR principles as consistently as possible, making them the heart of what we do.

How can we use industry survey data?

Lower cost of offshore wind

- Study on UK Offshore Wind Variability
- Geology mapping in UK seabed by BGS

Understand and reduce environmental impact of offshore sectors and potentially identify opportunities for restoration.

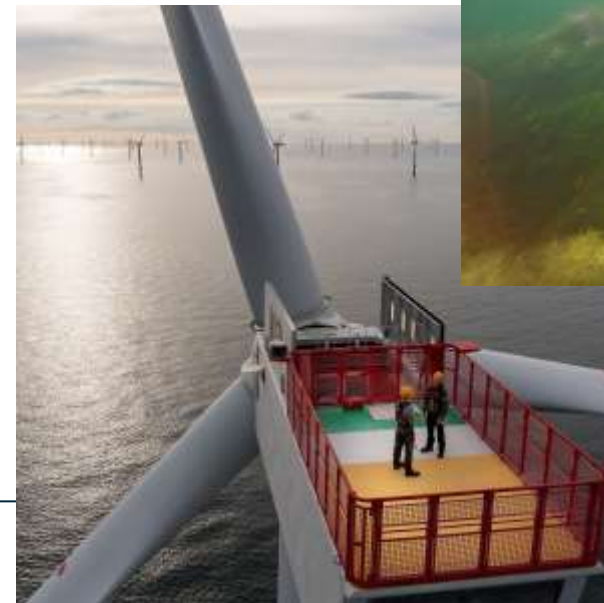
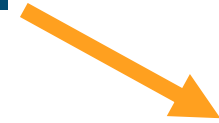
- Planning Offshore Wind Strategic Environmental Impact Decisions (POSEIDON)
- ECOWind projects
- Centres for Doctoral Training– SuMMeR, AURA

Speed up deployment (reduce survey lead in times/consenting challenges)

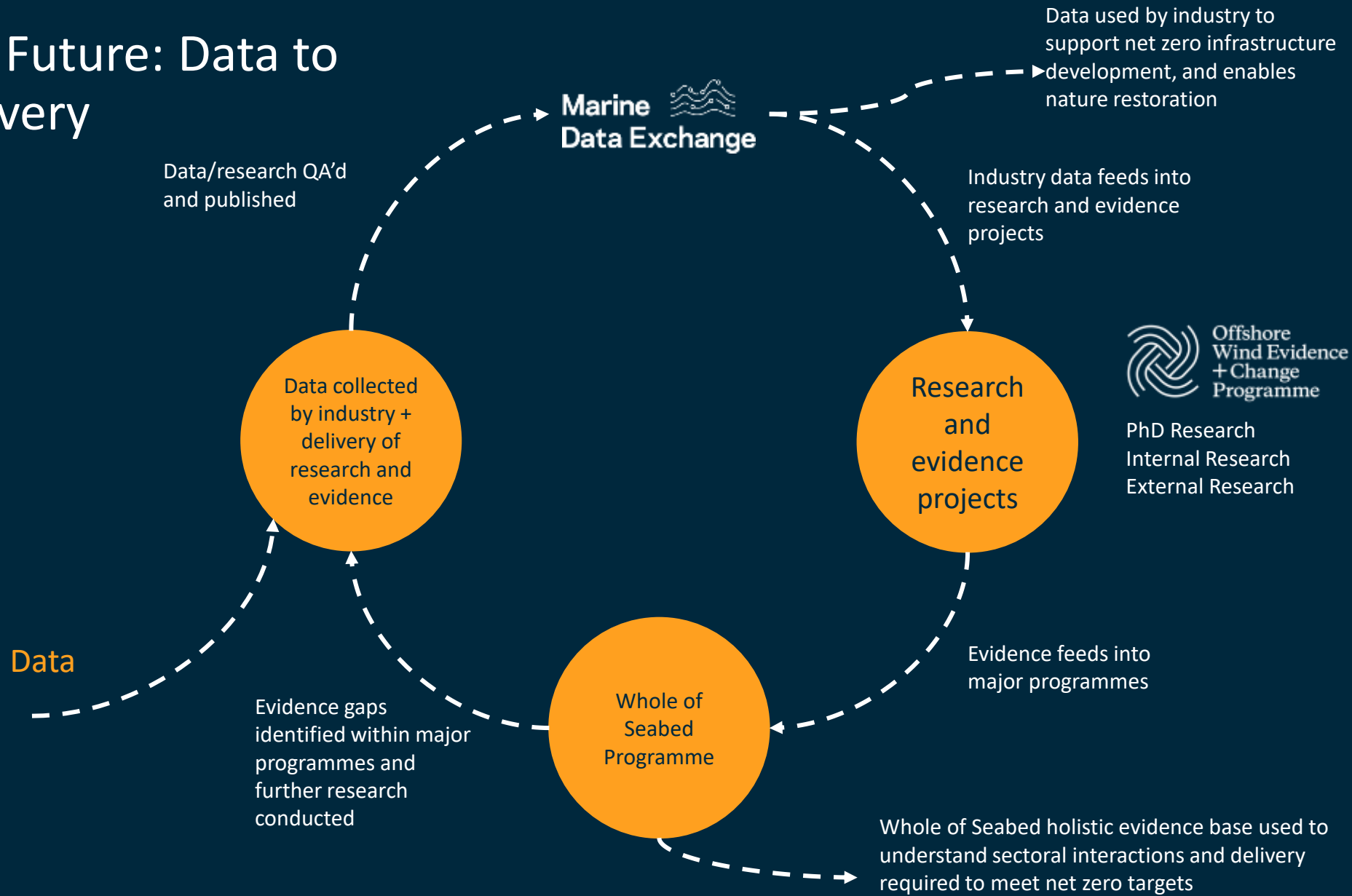
- Cefas's OneBenthic, and JNCC's Joint Cetacean Data Programme portal
- Nature Inclusive Cable Enhancement programme
- Multiple offshore developers utilising MDE industry data to reduce surveying required.



To find our Impact report, follow our QR code here



The Future: Data to Delivery



Where next for the MDE?

- PDF data extraction
- Metadata enrichment
- Internal AI chat (LLM), to be pushed externally after testing.
- Public API for survey extents, potentially to be followed by AGS API.
- Utilising Microsoft storage solutions to reduce storage costs and environmental impact.





Summary

- The Crown Estate - custodian of the marine environment in England, Wales and Northern Ireland
- Play a significant role in the marine data and evidence space in the UK through MDE/OWEC/WoS
- MDE demonstrates how industry data can be collected and then used to enable transition to Net-zero and nature recovery
- We want to take MDE even further and unlock more from industry data!

Thank you for listening!

Any questions?

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