

A photograph of an offshore wind farm. The sky is blue with light, wispy clouds. In the foreground, a large white wind turbine stands on a yellow jacket structure in the dark blue sea. Several other smaller wind turbines are visible in the distance across the horizon.

**CATAPULT**  
Offshore Renewable Energy

# Circular Economy for the Offshore Wind Sector

Lorna Bennet

20 November 2024

# The Offshore Renewable Energy Catapult

The UK's leading technology innovation and research centre for offshore renewable energy

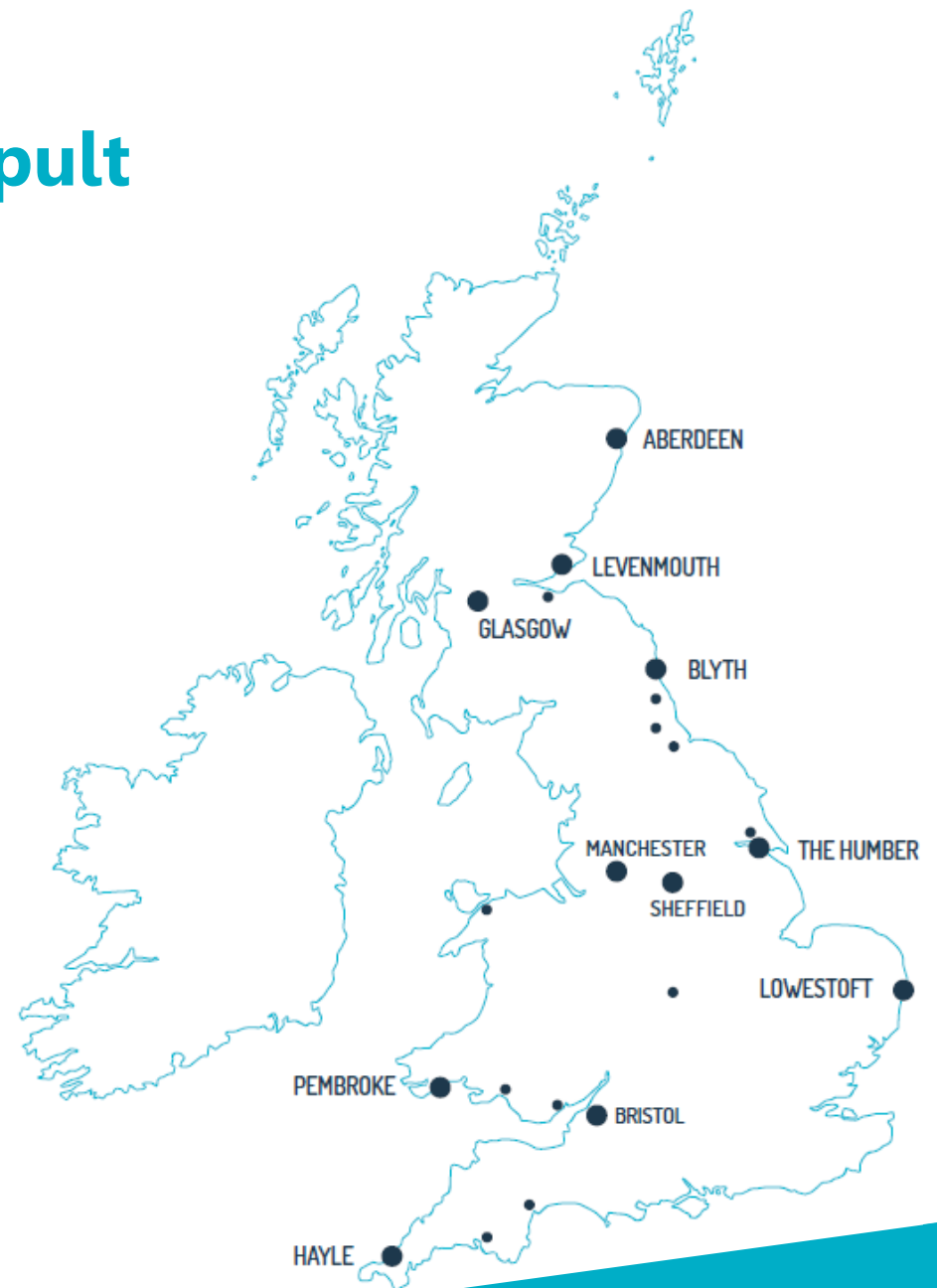
- Over 300 engineering, research and sector experts
- World-leading test and demonstration facilities

## 8 UK Regional Centres

Aberdeen, Blyth, Fife, Glasgow, Hayle, Humber, Lowestoft, Pembroke Dock

## 3 UK Academic Research Hubs

Universities of Manchester & Strathclyde – Electrical Infrastructure  
University of Bristol – Blades  
University of Sheffield – Power Trains



# Offshore Wind Growth

## UK

### 2023

- ~14.7 GW
- ~2,765 turbines

### 2030 Target

- 60 GW

### 2050 Target

- 125 GW

<https://www.renewableuk.com/page/UKWEDhome/Wind-Energy-Statistics.htm>

<https://www.gov.uk/government/publications/offshore-wind-net-zero-investment-roadmap/offshore-wind-net-zero-investment-roadmap>

## Europe

### 2023

- ~34.2 GW
- ~6,340 turbines

### 2030 Target

- 111 GW

### 2050 Target

- 317 GW

<https://windeurope.org/intelligence-platform/product/offshore-wind-in-europe-key-trends-and-statistics-2023/>

[https://energy.ec.europa.eu/topics/renewable-energy/offshore-renewable-energy\\_en](https://energy.ec.europa.eu/topics/renewable-energy/offshore-renewable-energy_en)

## Global

### 2023

- ~75.2 GW
- >12,000 turbines

### 2030 Target

- 380 GW

### 2050 Target

- 2,000 GW

[https://gwec.net/wp-content/uploads/2024/06/GOWR-2024\\_digital\\_final\\_v2.pdf](https://gwec.net/wp-content/uploads/2024/06/GOWR-2024_digital_final_v2.pdf)

# Offshore Wind Sector Deal

- Increase UK supply chain content to 60%
  - Not possible through OEM manufacturing
  - Successful for O&M – repair & remanufacture
  - Opportunity for decommissioning
- Offshore Wind Growth Partnership (OWGP) – investing up to £250 million in UK supply chain
- Targeting UK offshore wind supply chain exports of £2.6 billion.





# Supply Chain Opportunities

- Offshore decommissioning knowledge & experience
- Ports
- Infrastructure – storage
- Material processing
- Component refurbishment / remanufacture
- Recycling
  - Technologies
  - Skills
  - Re-> manufacturing



# CONTACT

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