MIDLANDS ENGINE

OFFSHORE WIND

MIDLANDS CLUSTER SNAPSHOT 2023

Offshore Wind

Midlands New Economy Cluster

A target of major direct investment in the UK, the major cluster location for offshore wind & related supply chain is around the Humber Offshore Wind Cluster in North East Lincolnshire, with Department for Business and Trade allocating it a 'High Potential Opportunity'. Although the cluster is smaller than others, it is experiencing high growth.

Already home to eight operational offshore wind farms, including the world's largest at Hornsea 2, a further seven wind farms are in development or under construction. The cluster has seen a 126% increase in business countsince 2013, and these innovative enterprises regularly utilise Catapult centres and accelerators (17 of 24 High Growth Companies identified by Beauhurst have engaged with accelerators). Notably North East Lincolnshire hosts a significant location quotient of employees in the cluster, i.e. it is a key industry in the area. Current major investment opportunities include the £3.5bn (GDV) ABLE Marine Energy Park.

Announced in April 2023, the biggest offshore wind 'living lab' in the world will be created off the Grimsby coast through the development of a 5G Testbed that includes Grimsby Port and the Lynn and Inner Dowsing wind farm. This project is driven by the Offshore Renewable Energy (ORE) Catapult and bringing together the expertise of Microsoft, Vilicom, JET Connectivity, XceCo, Associated British Ports (ABP), Accelleran and Satellite Applications Catapult.

Cluster in context

Almost 400 jobs; 5% of national.

7% of Midlands university graduates studied relevant subjects to offshore wind, including from 4 of top 25 UK universities for Engineering and Technology, and Natural Sciences.

Over 60 businesses; 7% of UK total and 126% growth since 2013.

7 high growth companies (13% of UK).

Over 42% of Innovate UK funding to offshore wind businesses since 2005 has been awarded to those with a Midlands address.

6% of UK offshore wind Foreign Direct Investment Capex.

Business Ecosystem

Total Cluster Business Count: 61
7% of UK; 126% growth since 2013.[1]

£100m+ Turnover Companies: 0

High Growth Companies: 7
13% of all in the UK have a Midlands location.[2]

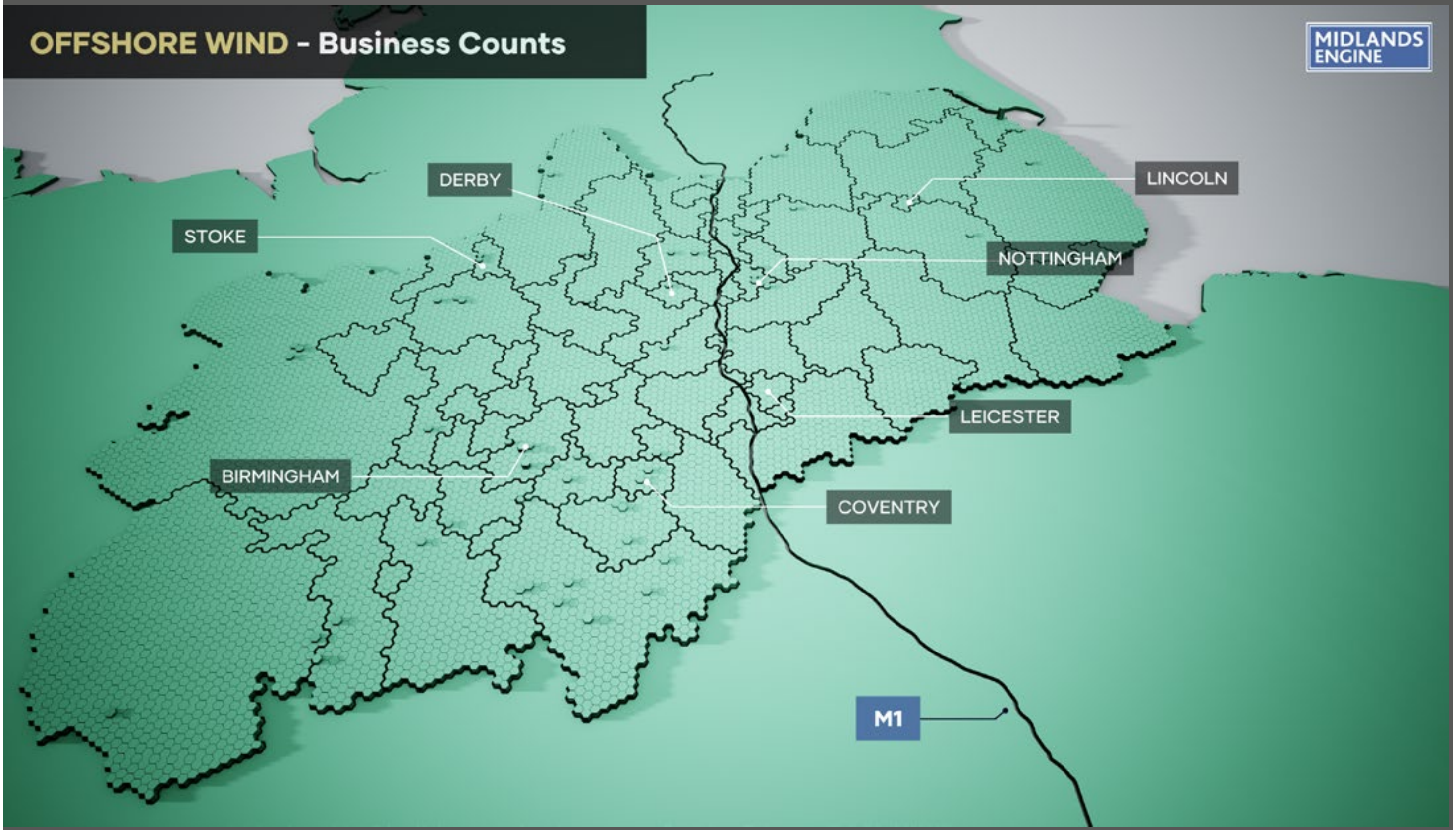
Incorporations 2017-22: 17
8% of UK offshore wind incorporations between 2017 and 2022 have a Midlands location.[3]

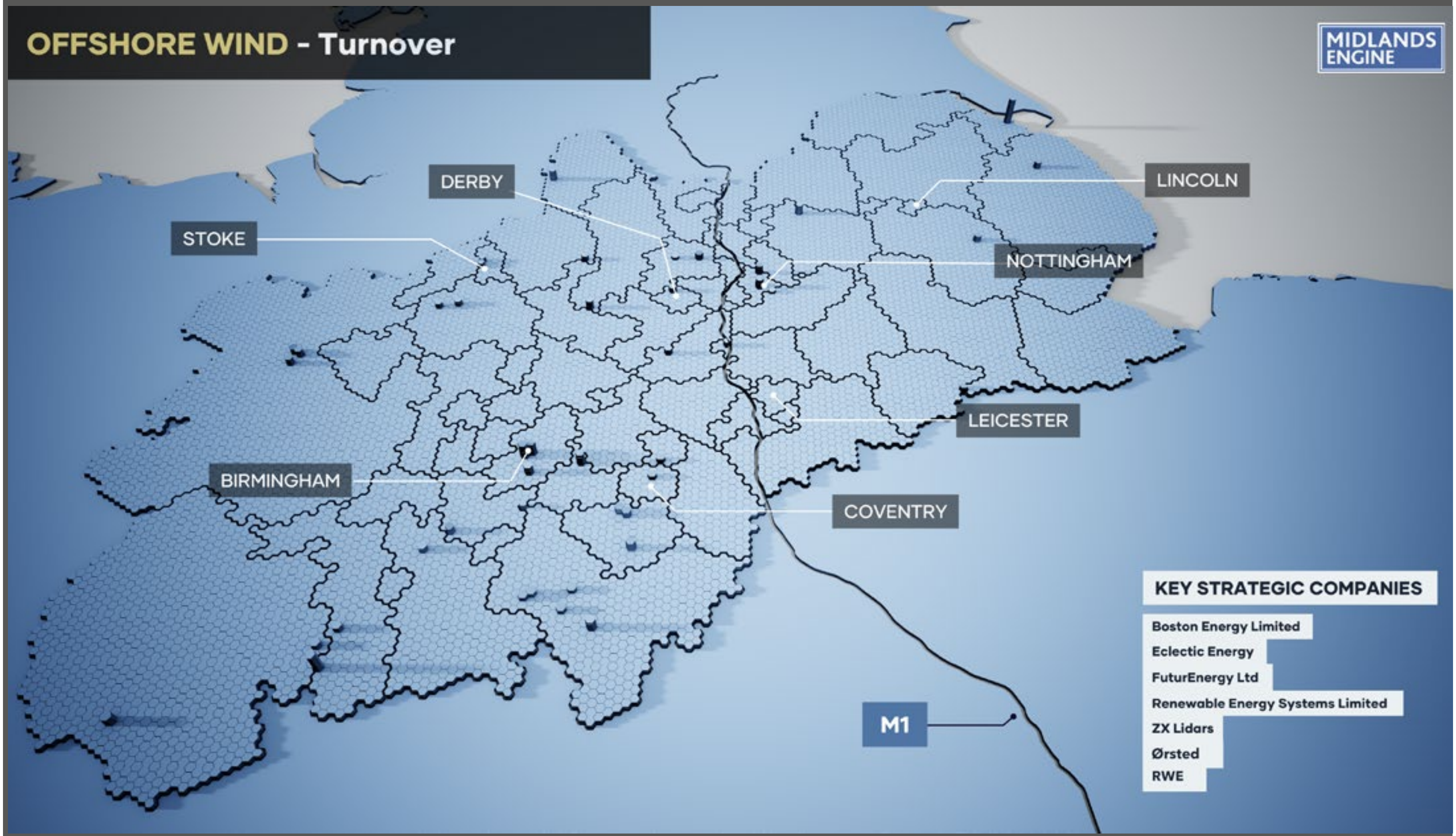
Foreign-owned enterprises: 10%
6 are known to be foreign-owned; Lower proportion of foreign-owned than national average (21%).[4]

MIDLANDS ENGINE OBSERVATORY

Offshore Wind and its supply chains are a relatively nascent industry, hence the smaller figures attributed to this cluster in the data. It is also a cluster with relatively few studies or data attached to it, thus the data presented should be taken with caution and in full knowledge of limitations previously outlined. One study that has sought to quantify the Offshore Wind sector in terms of jobs and skills (including regionally) is from the Offshore Wind Industry Council.

[1,3,4]Data City 2023, [2]Data City 2023: 20%+ company growth percentage per year.


OFFSHORE WIND - Business Counts
MIDLANDS ENGINE
DERBY
LINCOLN
STOKE
NOTTINGHAM
LEICESTER
BIRMINGHAM
COVENTRY
M1


OFFSHORE WIND - Turnover
MIDLANDS ENGINE
DERBY
LINCOLN
STOKE
NOTTINGHAM
LEICESTER
BIRMINGHAM
COVENTRY
KEY STRATEGIC COMPANIES
Boston Energy Limited
Eclectic Energy
FuturEnergy Ltd
Renewable Energy Systems Limited
ZX Lidars
Ørsted
RWE
M1

Offshore Wind

Innovation Ecosystem

Accelerator Engagement:[1] 17

Relevant Cluster Organisations:

Humber Offshore Wind Cluster; RenewableUK; Energy Research Accelerator,

Relevant spinouts:[2] 1

Relevant high performing HEI research:

Universities of Birmingham, De Montfort, Keele, Leicester, Loughborough, Nottingham, Nottingham Trent, Warwick

8 Midlands universities with high research ranking in relevant subjects.[3]

Significant Innovation Hubs:

Energy Research Accelerator; Energy Systems Catapult; Humber Offshore Wind Cluster; Offshore Renewable Energy Catapult

High Growth Company Grants:[4] 14

Innovate UK funding: £3.7m since 2005

42% of Innovate UK funding to offshore wind businesses had a Midlands location.[5]

[1]Beauhurst 2022: High growth companies utilised accelerators from broad 'energy' area [2]Beauhurst, 2022, [3]REF 2021 GPA >3.0 in Earth systems and environmental sciences; Architecture, built environment and planning; Geography and environmental studies; Earth systems and environmental sciences; Engineering; Physics [4]Beauhurst, 2022 (Broad energy definition), [5]Data City, 2023.

Offshore Wind

Talent Ecosystem

Estimated Employees: 369

5% of national.[1]

Earnings: Average salary £34,530

Energy national average £38,280 (9.8% lower in Midlands).[2]

Further Education Leavers: 18,550

More FE leavers (including higher level) in relevant subjects than all other regions.[3]

Relevant HEI High-Ranking Department:

Universities of Nottingham; Birmingham; Warwick; Loughborough

4 universities high ranked: international presence and expertise.[4]

University Graduates: 10,320

7% of ME graduates studied relevant subjects to offshore wind.[5]

Graduate Retention: change over 3 years: 89.2%

Net loss of graduates working in utilities - other regions perform slightly better but numbers are small.[6]

[1]Data City, 2023, [2]ONS ASHE, 2021, [3]DfE DfE Unit for Future Skills: Further Education leavers 18/19 in relevant fields, [4]QS 'Engineering and Technology' & 'Natural Sciences' world subject ranking 2022 - institutions appearing in UK top 25, [5]Graduates from relevant subjects 2021 (HESA), [6]165/185 first degree graduates 'Electricity, gas steam and air conditioning supply' in 3 years of graduating in 2019 (DfE Graduate Outcomes by Industry).

Offshore Wind

Investment Ecosystem

Investment/Venture Capital Firms:
Funds HQ'd in Midlands Engine area **200**
313 Funds have offices in region.[1]

FDI into High Growth Companies: **36%**
30 of 84 investments in High Growth Companies.[2]

FDI Capex 2017-21: **$2.5bn**
6% of UK total.[3]

DDI Capex 2017-21: **unknown**
1 project 2017-21, value unknown.[4]

Fundraising Volumes:

Mean av. £1.7m fundraising investment
£102.3m in 60 investments (inc.£50.3m across 33 seed investments; £40m across 15 venture investments.[5]

FDI Jobs 2017-2021: **382 jobs**
6% of UK total.[6]

DDI Jobs 2017-2021: **30 jobs**
3% of UK total.[7]

FDI Projects 2017-2021: **1 project**
1% of UK total.[8]

DDI projects 2017-2021: **1 project**
17% of UK total.[9]

[1]Beauhurst 2022, [2]Beauhurst 2022, [3]Wavteq 2022, [4]Wavteq 2022, [5]Beauhurst 2022, [6]Wavteq 2022, [7]Wavteq 2022, [8]Wavteq 2022, [9]Wavteq 2022.

COMMENTARY

- The UK's market share of FDI capex into the Offshore Wind cluster increased from 15.4% in 2017 to 22.3% in 2021. The UK was the country with the highest market share of FDI capex across these years. However, the UK's market share of FDI projects into the Offshore Wind cluster decreased from 10.7% in 2017 to 9.2% in 2021. The only other country that had a higher market share across these years was the US.
- With various research centres and innovation hubs across the Midlands Engine, ORE Catapult, the Energy Research Accelerator and Energy Systems Catapult are three notable networks to engage with in exploring investment opportunities.
- The top countries for foreign ownership of businesses in this cluster are France, Norway, USA, Netherlands, Canada and Germany.

MIDLANDS ENGINE OBSERVATORY

datacity

wavteq

Beauhurst

This data has been compiled from multiple sources, using classifications based on clusters as proposed by Midlands Engine Partners. Where necessary wider sector data has been used as a 'best proxy'. Unless otherwise stated, all data is contemporary as of May 2023, and is an aggregation of all known counts/data within the Midlands Engine's 65 Local Authorities. Unless otherwise stated, business, employee and turnover figures have been calculated via DataCity based on trading addresses within the Midlands Engine.