CYBER

MIDLANDS CLUSTER SNAPSHOT 2023

Cyber

Encompassing artificial intelligence, software, cyber security and defence applications, the pan-regional specialism in cyber has multiple cluster locations, notably in Birmingham, but also the wider West Midlands (county) and wider region encompassing Worcestershire & Herefordshire; and in Lincoln, Nottingham and Leicester.

The Midlands competes with London and the South East in particular for foreign investment, however performs well for domestic investment – over 44,000 jobs were created in the Midlands through domestic investment 2017-22 alone (34% of the UK total) - and jobs are well-paid. Despite national competition, clusters in the Midlands - including dedicated innovation spaces such as Skylon and Malvern science parks in the Cyber Valley area, and university research strengths, demonstrate a productive innovation space. There are currently 88 cyber spin-outs being tracked in the Midlands, with 104 high growth companies overall - and many utilise the region's accelerators.

These strengths and the pipeline of some 30,000 relevant FE and HE graduates annually present an opportunity for the Midlands clusters to take a bigger market share of the forecast $4.45bn FDI capex in the UK in 2025.

Cluster in context

Over 31,000 jobs; 9% of the UK total and the most of any region outside London and the South East.

6% of Midlands university graduates in 2021 studied relevant subjects to cyber, including from 4 of the top 25 UK universities for Computer Science and Information Systems.

Over 1,300 businesses; 14% of UK total and 76% growth in business numbers since 2013.

104 high growth companies (10% of UK) and 30 £100m+ turnover companies (21% of UK).

37% of Innovate UK funding to cyber since 2005 has been awarded to those with a Midlands address.

37% of Innovate UK funding awards for cyber since 2005 have been awarded to Midlands-based businesses.

Business Ecosystem

Total Cluster Business Count: 1,367
14% of UK total; 76% growth since 2013.[1]

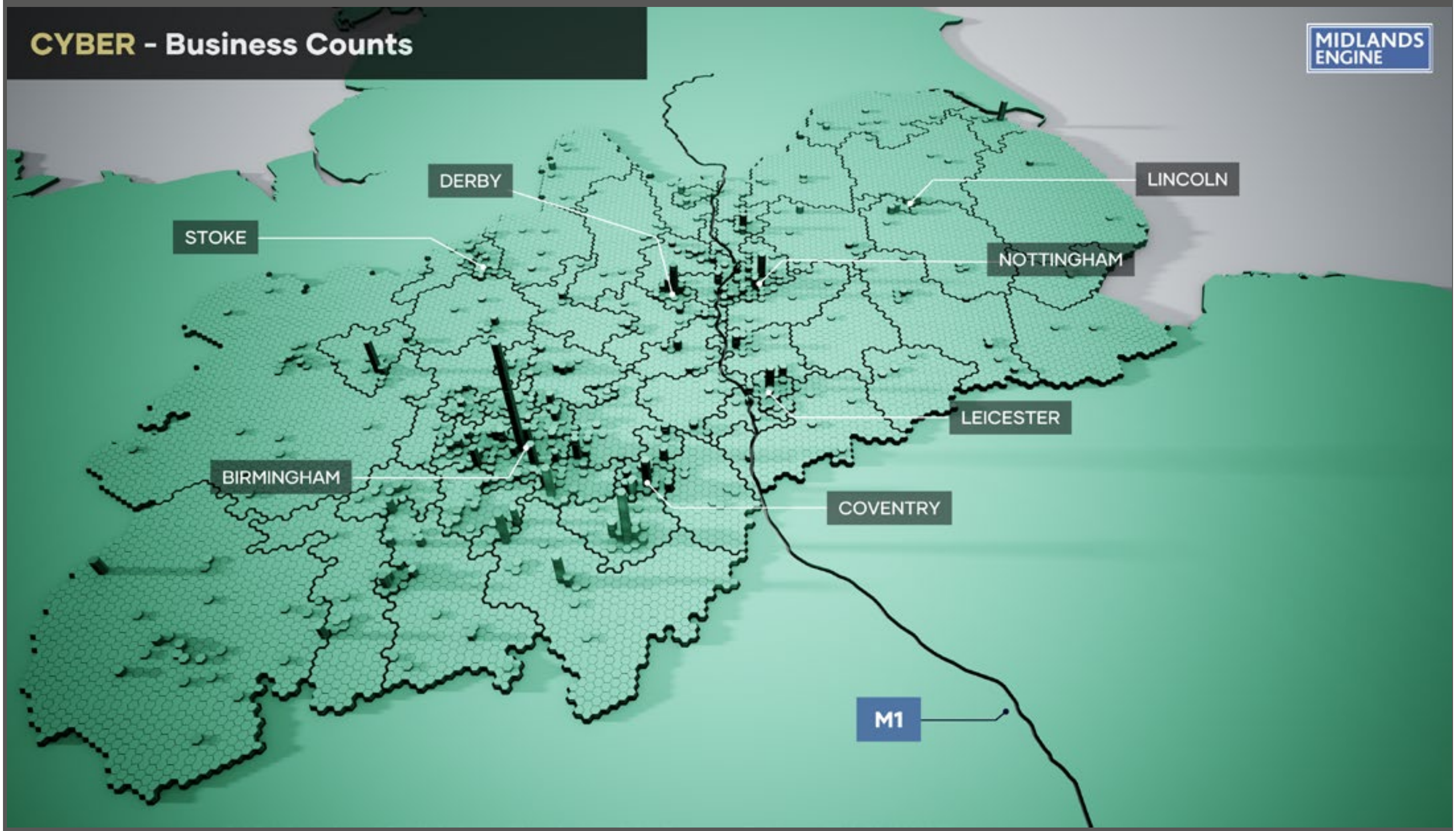
£100m+ Turnover Companies: 30
21% of all in the UK have a Midlands location.[2]

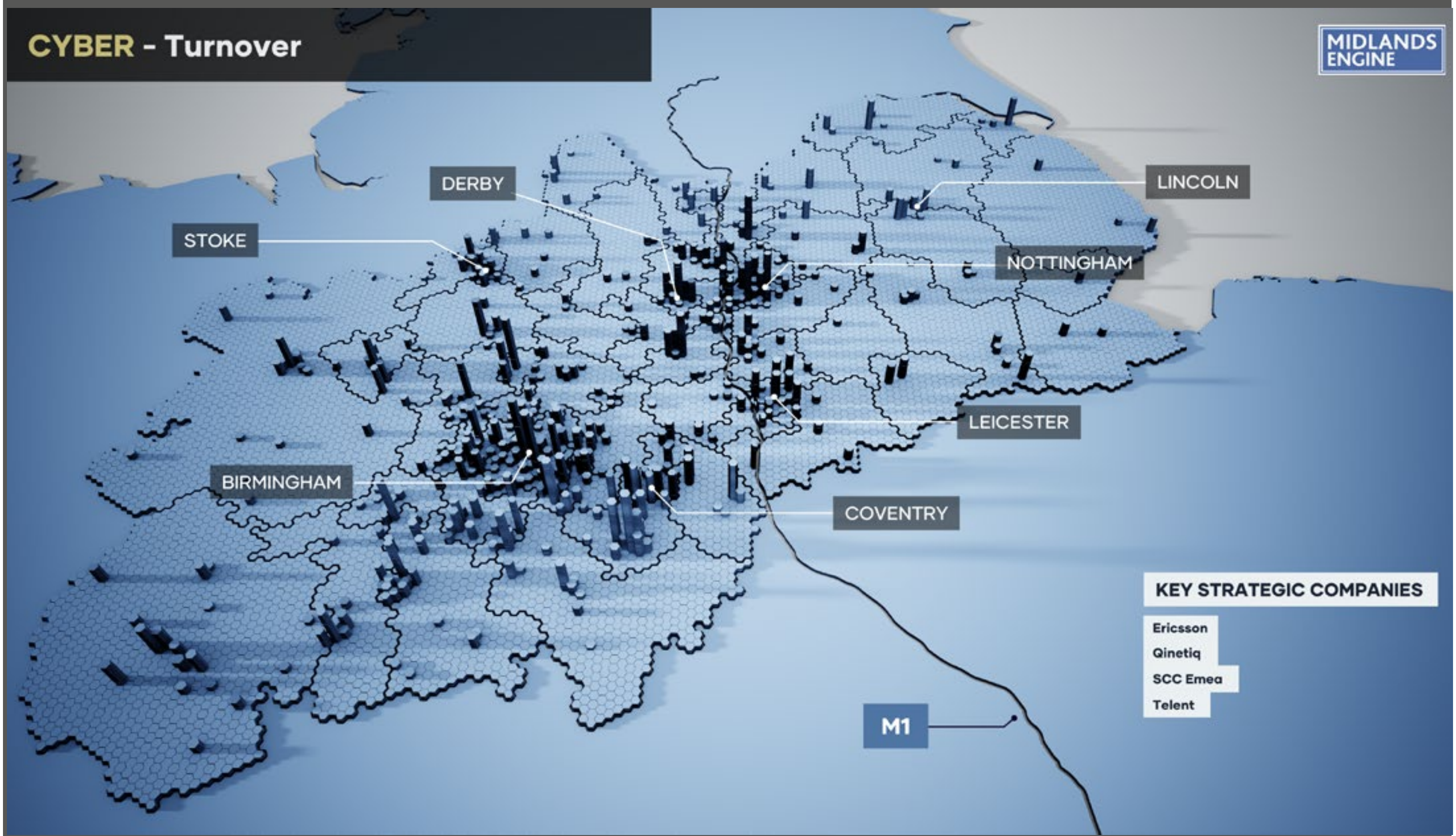
High Growth Companies: 104
10% of all in the UK have a Midlands location.[3]

Incorporations 2017-22: 369
11% of UK cyber incorporations between 2017 and 2022 have a Midlands location.[4]

Foreign-owned enterprises: 13%
178 are known to be foreign-owned; Lower proportion of foreign-owned than national average (14%).[5]

[1,2,4,5] Data City 2023, [3] 20%+ company growth percentage per year.


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


CYBER - Turnover
MIDLANDS ENGINE
DERBY
LINCOLN
STOKE
NOTTINGHAM
LEICESTER
BIRMINGHAM
COVENTRY
KEY STRATEGIC COMPANIES
Ericsson
Qinetiq
SCC Emea
Telent
M1

Cyber

Innovation Ecosystem

Accelerator Engagement:[1] 54

Relevant Cluster Organisations:
Midlands Cyber; Cyber Valley; Midlands Centre for Cyber Security; Innovation Alliance for the West Midlands

Relevant Spinouts:[2] 88

Relevant high performing HEI research:
Universities of Warwick; Birmingham; Nottingham; Loughborough; Coventry; Leicester; Lincoln
7 Midlands universities with high research ranking in relevant subjects.[3]

Significant Innovation Hubs:
Cyber Valley; Midlands Cyber; Malvern Hills Science and Technology Park; Skylon Park; Pioneer Park

High Growth Company Grants: 283

Innovate UK funding:

37% of Innovate UK funding to this cluster had a Midlands location.[5] **£16m** since 2005

[1]Beauhurst 2022: High growth companies utilised accelerators, [2] Beauhurst, 2022, [3]REF 2021 GPA >3.0 in any of Computer science and informatics; Mathematical Sciences, [4]Beauhurst 2022, [5]Data City 2023.

Cyber

Talent Ecosystem

Estimated Employees: 31,507

9% the UK total; the most in any region outside London and the South East..[1]

Earnings: Average salary £46,509

National average £55,249 (15.7% lower in Midlands).[2]

Further Education Leavers: 19,830

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

Relevant HEI High-Ranking Department:

Universities of Warwick; Birmingham; Nottingham; Loughborough

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

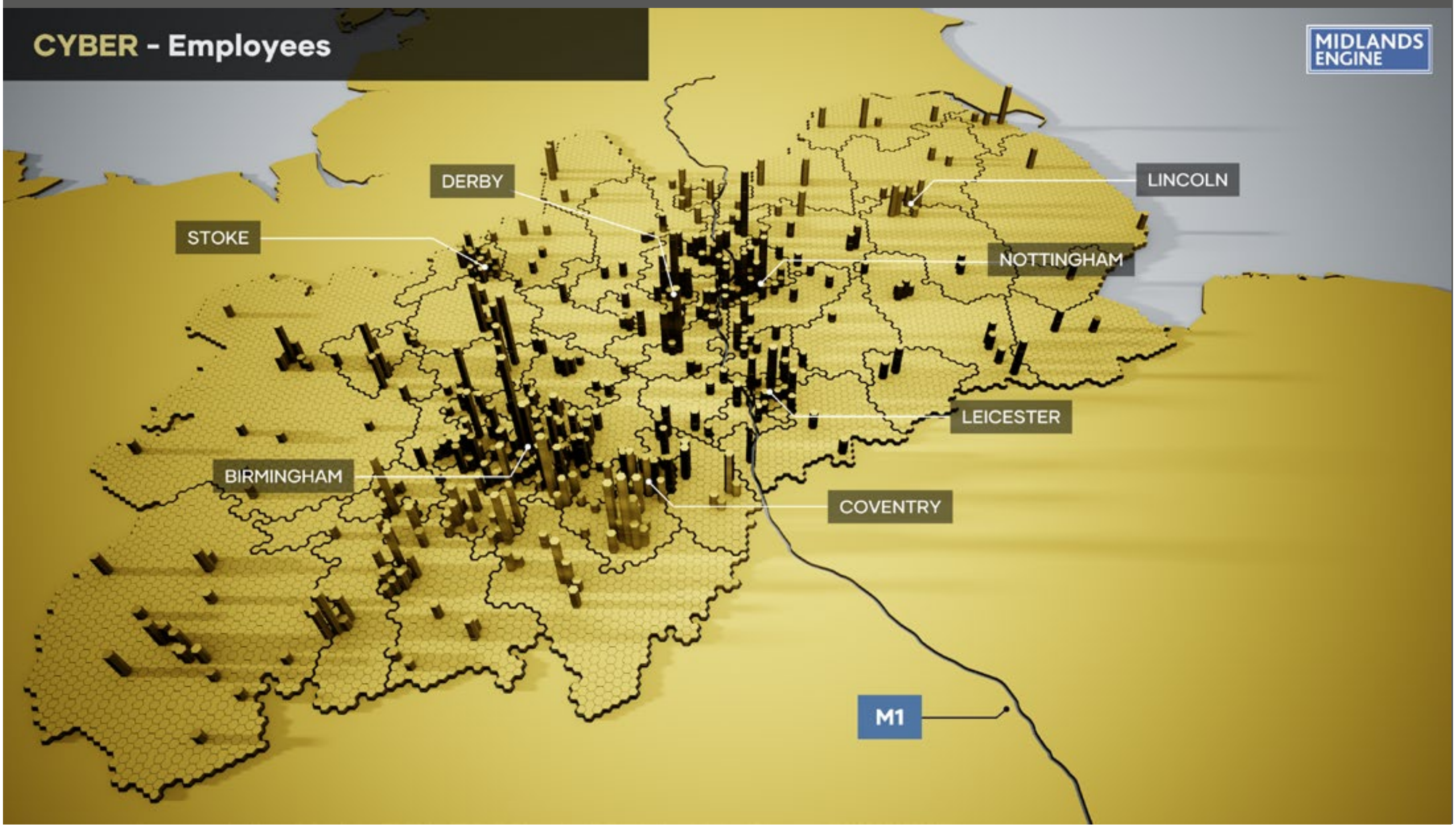
University Graduates: 8,385

6% of Midlands graduates in 2021 studied subjects relevant to connected device technology.[5]

Graduate Retention: change over 3 years: 64%

Midlands retains fewer graduates in IT industry than North West, London, and East of England.[6]

[1]Data City, 2023, [2]ONS ASHE, 2021 - relevant sectors, [3]DfE Unit for Future Skills: Further Education leavers 18/19 in relevant fields, [4]QS 'Computer Science and Information Systems' world ranking 2022 - institutions in UK top 25, [5]Graduates from relevant subjects 2021 (HESA), [6]1640/2555 first degree graduates trained in region remain in 'Information and Communication' in 3 years of graduating in 2019.



Cyber

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: **46%**
466 of 1047 UK investments in High Growth Companies.[2]

FDI Capex 2017-21: **$650.1m**
3% of UK total.[3]

DDI Capex 2017-21: **$5.22bn**
26% of UK total.[4]

Fundraising Volumes:

Mean av. £646k fundraising investment
£676m in 1,047 investments (inc. £45.3m across 590 seed investments; £395.5m across 328 venture investments).[5]

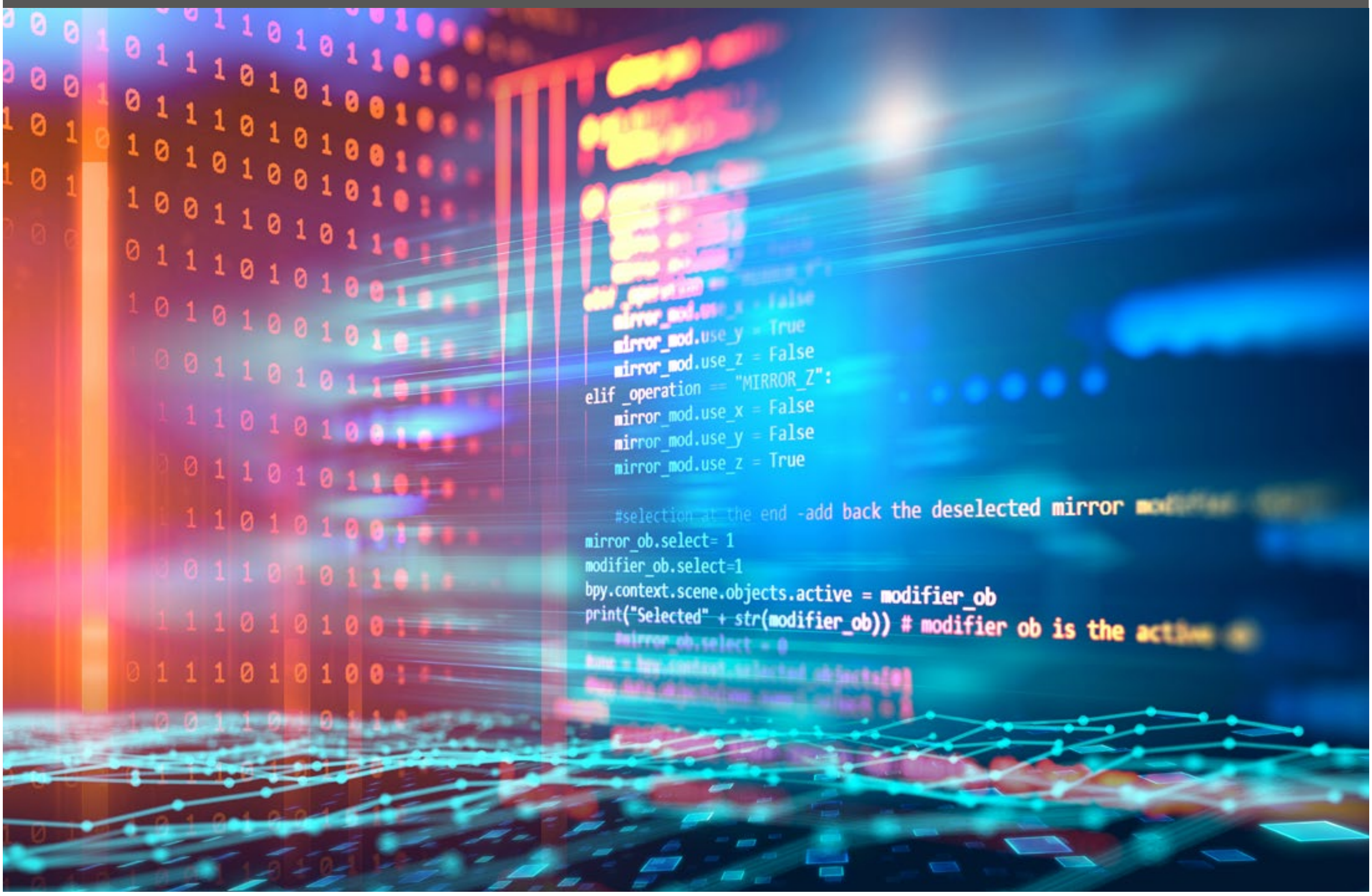
FDI Jobs 2017-2021: **3,674 jobs**
5% of UK total.[6]

DDI Jobs 2017-2021: **44,276 jobs**
34% of UK total.[7]

FDI Projects 2017-2021: **79 projects**
4% of UK total.[8]

DDI projects 2017-2021: **179 projects**
14% 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

- Similar to nationwide trends, the number of DDI projects in the ITT cluster peaked in 2021. There has been significantly more domestic than foreign investment into this sector from 2017 to 2021.
- Wavteq forecast a $4.45bn FDI capex in this sector in the UK in 2025.
- Midlands-based software companies received just 1.32% of equity investment raised in the UK from 2017 to 2021, despite making up 10.2% of all high-growth software companies in the UK. These businesses also received just 3.26% of all grant money received by companies in this sector. The lack of funding received by software companies in the Midlands may reflect the allure of London and the South for software companies, given the availability of talent and funding.
- Midlands-based artificial intelligence companies raised just 0.71% of the total equity received in the UK from 2017 to 2021 by high-growth companies in this sector, despite making up 10.4% of the sector's population. They also received 4.82% of all grant money received by companies in this sector. Similar to the software companies in the Midlands, AI companies in the area areunderfunded in comparison to the rest of the UK. This could be due to a focus by funders on AI companies in more established tech hubs of the UK, particularly those in close proximity to academic institutions with AI specialisms, such as Oxford, Cambridge and London.
- The top countries for foreign ownership counts are the USA, France, Japan, Australia, and Sweden.

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.