MIDLANDS ENGINE OBSERVATORY

MIDLANDS ENGINE
REGIONAL ECONOMIC IMPACT MONITOR

EDITION 54: JANUARY 2025

Executive Summary

As we enter a new year, this first Midlands Engine Regional Economic Impact Monitor of 2025 looks into the **future outlooks and forecasts for the year ahead,** with mixed messages for Midlands businesses. 2024 ended with the publication of the [Midlands Engine State of the Region](), and the release of the [Midlands Growth Story](), a showcase of regional collaboration and opportunity.

National Productivity Week saw the release of the [Productivity in the Midlands: Trends, Challenges & Solutions]() report which provides a strategic assessment of the productivity landscape across the Midlands, identifying key challenges and offering practical solutions to foster resilience and sustainable growth.

In the first half of 2024, the United Kingdom stood out as one of the top-performing G7 economies, but that momentum faded quickly. Recent ONS figures released in January revealed that while the economy grew by 0.1% in November, this followed two previous months of decline. **Consumer and business confidence across major industries has also declined significantly, compounding the existing headwinds.** Higher-frequency indicators, such as the purchasing managers index — though still above 50 mark signalling expansion — have trended downward since mid-2024, suggesting growth may have stalled again. Adding to the headwinds, the forthcoming increase in employers' National Insurance Contributions (NICs), announced in the Autumn Budget, is expected to weigh on the labour market and dampen growth.

- **The West Midlands Business Activity Index decreased from 49.9 in November 2024 to 48.9 in December 2024, a second successive fall in business activity** across the region. While **the East Midlands Business Activity Index increased from 50.1 in November 2024 to 50.7 in December 2024, signalling the fifth consecutive month of expansion.** The UK Business Activity Index decreased from 50.5 in November 2024 to 50.4 in December 2024.
- A new report from the Enterprise Research Centre highlights that **levels of innovation among UK firms fell back further between 2023 and 2024, with a notable decrease for small and micro businesses.**

The labour market is showing signs of weakness, with businesses struggling to hire and wage pressures adding further strain. **Business surveys reveal the extent of the recruitment struggles,** particularly in construction, manufacturing, and transport – key Midlands industries, while some businesses are planning to reduce total headcount, freeze hiring and review employee benefits.

- The latest total unique job postings data shows that the **number of postings across the Midlands dropped 24.9% over the last six months to 711,489,** however, the number of postings is high compared to the average for all regions.
- There are now **310,035 claimants aged 16 years and over, and 58,485 claimants aged 16-24 years old in the Midlands Engine area in December 2024.**

This month features a series of different work around disparities between places in the UK.

- **Centre for Cities annual report, its [Cities Outlook]() for 2025, offers a deep dive into the latest economic data on how UK cities are performing against a range of indicators including innovation, housing, skills, employment and productivity, explaining that differences in regional pay result from differences in the performance of urban areas**. There is a much greater amount of variation between cities than non-urban areas across the country. If a region is underperforming it is largely because its cities are underperforming. **Urban wages in the Midlands were £667, and non-urban was £631,** falling behind the national average of £716. Furthermore, **most places have not seen a pay increase (once adjusted for inflation) since 2008.** This means that despite much of the recent policy rhetoric to close gaps, such as such as 'regional development policy', 'rebalancing the economy', and 'Levelling Up', **there has been no change based on wages**.
- A report from The Productivity Institute outlines how since the 2008 global financial crisis, global **financial markets underwent a profound regime shift which partitioned the UK into fundamentally different capital market pricing regimes**. **City centres in second-tier and third-tier cities have borne the brunt of adverse capital shocks**, and this partitioning provides a demand-side explanation as to why economic growth in the UK's non-core regions outside of London and its immediate hinterland has so seriously struggled in recent years.

This monitor offers an initial glimpse into fresh insights on sectors active across the Midlands.

- The [Midlands Engine Energy Security White Paper]() **highlights the Midlands' role in scaling clean energy, strengthening supply chains, and ensuring a skilled workforce to support the UK's net zero and economic growth goals.** By leveraging its industrial and energy assets, the region aims to be an early adopter of strategic energy planning and drive investment in clean energy.
- The new [Nuclear in the Midlands]() White Paper outlines that **the Midlands is set to host the future of nuclear, with the UK's only fusion prototype being developed in Nottinghamshire, and multiple siting opportunities for SMR an AMR generation, as well as one of the only viable geological disposal site proposals in the country.**
- **The Low Carbon Goods and Services (LCEGS) study provides a powerful snapshot analysis of the sector**: it was worth £31bn and employing 224,831 people in 2023/24, with total sales forecast to rise to over £46bn by 2029/30.
- The [Local Digital Index]() reveals some key strengths in Midlands businesses, with Rugby (32.5%), Solihull (30.32%), Lichfield (29.51%), Wyre Forest (28.85%) and Derby (28.31%) having high rates of innovative businesses within the digital sector.
- [The Productivity Institute]() provides analysis of the **adoption and impact of advanced digital technologies (ADTs)**, including AI, Big Data, Cloud Computing, 3D Printing, Internet of Things (IoT), and Robotics, as well as digital platforms in the UK.

1. Economic Impacts

Global and National Outlook

Global

World Economic Outlook

According to the International Monetary Fund and the OECD, **global growth is projected at 3.3% both in 2025 and 2026. This is below the historical (2000–19) average of 3.7%.** The International Monetary Fund expects global headline **inflation to decline to 4.2% in 2025 and to 3.5% in 2026, converging back to target earlier in advanced economies than in emerging market and developing economies.** The OECD Global Economic Outlook suggests that despite some easing in labour markets, labour and skill shortages remain at very high levels. Over the past decade, job vacancy rates have nearly doubled, with particularly sharp increases in sectors like healthcare and ICT. **Population ageing is exacerbating these shortages and is expected to accelerate in the coming decades.** Persistent labour shortages can impede economic growth and making the most out of digital and green transitions.

US

Economic growth in the US slowed at the end of last year, as trade and investment declined and the country was hit by hurricanes and labour strikes. The economy expanded at an annual rate of 2.3% between October and December, down from 3.1% in the three months before, according to the US Commerce Department. The pace, fuelled by solid growth in consumer spending, was nevertheless weaker than economists had forecast.

The figures come amid heightened uncertainty about the path for the world's largest economy, as US President Donald Trump calls for a policy shake-up. His plans include **big cuts to government spending and implementing trade tariffs**, which could be announced in the coming days. The IMF warned last week that a threatened wave of Trump tariffs would make trade tensions worse, lower investment, and disrupt supply chains across the world.

China

Meanwhile, a top Chinese official has warned against protectionism, speaking out as Donald Trump's return to the White House renews the threat of a trade war.

This comes as a Chinese-made **artificial intelligence (AI) model called DeepSeek** has shot to the top of Apple Store's downloads, stunning investors and **sinking some tech stocks;** as the company claims it was built at a fraction of the cost of industry-leading models like OpenAI - because it uses fewer advanced chips. That possibility caused chip-making giant Nvidia to shed almost $600bn (£482bn) of its market value on Monday.

National

UK Growth Plans

This week, Chancellor Rachel Reeves announced a **series of plans to revive the UK economy**, although most of the specific projects she announced were in the south of England. Plans include:

- UK airport expansion through a third runway at **Heathrow**
- Creating '**Europe's Silicon Valley**' through an **expanded science hub in Oxford and Cambridge**
- Relaxing **planning** constraints
- Building **reservoirs**
- Upgrading **rail** lines

AI Opportunities

The government have released an **AI Opportunities Action Plan**, backed by leading tech firms, some of which have **committed £14bn towards various projects, creating 13,250 jobs**. Among the government's proposals are:

- AI will be used by the public sector to enable its workers to **spend less time doing admin and more time delivering services**.
- Several "**AI Growth Zones**" around the UK will be created, involving big building projects and new jobs.
- AI will be fed through cameras around the country to inspect roads and spot potholes that need fixing.
- **Teachers and small business owners** were highlighted as two groups that could start using AI for things like faster planning and record-keeping.
- AI is already being used in **UK hospitals** for important tasks such as diagnosing cancer more quickly and it will continue to be used to support the NHS.

The government is also proposing to ease restrictions on how some pension schemes are managed, as part of efforts to boost economic growth. The Treasury said **defined benefit pension schemes have a total surplus of £160bn, but under current rules much of the money is trapped and cannot be invested in the wider economy**.

Bird Flu

More than a million birds have been culled at an egg farm in the Midlands following signs of the virus in the region, where it also spread to a farmworker. Swans have also been found dead along a stretch of the river Severn in Worcester. There are calls for more cash for the government's Animal and Plant Health Agency to help the UK withstand the fresh bird flu outbreak. A **bird flu prevention zone** enforcing strict hygiene standards around domesticated birds was declared for the whole of England on 25 January. The move comes as **25 cases** of bird flu have been registered since the recording season began in October 2024.

Policy Considerations

THEME	KEY INSIGHTS
Outlook	• Recent data from the Office for National Statistics (ONS) reveals **monthly real gross domestic product (GDP) is estimated to have grown by 0.1% in November 2024** largely because of a growth in services, following an unrevised fall of 0.1% in October 2024. **Real GDP is estimated to have shown no growth in the three months to November 2024,** compared with the three months to August 2024. • **NIESR project growth to stagnate in the fourth quarter of 2024**, with flatlining growth in the Services and Production sectors and a slight fall in the Construction sector. An early estimate for the first quarter of 2025 projects growth of 0.3%. This is consistent with signals from the purchasing managers' index and recent business and confidence surveys. • **Recent financial market volatility has further dampened the economy's growth outlook, casting concerns over fiscal sustainability.** However, the increase in government borrowing costs reflects deeper structural issues—including weak productivity growth alongside low levels of investment in the public and private sectors—**which have left the economy more vulnerable to external headwinds**. • British Chamber of Commerce forecasts **expect GDP to pick up slightly in 2025 and 2026,** but this is driven largely by increased government spending. Right now, firms are struggling to deal with a raft of extra costs following the Budget. Investment levels are likely to remain low for the foreseeable future, as businesses try to balance their books. The BCC urge government action to **ease cost-pressures and spark investment** by focussing on business rates reform, infrastructure projects and promoting trade to unlock economic growth. • **The outlook for 2025 will be challenging for many small to medium sized businesses who rely on shareholder and lender support to continue as a going concern.** Christmas trading was subdued for many businesses, and PwC expect to see an **increase in insolvency filings in January and February as companies take stock of their results and look toward impending tax changes in April**. PwC will need to see an uptick in market sentiment and consumer appetite, to avoid the risk of corporate insolvency levels in 2025 remaining at some of the highest levels seen in decades. • **61% of UK CEOs are optimistic about UK economic growth in the next 12 months (up from 39% in 2023) and are also positive about the global outlook (64% expect this to improve, compared with 58% of CEOs globally).** Longer-term confidence in their own business has declined slightly since last year, with 57% of UK CEOs feeling very positive about their organisation's prospects over three years, compared with 61% last year.

Trading Conditions	• The Consumer Prices Index including owner occupiers' housing costs (CPIH) **rose by 3.5% in the 12 months to December 2024**, unchanged from November. **The Consumer Prices Index (CPI) rose by 2.5% in the 12 months to December 2024**, down from 2.6% in the 12 months to November. The largest downward contribution to the monthly change in both CPIH and CPI annual rates came from **restaurants and hotels**; the largest upward contribution to both came from **transport**.
	• NIESR predicts **inflationary pressures stemming from the new budget, and global uncertainty surrounding the Trump presidency will likely keep interest rates higher for longer than previously anticipated.**
	• The latest Quarterly Economic survey by the British Chamber of Commerce reveals mixed business sentiment:
	  ○ **63% of businesses say tax, including national insurance, is now a concern, following the Chancellor's Budget – the highest level since 2017**
	  ○ **Business confidence has slipped to its lowest level** since the aftermath of the mini-Budget in Autumn 2022
	  ○ **Many firms (55%) now expect prices to go up in the next three months,** with labour costs the biggest driver
	  ○ **Only 20% of businesses have increased investment in the past three months –** 24% have decreased
	  ○ **Business conditions are weak,** with only 24% of firms reporting increased cashflow and 30% a decrease.
	• Sentiment tracked by ICAEW's Business Confidence Monitor put **sentiment at just 0.2 on the index, the weakest reading since Q4 2022** and down from 14.4 in the previous quarter. **This decline in confidence reflected record concerns over the tax burden and weaker domestic sales growth**. **Drops in confidence were recorded in every sector** of the economy, with retail and wholesale businesses hardest hit.

Labour Market	• Institute of Directors data shows that, despite some recovery in December, **employer hiring intentions remain around lows reached in 2020. The significant increases in employer NI, the forthcoming increase in the minimum wage and concerns over the cost of employment rights continue to sap demand for workers.** With the economy likely to have flatlined over the second half of 2024, the labour market is softening sharply.
	• The latest Quarterly Recruitment Survey by the British Chamber of Commerce reveals workforce growth struggles:
	  ○ **The proportion of firms who increased their workforce falls to less than a quarter (24%)** from 27% in Q3
	  ○ **Of those attempting to recruit 79% of firms faced difficulties,** up from 76% last quarter
	  ○ **75% of firms say they are facing pressure to put up prices because of labour costs**
	  ○ **Construction (83%) manufacturing (82%) and transport and logistics (81%) firms most likely to be facing recruitment problems**
	  ○ **19% of firms reduced training investment,** up from 13% in the previous quarter.

Midlands Growth Story

Launched on the 17th December at the **[Midlands Engine Economic Briefing]** in Nottingham, the **[Midlands Growth Story]** is a vital tool to support our region in driving sustainable economic growth and prosperity. The tool was designed with policymakers, investors, local authorities and Midlands Engine partners, providing a unified narrative that highlights the region's strengths, challenges and opportunities.

The Midlands Growth Story is a showcase of what the region can achieve by working together. It demonstrates the current state of the Midlands, outlines where it aims to be and identifies actionable steps to bridge the gap. The tool combines robust data and analysis alongside compelling impact stories, offering stakeholders a resource to guide evidence-based decision-making and align local plans with regional and national priorities.

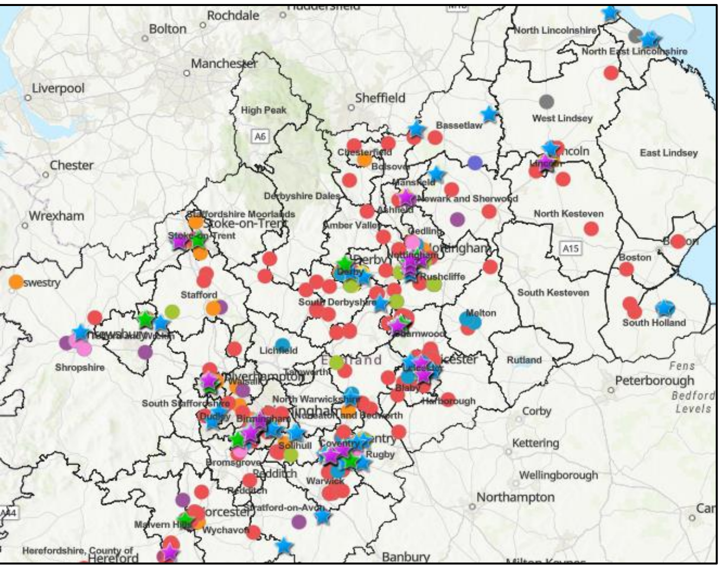
📊 Use the **economic indicators** and **scenario projections** to inform decision-making and develop growth strategies

📈 Explore the **interactive project pipeline** to identify high-growth investment opportunities

💡 Use the case studies to identify local assets and collaboration opportunities

It highlights a pipeline of initiatives, from the STEP fusion power plant to the Midlands Green Bond, aimed at attracting investment, creating jobs, and boosting productivity.

Midland's most significant economic growth and innovation assets:



Barriers to Economic Growth

- **Productivity;** Shortfall GVA per head of £6,805 leading to a £97bn output gap per annum to the UK economy
- **Skills for the Future;** +345,000 residents need to be upskilled to RQF level 4+ to reach national averages
- **Infrastructure for Growth;** Decades of under-investment in all levels of infrastructure has led to an economy less resilient to external shocks. £6bn shortfall on transport alone over the last 5 years. 18% of residents live in fuel poverty
- **Global and Investment;** Access to growth & innovation finance, business loans and high value capital investment difficult
- **Innovation Across Sectors;** Underperformance in R&D intensity — low public sector investment in R&D per head. 37% reduction in innovation funding to Midlands from UKSPF

What success looks like

Success for the Midlands will be defined by:

- **Closing the £97bn output gap** with the rest of England and increasing productivity across key industries.
- **Developing a skilled and inclusive workforce** ready for the challenges of a green, digital economy and addressing the current shortfall in qualifications with the rest of England.
- **Investing in infrastructure that supports sustainable economic growth and resilience** and redressing the decades of overinvestment in infrastructure to the Midlands compared to the rest of England and leveraging increased private sector investment.
- **Attracting significant levels of domestic and foreign direct investment** – on a par with rest of England to ensure long-term competitiveness and inclusive growth that benefits all Midlands people and places.
- **Fostering innovation across industries**, particularly in green growth, health technologies, and advanced manufacturing and increasing R&D investment to national average levels.

Impact Stories

The tool also features a live range of [impact stories] throughout the Midlands Engine area, featuring:

- Private sector investments
- Regional case studies with real impact
- Midlands' success stories
- Opportunities for growth
- Investment propositions
- Examples of real impacts
- Case studies of managing risks

Find the full Midlands Growth Story here:
[Midlands Growth Story]

State of the Region 2024

Also launched on the 17th December at the Midlands Engine Economic Briefing – **the fifth edition of the annual Midlands Engine State of the Region report**. Produced by the Midlands Engine Observatory, the 2024 report delves into data across all aspects of the regional economy. It offers a **clear, evidence-based picture of how the Midlands is performing in a pivotal year, marked by the arrival of a new Government. Key messages include:**

Increasing Productivity

- **GVA total of £277.2bn**, an annual increase of 8.3%.
- **GVA per head £26,421**, an annual increase of 7.1% and shortfall of £6,805 against national average.
- **Productivity gap of £97.1bn**, an increase of 15.7% - primarily due to population increase.
- **GVA per hour (unsmoothed) at £34.45** in 2021, an annual increase of 3.3% with a shortfall of £5.55 compared to the national average.
- **395,935 enterprises**, an annual decrease of 2.2% which follows national trend (-1.9%). **43,230 enterprise births** - 10.7% decrease compared to UK-wide decrease of 6.2%. More enterprise creations than closures in Q2 at 11,135 vs 10,480, according to more up-to-date experimental data.

Skills for the Future

- **10.6 million residents**, higher than national average of residents 15 and under (18.7% of total vs 18.5%) and aged 65 years and over (19.5% vs 18.7%)
- **4.6m jobs** (2023), annual increase of 0.3%
- **Nearly 1.4m people economically inactive**, of which 28.4% long term and temporary sick (UK: 29.5%)
- **Approximately 321,000 people claiming benefits** are **looking for work** – with 3.8% of population aged 16 years and over, compared to national rate of 3.3%. Youth claimants (aged 16-24) also remain above the national average
- **41.5% of working age population with RQF level 4+ qualifications**, below UK average of 47.1%, resulting in shortfall of 345,411. Higher-than-average share of **residents with no qualifications at 7.3%** vs 6.6% UK average - 38,808 residents would need to gain a qualification to match UK average

Increasing Global and Domestic Investment

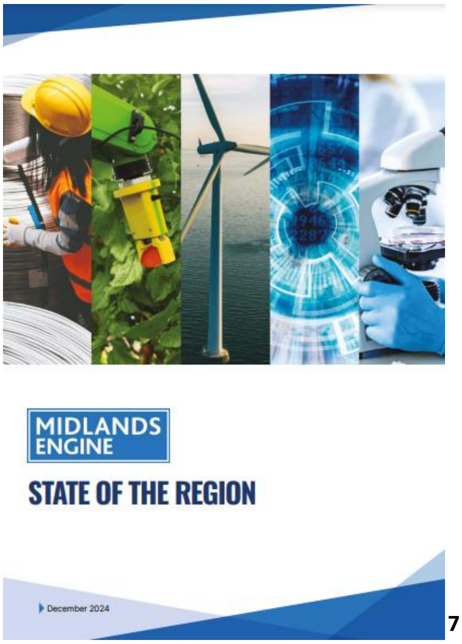
- **£62.7bn worth of regional goods exports** - £7.2bn increase from pre-pandemic levels and annual increase of 4.6% compared to 6.7% decrease nationwide. Midlands Engine area accounted for 24.1% of England's exports more than London and the South East. Machinery and transport exports worth £44.9bn, 71.5% of total Midlands Exports = largest regional Standard International Trade Classification (SITC) section for goods exports .
- **206 FDI (Foreign Direct Investment) Projects creating 10,282 new jobs.** Highest number of net zero FDI projects at 39 / 19% of UK total, creating 2,722 new jobs in 2023-4. 63 FDI projects created 3,024 jobs linked to R&D.

Building Infrastructure for Growth

- **80.5% of premises with gigabit broadband connectivity**, above UK average of 78.5%.
- **120.2 million sqm of employment floorspace**, 82.0 million sqm (68.3% of total) of which for industrial - annual increase of 1.0% (+814,000 sqm) compared to increase of 0.8% nationally.
- **Over 4.6 million homes.**
- **£544 per capita government spending on transport**, below UK average of £648.
- **>£6bn shortfall in transport expenditure** in last 5 years.

Innovation across Sectors

- **Decrease in the proportion of innovation active businesses**. Latest figures show 35.1% for East Midlands and 35.4% for West Midlands.
- **£8.1bn total R&D expenditure** in 2022 (11.5% of UK).
- **Clear strengths in traditional sectors**. Out of 10 defined sectors, Midlands Engine region outperforms national average in 7 sectors for GVA and 6 sectors for both enterprises and jobs.
- **1 in 5 of England's energy and low-carbon jobs** are in Midlands Engine area.
- **Advanced manufacturing is the second largest sector with £42.8bn GVA translating to £79,277 GVA per employee.** The sector is composed of 24,600 enterprises employing a total 539,375 people.
- Midlands Engine Food White Paper identified that the **end-to-end food system has 66,000 businesses, 857,000 jobs and generates £32bn GVA.**
- Estimated **Midlands med-tech and life sciences sector** = 3,753 businesses, 68,500 jobs and 18% of total UK sector, generating £15.8bn GVA / £53,402 per employee.



Productivity in the Midlands: Trends, Challenges & Solutions

The Productivity Institute have released a [Productivity in the Midlands: Trends, Challenges & Solutions] insight report. **The report offers a strategic assessment of the region's productivity landscape, highlighting key challenges and proposing practical solutions.** Leveraging local insights and recent data, this report provides policymakers with a roadmap to foster resilience and long-term growth.

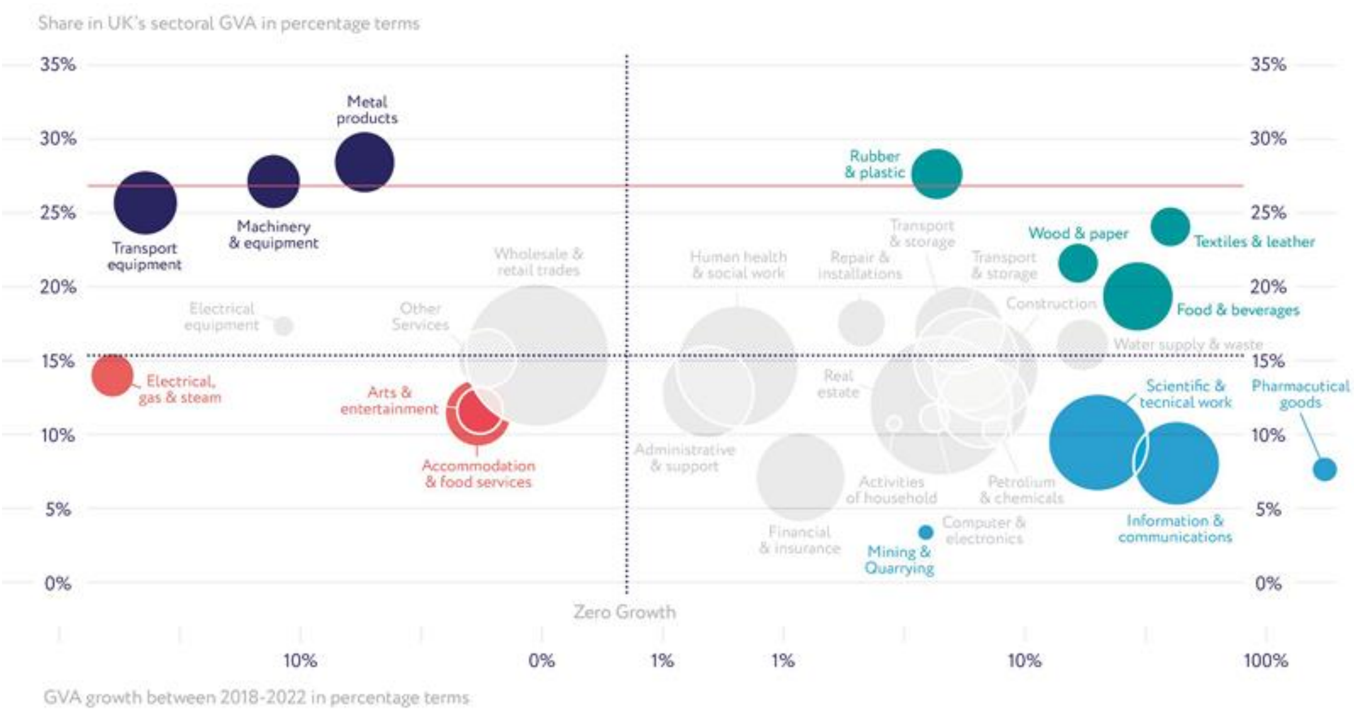
Productivity Landscape

Despite its strengths, the Midlands' productivity levels are below the UK average, facing disparities across the East and West Midlands and between urban and rural areas. Key metrics illustrate both progress and ongoing challenges; for instance, GVA per job has grown by 15%, reflecting some productivity improvements, yet the productivity gap with other UK regions persists. This is partly due to **sectoral shifts from traditional industries to high-value sectors like digital technology and high-tech manufacturing, which require advanced skills and robust infrastructure**. Such changes have underscored the need for targeted policy interventions that address the Midlands' unique mix of strengths and constraints, with emphasis on **capitalising on growth sectors** while closing regional gaps. **The region's resilience has been tested, which has exposed structural weaknesses, including in regional infrastructure, labour market dynamics, and R&D investment.** These elements, coupled with the decline in business formation and export intensity, underline the urgency of a coordinated approach to bolster the Midlands' productivity.

Drivers, Enablers, and Barriers

Key drivers of productivity include a strong industrial base in manufacturing and logistics, a growing digital sector, and increasing R&D activity in certain localities. High skilled jobs are emerging in industries like technology and advanced manufacturing, offering potential for significant productivity gains. Enablers include investments in infrastructure and education initiatives, which, when strategically directed, provide critical support to these high-growth sectors. However, formidable barriers challenge productivity growth. Skills shortages are particularly acute, with companies struggling to fill technical and digital roles, highlighting the gap between labour market supply and the needs of high-value industries. In addition, **underinvestment in R&D constrains innovation, with the Midlands receiving only 5% of the UK's R&D investment. This limitation is further compounded by infrastructure deficiencies, especially in transport and digital connectivity, which restrict efficient movement of goods, services, and labour.** Lastly, there is a need for cultural change within some sectors, where reluctance of businesses and public organisations to adopt modern practices hinders competitive growth. Addressing these barriers is essential to unlock the full potential of the Midlands' industrial and digital strengths.

Growing and Shrinking Sectors in Midlands in the Post-Brexit Period:



Source: The Productivity Institute with ONS sectoral GVA data

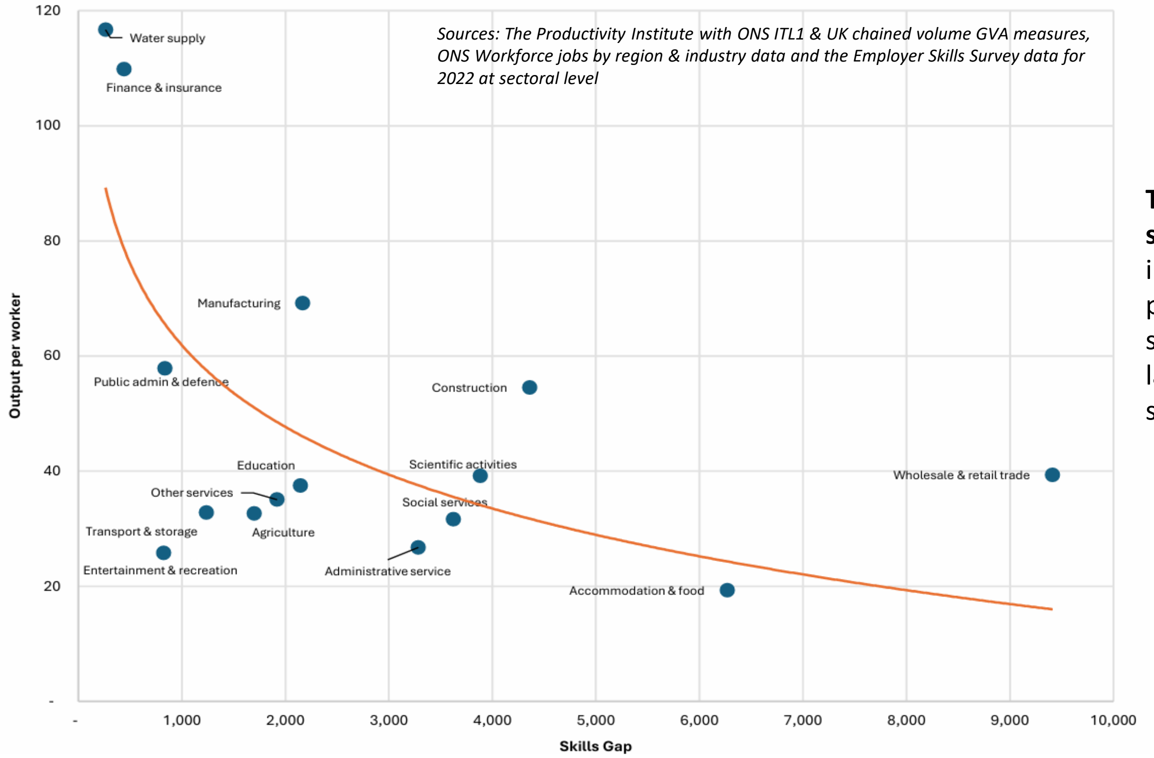
Productivity in the Midlands: Trends, Challenges & Solutions

Key Focus Topics

The report emphasises strategic solutions in two core areas:

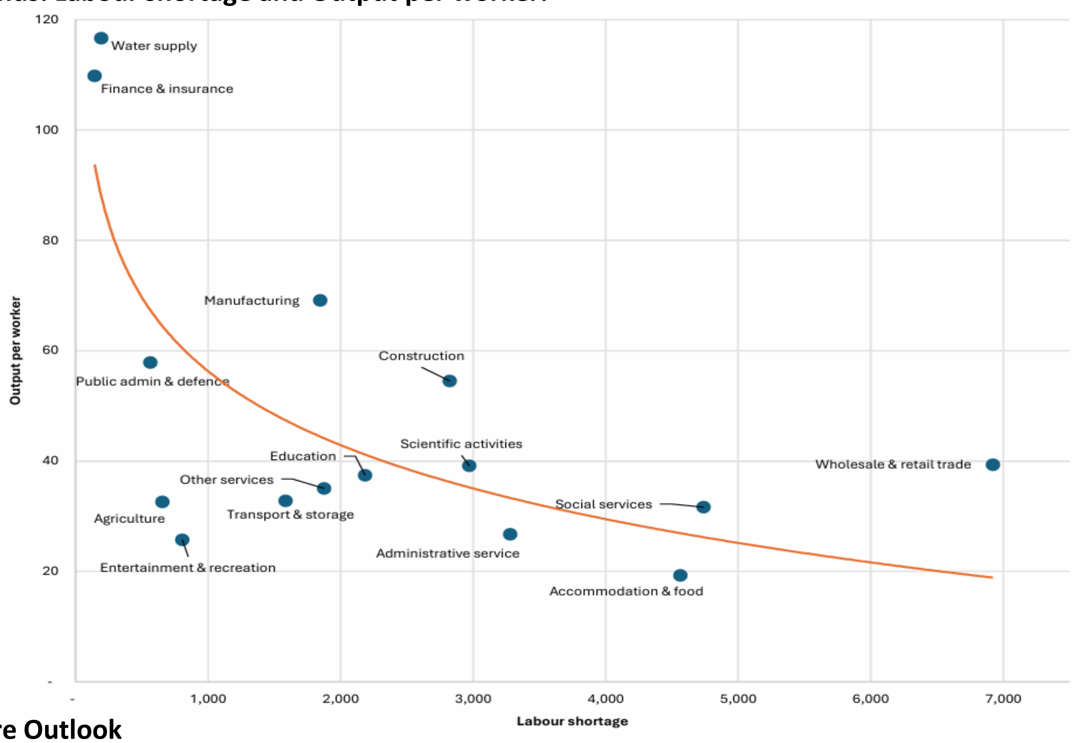
- **Skills and Labour Market Development:** Expanding reskilling and upskilling programs in partnership with local industries, fostering lifelong learning, and creating pathways for high-demand sectors.
- **Investment and Infrastructure:** Focusing on transport, digital connectivity, and Investment Zones to attract private capital, particularly in underdeveloped areas, to bridge regional productivity divides.

Midlands: Skill-gaps and Output per worker:



The downward sloping relationship: indicates a decline in productivity as shortage in skills and labour increases at sectoral level.

Midlands: Labour shortage and Output per worker:



High productivity corner: Firms in water supply or finance sectors are very productive with minimal relative shortages in skills and labour.

Future Outlook

The report highlights that the path forward requires coordinated action, commitment, and an inclusive approach to ensure that the Midlands' growth benefits all communities, ultimately enhancing productivity and well-being across the region.

Regional Business Activity

Business Activity Index

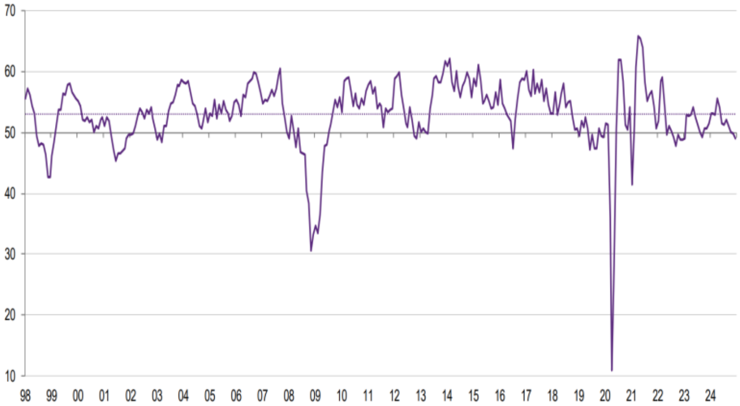
The West Midlands Business Activity Index decreased from 49.9 in November 2024 to 48.9 in December 2024, a second successive fall in business activity across the region despite the rate of contraction being modest. Firms that signalled a fall in activity remarked on subdued client confidence and reduced intakes of new business.

The East Midlands Business Activity Index increased from 50.1 in November 2024 to 50.7 in December 2024, signalling the fifth consecutive month of expansion. The latest data indicated a marginal expansion in output across the region's private sector, but one that was the steepest for three months.

The UK Business Activity Index decreased from 50.5 in November 2024 to 50.4 in December 2024.

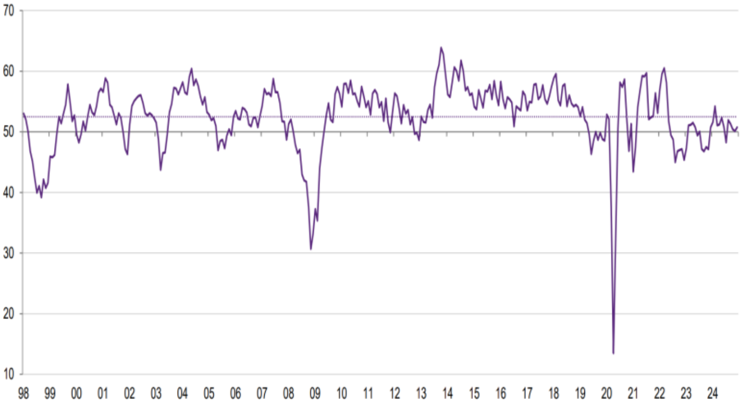
Business Activity Index Trends:

West Midlands



Sources: NatWest, S&P Global PMI. ©2025 S&P Global.

East Midlands



Sources: NatWest, S&P Global PMI. ©2025 S&P Global.

In a typical business cycle, regions will move through four phases – expansion, slowdown, contraction and recovery. The December 2024 reading shows **the East Midlands was in expansion meaning that the region is expanding and at a faster rate than the trend over the past six months. While the West Midlands remained in contraction** meaning that the region is contracting and at a faster rate than the trend over the past six months.

Demand

The West Midlands New Business Index decreased from 48.8 in November 2024 to 47.4 in December 2024.The East Midlands New Business Index decreased from 48.7 in November 2024 to 47.8 in December 2024, a second and third successive monthly decline respectively.

Exports

The West Midlands Export Climate Index increased from 51.6 in November 2024 to 51.7 in December 2024. The East Midlands New Business Index decreased from 51.3 in November 2024 to 51.1 in December 2024.

Business Capacity

The West Midlands Employment Index decreased from 47.5 in November 2024 to 43.9 in December 2024, the fastest rate of job shedding in over four years. The East Midlands Employment Index decreased from 49.7 in November 2024 to 44.1 in December 2024, the steepest decline in employment since August 2020.

The West Midlands Outstanding Business Index decreased from 45.3 in November 2024 to 43.3 in December 2024, the sharpest fall since August 2023. The East Midlands Outstanding Business Index decreased from 44.9 in November 2024 to 44.2 in December 2024, the fastest rate of contraction since September 2023.

Prices

The West Midlands Input Prices Index increased from 60.1 in November 2024 to 60.2 in December 2024. The East Midlands Input Prices Index increased from 60.4 in November 2024 to 61.1 in December 2024,

The West Midlands Prices Charged Index increased from 52.1 in November 2024 to 53.2 in December 2024. The East Midlands Prices Charged Index increased from 53.6 in November 2024 to 55.7 in December 2024.

Outlook

The West Midlands Future Business Activity Index decreased from 68.6 in November 2024 to 67.2 in December 2024, a two-year low. Firms remained confident that output would increase in 2025 with optimism being underpinned by advertising, investment and hopes of a recovery in client demand.

The East Midlands Future Activity Index increased from 65.6 in November 2024 to 70.4 in December 2024, the strongest level in three months and the most optimistic of any region across the UK.

Source: NatWest: UK regional growth tracker report for December 2024, released January 2025. Please note, readings above the 50-mark indicates growth.

2. Labour Market Impacts

Centre for Cities annual report, its [Cities Outlook] for 2025, offers a deep dive into the latest economic data on how UK cities are performing against a range of indicators including innovation, housing, skills, employment and productivity.

This year the outlook has a special focus on the variation in wages across the country, what drives this variation, and what policy will need to do for the Government to achieve its aim of raising living standards everywhere. Headline stats in the report find that:

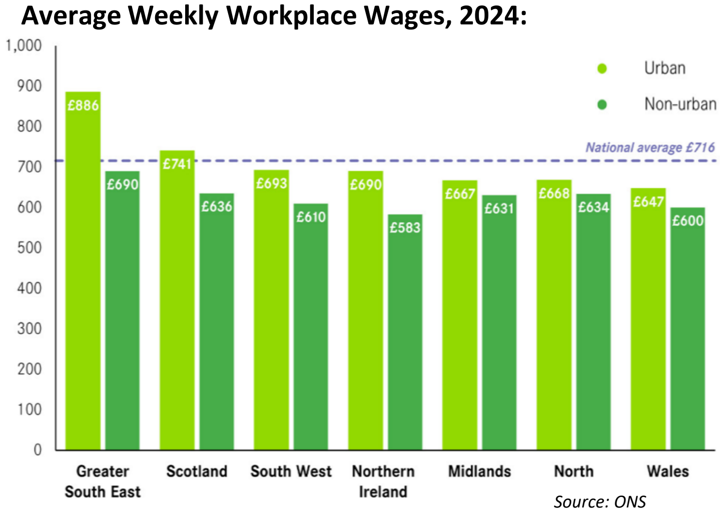
- **The average worker in London, Reading and Slough earn in 8 months** what the average worker in Burnley earns in a whole year.
- **It is the performance of high-knowledge rather than high-street jobs that drive this difference**, with the performance of a city's 'export base' determining wages.
- **Particularly, it is the ability of places to attract and grow innovative, cutting-edge businesses that influences wider prosperity**. Cambridge and London have 3 times more of these cutting-edge businesses than Middlesbrough and Doncaster.

Pocketing a pay rise: What policy must do to boost wages across the country

Wages vary across the country and have flatlined everywhere since 2008. These differences are mainly driven by differences in the performance of cities.

- **Workplace wages in cities and large towns are higher than non-urban areas in all parts of the country.** This is because of the inherent benefits that a city location offers.
- **Differences in regional pay result from differences in the performance of urban areas**. There is a much greater amount of variation between cities than non-urban areas across the country. If a region is underperforming it is largely because its cities are underperforming.

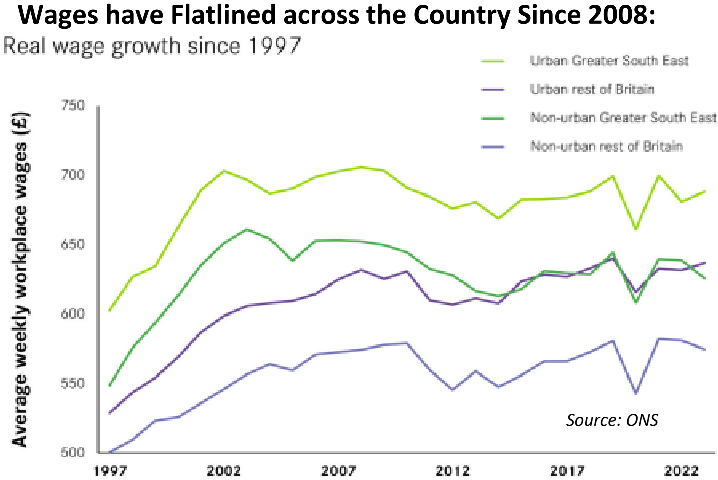
Average Weekly Workplace Wages, 2024:



Cities are also more attractive to exporters than non-urban areas, there are three main benefits to exporting companies: **learning**, which reflects knowledge exchange; the **sharing** of inputs such as physical and digital infrastructure; and the **matching** of workers to jobs and jobs to workers. These benefits are especially true for exporting companies in services sectors. For example, while the national average weekly workplace wages in 2024 was £716, **urban wages in the Midlands were £667, and non-urban was £631** – there was no region where non-urban wages beat the national average, not even the Greater South East (£690).

London has the highest workplace wages of any city or large town in Britain, **with pay being 33% higher than the national average**, and 68% higher than Burnley (the place with the lowest workplace pay). That's an annual difference of almost £20,000 and means that by August the average worker in London has earnt what the worker in Burnley earns in a full year. **In the Midlands, cities like Birmingham and Coventry achieve this by October, and November for Nottingham.**

Wages have Flatlined across the Country Since 2008:



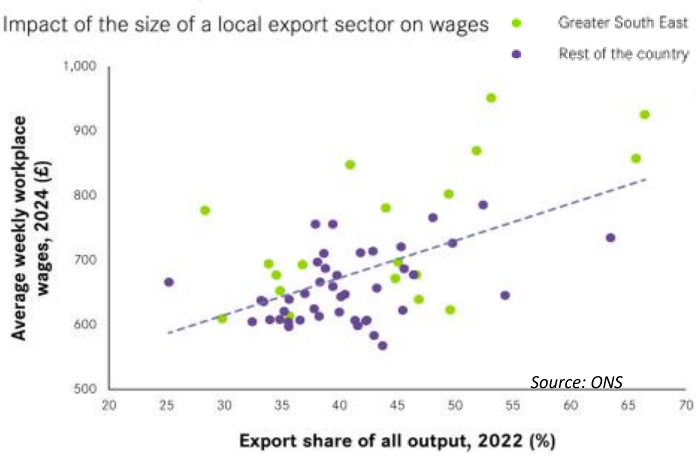
Generally, whilst workplaces wages in urban areas are higher than their rural counterparts, all cities have struggled since the financial crisis. **Most places have not seen a pay increase (once adjusted for inflation) since 2008**. Even for those that have, this increase has been small. **Coventry, the city with the largest increase, has wages which are just 11% higher in 2023 than they were 15 years earlier, and between 1997 and 2007 wages in Coventry grew by 31%.** Moreover, people in some places are now paid less than they were 16 years ago i.e., workplace wages in **Aldershot are 17% worse off in real terms than they were in 2008.**

This means that despite much of the recent policy rhetoric to close gaps, such as such as 'regional development policy', 'rebalancing the economy', and 'Levelling Up', **there has been no change based on wages**.

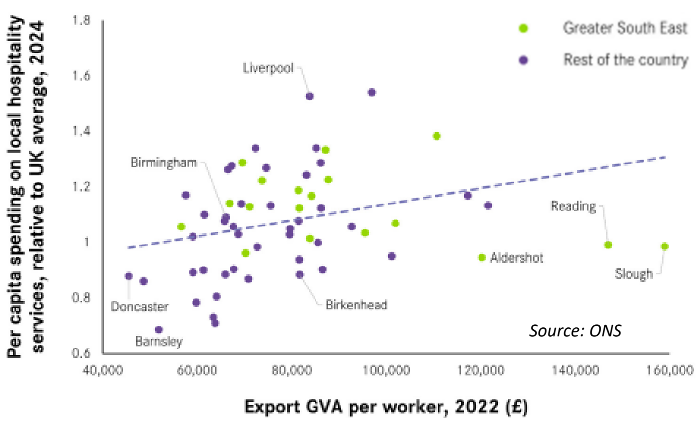
The 'export base' of a city is the key determinant of wages. If the new **Industrial Strategy** is to turn stagnating wages around it needs to focus on the part of the economy which determines wages i.e., productivity, where large town and cities have high productivity, they also tend to have high wages.

However, not all companies or sectors contribute to productivity equally, with the report suggesting that the **differences observed between places are mostly determined by 'exporting activities'**. This is backed up by national data which shows that exporting activities are drivers of UK productivity growth with sectors like **IT, chemicals, pharmaceuticals and finance leading growth since 1997 while productivity has fallen in local services.** Generally, this is due to exporting activities having greater absorptive capacity with new innovations and maximising their creativity to create value i.e., where new technology means a car factory can produce more output (i.e., cars) than it could 30 years ago.

Places with Larger Export Sectors Tend to have Higher Workplace Wages:



Places with Stronger Export Bases have Higher Spend on Local Services:



All of which has an impact on wages, where **jobs in exporting activities tend to pay better than those in local services,** hence places with a greater share of exports tend to have higher wages.

This also means that once the export economy sells its goods to regional, national and international markets more money can be spend on local services through higher wages – especially on food and beverage activities, i.e., restaurants, cafes and bars, which in turn increases jobs in that area. This is how the exporting economy in turns supports its 'everyday' economy.

How the export bases of cities across the country measure up

There are several factors that places should consider when writing Local Growth Plans or other economic strategies:

1. **Size** – Cities in the Greater South East tend to have larger export bases
2. **Cutting edge** – Cities in the Greater South East in particular are home to the innovative, cutting-edge part of the economy
3. **Adaptation** – Those that have better adapted to services have stronger export bases
4. **Diversification** – Those that are over specialised today may have problems tomorrow
5. **Location** – Different parts of a city (and city region) play different roles in the economy

Cities and their Export Bases:

Centre for Cities Advice

As places write their Local Growth Plans as part of the Government's Industrial Strategy, the report sets out the following advice to make these plans as useful as possible:

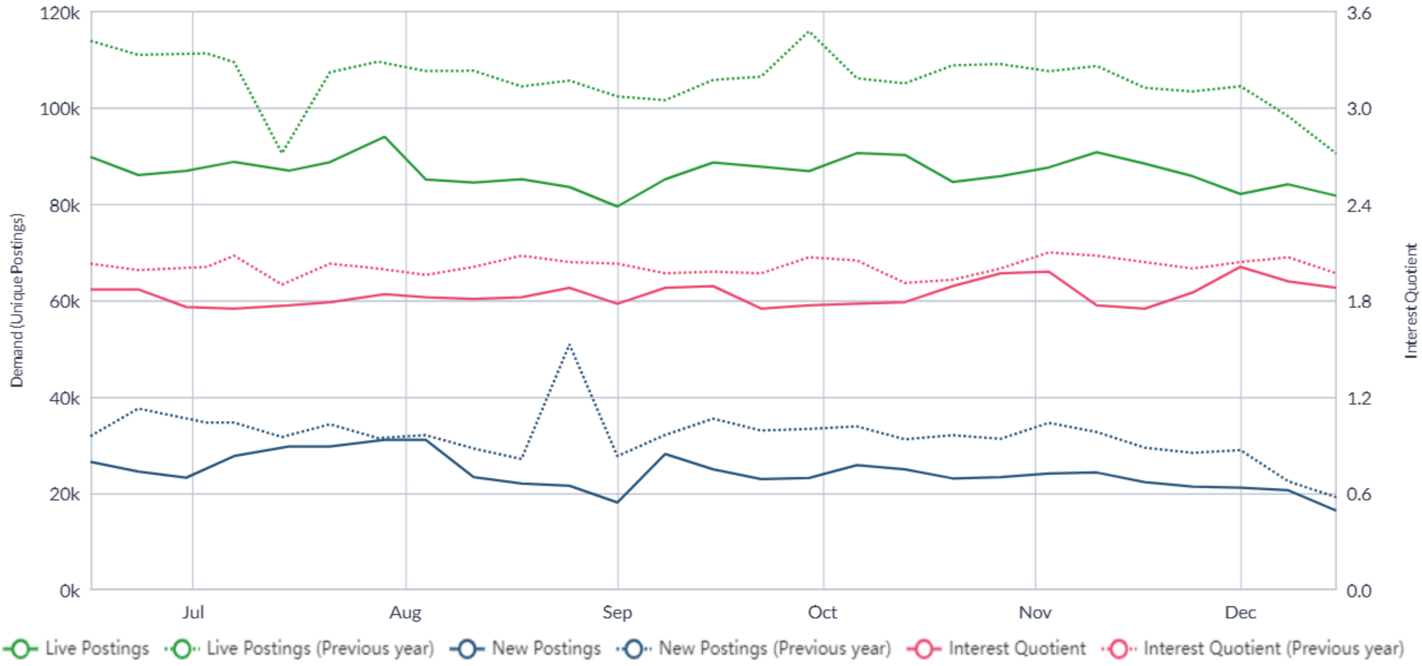
- Focus on the exporting part of the economy.
- Focus on cities and city centres.
- Be wary of identifying 'key strengths'.
- Be wary of being overly guided by the Government's sectoral choices.
- Understand how to achieve inclusive growth.

Labour Market and Job Postings

The latest labour market data shows that economic inactivity has fallen by 0.4% over the past year, with notable reductions among 18–24-year-olds**. However, long-term ill health continues to drive inactivity.** Unemployment remains at 4.3%, employment at 74.8%, and **vacancies have dropped to 818,000, their lowest since mid-2021. The 11.4% year-on-year decline in vacancies signals weaker job demand. Pay growth is stagnating, with real pay plateauing** at 3%, down from last year's highs of 8%.

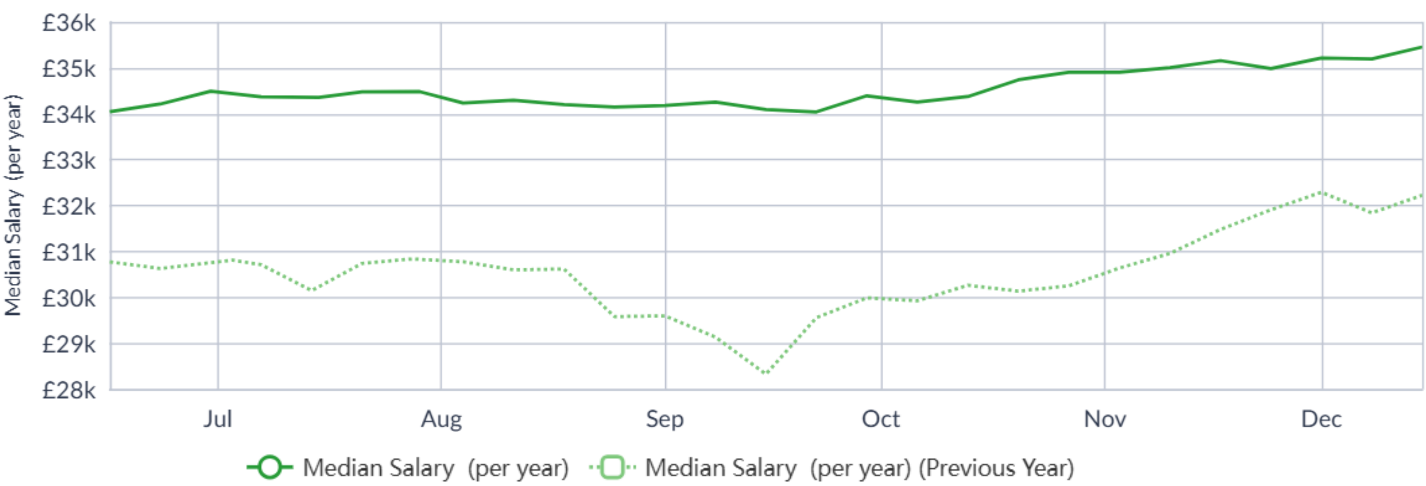
The latest total unique job postings data shows that the **number of postings across the Midlands dropped 24.9% over the last six months to 711,489,** however, the number of postings is high compared to the average for all regions. The number of new job postings fell by 25.4% to 615,614, again the number of new job postings was high compared to other regions. Despite employer demand narrowing, **those seeking work - wanting a job, currently remains heightened (1.8 Interest Quotient).**

Overall demand and interest for the Midlands: *Source: Adzuna Intelligence*



The **advertised median salary across the Midlands has increased by 10.4%** year-on-year to £33,496 per year.

Salary trends for the Midlands: *Source: Adzuna Intelligence*



Sectors Hiring in the Midlands

Job posting demand was greatest for roles in engineering (98,978), teaching (90,587) and sales (54,117).

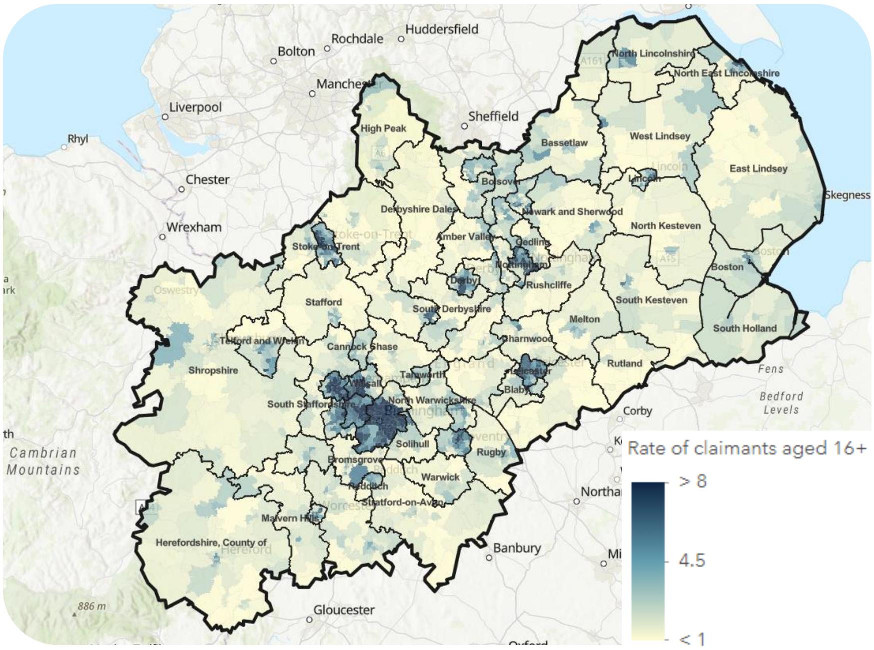
Source: Adzuna Limited Job Posting Intelligence, Accessed Jan 2025. The Interest Quotient uses jobseeker data to quantify the level of interest in particular roles.

Labour Market Impacts: Claimants

There were 310,035 claimants aged 16 years and over in the Midlands Engine area in December 2024, an increase of 450 claimants (+0.1%, UK +0.2%) since the previous month. There are 40,575 more claimants (+15.1%, UK +12.1%) when compared to December 2023.

Overall, for the Midlands Engine area the number of claimants as percentage of residents aged 16 years and over was 3.7% compared to 3.2% for the UK in October 2024.

Claimants as a percentage of residents aged 16 years and over:



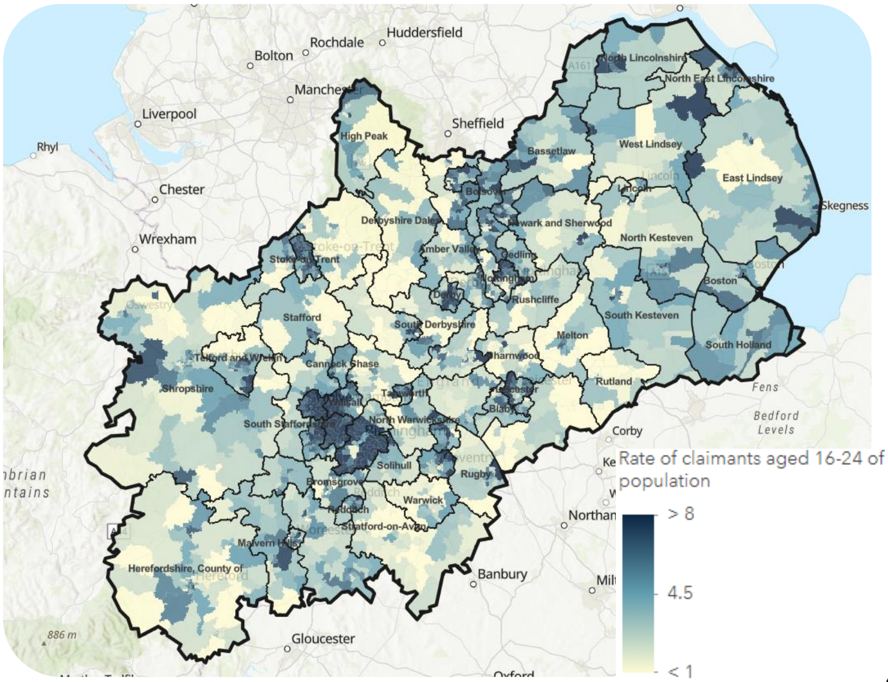
Out of the 1,511 wards within the Midlands Engine, 403 were at or above the UK average of 3.3% for the number of claimants as a percentage of the population aged 16 years and over in December 2024.

The wards with the highest number of claimants as a percentage of the population were based in Birmingham, with Lozells at 21.4%, Aston at 19.5% and Handsworth at 19.3%. In contrast, the lowest proportions were Keele (Newcastle-Under-Lyme) at 0.1%, Ashby Castle (North West Leicestershire) at 0.2% and Brailsford (Derbyshire Dales) at 0.3%.

There were 58,485 claimants aged 16-24 years old in the Midlands Engine area in December 2024, a monthly increase of 455 youth claimants (+0.8, UK +1.1%). Since December 2023, the number of youth claimants has increased by 5,895 (+11.2%, UK +8.8%).

The number of claimants as a percentage of residents aged between 16-24 years old was 5.2% in the Midlands Engine and 4.3% for the UK in December 2024.

Claimants as a percentage of residents aged 16-24 years:



Out of the 1,511 wards within the Midlands Engine, 642 were at or above the UK average of 4.3% for the number of claimants as a percentage of the population aged 16–24 years and over in December 2024.

The ward with the highest number of youth claimants as a percentage of the population was Handsworth (Birmingham) at 18.2%, followed by Birchfield (Birmingham) at 16.4% and Joiner's Square (Stoke-on-Trent) at 15.5%. In contrast, **within the Midlands Engine there were 93 wards with no youth claimants in December 2024.**

An interactive version can be found here.

Source: ONS/ Department for Work and Pensions, released January 2025

3. Business Environment

The Role of Capital Shocks and Banking Reforms in Shaping the UK Geography of Prosperity

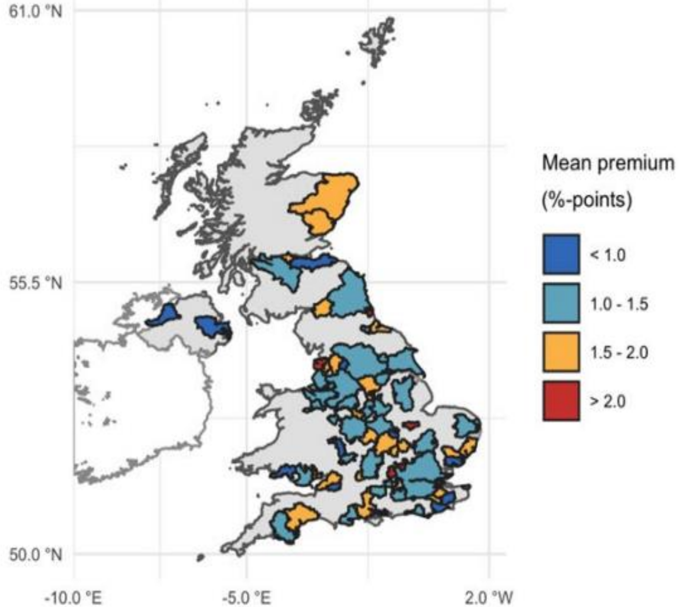
The Productivity Institute's insights paper, [Regions, cities and finance: The role of capital shocks and banking reforms in shaping the UK geography of prosperity]() examines the role played by financial markets, and in particular, changes in the price and access to capital, in shaping UK regional growth fortunes. The report utilises uniquely detailed real estate investment data to generate risk-pricing indices for all UK regions and cities over a twenty-on-year period.

The report outlines how since the 2008 global financial crisis, global **financial markets underwent a profound regime shift which partitioned the UK into fundamentally different capital market pricing regimes**.

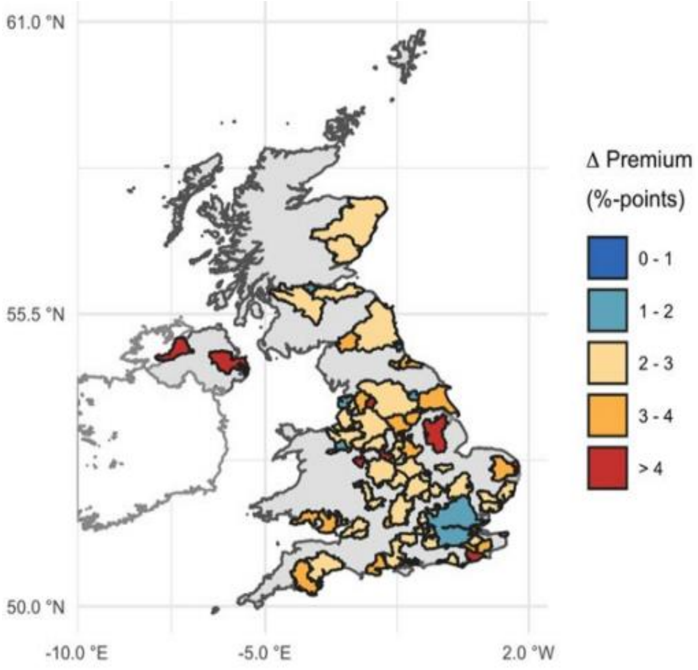
Key findings include:

- **City centres in second-tier and third-tier cities have borne the brunt of adverse capital shocks**, and this partitioning provides a demand-side explanation as to why economic growth in the UK's non-core regions outside of London and its immediate hinterland has so seriously struggled in recent years. Rejuvenating the growth trajectories of these cities therefore also requires fundamental reforms to the UK banking and financial system towards a more decentralised system.
- **A more decentralised and localised UK banking and financial system is essential for regenerating city business ecosystems**. However, the modern history of the UK banking system has been dominated by movements away from primarily local financial ecosystems, to a highly centralised, top-down and London-centric system. Therefore, finding ways to reverse these trends is essential in order to foster the rejuvenation of the commercial centres of second-tier and third-tier cities.

Pre-crisis risk premia across UK metropolitan areas:



Post-crisis change in UK metropolitan risk premia:



The UK Banking and Financial System

The paper argues that the UK's capital market is highly segmented. **This segmentation has arisen from the historical concentration of institutional investors in London**, replacing individual investors and consolidating within the London Stock Exchange, alongside focus on international capital markets.

Banking on Britain

The paper highlights that while bank finance appears widespread, **British banks lack long-term relationships with SMEs**, and thus relationship-oriented banking, often seen in countries like Germany, relying on 'hard' and 'generic' knowledge from AI or FinTech instead of local understanding. This leads to difficulties in renegotiating loans and worse terms when seeking alternative financing.

Unquestionable Equity

Moreover, the paper goes on to say that equity finance in the UK is highly concentrated in London and the South-East, **leaving other regions lacking access to vital capital, mentoring, and professional services (i.e., the support mechanism and infrastructure) needed for start-ups and growing businesses**, creating a fragmented capital market and hindering national economic growth.

Conclusion: Rebuilding British Business in the Regions

The fragmentation of the UK capital market, exacerbated by Brexit and the financial crisis, has left regions without the financial and professional infrastructure needed for business growth. Rebuilding local financial ecosystems, alongside decentralisation and devolution reforms, is crucial for regional economic regeneration and connecting London's capital to businesses across the UK.

Innovation State of the Nation Survey

In their December report, [Insight from Innovation State of the Nation Survey (ISNS) 2023 and 2024](), the Enterprise Research Centre (ERC) adds to the findings published in the UK Innovation Survey (UKIS) earlier in 2024. Troublingly, the ERC comment on the continuation of the trend suggested by the UKIS data up to 2022; across a range of metrics, **levels of innovation among UK firms fell back slightly further between 2023 and 2024.**

Innovation Activities and Outcomes

Overall, in 2024, **56% of UK businesses report making product or service changes over the last year** (**59%** in the WM, and **50%** in the EM), which reflecting long-term trends in the UKIS, was a fall from 61% in 2023. Notably, **innovation rates for small and micro businesses between 2023-24 fell especially, with a 6.2% decrease in small businesses' rates of innovation activity as compared to a fall of 0.4% amongst large firms**. Interestingly, there was a 6% decrease in frontier businesses' (firms which are sector leaders in terms of technology) innovation activities between 2023 and 2024 compared to a 4% decrease in non-frontier firms.

The survey also finds that, comparing 2023 to 2024, there was a **3% decline in the in firms reporting new-to-market innovations**, and those reporting **wholly new-to-firm innovations fell by 1%**. Additionally, the share of firms introducing process innovations decreased from 46% to 41%, with micro-businesses and non-frontier businesses experiencing the largest declines in process innovation rates. Micro-businesses saw a drop from 42% to 34%, and non-frontier businesses from 43% to 36%.

Innovation and Business Objectives

The survey also explored firms' business objectives over the past 12 months, highlighting goals such as improving efficiency, increasing sales, profit margins, and cashflows in both 2023 and 2024. Results showed that firms aimed to meet these objectives by selling to new customers (92% in 2023 and 91% in 2024) and selling to existing customers (87% in 2023 and 84% in 2024). These sales-relate objectives may be linked to the increase in marketing activity in 2024. Meanwhile, introducing new products remained steady (77% in 2023 and 76% in 2024), indicating less linkages between business objectives and the decline in innovation activities.

Innovation and Growth

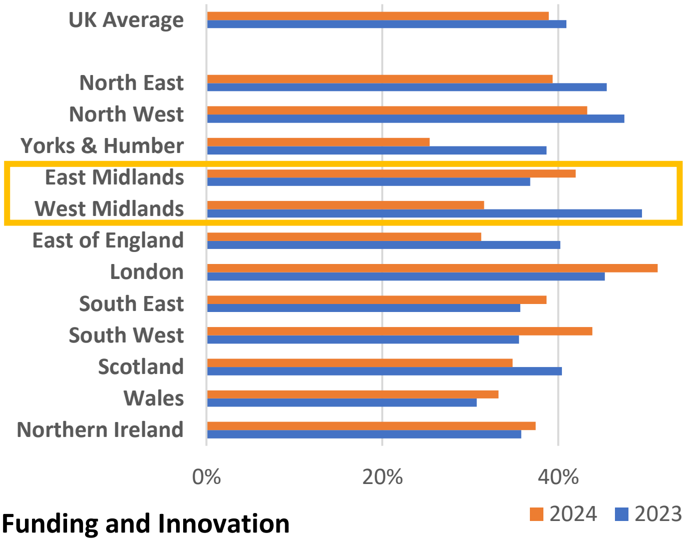
Findings also **suggest that innovation is strongly associated with higher sales growth**. In 2023, **innovating firms experienced a 10% sales growth, compared to just 3% for non-innovating firms.** In 2024, the gap narrowed slightly, with innovating firms growing by **7%**, while non-innovators saw only **2%** growth.

Innovation Enables and Investment

In both 2023 and 2024, **39% of UK businesses reported engaging in some form of R&D activity**. However, one significant difference was that between large and micro-firms. In 2013, 80% of large firms (250+ employees) engaged in some sort of R&D activity, as compared to 34% of micro-businesses. Interestingly, whilst the proportion of large firms engaging in R&D remained stable in 2024, the proportion of micro-businesses dropped by 3%.

Firms increased investment in machinery, equipment, software, and new market development by 1%, while market research investment rose by 2%. Patent and licensing activities remained unchanged at 8%, and product design activities decreased from 41% to 39%, which is notably higher for firms in the **West Midlands (50% to 32%; and 37% and 42% in the EM).** These trends are expected to impact future innovation activity.

Collaboration with External Partners for Innovation:



Funding and Innovation

In 2024, **internal funding for R&D and innovation increased from 67% to 70%** (remaining the most common funding approach to R&D innovation), especially among smaller businesses and frontier firms. The use of grants also rose by 2%, while reliance on government loans, bank loans, and equity financing decreased by around 1%.

Collaboration for Innovation

In 2024, **the proportion of firms collaborating with external partners dropped from 41% to 39%.** However, this pattern varied between groups of firms. For example, collaboration decreased by 3% among non-frontier and smaller firms, but increased by 3-4% among frontier firms and larger companies. Moreover, whilst collaboration with supply-chain partners was important, the collaboration with non-supply chain partners, like universities, public laboratories, and business support providers remains relatively uncommon.

UK businesses tend to collaborate more with non-local partners. In both 2023 and 2024, over 50% of innovating firms collaborated with non-local suppliers, and more than 44% collaborated with non-local clients.

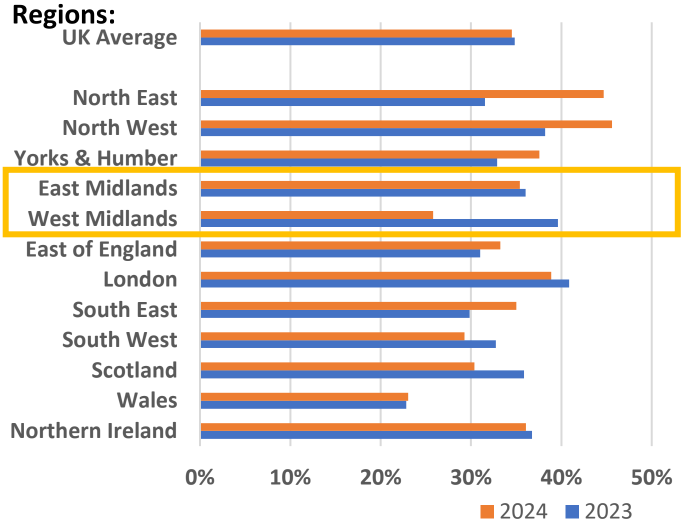
Innovation Teams

In 2024, **42% of UK businesses' innovation team members were women**, up from 37% in 2023, with small firms showing higher female representation. **Ethnic minority representation rose to 28% in 2024**, up from 15% in 2023, particularly among micro firms and frontier firms.

External Support

Overall, **the proportion of UK businesses seeking external support has remained the same, around 35%,** with the most common types of support relating to running and growing the business. Other types of support – digital technologies, product and service innovation, and net zero – were sought more often by frontier firms.

Proportion of Firms Seeking for External Advice, UK Regions:



However, when considering regional differences, this masks some varying patterns. Interestingly, there was a 13% increase in the proportion of firms seeking external advice among firms in the North East, compared to **a 14% decrease among firms in the West Midlands (and a 1% decrease in the EM).**

Barriers to Innovation

Around 46% of innovating firms reported barriers in their activities in 2024 as compared to 52% in 2023. **The cost of doing business crisis was the most experienced barrier** by innovating firms (51% in 2023 and 52% in 2024). Notably, there was a significant rise in firms reporting barriers due to **lack of government support** (+ 9% in 2024), **lack of finance** (+8% in 2024), and **technology risk** (+8% in 2024).

Midlands and UK, % difference in barriers faced between 2023 and 2024:

	East Midlands	West Midlands	UK
Group Investment Decisions or Policy	21%	-7%	3%
Cost of Doing Business	16%	-12%	1%
Regulation / Legislation	-12%	-13%	-1%
Lack of Government Support	12%	-3%	9%
Lack of Skills	17%	-31%	-2%
Lack of Finance	-7%	-20%	8%
Technology Risk	28%	18%	8%
Uncertain Demand	16%	-9%	1%

Overall, **32% of firms in 2024 reported recruitment issues** limiting their innovation activities, down from 39% in 2023, with a particularly significant decline amongst medium and non-frontier firms. The most common recruitment challenges were for technicians (27%), graduate-level technicians (23%), and engineering staff (21%).

For non-innovating firms, **the most common reasons for not undertaking innovation over the past two years relate to adequate profitability** (44% in 2023 and 42% in 2024) and uncertain demand (43% in 2023 and 41% in 2024). Interestingly, more non-innovating firms reported barriers to innovation due to a lack of finance, government support, and regulation/legislation in 2024 than in 2023.

Future Innovation Plans and Support Needs

The ISNS also asks firms about their R&D investments over the next 12 months, and their anticipated support needs. **Overall, in 2024, 47% of firms planned to invest in R&D over the next 12 months**, which marked a decrease from 2023. This decline was especially notable among small firms and non-frontier firms.

Firms anticipate needing more business support over the coming year, with 14% seeking business development support and 10% seeking product/service development support. Large firms are more likely to seek product/service development support, while small firms are more focused on business development support.

Firms also reported a **need for more innovation support** in 2024, with the proportion seeking innovation loans rising from **17% in 2023 to 30% in 2024**. Similarly, the need for support through R&D grants, R&D tax credits, IP support, marketing/export support, strategy advice, and finding innovation partners increased by more than 20% in 2024.

Local Business and Policy Intelligence By Sector

SECTOR	KEY INSIGHTS
Tech / Digital	• Data centres often conjure an image of a pristine and immaculate site, newly built with all the bells and whistles to support the growing demands for colocation/ GenAI services. **However, for 47% of global facilities (built over 11 years ago) this is not the case and their aging mechanical and electrical (M&E) equipment can drastically impact valuations when disposing/ acquiring these sites.**
Construction	• Construction output **is estimated to have increased by 0.4% in volume terms in** November 2024; this follows an upwardly revised decrease of 0.3% in October 2024. This increase in monthly output came from rises in both new work (0.3%) and repair and maintenance (0.5%).
Retail, Hospitality and Tourism	• Retail sales volumes **(quantity bought) are estimated to have fallen by 0.3% in December 2024, following a small rise of 0.1% in November 2024 (revised down from 0.2%).** Falls in supermarkets were partly offset by a rise in non-food stores, such as clothing retailers, which rebounded from falls in recent months. • **The British Retail Consortium warns consumers are feeling the January Blues as consumer confidence in the economy fell to a new low, with concerns most pronounced among older generations.** Gen Z (18-27) remain the only group to expect the economy to improve, while two-thirds of Boomers (60-78) expect things to get worse. Feelings around people's own finances fell slightly, with older generations remaining the most pessimistic. **Expectations of retail spending and wider spending both fell significantly, though much of this is likely to be the end of the Christmas period, as people tightened their belts for the new year ahead.** On top of this challenging market backdrop, **retailers are facing £7bn in additional costs from the Budget and new packaging levy.** With retailers' tight margins leaving little scope to absorb more costs, many are warning of price rises and job cuts in the coming months.
Manufacturing	• **UK manufacturing exhibited a particularly sharp drag on economic output in December.** In many parts of the manufacturing sector, sector-level Output PMIs were well below the 50.0 no-change mark, signalling steep rates of decline. **Firms reported weak demand both at home and from abroad with new export orders falling at the quickest pace in ten months.** • **Sentiment across the manufacturing sector fell at the fastest pace in over two years** in January, according to the Confederation of British Industry's (CBI) latest quarterly Industrial Trends Survey. • **For UK manufacturers, 2025 will be defined by the ability to adapt.** With government policies and uncertainty over energy bills increasing pressure on costs, **manufacturers are looking for ways to boost productivity and accelerate growth. And with the announcement of a new UK industrial strategy, the sector will be critical in unlocking the UK's economic potential.** • The Make UK Executive Survey reveals **those feeling optimistic are eyeing the opportunity: almost one third of manufacturers (29%) are looking to technology, cloud and artificial intelligence (AI)** to succeed in 2025, aiming to boost productivity and reduce overheads. • Make UK has warned **the cost of electricity is deterring international factory investment in the UK**, creating an "unseen queue" of projects that will eventually have to be connected to the grid, adding **the cost of electricity is the "single biggest barrier" to industry's efforts to decarbonise its activities**. • The Confederation of British Metalforming (CBM), a trade body that represents 200 companies has called for **"serious backing" for Midlands manufacturers** as part of the Government's new industrial strategy.
Environmental Technologies	• **Researchers developing cutting-edge fusion energy are being given investment of £410m investment to kickstart economic growth**. The funding will support rapid development of the UK fusion energy sector over the next two years, with investment in the skills needed for scientists, engineers, welders and programme managers to enter the cutting-edge industry. Fusion already supports at least 2,400 jobs in the UK, with thousands more to follow as the technology advances. • **The UK's energy storage boom slowed in 2024, with a 40% drop in submitted capacity compared to 2023.** While the UK remains a leader in operational storage, with 7GWh installed, rejection rates rose due to **community concerns over fire risks**. • **Electric vehicles could account for 5% of the UK's total power demand by 2030, raising concerns over whether energy capacity can keep up.** With the government pushing for 80% of new car sales to be electric, analysts at Montel warn that the grid faces an uphill battle to meet rising demand.
Transport Technologies	• In contrast to the growth period for UK new car registrations during the first seven months of 2024, **last year ended on a downward trajectory**, with year-on-year declines in each month of the last quarter. New car sales declined marginally by 0.2% year-on-year in December, marking a fourth and final fall of 2024. This resulted in an overall increase for the year of 2.6% and a total of 1.953 million sales. **The key reasons behind last month's fall in registrations mirrored the challenges that have faced the UK's automotive sector throughout the year, including a challenging regulatory environment, increasing competition and costs, and changing consumer needs.** • **Birmingham Airport is set to invest a million pounds per week in improving facilities "for the foreseeable future", with high single digit growth forecast**, boosted by recent decisions allowing an increase in the number of night flights arriving and departing.

4. Sector Insights

Midlands Engine Energy Security White Paper

The [Midlands Engine Energy Security White Paper]() sets out a detailed roadmap for collaborative action over the next 24 months for short (2030), medium (2040) and longer-term impact (2050) which is designed to complement and inform the early priorities and investments of GB Energy. This is focused on two main areas of action:

1. **Scaling clean energy projects in the Midlands, across a range of mature and new energy vectors**.
2. **Establishing six 'critical enablers' of the clean energy transition opportunity:** Integrated regional energy system governance and planning ; Planning regulation; Finance and investment; Skills and workforce; Supply chain development ; and Grid infrastructure.

Energy Security in the UK

Between 2021 and 2022, the price of gas, electricity, oil and other fuels experienced a rapid increase across Europe, driven by the Russian invasion of Ukraine and the lasting impacts of the pandemic.

The escalation in wholesale energy prices resulted in a **54% increase in the energy price cap** in April 2022, with Ofgem planning to increase it further by 80% in October 2022. However, to mitigate the impact on consumers, the Government introduced various interventions, including **direct cash payments**, **discount schemes**, and the **Energy Price Guarantee**, which covered the excess cost of energy above the Ofgem price cap.

Whilst abrupt consumer-focused interventions reduced the potential extent of the impact of energy price rises on vulnerable households, **the energy crisis exposed the important and interconnected relationship between an affordable, independent and stable energy supply, our economic prosperity, and our ability to meet 2050 net zero obligations**. Without a reliable, low-cost and low-carbon supply of energy, industries across our economy cannot continue to grow, thrive, and compete on the global stage. **Energy security has therefore become core to the UK's net zero and economic growth goals.**

Barriers to energy security

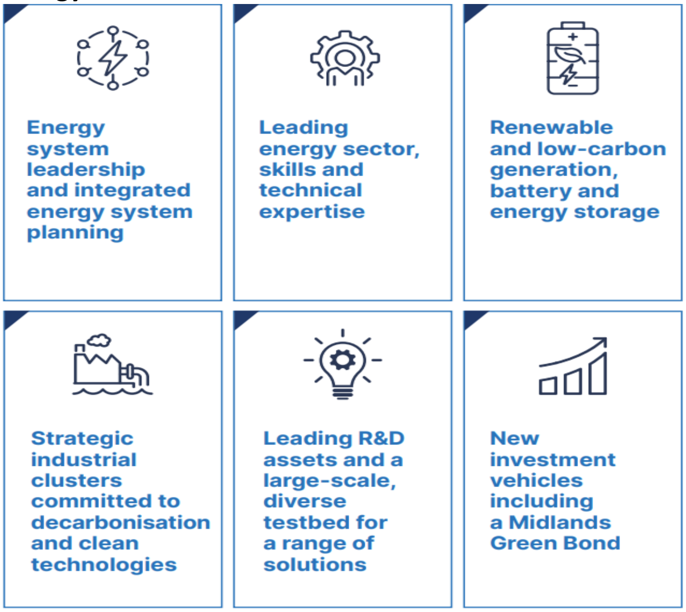
The Government has been active in making early progress towards delivering energy security and the net zero transition. This positive commitment and development at pace has been broadly welcomed by the public and private sectors. However, there are a series of long-standing barriers – some or all of which may soon be addressed by further policy development – which the Midlands is keen to play its part in helping to overcome.

These barriers include:

- **Energy planning** – the UK's energy transition requires implementation of planned approaches, however delays in planning and licensing, particularly around fossil fuels, hinder local progress and investment.
- **Grid infrastructure** – the grid requires significant upgrades to both transmission and distribution networks, however there are issues surrounding time and costs.
- **Pipeline infrastructure** – as fossil fuel energy is phased out, existing natural gas pipeline networks may become underutilised and can be repurposed/upgraded for hydrogen or other clean fuels for new energy vectors.
- **Water supply** – water supply is crucial for clean hydrogen and nuclear energy; water and energy infrastructure must be aligned long-term.
- **Finance** – the energy transition will require mobilisation of extensive amounts of capital, both public and private.
- **Skills** – the shift from fossil fuels to renewables will render 30-40% of current energy sector skills obsolete, highlighting the need for local action, including apprenticeships, to address the domestic skills shortage.
- **Engagement** – challenges around community and industry engagement pose delivery concerns, with businesses showing frustration amongst uncertainty and delays.
- **Energy Efficiency** – currently, there is no policy or program to support energy-intensive firms, and more robust policy measures and investment are needed.

The Midlands' Ambition

The Midlands offers the following to government in Energy:



By delivering this roadmap together, with Government and its agencies, the Midlands can fulfil its potential in ensuring the integrated, independent and resilient energy system needed to realise the region and UK's ambitions for net zero carbon growth.

The Midlands can:

1. **Be an 'early adopter' region** of the new Regional Energy Strategic Plan (RESP) function.
2. **Scale and invest in clean energy.**
3. **Ensure a skilled workforce** – including by developing and scaling new models of skills provision.
4. **Develop supply chains around specific clusters** and generation opportunities.

The Midlands: Powering the UK's clean energy revolution:

UK energy generation capacity in the Midlands

19% of England's installed renewable energy capacity

21% of total UK electricity generation capacity

27% of UK offshore wind production

25% of UK fossil fuel generation


Hornsea One


Killingholme

The Midlands' economy and energy

£277.2bn GVA


Toyota

32% GVA in energy intensive sectors

13% of total UK planned renewable pipeline

>25% of England's manufacturing jobs

1 in 5 of England's energy and low-carbon jobs

Midlands energy innovation

The UK's largest concentration of energy R&D infrastructures

1,500 academics and researchers working in energy-related fields across Midlands universities

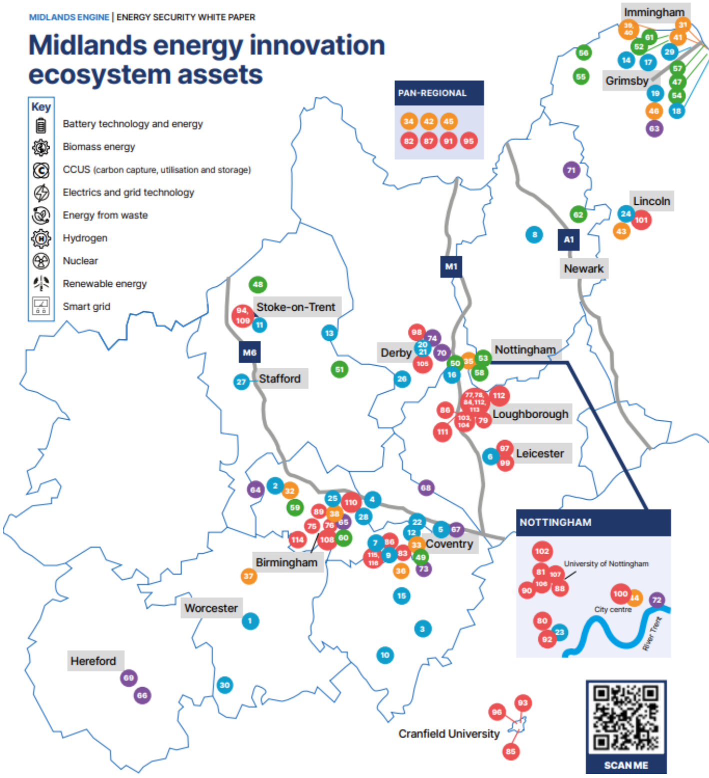
Nationally-significant demonstrators for:

localised and integrated energy systems planning
CCUS
smart energy and local heat networks
H2
fusion
nuclear
industrial decarbonisation
community energy
alternative fuels
fossil fuel transition
batteries and storage
clean heat networks


Smart Energy Network Demonstrator, Keele


Rolls-Royce Small Modular Reactor


Spherical Tokamak for Energy Production (STEP)



Next Steps

The proposals put forward in the White Paper together comprise a **roadmap for accelerating and strengthening the UK's approach to delivering energy security, energy transition and economic growth by leveraging the Midlands' nationally and globally significant energy and industrial assets and opportunities**. The significance of these assets and opportunities reflects the ambition, commitment and collaboration that exists amongst Midlands industry, academia, public and private sector stakeholders and partners – a collaboration which has been enhanced through the White Paper's development. Initial priorities will include:

- **Becoming an 'early adopter' region** for the new Regional Energy Strategic Plans function, ensuring that they are bottom-up, place-based, vision-led and aligned to wider regional economic opportunities and plans.
- **Bringing forward a prioritised pipeline of investible propositions and private sector investment** aligned to strategic sites and cluster development opportunities and accelerating the development of new financing mechanisms, including a Midlands Green Bond.
- **Bringing forward targeted industrial policy interventions** that can be scaled and implemented at pace to unlock supply chain opportunities around specific clusters and generation opportunities in the Midlands.

Nuclear in the Midlands

Following an extensive roundtable involving more than 40 leaders from industry, academia and government involved in the UK Nuclear sector, the Midlands Engine has produced a 'Nuclear in the Midlands' report, which aims to characterise the nuclear industry in the Midlands from an investment perspective: highlighting the region's key strengths, opportunities, and challenges, and builds upon the robust analysis of business and academic activity. The white paper seeks to support policymakers, businesses, and local growth entities in promoting the Midlands as a world-class hub for nuclear energy development and attracting prospective investors.

The Midlands

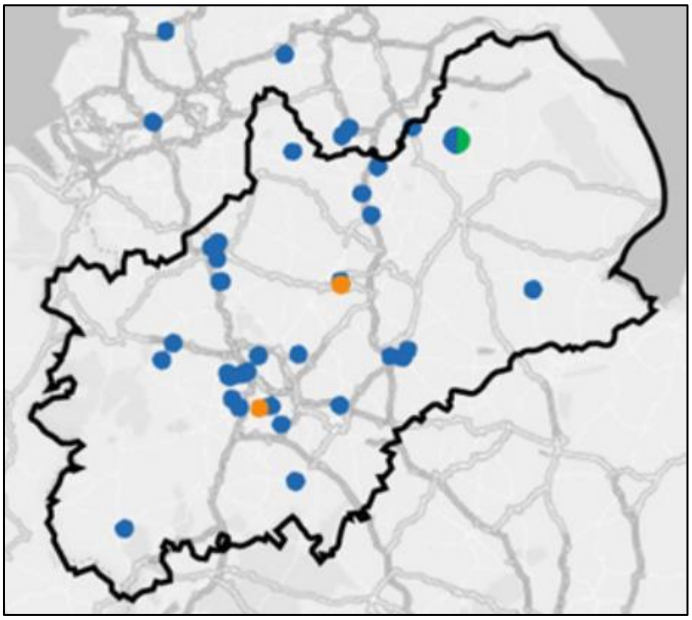
The Midlands is positioned to lead the development and manufacture of next-generation nuclear energy technologies, including fusion, small modular reactors (SMRs), advanced modular reactors (AMRs), and nuclear propulsion systems for space and submarines. With a **17% sector growth rate (sales) compared to the UK's 8% (2021-23)** and **nearly half a billion pounds of forecasted nuclear industry 'sales' in 2028/29**, the Midlands is at the forefront of nuclear energy innovation and expansion.

The Midlands is home to **27% of the UK's nuclear and nuclear-related businesses**, including major primes (Rolls Royce, Cavendish, and Ansaldo Nuclear), offering a unique combination of advanced manufacturing, innovation and testing assets, and a 'nuclear culture' workforce, alongside Midlands Nuclear which acts as a cluster organisation.

A summary of the region's nuclear capabilities:

- Nuclear safety engineering services, regulatory compliance, reactor management, fail-to-safety engineering.
- Nuclear power plant operations management, engineering and PR.
- Nuclear reactors: manufacture, installation and maintenance.
- Nuclear cooling equipment: manufacture, installation and maintenance.
- Construction of plant and equipment: site development, reactor and buildings and power plant/ equipment construction.
- Commissioning engineering services: cooling & thermal control, engineering maintenance, instrumentation, power distribution, reactor & plant commissioning.
- Sampling & testing services: thermal control testing, remote monitoring, back-up plant monitoring and effluent discharge testing.
- Nuclear scientific services: research, laboratory testing and fuel management.

A map of Midlands Nuclear Company's business locations (blue), key nuclear R&D assets (orange) and STEP Fusion (green), with the Midlands Engine area highlighted. These businesses are predominantly advanced manufacturers:



The Midlands is set to host the future of nuclear, with the UK's only fusion prototype being developed in Nottinghamshire, and multiple siting opportunities for SMR an AMR generation, as well as one of the only viable geological disposal site proposals in the country. Nuclear power technology is developed, tested and built in the Midlands, and soon it will be generated here too.

Investment opportunities include:

- Nuclear manufacturing & component supply chains
- Fusion and fission energy generation
- Development, testing & validation of nuclear technologies
- Skills and training programmes
- Market certainty and export potential
- Geological disposal facilities and fuel recycling

However, to support the sector fully and realise the economic potential of such significant opportunities, there is more that government (both national and local) and other stakeholders can do, and achieve through the Midlands Nuclear initiative:

- Comprehensive map of the Midlands' civil nuclear capabilities
- Commitment to nuclear in the Industrial Strategy
- Support for nuclear manufacturing sites
- Develop nuclear generation sites
- Support for the fusion energy sector
- Support for export certification
- Shifting public perceptions of nuclear energy
- Support for Geological Disposal Facility Siting

Midlands Low Carbon and Environmental Goods and Services Sector Refresh

In 2021, the Midlands Net Zero Hub (MNZH) and Midlands Engine commissioned consultants kMatrix and Sustainability West Midlands to carry out an exercise to report on the size and health of the green economy across the Midlands. **The Low Carbon Goods and Services (LCEGS) study provided a powerful evidence base, which has been used to support the development of projects.**

The Hub has now refreshed the data, which shows that in **2023/24, the LCEGS sector was worth £31bn (up from £26.8bn in 2021) in total sales and is forecast to rise further to over £46bn by 2029/30. The LCEGS also supports 224,831 FTE employees and accounts for 8.3% of the Hub regions GDP**. LCEGS therefore continues to be an extremely important part of the region's economy.

The data from the study **provided a snapshot of the market for goods and services that improve the environment and/or actively assist in the move to net zero, and demonstrated the size, scale, and value of the LCEGS sector** to each local authority in the region. It also highlighted areas of strength to build on and areas of weakness to improve.

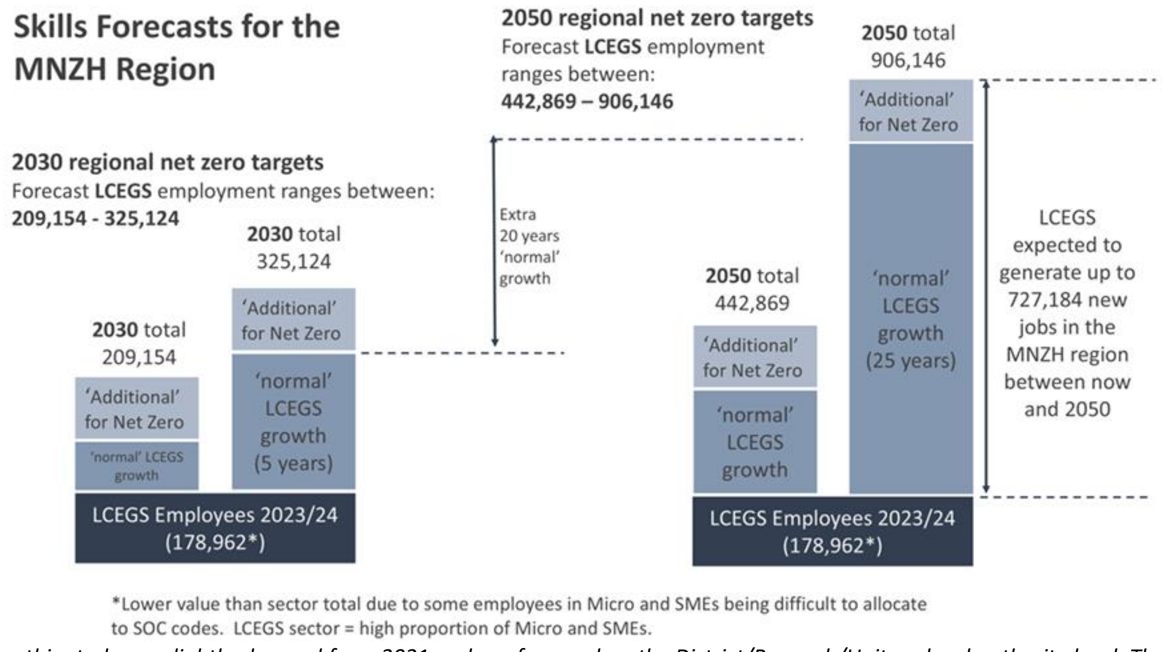
Key metrics in MNZH Region for each financial year from 2019/20 to 2023/24, with growth between years:

MNZH Region	2019/20	% Growth	2020/21	% Growth	2021/22	% Growth	2022/23	% Growth	2023/24
Sales	£26.79bn	-8.1%	£24.61bn	5.6%	£25.99bn	7.6%	£27.95bn	11.0%	£31.01bn
GVA	£21.24bn	-7.9%	£19.57bn	5.2%	£20.59bn	7.5%	£22.14bn	10.9%	£24.55bn
# FTE Employees	209,001	-6.7%	195,089	7.2%	209,172	9.1%	228,245	12.0%	255,605
# Companies	10,590	-8.1%	9,735	5.5%	10,270	7.5%	11,043	10.9%	12,249

Note: the total numbers for 2019/20 are higher than those reported in 2021 due to an adjustment made in the Nuclear Power sub-sector in nine Local Authorities: Derby City Council; Dudley Borough Council; Leicester City Council; Nottingham City Council; Oadby & Wigston District Council; Rugby Borough Council; Stoke-on-Trent City Council; Wolverhampton City Council; and Worcester City Council.

Key Points from the Skills Analysis

- MNZH Region has **increased the number of people working in the sector but the overall skills gap has remained at 7.2% since 2019/20**. The economic challenges of the last four years have resulted in less time to achieve targets, and despite the increase in total employment in the sector, the forecast number of employees required to reach net zero targets are higher than forecasts made in 2020. The 2021 report forecast a need for a 12% increase in 2019/20 employment numbers in LCEGS to reach net zero 2030 targets, this is now reduced to 9% increase in 2023/24 employment numbers, although strong economic growth could increase this need to 70% to reach net zero targets.
- **To reach net zero targets by 2030, MNZH is expected to require between 209,154 and 325,124 employees,** i.e., between 30,192 and 146,162 employees in addition to those employed now, representing an increase of between 12% and 70% in employment compared with 2023/24. **To reach net zero targets by 2050, MNZH is expected to require between 442,869 and 906,146 employees,** i.e., between 263,907 and 727,184 employees in addition to those employed now, representing an increase of between 131% and 372% in employment compared with 2023/24.



The outputs from this study are slightly changed from 2021 and are focussed on the District/Borough/Unitary local authority level. There is also an overarching report of the LCEGS for the Midlands Net Zero Hub region. All the new reports can be found [here](#).

Digital

The [Local Digital Index](#) by techUK brings together detailed insights into the sectors, companies, and infrastructure that drive growth and technological advancement across the country. **The UK's digital economy employs 1.7 million people and it is estimated to contribute £99 billion to the UK economy each year. Its significance is also increasing, as it grows at 10% per year on average.**

Investment and R&D

The UK's innovation ecosystem is characterised by significant regional disparities in investment, as access to funding is critical for businesses aiming to scale. **In the Midlands Engine area, there are a total of 1,056 businesses with access to private investment, accounting for 0.15% of businesses.** The West Midlands Combined Authority (WMCA) has 316 businesses with access to private investment (0.13% of the business base), while the East Midlands Combined Authority (EMCA) has 204 funded businesses (0.16% of the business base) - the combined authority with the greatest percentage of the business base funded is Cambridgeshire and Peterborough at 445 businesses (0.7% of the total). Between 2004-2023 there were 3,123 businesses with **access to Innovate UK funding in the Midlands Engine area, accounting for 0.44% of the business base.** The WMCA area had 792 of these businesses (0.34% of the business base), while the EMCA had 721 businesses (0.56% of the business base) in this period. The combined authority with the highest proportion of businesses with access to Innovate UK funding was Cambridgeshire and Peterborough with 1.5%.

Total R&D spending by region (£m):

Country or region	Total	Government & UKRI	Higher Education	Business Enterprise	Private Non Profit
North East	1444	59	594	732	59
North West	6501	211	1439	4831	20
Yorkshire and the Humber	3351	169	1217	1964	1
East Midlands	3195	100	736	2357	2
West Midlands	4904	83	972	3833	16
East of England	12746	385	1447	10690	224
London	13700	663	3769	8959	309
South East	12400	1171	2395	8705	129
South West	4772	515	977	3270	10

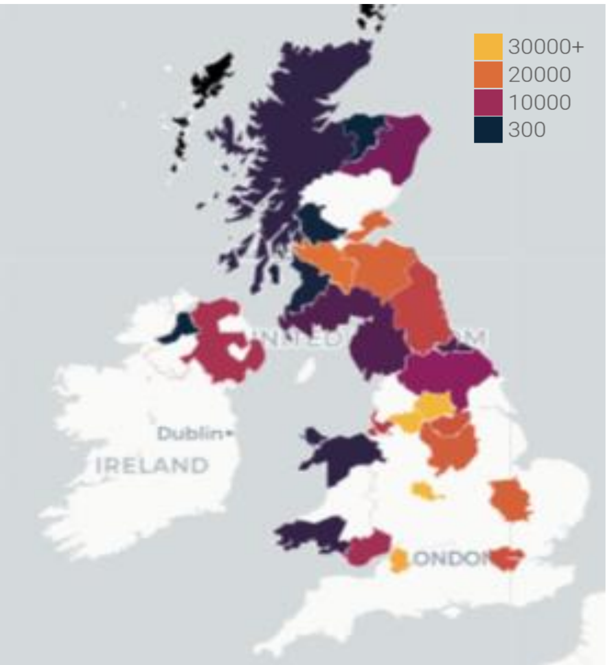
Innovative Companies

Using a model to identify companies that appear innovative, the report identifies **6.18% of businesses registered in the WMCA area as innovative across all sectors, while this rate is higher in the EMCA area at 6.27% of businesses** – London had the highest rate of combined authorities areas in the UK at 10.23% of businesses. **When focusing on the digital sector, Rugby (32.5%), Solihull (30.32%), Lichfield (29.51%), Wyre Forest (28.85%) and Derby (28.31%) have high rates of innovative businesses.**

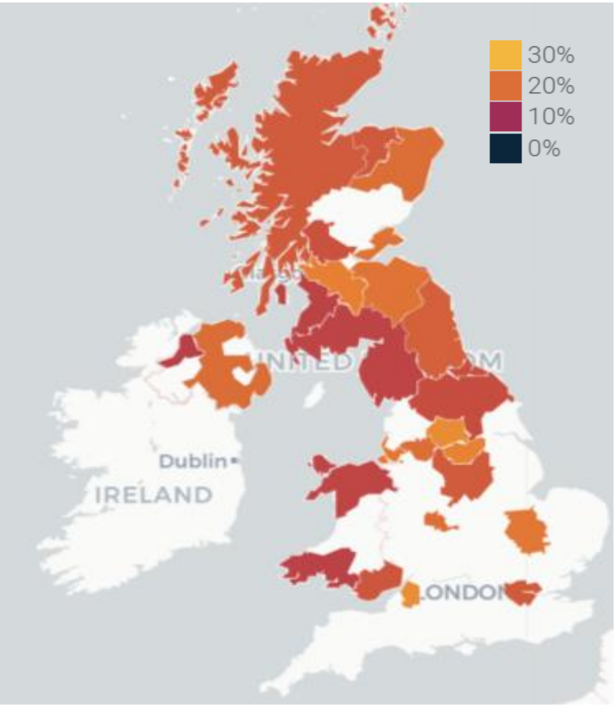
Skills

In the WMCA area there were 33,911 STEM roles advertised in 2023, the second highest of any combined authority area in the UK behind Greater Manchester with 39,373 advertised job. The EMCA area had 17,953 STEM roles advertised in 2023. Of advertised jobs in 2023, in the WMCA area 20.26% were for digital roles while in the EMCA 17.48% were for digital roles – the highest of any combines authority area was the West of England at 24.42% of jobs.

Advertised STEM jobs by combined authority region (2023):



Digital jobs advertised by combined authority region (2023):



Digital

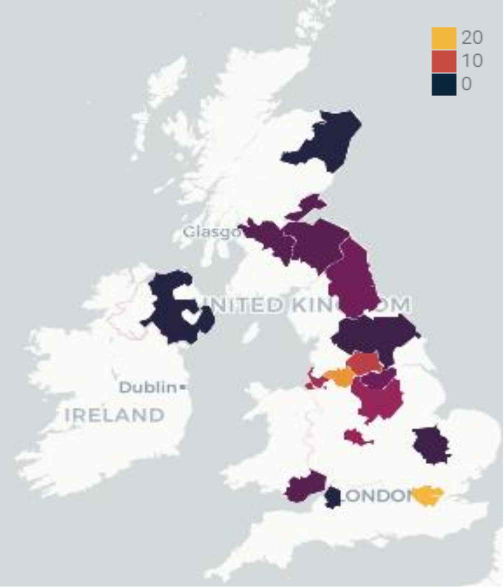
Connectivity

Superfast broadband is defined as 30Mbit/s or greater, with the average percentage coverage across all local authorities at 96% of premises; **across the Midlands Engine, 49 of 65 local authority areas had better coverage than the national average.** The local authorities in the Midlands Engine area with the largest percentage coverage was Leicester, Oadby & Wigston and Tamworth all with 99.3% of premises with superfast broadband coverage. Gigabit broadband is defined as 1000Mbit/s or greater, with the average percent coverage across all local authorities at 76% of premises; **across the Midlands Engine, 41 of 65 local authority areas had equal or better coverage than the national average.** The local authority in the Midlands Engine area with the largest percent coverage was Coventry at 96.8%.

Data Centres

Data intensive companies will be more likely to base themselves near data centres to maximise the reliability of their services. **There are 19 data centres in the Midlands Engine area**, including 5 in Wolverhampton, 5 in Telford & Wrekin and 4 in Nottingham. There are 6 data centres in both the WMCA area and the EMCA area.

Number of data centres by combined authority region:



Data Infrastructure Sector

As well as the physical infrastructure that powers the digital sector, there are the businesses and people that enable the digital sector, through the creation of digital infrastructure. **There is a good correlation between areas that have data centres and areas that have a supporting network of data infrastructure businesses and employees.** Birmingham has a total of 298 businesses in the sector, the fifth highest of any local authority and the highest in the Midlands, with an estimated employee count of 5,725.

West Midlands Region Case Study

The West Midlands region has **key strengths in digital infrastructure, academic research, engineering, manufacturing and advanced computing,** as well as a broad range of initiatives and partnerships which allows it to make great strides when it comes to creating and developing a strong tech ecosystem. These include: The West Midlands Digital Economy Playbook, West Midlands Plan for Growth and West Midlands' Investment Zone. In Birmingham, the number of funded businesses with access to private investment is 164 and in the West Midlands is 316, and the number of businesses which received Innovate UK funding in Birmingham is 342 and in West Midlands is 792. This allows businesses to invest in technology and talent and boost their regional digital economy. The innovation intensity for all sectors in Birmingham is 6.66% and for the West Midlands is 6.18%. The percentage of innovative companies in Birmingham in the digital sector is 24.1%. In the West Midlands, there is a total spend of £4.9bn for R&D, with £83m from Government and UKRI funding, £972m in higher education, £3.8bn in business enterprises, and £16m in private nonprofit organisations.

Recommendations

The Local Digital Index 2024 makes a range of recommendations intended to support our regional tech ecosystems and to grow the UK's digital economy. To support regional tech ecosystems, the report's recommendations include: **leveraging the UK's world-leading Enterprise Investment Scheme and Venture Capital Trusts schemes to better support start-up and scale-ups outside of London, more regions to host testbeds and trials programmes, the introduction of a Nations and Regions Digital and Technology Summit and the creation of Digital and Technologies Sector Council to grow the tech sector and to help the wider economy and support digital adoption.** Furthermore, it recommends that the government should **devolve ownership and responsibility for digital inclusion to Mayoral Combined Authorities in England** and devolved administrations in Scotland, Wales and Northern Ireland. Additionally, the report supports **creating 'Offices for Tech and Innovation' across the UK** to help support local authorities use data, innovation and technology to deliver more for residents and improve service delivery by working with industry and devolved bodies. To address public sector challenges and provide innovative businesses with accelerator opportunities the report recommends bringing CivTech to other parts of the UK. Finally, the report suggests the **review of the use of SIC codes**, as many businesses within the tech sector do not fit within current classifications.

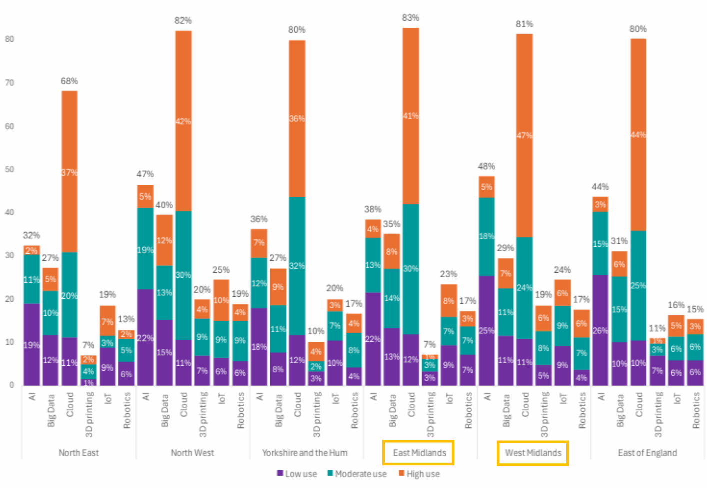
Adoption of Advanced Digital Technologies and Platforms

This report by [The Productivity Institute](#) **provides analysis of the adoption and impact of advanced digital technologies (ADTs), including AI, Big Data, Cloud Computing, 3D Printing, Internet of Things (IoT), and Robotics, as well as digital platforms in the UK**. Through sectoral, regional, and organisational comparisons, this report sheds light on the widespread but varied adoption of these technologies, offering valuable insights into firms' outcomes related to productivity, skills development, and business processes.

Adoption of advanced digital technologies

Advanced digital technologies (ADT) have the potential to transform entire economies, firms, and business models, including labour markets and skills. The report reveals that ADTs are extensively adopted across the UK, with Cloud Computing being the most widely used technology across all regions, sectors and business sizes. However, **AI adoption remains moderate, with usage intensity being low**. More specialised technologies such as Robotics and 3D Printing are adopted less frequently, mainly in the manufacturing and extractive sectors. **Companies are increasingly using multiple technologies together, with Cloud Computing most frequently paired with AI and Big Data, underscoring a trend towards data-driven business processes.**

Adoption of each type of ADT by region:



ADT Adoption in the Midlands

ADT adoption rates vary only slightly across regions in the UK with more than four out of five businesses in each region adopting at least one of the listed ADTs. The adoption rate is notably higher in regions with established business hubs, including the **West Midlands**. The **East Midlands** has the joint highest adoption rate of cloud technology (83%) across the UK and West Midlands has the second highest high-use adoption rate (47%) of this technology behind Northern Ireland (50%). In the West Midlands and East Midlands the second most adopted ADT is AI at 48% and 38% respectively.

Impact of ADTs

ADT adoption has generally had a positive impact on employment, particularly by **increasing employee skill levels and the proportion of STEM-skilled employees**, with the highest impact reported by companies adopting Big Data, 3D Printing, and Robotics. In terms of productivity and other outcomes, the primary impact of ADT adoption is on the quality of products and services.

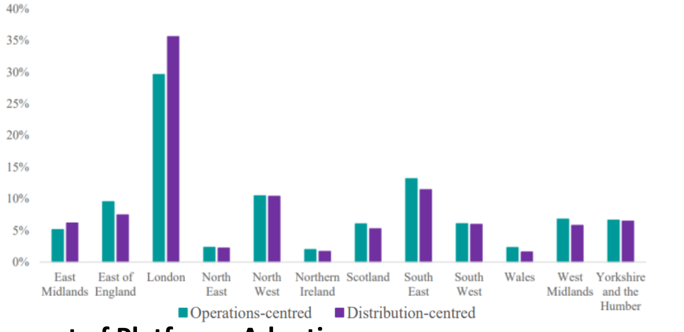
Motivations and barriers to adopt ADTs

The main drivers for adopting ADTs are process improvement, quality enhancement, and automation. Barriers to adoption vary by technology, with **common challenges including high costs, skill shortages, and concerns over security.** ADTs increase the need for STEM capabilities and digital skills among employees, which are necessary for operating ADTs.

Adoption of Platforms

Platform adoption is increasing, with larger firms leading the way, particularly in operations centred platforms. However, **many smaller firms struggle due to resource constraints and misalignment with their needs. Adoption is concentrated in the service sector, particularly in London and the South East, highlighting a regional digital divide**. Significant barriers remain, with many firms perceiving platforms as irrelevant to their operations. High costs, the need for structural changes, and resource limitations, especially among smaller firms, continue to hinder broader adoption. **A larger adoption rate of distribution-centred platforms is seen in the East Midlands, while the West Midlands has a higher adoption rate of operations-centred platforms.**

Adoption of Platforms by region@



Impact of Platforms Adoption

Operations-centred platforms significantly enhance efficiency, with 81% of respondents reporting improvements - 31% experienced a substantial increase. Similarly, there is a strong positive impact of distribution-centred platforms, with 77% reporting efficiency improvements (37% substantial). For innovation, 62% of firms experienced improvements after adopting operations-centred platforms (23% substantial) compared to distribution-centred platforms with 73% of firms reporting positive outcomes (36% substantial).

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For any queries please contact: Professor Delma Dwight (Delma.Dwight@theeiu.org)

MIDLANDS ENGINE
OBSERVATORY