The West Midlands Theory of Growth

A systems view of what needs to change to realise higher living standards for residents in every part of the West Midlands.





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Glossary

ERC: European Research Council FDI: Foreign direct investment **GDP:** Gross domestic product GVA: gross value added HMG: His Majesty's Government HSR: High Speed Rail **ICT:** Information and communication technology JLR: Jaguar Land Rover MTC: Manufacturing Technology Centre **NEET:** Not in education, employment or training **OECD:** Organisation for Economic Co-operation and Development **ONS:** Office for National Statistics **R&D:** Research and development SME: Small and medium-sized enterprises West Midlands: West Midlands Combined Authority area West Midlands region: International territorial level (ITL) 1 region WMGC: West Midlands Growth Company

Executive Summary

The West Midlands has the foundations of and distinctive advantages for economic prosperity and higher living standards for its residents. However, across a number of metrics—household income, employment, productivity, gross domestic product, poverty and across various types of inequalities, for example—the region's economy is not at its full potential.

The West Midlands knows what type of growth it wants to realise: inclusive growth. The number one success metric for our theory of growth is to increase gross disposable household income in all places across the West Midlands, underpinned by higher productivity and supporting more of our residents into well-paid, good-quality jobs, in a way that is aligned to the region's net zero goals.

Our theory of growth articulates what needs to change in order to realise this goal. It understands the West Midlands economy as a complex system and differs from traditional approaches to developing a regional economic strategy. It proposes 12 hypotheses which crystalise the essence of the challenges and opportunities facing the West Midlands that are designed to be tested. Our hypotheses, detailed below, relate to:

- 1. The region's polycentric economic geography.
- 2. The industrial composition, or 'sectoral mix', of the regional economy.
- 3. The quality of business leadership, management and the adoption of technology.
- 4. Research and development activities and their commercialisation.
- 5. The levels of investment in the region.
- 6. The life chances of our residents.
- 7. The skills of our residents.
- 8. The supply, quality and type of housing.
- 9. The region's transport system.
- 10. Energy infrastructure.
- 11. How the region is perceived and the narratives that are constructed about it.
- 12. The region's institutions.

As part of the consultation about West Midlands Futures Green Paper, which this report provides the evidence for and economic context to, we want to have a conversation with our local, regional and national partners about the priorities we have proposed across the 12 themes above. This will help the region focus its collective efforts and investments on what is going to shift the dial and realise our vision of inclusive growth.

Section 1: Introduction

The West Midlands has fundamental economic advantages.

- **Our scale**. The West Midlands has the largest population of any city region outside of London, and, at almost twice the size of Oxford and Cambridge combined, it is the third largest economy of all UK city regions at £77 billion.
- Our people. The West Midlands' population is projected to grow at the second fastest rate of all city regions in the UK, with only London expected to grow more in absolute terms. The West Midlands has the second youngest demography with a median age of 36.6 years and is the second most ethnically diverse city region in the UK. Unlike most other areas, its younger and working-age population is expected to continue to grow over the next 10 to 15 years.
- Our investment and innovation records. Last year Birmingham landed more foreign direct investment than any other UK city outside of London, while the West Midlands has the second highest ratio for leveraging private sector investment in research and development from public funding. On top of this, the region has distinctive economic strengths, high-performing universities, is recognised by the European Union as only one of two regional innovation valleys in the UK and was one of three finalists in the European Capital of Innovation Awards 2024.
- **Our connectivity**. The West Midlands sits at the very heart of the country and will be better connected to the UK's capital as a result of HS2 by the mid-2030s. Even today 90% of the UK population is accessible within four hours.

While the West Midlands has strong foundations, it is not yet at its full economic potential. Its gross domestic product (GDP) per capita—a traditional measure of the strength of the economy—in 2022 was £28,841, 22% below the national average, placing the West Midlands 33^{rd} of 40^{th} in a list of comparable regions¹ on this measure. We think the reason the West Midlands is underperforming is because it is trapped in a self-reinforcing low-productivity and low-wage equilibrium that holds down the region's economy and the living standards of its population.

On the first part of this equilibrium —productivity— the average gross value added (GVA) per hour worked in the WMCA area was £34.50 compared with £36.60 in Greater Manchester and the UK average of £39.50. Figure 1 (below) shows how our productivity challenge has been growing over time. On the second—employment—figure 2 (below) shows there has been a consistent gap between national and West Midlands' employment rates for 30 years. The root cause of the West Midlands' employment challenge lies in the severity of job losses in its primary industries from the 1980s onwards², which was steeper and more extreme than in any other European region outside of Eastern Europe. Figure 3 (next page) shows the effect of the West Midlands' low productivity and employment rates in widening the gap between regional and national GDP per capita³.

¹ Fenton, T. (2023). Regional gross domestic product all NUTS level regions - Office for National Statistics.

https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductallnutslevelregions

² Stansbury, A., Sloan, M., Turner, D., Kennedy, H., & Balls, S. (2023). Tackling the UK's regional economic inequality: Binding constraints and avenues for policy intervention. https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/198_AWP_final.pdf

³ Fenton, T. (2023). Regional gross domestic product all NUTS level regions - Office for National Statistics. https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductallnutslevelregions

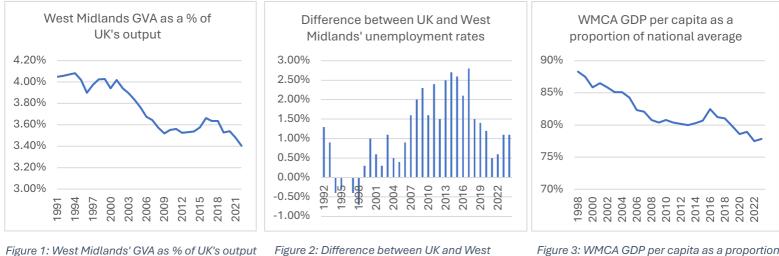


Figure 1: West Midlands' GVA as % of UK's output

Midlands' unemployment rates

Figure 3: WMCA GDP per capita as a proportion of national average

These challenges are not unique to the West Midlands. The gap between the most and least productive regions in the UK is as big as in the entire Eurozone⁴. If the UK were divided into two, with one group comprising of London, the South East, the East, the South West and Scotland; and the other group the remaining regions, the first group would have a GVA per capita comparable to Finland, Australia and Canada but the second would have GVA per capita levels below Slovakia, Slovenia and Czechia⁵. More broadly, across 28 economic measures of inequality, the UK is one of the worst among OECD countries⁶.

These economic concepts matter because they determine West Midlands' residents' living standards. On average across all seven of the WMCA's local authority areas, households have less disposable income to spend today than they did in 1997⁷. The social and human consequences of this are significant: the West Midlands has the highest national levels of child and total poverty in the country, at 43%⁸ and 27%⁹ respectively; lower-than-average life and healthy life expectancies; and residents with fewer qualifications than elsewhere in the country^{10,11}.

⁶ McCann, P. (2019) Perceptions of Regional Inequality and the Geography of Discontent: Insights from the UK. https://uk2070.org.uk/wpcontent/uploads/2019/01/01-McCann-UK-Regional-Inequality-Debates.pdf

¹⁰ West Midlands Combined Authority (2024). West Midlands State of the Region 2023-2024 <u>https://www.wmca.org.uk/state-of-the-region/2023-24/</u> ¹¹ West Midlands Combined Authority (2025). WMCA Area Data Pack <u>https://cloudcdn.wmca.org.uk/wmcaassets/eshc/performance-</u>

panel/2025/march/wmca.html

⁴ Carrascal-Incera, A., McCann, P., Ortega-Argilés, R., & Rodríguez-Pose, A. (2020). UK interregional inequality in a historical and international comparative context. https://doi.org/10.1017/nie.2020.26

⁵ McCann, P. (2023). Levelling-up economics. <u>https://ifs.org.uk/inequality/wp-content/uploads/2023/02/Levelling-up-economics-IFS-Deaton-Review-of-</u> Inequality.pdf

⁷ West Midlands Combined Authority (2025). West Midlands State of the Region 2024-2025 https://www.mca.org.uk/media/bzqbvuoh/west-midlands-state-ofthe-region-2024-2025.pdf

⁸ West Midlands Combined Authority (2025). West Midlands Insights on Society and Economy (WISE). Top research and analysis insights for January 2025 https://www.wmca.org.uk/what-we-do/research-and-insights/reports/west-midlands-insights-on-society-and-economy-wise/top-research-and-analysisinsights-for-january-2025/#:~:text=Child%20poverty%20has%20surged%20to,drive%20sustainable%20reductions%20in%20poverty

⁹ Joseph Rowntree Foundation (2024). Uk Poverty 2024: The essential guide to understanding poverty in the UK https://www.jrf.org.uk/uk-poverty-2024-theessential-guide-to-understanding-poverty-in-the-uk

However, there are reasons to be optimistic about the region's future economic transformation, and the ability for the future to look different to the past.

First, as mentioned above the West Midlands has strong economic foundations and distinctive strengths. Second, economic transformation is possible: many regions have achieved it before, and we are learning from them. Indeed, the West Midlands has bolstered a high-performing economy in living memory—gross disposable household income in the region was 13% higher than the national average in 1961¹²—until the national government took steps to deliberately curtail its growth thereafter, showing that policymakers have the ability to generate higher growth *in the West Midlands*: it has happened before albeit under different circumstances. Third, the region is at the vanguard of English devolution and is gaining more and more powers to be able to shape its destiny, led by local leaders.

There is a compelling case for change from a national perspective. If the West Midlands was as productive as the UK average, the UK economy would be £12 billion larger. The £12 billion boost that would come from making our economy as productive as the UK average is the largest potential productivity boost of any city region economy of the UK. The Centre for Cities calculated that if all regions outside the South East performed in line with relevant international comparators the national economy would be £83 billion—4% larger¹³.

The West Midlands Futures Green Paper that accompanies this report aims to support a conversation across the region to affirm and crystalise our long-term strategic economic priorities as a region to underpin a ten-year programme of economic transformation—rising to the challenges above and detailed below, built upon our foundations and strengths, and in delivered partnership with all those who have a shared stake and role in a more prosperous West Midlands¹⁴.

One of the key parts of the Green Paper is a **theory of growth for the West Midlands**, which proposes what needs to change in order to realise the region's full economic potential. This document is the evidence base that underpins our theory of growth. It is structured as follows.

- Section 2 explains our vision of, and what the West Midlands means by, inclusive growth, which our theory of growth is geared towards realising.
- Section 3 explains our methodology: how we went about developing our theory of growth.
- Section 4 is the main section of the document and sets out our analysis of the West Midlands economic system through the lens of 12 'sub-systems'. For each sub-system, we present a hypothesis that captures the essence of the challenge and/or opportunity that our theory of growth needs to prioritise responding to, if we are to achieve economic transformation.
- Section 5 stands back from each sub-system and suggests how, looking across them all, we could take our analysis further by prioritising our priorities.

¹² The Economist, 2013. How to kill a city. <u>https://www.economist.com/blighty/2013/05/31/how-to-kill-a-city</u>

¹³ Swinney, P. (2021). So you want to level up? <u>https://www.centreforcities.org/wp-content/uploads/2021/06/So-you-want-to-level-up-Centre-for-Cities.pdf</u>

¹⁴ Myers, J. (2020). The plot against Mercia <u>https://unherd.com/2020/09/the-plot-against-mercia/</u>

Section 2: Our Vision for Inclusive Growth

This section explains what type of growth our theory of growth aims to realise.

Since 2018, the West Midlands Combined Authority (WMCA) has been committed to inclusive growth, which guides its approach to decision-making. WMCA defines inclusive growth as:

A more deliberate and socially purposeful model of economic growth—measured not only by how fast or aggressive it is; but also, by how well it is created and shared across the whole population and place, and by the social and environmental outcomes it realises for our people.

This means the type of growth the WMCA is pursuing and the investments we make to realise it are ultimately geared towards realising growth for everyone. Our success metric for the theory of growth is to increase gross disposable household income (GDHI)—a widely-used measure of residents' living standards—relative to the national average in all places across the West Midlands.

To realise this goal of higher living standards, our theory of growth aims to do two big things: increase the productivity of the region, and increase the number of people in well-paid, good quality jobs across the region. It matters less where in the region we increase productivity, only that residents from across the region are able to access the good jobs it leads to. Moreover, we aim to achieve these goals in a way that also allows us to deliver our ambition to become a net zero region by 2041.

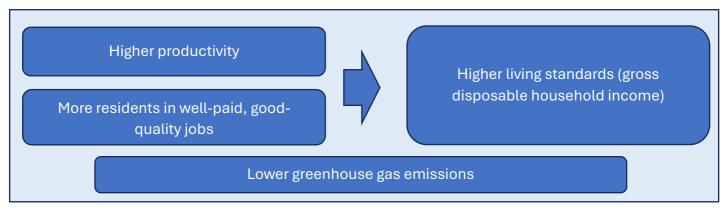


Figure 4: How our Theory of Growth contributes towards a more inclusive economy

It is important to be clear about the economic outcomes our theory of growth aims to realise, because they affect which challenges and opportunities are prioritised and provide a framework for managing the trade-offs the region will need to make. This is because, whether we like it or not, there are tensions here, at least initially, given the limited resources available to us: balancing, sequencing and prioritising between, for example, investing in higher-level skills or addressing the drivers of social and economic disadvantage; building social housing or regenerating urban city centres; supporting businesses in our frontier and high-growth sectors, or in our foundational and everyday economy. Our theory of growth is premised on realising productivity *and* increasing access to well-paid, good-quality jobs, particularly from our most disadvantaged communities, as the foundation for the type of society we want the residents of the West Midlands and its future generations to be able to participate in. We think that these objectives complement and reinforce one another and that, in the long-term, this could be an asset.

Section 3: Methodology and Approach

Our approach to building a theory of growth for the West Midlands differs from the more traditional approaches that have been followed to developing regional economic strategies in the UK over recent decades. Although there are variations, the essence of the traditional approach:

- **Defines an archetype of what a strong economy looks like.** In the context of the UK, the archetypal example of what a good economy looks like is very often London.
- Identifies the region's comparative advantages in key sectors. Traditional strategies focus on which sectors need to increase (or reduce) to better match the sectoral mix of the archetypical regional economy.
- Determines relevant policy levers to maximise these comparative advantages. Traditional strategies usually draw on generalised data and identify general policy lessons for how to realise a region's comparative advantages.

This approach has its uses—and it is referenced when appropriate in this paper as well as the West Midlands Futures Green Paper—but we believe that its dominant hold over conventional UK economic policy making has been significantly detrimental to the West Midlands, along with many other areas in the country.

We think that the fundamental weakness of this approach is that it ignores that economic challenges and opportunities are not only created by the presence of factors, such as the population's skill levels or the demand for investment, but also how these factors interact in structural ways over time. For example, how the particular skills of a population interact with the demand for specific types of investment, which shapes the evolution of both over time. When the relationships between these types of variables are place- and time-specific—and so the structure of the challenges matter—simply looking at the presence of different factors or proposing single standards of what good looks like is insufficient. Instead, we also need to look at how these opportunities and challenges are connected as a system.

Therefore, our theory of growth:

- Understands the West Midlands economy as a complex system that is comprised of 12 distinctive, highly related sub-systems. To account for the structure as well as the ingredients of the problem, we have conceptualised the economy as a macro-system comprised of a wide range of factors that interact with one another in a complex fashion to generate the economic outcomes we see in the region. As we outline below, there are distinctive internal dynamics within each sub-system, but it is how they interact and reinforce each other that generates the outcomes of the West Midlands economy.
- **Proposes hypotheses** reflecting our best, evidence-based understanding of needs to change with respect to each sub-system to realise our vision of growth. Proposing hypotheses allows us to communicate the essence of what we think our challenges and opportunities are and, importantly, allows us to change and adapt our understanding over time.
- Embraces an action-learning approach. In a complex system, being certain that our understanding is correct and will remain so over time is not possible. An action learning approach allows us to test our formulation of sub-systems, our hypotheses, learn from whether they are effective or not, and update our theory of growth accordingly.

• Uses West Midlands specific data and research wherever possible. Our theory of growth brings together a large body of evidence that is specific to the West Midlands, so that our economic strategy is as relevant to the challenges and opportunities we face as possible.

This approach and the twelve sub-systems propose derive from previous research undertaken as part of the West Midlands Futures (WMF) programme¹⁵. As part of the WMF programme, the WMCA interviewed more than 70 experts in regional economic development and conducted a significant literature review to identify the 'big questions' that a long-term vision for the West Midlands should address. This led to:

- The adoption of the 'grand challenges' concept to frame the challenge of economic development in the West Midlands¹⁶.
- The identification of the self-reinforcing 'low-productivity and low-wage' equilibrium as the overarching economic grand challenge for the region¹⁷.
- A list of factors identified that create the region's 'low-productivity and low-wage' equilibrium.
- A systems map proposing how the relationships between these factors sustains this equilibrium over time, which we have presented in the final section of this report.
- The identification of ten common themes from other regions across the world about how to successfully respond to grand challenges¹⁸.
- Further research about appropriate international comparators for the West Midlands¹⁹, the everyday economy and the region's demographic dividend²⁰.

All of the insights from these pieces of research, along with additional research projects in specific policy areas, have informed the analysis presented in this paper and build on the State of the Region analysis the WMCA publishes every year. The West Midlands Futures Green Paper is an opportunity for local, regional and national partners to offer their views on the themes covered below and in the Green Paper itself.

¹⁷In the original report, we named this the 'low-productivity, low-wage and high-deprivation' but have subsequently shorted to 'low-productivity and low-wage'. West Midlands Futures: Grand Challenges - What You Told Us https://www.wmca.org.uk/what-we-do/research-and-insights/west-midlands-futures/west-mid

https://www.wmca.org.uk/documents/research-and-insights/west-midlands-futures-grand-challenges-lessons-learned-from-elsewhere/

¹⁵ This programme aims to develop a long-term vision for the region to help us coordinate our actions with region partners to bring about regional transformation. More information on WMF can be found here: <u>West Midlands Futures</u>

¹⁶ West Midlands Combined Authority (2024) West Midlands Futures: Grand Challenges - What You Told Us https://www.wmca.org.uk/what-we-do/research-and-insights/west-midlands-futures/west-midlands-futures-grand-challenges-what-you-told-us/

¹⁸ West Midlands Combined Authority (2024) West Midlands Futures: Grand Challenges - Lessons Learned From Elsewhere

¹⁹ West Midlands Combined Authority (2025) The international comparators project identified four polycentric city-regions – Lille, France; Greater Porto, Portugal; Saxony, Germany; and Lombardy, Italy – as international city-regions which, in the past, bore the closest resemblance to the West Midlands Combined Authority (WMCA) area in terms of its demographics, economic composition, and administration; but has seen an economic transformation which means it has lessons for the growth of the region. This follows a four-stage process, consisting of a literature review, quantitative analysis, productivity analysis, and a five-factor analysis were undertaken, resulting in the identification of these city-regions from which the WMCA could draw useful lessons. Additionally, discussions with equivalents in Mexico and Japan will help identify two additional comparator polycentric city-regions: either Guadalajara or Monterrey in Mexico, and Sapporo or Okayama in Japan. <u>https://www.wmca.org.uk/what-we-do/research-and-insights/west-midlands-futures/international-comparators-for-the-west-midlands/</u>

Additionally, ss part of the DIATOMIC a programme funded through the West Midlands Innovation Accelerator to accelerate place-based innovation across the region in CleanTech, HealthTech and MedTech, an *Innovation in the West Midlands: International Prospects and Place Partners* report identified city-regions that have complementary innovation potential by which the West Midlands might gain from long-term mutual benefit. Identified areas include Greater Lyon, Hyderabad/Telangana, Minneapolis-St. Paul, and Leipzig/Saxony.

²⁰ West Midlands Combined Authority (2025) West Midlands Futures https://wmca.org.uk/futures

Section 4: Sub-System Analysis

There will be no silver bullet solution to achieving our vision of inclusive growth and higher living standards across all parts of the region. Instead, we will need to grip key challenges and opportunities across the twelve interconnected 'sub-systems' that make up the West Midlands economic system.

Below, we summarise the overarching hypotheses that describes the essence of the key challenge and/or opportunity facing the region, visualised on the following page. Each is unpacked and further explored in detail in the remainder of section 4.

Economic Geography and Polycentricity. The West Midlands may suffer lower productivity on account of its morphological polycentricity relative to London or Manchester–we have less 'agglomeration'. But if it can enhance the functional integration between and harness the complementary roles of its cities and boroughs, recognising the significance of Birmingham, it may have a 'goldilocks' combination of scale, location and spread for quality of life and inclusive growth.

Industrial Composition. The industrial composition of the West Midlands economy is a source of strength rather than a weakness.

Research, Development and Commercialisation. The amount of private sector research and development is a strength of the West Midlands economy, but it is constrained by the low levels of public and higher education sector R&D.

Business Leadership, Management and Technology Adoption. Business leadership and management in the West Midlands is a distinctive regional challenge. Linked to this, technology adoption by businesses is a high priority for regional productivity and future investment.

Investment. Private invest demand and public investment into infrastructure is relatively low in the region. Both of these constrain productivity growth in the West Midlands.

Life Chances. Giving every child and young person better starts in life is the most important action we can take to enable them to live longer, happier, more purposeful, productive and fulfilling lives. For working age residents of the West Midlands, far too many reduce their hours or leave the labour market entirely to undertake caring responsibilities, reducing their earnings potential, which affects women in particular. Alongside this, there are well-evidenced racial inequalities in the labour market and economy that affect a significant number of West Midlands residents.

Skills and Participation. The West Midlands has a shortage of higher-level (Level 3 and above) skills, which is forecast to increase over the next decade—and is the most significant skills-related constraint to economic growth.

Housing and Placemaking. The West Midlands' housing system is constraining regional productivity through stifling agglomeration benefits, displacing investment, reducing household resilience and increasing deprivation. Addressing these challenges will require the region to significantly increase house building across different tenure types, densify housing in urban centres and around the region's transport hubs, helping to create the conditions for vibrant high streets.

Transport. Because of our polycentricity, the West Midlands needs to better connect our boroughs to our cities and our cities to each other and improve public transport connectivity into Birmingham specifically, helping to reduce the region's car dependency.

Energy. Securing a grid connection and high energy prices are challenging in many parts of the country, but they are a particular challenge in the West Midlands because of the disproportionate number of manufacturing businesses running high temperature processes across dispersed sites. The West Midlands has the ability to mitigate these challenges and reduce its energy consumption by pursuing smart energy systems.

Institutions. Notwithstanding recent progress, limited devolution to the West Midlands holds back our economy. Making the most of devolution—and effectively delivering a regional economic strategy of the kind proposed in our theory of growth—will require stronger horizontal and vertical links between public institutions and regional partners.

Perceptions and Narrative. Perceptions of the West Midlands represent a barrier to attracting people and investment. This is not a narrow branding issue and recent successes represent a foundation for improvement.

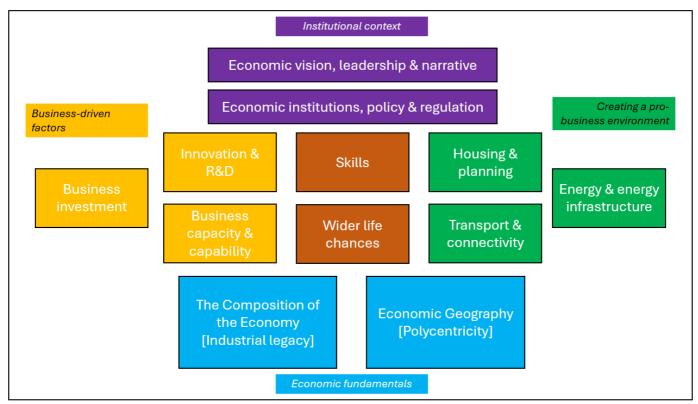


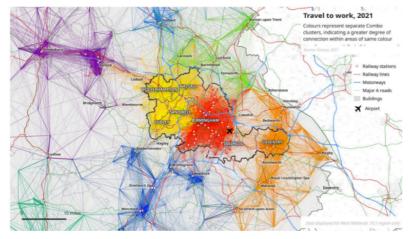
Figure 5: Summary map of the 'sub-systems' that make up the West Midlands economic system

Section 4.1: Economic Geography and Polycentricity

Hypothesis: The West Midlands may suffer lower productivity on account of its morphological polycentricity relative to London or Manchester—we have less 'agglomeration'. But if it can enhance the functional integration between and harness the complementary roles of its cities and boroughs, recognising the significance of Birmingham, it may have a 'goldilocks' combination of scale, location and spread for quality of life and inclusive growth.

We understand the West Midlands to be a polycentric region. This matters, because our spatial structure has implications for our economic performance and strategy.

Morphological polycentricity: how people, jobs and economic activities are spatially distributed across the region



The West Midlands is comprised of three distinctive functional economic areas each with their own 'gravitational pull', a key feature of our polycentricity. These are, broadly speaking, the Black Country (yellow); Birmingham, with strong links into Sandwell and North Solihull (red); and Coventry, with strong links into Warwickshire (orange). The map to the left visualises these three functional economic areas, based on labour market data²¹.

Figure 6: Travel to work 2021

However, not all of our three strategic centres are of the same size. Looking at the distribution of jobs, GVA and population across the WMCA area (Figure 4, below), Birmingham is 43%, 42% and 39% of the WMCA area economy. In essence, looking at our morphological geography, we have traits of being both polycentric—because we have three internal functional economic areas—and monocentric—because of the size of Birmingham.

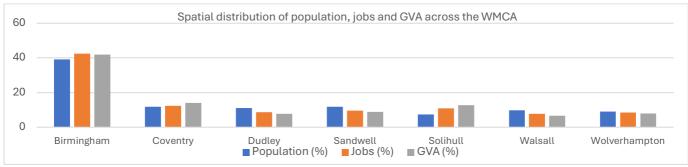


Figure 7: Spatial distribution of populations, jobs and GVA across the WMCA

²¹ West Midlands Combined Authority (2024), West Midlands Futures: Economic Geographies of the West Midlands. https://www.wmca.org.uk/media/ondaaslh/economic-geographies-of-the-west-midlands.pdf

This matters because, on balance, the evidence suggests that morphologically polycentric regions generally do not perform as well economically as morphologically monocentric regions²². While this could be seen as an economic disadvantage for the West Midlands, there are a number of potential advantages of polycentricity that, if intentionally harnessed as part of our economic strategy, could be a source of future strength. For example, monocentric growth tends to push dense development into the single urban core, whereas polycentric regions can channel growth into multiple nodes, to reduce some of the negative costs associated with agglomeration and create a more diverse work, live and leisure 'offer' to residents. This is why polycentric regions are often associated with lower housing costs and better housing quality due to reduced pressure on a single urban core²³, helping to reduce inequalities. In addition, because of multi-directional travel flows and more localised travel, polycentric regions tend to have less congested traffic²⁴. Other analyses have suggested that polycentric structures are better able to enhance quality of life by improving access to essential services, ultimately leading to greater life satisfaction²⁵.

Functional polycentricity. While the West Midlands cannot change its morphology—the spatial distribution of people, jobs and economic activities—it can affect another dimension of polycentricity: functional polycentricity. Functional polycentricity refers to the integration and connectivity between the cities and boroughs of a region. Looking at commuting flows across the region, for example, the latest data—collected during Covid-19 so likely to be an underestimate—suggests that over 200,000 people, or 17% of the WMCA area's workforce, live in one part of the region but work in another. Around 70,000 of these cross-border workers travel into Birmingham. Compared to other areas, the West Midlands is 'mid-table' in terms of functional integration: in Greater London, some 26% of its workforce lives and works in different parts of the city region²⁶. Compared to polycentric regions overseas, the level of functional integration is lower still. In other polycentric regions such as the Randstad region of the Netherlands and Rhine-Main region of Germany, cross-border working represented some 50% and 63% of the workforce, respectively²⁷, of their largest cities. A particular characteristic of successful functional polycentric city region is the use of mass transit system, including train, tram, bus and metro, and the strengthen of connectivity between places.

Cross-border commuting is just one lens on functional polycentricity. There are cross-border flows of people moving around the region for leisure and culture activity, housing markets and patterns of consumption. Another way to look at functional polycentricity is to consider the different, complementary economic specialisms and strengths of different parts of the region. This is apparent both when we look at places' economic strengths, as well as the ability for transport connectivity and housing to link people from one part of the region to jobs in another.

This matters to the West Midlands because, the evidence suggests, more functionally polycentric regions perform better economically²⁸. Functional integration is the key determinant of whether a polycentric region actually functions as an interconnected economic unit. Whereas nothing can be done about the West Midlands' morphological polycentricity, except for harnessing the advantages, the West Midlands as the ability to promote functional polycentricity and realise the complementary strengths and specialisms of our cities and broughs. This is the basis of our central hypothesis.

- ²⁵ Hoogerbrugge, M. M., Burger, M. J., & Van Oort, F. G. (2021). Spatial structure and subjective well-being in North-West Europe https://doi.org/10.1080/00343404.2021.1873261
- ²⁶ Office for National Statistics, 2023. Visualising people flows. https://www.ons.gov.uk/visualisations/censusorigindestination/

²² For example, Freke Caset, Yang, Y., Derudder, B., & Krasen Samardzhiev. (2023). The productivity effects of polycentricity: A systematic analysis of urban regions in Europe. https://doi.org/10.1111/pirs.12765

 ²³ Decamps et al., (2019) Spatial pattern of housing prices in polycentric cities. <u>https://ideas.repec.org/p/arz/wpaper/eres2019_347.html</u>
 ²⁴ Lee and Gordon, (2007) Urban Spatial Structure and Economic Growth in US Metropolitan Areas <u>https://ideas.repec.org/p/luk/wpaper/8564.html</u>

²⁷ Seymour, T (2017) Urban polycentricity in northern England: economic catalyst or chimera? https://www.ucl.ac.uk/bartlett/sites/bartlett/files/wp_190_tom_seymour_edited.pdf

²⁸ For example, <u>Meijers et al., 2017</u>, <u>Meijers and Burger, 2017</u>, <u>Kauffman and Wittwer, 2019</u>.

Connections with other sub-systems

Our polycentricity hypothesis has implications for several other sections of our theory of growth.

Subsystem	Strong connection	Rationale
Overall 'connectedr	ness' score	9/11
Industrial composition	Yes	An effective strategy would harness the complementary economic strengths
Research, development and commercialisation	Yes	and roles of different parts of the region.
Business leadership, management and technology adoption	No	ΝΑ
Investment	Yes	While polycentricity is less conducive to agglomeration, investment in transport infrastructure and to harness the complementary roles of cities and boroughs is key to harnessing polycentricity as a strength.
Life chances	No	NA
Skills and participation	Yes	Functional polycentricity creates a larger labour market pool and more opportunities for different types of jobs across the region, where underpinned by an effective transport system.
Housing and placemaking	Yes	One of advantages of polycentricity is its ability to open up additional housing, leisure, lifestyle and employment options across different parts of the region,
Transport	Yes	where underpinned by an effective public transport system.
Energy	Yes	The region's functional polycentricity supports an array of different industries, some of which are dispersed industrial and high energy usage manufacturing sites particularly located in the Black Country.
Institutions	Yes	The West Midlands functional economic area has multiple levels of governance and leadership. Given the region's functional polycentricity, political and policy leadership will need to incorporate multiple strategies that serve the region's needs but come together as a coherent whole.
Perceptions and narrative	Yes	Polycentricity is often linked to more local place-based identities and can make single regional narratives more difficult to form.

Figure 8: implications of Polycentricity hypothesis

Section 4.2: Industrial Composition

Hypothesis: The industrial composition of the West Midlands economy is a source of strength rather than a weakness.

Regional productivity differences result more from differences in firm-level productivity within sectors, rather than overall sectoral balance. A major study by CityREDI in 2023²⁹ found that the industrial structure in the West Midlands has a slight positive impact on regional productivity, but is not enough to offset low average business (firm-level) productivity. In other words, our industrial composition is not really a particular strength or weakness, but low firm-level productivity (lower by 11%) reflects that West Midlands businesses have a higher proportion of activity at lower points in value chains which often means operating with lower margins, management autonomy and investment.

There are a variety of reasons for this, including regional price differentials particularly in nontradeable good and services. Sectoral data is also not 'quality adjusted'—i.e., it does not account for different types of work within the same sector classifications like an international law firm in London has different specialisations to law firms undertaking local activity, which reflects occupational/skill composition and specialisation³⁰. Firm-level productivity differences can also be driven by a myriad of both internal (age, size, company structure/foreign ownership) and external (cluster agglomeration, market size) factors.

Across the economy overall, the WMCA area economic output has in the last 10 years grown at a similar rate to South Yorkshire's and the North East's, and slower than Greater Manchester's and West Yorkshire's. More rapid population growth in the West Midlands has meant output per head has been less strong. Within this, there are important sector trends: service sector growth in the West Midlands has been solid, although there have been particular challenges in manufacturing which makes up 11% of regional output but plays a vital role in our traded economy and wealth creation.

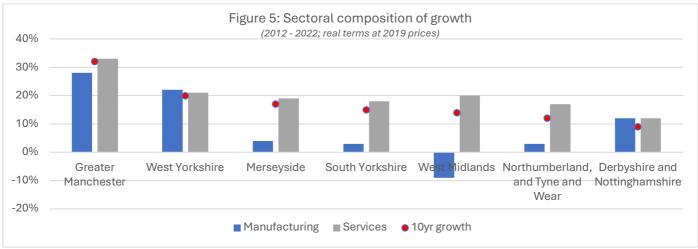


Figure 9: Sectoral composition of growth³¹

 $^{^{\}rm 29}$ Wickham M 2023 Productivity in the West Midlands, WMREDI report for WMCA

³⁰ Beatty C and Fothergill S, 2019. Local Productivity: The real differences across UK cities and regions, Sheffield Hallam University.

³¹ Office for National Statistics (2025) Regional gross value added (balanced) by industry: all ITL regions

 $[\]label{eq:https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry to the second s$

On services, the largest single cluster is business and professional services—producing 32% of regional output and 20% of jobs. Previous studies have emphasised that this sector is also important for other sectors in the region³², including the broad digital sector. High-knowledge digital and professional service competencies are agile, often labour-intensive and mobile. It is positive therefore that the West Midlands position as the strongest region for FDI outside London is spearheaded by the software and IT services sectors, contributing 38 inward investment projects in 2023—the highest since 2017 and more than transportation and machinery manufacturing³³.

The last decade also sees the West Midlands as the only major city region economy to see a real terms decline in manufacturing output. Although compounded by our extreme focus on particular products and subsectors, the region's output growth did not outstrip the UK on any manufacturing sub-sector.

- The manufacturing subsector that grew the strongest (petrochemicals, chemicals and pharmaceuticals) is a relatively small part of the region's manufacturing base.
- The two sub-sectors where the West Midlands is very heavily-weighted (manufacture of basic metals & fabricated metal products and manufacture of transport equipment, including cars) saw some of the steepest reductions in real-terms output. We know, for example, that Jaguar Land Rover (JLR) was the second-biggest car producer in the UK in 2024, but its volumes have more than halved since 2016—when 544,401 cars were produced in its UK plants—as the JLR Reimagine strategy prioritises electrification, luxury and profitability over volume, with implications for regional output.

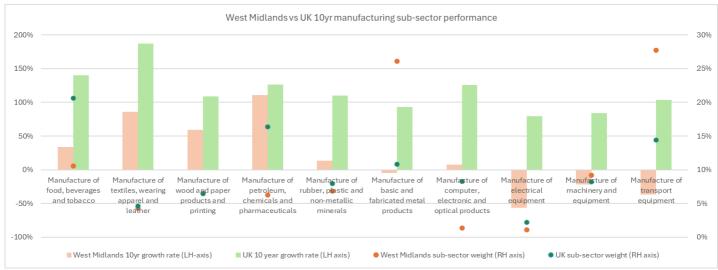


Figure 10: West Midlands vs UK 10 yr manufacturing sub-sector performance

³² Riley, R, Green, A & Birmingham, BPS 2018, An investigation into the foundations of productivity for business, professional and financial services in West Midlands Combined Authority. West Midlands Combined Authority, Birmingham.

³³ West Midlands Growth Company, 2024. West Midlands records 72% rise in foreign direct investment projects in 2023 <u>https://wmgrowth.com/about-us/media-centre/news/post/west-midlands-records-72-rise-in-foreign-direct-investment-projects-in-2023/</u>

The multiple shocks of the Covid pandemic, disruption to international trade, energy crisis and emphasis on defence and national security have recalibrated how major manufacturing supply chains balance cost optimisation with resilience, sustainability and collaboration with customers and suppliers.³⁴ Within this shifting commercial context of managing uncertainty and risk, Government has initiated a more activist industrial strategy, with the Invest 2035 Green Paper articulating a 10-year plan to deliver the certainty and stability businesses need to invest in the high growth sectors that will drive our growth mission. Its focus is boosting productivity, job quantity, job quality and overcoming barriers to eight growth sectors. The West Midlands has been recognised as having strengths in each of the eight priority sectors identified in the national Industrial Strategy. As a result, the WMCA and the region's cluster leadership groups have been working with the Government to shape Sector Plans to be published in June 2025, instilling confidence and direction in the UK's growth sectors.

Part of the reason why the West Midlands is prominent in each Sector Plan is because we have a clear rationale about the different reasons why each sector is important to our future economy, because different parts of the economy have different prospects on productivity, jobs and output growth.

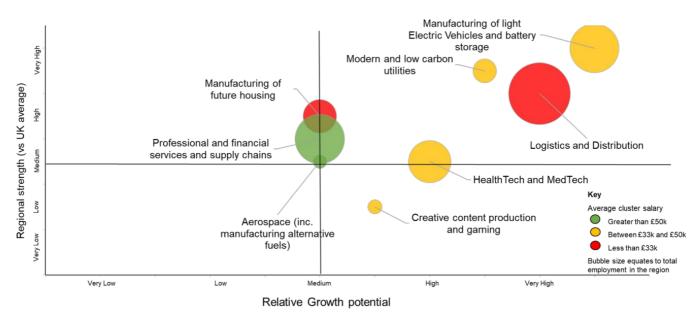


Figure 11: Most significant growth sectors and clusters, and their growth potential in the region³⁵

Our industrial composition as it is today will not look like how it does in the future. Using the Oxford Economics baseline forecast for 2019 – 2050 (Figure 12, below), we project that:

- The region's four most tradable sectors—digital; professional services like architecture, legal and management consultancy; financial services; and manufacturing—occupy the top two and bottom two slots on forecasted output growth. However, they tell very different stories about forecast trends on jobs and productivity.
- Other aspects of the economy—construction; retail; health; education; logistics; and public services—equally have very different profiles on job creation and productivity.

https://www.cbi.org.uk/articles/prioritise-your-supply-chain-resilience-to-tackle-economic-headwinds/ ³⁵West Midlands Combined Authority (2025) West Midlands Plan for Growth

https://www.wmca.org.uk/media/cjafxkj4/plan-for-growth.pdf

³⁴ The CBI, 2023. Prioritise your supply chain resilience to tackle economic headwinds

Sector	GVA growth	Jobs growth	Jobs Growth	Productivity growth (GVA/job)
Information & communication	142.2%	16.8%	5.908	88.7%
Professional, scientific & technical	71.9%	41.5%	42.709	23.5%
Administrative & support services	65.2%	17.3%	27.000	32.2%
Human health & social work	60.5%	44.6%	86.021	20.3%
Real estate activities	42.5%	17.3%	4.698	44.9%
Construction	39.7%	10.2%	7.854	17.0%
Arts, entertainment & recreation	38.4%	11.8%	7.424	14.4%
Wholesale & retail trade	30.9%	-1.6%	-3.277	36.9%
Accommodation & food services	29.4%	5.0%	4.271	28.6%
Transportation & storage	25.9%	9.6%	7.876	41.9%
Education	24.5%	4.5%	6.152	17.3%
Public administration & defence	23.3%	-3.2%	-1.631	46.3%
Financial & insurance activities	16.6%	0.7%	0.313	46.3%
Manufacturing	9.7%	-53.3%	-76.818	117.7%

Figure 12: Oxford Economics forecast of sectoral change in the West Midlands economy between 2019-2050, with the colours indicating the relative degree of change (green highest increase; red lowest decrease)

Our central proposition is that the West Midlands should not seek to reach a different sector balance, but to help firms with lower levels of productivity relative to the sector move up the value chain into higher productivity activities. The region's growth plan combines the agglomeration effects of supporting clusters of strength to drive above-forecast growth but addressing specific cluster barriers in the following subsystems, along with a focus on firm-level development. The business leadership, management and technology adoption subsystem helps business leaders navigate their path to higher value, more productive work to address the West Midlands challenge that the inter-regional productivity gap stems from firm-level productivity within sectors, rather than overall sectoral balance.

Connections with other sub-systems

Our industrial composition hypothesis has implications for several other sections of our theory of growth.

Subsystem	Connection Strength	Rationale
Overall 'connectedr	ness' score	9/11
Economic geography and polycentricity	Yes	The economies of Birmingham, the Black Country and Coventry have different sectoral and cluster specialisms and challenges, which feature and are harnessed as part of our economic strategy.
Research, development and commercialisation	Yes	A diverse industrial composition offers greater opportunities for embedding new technological and process innovations and so boosting growth.
Business leadership, management and technology adoption	Yes	Industries in the West Midlands tend to be less productive than elsewhere in the country. We believe a key factor for this is the quality of business leadership and management.
Investment	Yes	Technological relatedness among firms in a region influences knowledge spillovers, regional development and the ability for businesses to move into new value chains. Additionally, the region's industrial composition is an important factor in attracting investment and FDI.
Life chances	No	NÁ
Skills and participation	Yes	The skills profile of the region influences the types of businesses that are viable in the region and can diversify industrial composition.
Housing and placemaking	No	NA
Transport	Yes	(See Transport section) Improved connection times between the West Midlands and London opens possibilities for the relocation of firms and operations out of London to take advantage of lower costs – in the context of the West Midlands' relatively affordable housing costs compared to other regions – and reduced congestion
Energy	Yes	As the West Midlands has a significant manufacturing base, energy availability and cost is a significant influence on the region's productivity
Institutions	Yes	Local institutions able to adapt policy to the region's diverse industrial composition and crowd in investment could have a significant impact on the West Midland productivity.
Perceptions and narrative	Yes	Industrial composition forms a core part of the region's external image and attractiveness to outside investment

Figure 132: Industrial hypothesis implications

Section 4.3: Research, Development and Commercialisation

Hypothesis: The amount of private sector research and development is a strength of the West Midlands economy, but it is constrained by the low levels of public and higher education sector R&D.

Research, development (R&D) and commercialisation drive the future productivity and prosperity of economies³⁶. Direct benefits come from new businesses with strong competitive advantage and high growth potential while indirect benefits are also important, for example by helping the West Midlands be a place for measured high risk-taking by minimising downsides like reducing the transaction costs of knowledge transfer and amplifying upsides like fostering active networks of investors and helping penetrate international markets.

Our theory of growth considers R&D and commercialisation in two parts: (i) the generation of curiosity-driven research and (ii) the commercial application and commercialisation or translation of research at scale. We also recognise the role of adoption of established technologies widely across the business base, which we cover within the business leadership and management subsystem below. Our two central findings are that:

- a. High-quality, curiosity-driven research is generated in the West Midlands, but the depth of this research is constrained by relatively low levels of public and higher education R&D investment.
- b. The West Midlands is strong at developing and applying new knowledge for use in established business clusters—e.g. automotive—but weaker in developing for associated commercial uses at scale. If this is to be successful, it must be ruthlessly focused and steered by leaders with commercial acumen who are rooted in the West Midlands.

On R&D funding, the West Midlands region exemplifies an extreme case of private sector-led R&D. In 2022, businesses spent £3.8 billion on R&D, compared to roughly £0.7 billion in public R&D funding, giving a 5:1 "private: public ratio" which is the second highest in the UK, far above the average, and one of the most unbalanced in Europe.³⁷

This is consistent with past ONS 2019 analysis³⁸ which further unpacks the balance between business—at 81% the highest proportion in the UK—and higher education and Government/research council funding.³⁹

³⁷ West Midlands Combined Authority, (2025). Science & Technology Select Committee Call for Evidence: Innovation, growth and the regions

³⁶ Aitken, A (2021) Understanding the Drivers of Innovation and Productivity across Firms, Regions and Industries in the UK https://niesr.ac.uk/projects/understanding-drivers-innovation-and-productivity-across-firms-regions-and-industries-uk

https://committees.parliament.uk/writtenevidence/135345/html https://committees.parliament.uk/writtenevidence/135345/html [last accessed 28/02/25] ³⁸ Prescott, C (2021) Gross domestic expenditure on research and development

https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/datasets/ukgrossdomesticexpenditureonresearchanddevelopment

³⁹ OCO global (2023) Attracting International Investment in R&D: UK national and regional capacity report <u>https://www.ncub.co.uk/wp-content/uploads/2021/07/Attracting-International-Investment-in-RD-UK-national-and-regional-capacity-report.pdf</u> Across the UK, the business sector was the main driver of R&D performed in the UK, contributing £25.9 billion (67% of the total), with self-funding being the main source. The public sector, including government laboratories and organisations such as NHS bodies, contributed £2.7 billion (7% of the total), while the higher education sector accounted for £9.1 billion (24% of the total). The remainder is accounted for by the private not-for-profit sector.

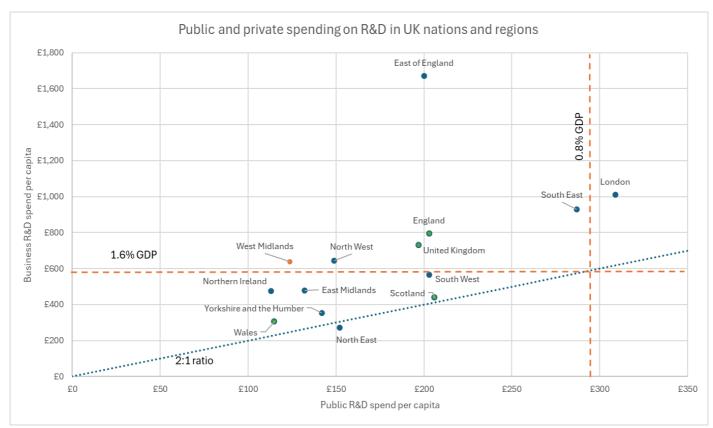


Figure 14: Public and private spending on R&D in UK nations and regions

UK Research and Innovation (UKRI) recognises that public investment in R&D outside London, the South East and East of England—collectively known as the 'Greater South East'—needs to increase. UKRI's strategic approach to places, set out in their 'world-class places strategic objective' within its current strategy⁴⁰, acknowledges the role R&D investment plays strengthening research and innovation clusters across the UK, including in the West Midlands, with the proportion of spend outside the Greater South East rising to 50% in 2023/24. This is up from 49% (financial year 2022/23) and 47% (2021/22). This represents a cumulative additional £1.4 billion invested outside the Greater South East since the 2021 to 2022 financial year.

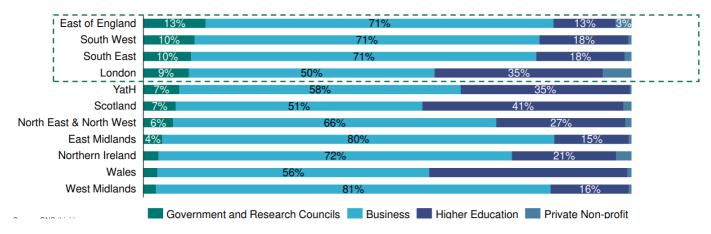


Figure 15: R&D expenditure in the UK regions by performing sector

⁴⁰ UKRI (2022) UKRI strategy 2022 to 2027: transforming tomorrow together <u>https://www.ukri.org/publications/ukri-strategy-2022-to-2027/</u>

Whilst this is positive for regions such as the West Midlands, the proportion received is still low. Our contention is that the exceptional level of private R&D shows market confidence in the fundamentals of the West Midlands; bright minds are attracted to work in the West Midlands at scale. However, the £3.8 billion business invests in West Midlands R&D each year—with the second highest private: public R&D investment ratio in the UK—has a 'deep but narrow' profile; the vast majority focused on a small number of large automotive and advanced engineering businesses. As well as maintaining the region's competitive advantage in those high-value clusters, it also provides a fertile base of advanced engineering and digital competencies in dualuse technologies.

It is well evidenced that public funding of R&D plays a pivotal role in encouraging private-sector innovation by boosting the confidence of businesses to invest in new, often high-risk but potentially revolutionary research areas⁴¹. In the West Midlands, the scale of public R&D funding (at £125 per person) is sub-optimal, but there are reasons for optimism.

As the largest public funder of curiosity-driven and translational research, recent UKRI data shows the West Midlands saw the second largest absolute growth (+£171 million) in funding between 2020/21 (£590 million) and 2023/24 (£761 million)⁴², meaning per-head spend jumped from to £125 in 2023/24—now the fifth-highest region behind London, South East, East of England, and North East. It hasn't always been this way; between 1995 and 2015, while West Midlands' *business R&D* per head grew on par with Berlin and more than Paris and London put together, *public R&D* per head in West Midlands stagnated⁴³, showing a divergent path which has contributed to a slower long-run growth rate and relatively weaker productivity. The region's academic research base has a strong starting point, with all six universities in receipt of innovation funding delivering multiple areas of internationally recognised research that has tangible impact beyond academia⁴⁴.

Looking to the future, the level of public R&D funding must be sufficient to boost knowledge across curiosity-driven and translational research, along with capability within the region to sweat that investment for commercial benefit at scale. We suggest there are three reasons why the West Midlands is well-placed to generate bigger rewards for the UK:

<u>First, our strength in tech development</u>. Led by universities, research institutions and cluster leadership bodies, the region has assessed the technologies that power change and commercial advantage within the region's priority clusters. The region also has a growing critical mass of innovation capability stimulating the emergence in Medtech, Cleantech and creative industry clusters.⁴⁵ We believe these are the cornerstones of strengthening the region's R&D base, and this is where public R&D needs to focus, applying these dual-use technologies to different contexts and crowding-in private activity.

⁴¹ NCUB (2024) Unlocking growth: The impact of public R&D spending on private sector investment in the UK <u>https://www.ncub.co.uk/wp-content/uploads/2021/07/Unlocking-Growth-NCUB-2.pdf</u>

 ⁴² UKRI (2024) Geographical distribution of funding https://www.ukri.org/what-we-do/what-we-have-funded/geographical-distribution-of-funding/43 Forth and Jones (2020) The Missing £4 Billion Making R&D work for the whole UK

https://media.nesta.org.uk/documents/The Missing 4 Billion Making RD work for the whole UK v4.pdf [last accessed 28/02/25] ⁴⁴ 2021 Research Excellence Framework results

⁴⁵ West Midlands Combined Authority (2025) Science & Technology Select Committee Call for Evidence

https://committees.parliament.uk/writtenevidence/135345/html

Cluster	Med Tech			Clean Tech			Creative Tech
Sub Cluster	Clinical Trials	Medical products developments	Monitoring and diagnostics	Decarbonisation of energy	Electric batteries & recycling	Future of mobility	Immersive technologies
		Sensors & Wearables				Virtual	Reality
		Quantum Sensing				Acoustics	Gaming
	AI	AI 5G		Sustainable Advanced Materials		AI	
Key Technologies				Heatpumps	Power Electronics Machines & Drives	5G	
			Rob	otics			
		Additive Ma		anufacturing		Control Systems	
		Imaging		Нус	Irogen fueling and hea	ting	

Figure 16: key technologies in Med Tech, Clean Tech, and Creative Tech clusters

The West Midlands is one of three regions to pilot a locallyled Innovation Accelerator⁴⁶ with Innovate UK to drive translational research. Through the West Midlands Innovation Board's prioritisation of five projects that relate to its medtech, cleantech and crosssector capabilities priorities, organisations embedded in the region have been delivering specialist, independent translational advice to over 700 firms and helping secure £70 million of additional investment.

Examples from Clean Futures

- **ChangeMaker 3D** (Birmingham) is developing a concrete printing technology for the UK rail sector. It is printing and installing a 3D printed toilet pod, which can integrate rainwater harvesting and solar power.
- **Global Nano Network** (Walsall) have developed a high performance current collector, designed to dramatically improve the cycle life and discharge rate of li-ion and next generation batteries.
- **Hy-Met** (Solihull) has created a rapid and non-contact battery inspection solution to evaluate battery cell quality, that offers data crucial for new regulatory procedures such as a 'battery passport'.
- **Nedra** (Birmingham) is developing a lightweight electric vehicle using natural fibre composites, to significantly cut carbon emissions over its lifetime compared to other urban delivery and taxi electric vehicles.

<u>Second, our commercially minded people</u>. Creating value requires different skills and instincts to curiosity-driven research and the application of technology. The West Midlands has people with these aptitudes working through private sector-led activities like Plug and Play UK and Serendip (part of Bruntwood Scitech) to bring people together for rapid, high-risk testing and making commercial judgements as vital steps to commercialising at scale. In the Skills and Employment subsystem, we reflect how the development of commercial skills and risk-management need to be honed across mid and advanced skills levels.

<u>Third, our places</u>. International good practice and examples within the region like the Warwick Manufacturing Group (WMG), Manufacturing Technology Centre (MTC) and Energy Systems Catapult Centres, Birmingham Health Innovation Campus, Enterprise Wharf, STEAMhouse, Springfield Campus and UK Battery Industrialisation Centre show the importance of concentrating people in environments conducive to development and commercialisation be they neighbourhoods or buildings. Major developments like the West Midlands Investment Zone seek to do this at scale, focused on the use of engineering and digital capabilities for commercial growth in advanced manufacturing and associated health tech and energy clusters. Our theory of growth is to intensify this fusion of ideas for commercial benefit, with the wrap-around supply

⁴⁶ West Midlands Combined Authority (2025) West Midlands Innovation Accelerator <u>https://www.wmca.org.uk/what-we-do/economy-and-innovation/west-midlands-innovation-accelerator/</u>

chain and investment system to grow at scale (see the following sub-system on business leadership and investment).

Connecting these three elements requires strategic coordination and championing from civic and business leaders, and significant public R&D investment. The WMCA has built a track record as a testbed for advanced devolution on innovation through the Innovation Accelerator, Launchpad and Action Plan with Innovate UK. With the English Devolution White Paper pointing to new powers for local leaders, together the region has the capability, confidence and ambition to go further with a broader innovation partnership with Government across aspects of research, development and commercialisation; steered by a robust governance system like the West Midlands Innovation Board; and with the ability to connect activity across Government, private investors and local businesses. As proud West Midlanders, the WMCA is best placed to promote this, which we've done through the It Starts Here campaign to capitalise on the business potential following the Commonwealth Games and secure the seventh-highest FDI of any region in Europe, and with recognition as one of the top three European Innovation Capital regions in 2024.

Connections with other sub-systems

Our R&D and commercialisation hypothesis has implications for several other sections of our theory of growth.

Subsystem	Connection Strength	Rationale
Overall 'connectedness' score		8/11
Economic geography and polycentricity	No	NA
Industrial Composition	Yes	A diverse industrial composition offers greater opportunities for embedding new technological and process innovations and so boosting growth.
Business leadership, management and technology adoption	Yes	A key factor in innovation adoption and diffusion is the quality of business leadership and management.
Investment	Yes	Private sector investment in the WM region generates over £3 billion annually in private sector R&D expenditure but we believe this figure is held down by the lack of public R&D funding in the West Midlands compared to other regions.
Life Chances	Yes	The Smart City Region 5G test and learn project is pioneering new approaches to community diagnostics and healthcare digitisation, supporting the region's work on public service innovation. Additionally, improving life chances of people in the region is likely to boost the skills profile – enabling innovation – of the population through attracting and retaining talent in the West Midlands.
Skills and Participation	Yes	A key enabling factor for innovation is skills present in the workforce – particularly the acumen to relate knowledge to commercial opportunity. This requires higher-level skills to develop/understand knowledge, attracting and retaining people with these skills in the region and developing entrepreneurial instincts to develop and apply in commercial context.
Housing and placemaking	No	NA
Transport	No	NA
Energy	Yes	Innovation is helping the region to harness its strength in smart energy systems, which, in turn, will help the region to reduce its energy demand (see Energy section)
Institutions	Yes	A more devolved approach with more empowered local institutions could support better innovation investment, adoption and the further development of partnerships with regional civic and business leaders.
Perceptions and narrative	Yes	Significant innovation is an attractive asset to external investors and businesses interested in expanding in the region. Additionally, improving the perceptions of e region is likely to boost the skills profile of the population through attracting and retaining talent in the West Midlands.

Figure 17: R&D and commercialisation hypothesis implications

Section 4.4: Business Leadership, Management and **Technology Adoption**

Hypothesis: Business leadership and management in the West Midlands is a distinctive regional challenge. Linked to this, technology adoption by businesses is a high priority for regional productivity and future investment.

National and international evidence shows that better management leads to increases in productivity⁴⁷. Bloom and Van Reenen (2007)⁴⁸ highlight that weak management practices contribute significantly to productivity disparities across firms and countries, with UK firms lagging behind due to a long tail of poorly managed businesses. They find that better-managed firms exhibit higher productivity, profitability, and survival rates, with stronger competition and professional leadership improving management guality. A 2024 report from the Enterprise Research Centre⁴⁹ reinforces these findings, revealing that a majority of UK workers are employed in firms with below-average labour productivity, with significant gaps between topperforming and median firms. The literature also unpacks what good business leadership and management means:

- Processes for continuous improvement and development of new products and services to maintain competitiveness. An Office for National Statistics study combining the Management and Expectations Survey with R&D and innovation surveys found that bettermanaged British firms are more likely to engage in R&D and introduce new products or processes, even after controlling for firm size, industry, and other characteristics⁵⁰;
- Effective people management, with emphasis on HR practices that foster employee development and satisfaction with regular performance reviews, training employees and basing hiring and promotion decisions on merit;
- Data-driven decision-making, utilising data analytics to inform decision-making and ٠ optimise operations;
- Strategic investments, with deliberate allocations of resources towards areas with potential for significant returns; and
- Unobservable organisational factors such as inspirational leadership: leaders who motivate and guide their teams effectively.

On the surface, data suggest there is significant room for improvement in business management & leadership in the West Midlands. While differentials are not large, the Office for National Statistics (through the Management Expectations Survey which covers businesses in production and services industries with employment of at least 10) finds the wider region has the lowest business management scores in England, marking a decline since 2020 (see Figure 18 below)⁵¹⁵². A study by the Productivity Institute found a weakness in management competencies accounted for 30% of the international difference in productivity across the East and West Midlands.⁵³

⁴⁷ Keshwara, B. (2023) West Midlands Future Prosperity: Upgrading management skills for growth https://www.m ploads/2023/07/West-Midlands-Report-A4-V4.pdf 48 Bloom N. and Van Reenen J. (2007) 'Measuring and explaining management practices across firms and countries', The Quarterly Journal of Economics 122(4), 1351-1408.

er-research

 ⁴⁹ <u>http://www.enterpriseresearch.ac.uk/our-work/publications/?type=whitepaper-research</u>
 ⁵⁰ Office for National Statistics (2021) Management practices and innovation, Great Britain s://www.ons.gov.uk/economy/e nomicoutputandproductivity/productiv

ures/articles/managementpracticesandinnovationgreatbritain/2021-08-23 ⁵¹ Office for National Statistics (2024) Management practices in the UK: 2016 to 2023 (figure 6)

tps://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeas gementpracticesintheuk/2016to2023

⁵² Office for National Statistics (2024) Management practices in the UK: 2016 to 2020 (figure 5)

ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/articles/managementpracticesingreatbritain/2016to2020 https://www.ons.gov.uk/economy/economy/economicouppareign/oucoupy/productivity/content/uploads/2021/10/PIP010-Midlands-Productivity-Challenge-FINAL-070122.pdf?utm_source=Press+Release&utm_medium=email&utm_campaign=RPF_insights_series&utm_id=RPF_Mids_PIP&utm_content=Insights+Paper

²⁷

Mean management practice scores by international territorial level (ITL1) region, UK, 2023

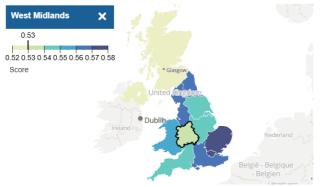


Figure 18: mean management practice scores by ITL1 region



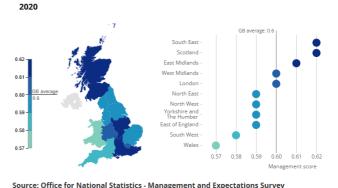


Figure 19: Mean management scores by NUTS1 region

Our theory of growth asks two further questions: (i) why do we think the West Midlands is in this position; and (ii) what might be done? On the first, we don't believe there is any intrinsic reason why West Midlands business management is less capable than other regions or countries. We do, however, identify two explanations.

Firstly, national analysis shows firms in service sectors have a higher average management score (0.56) compared with the production sector (0.52) because of a longer tail of firms with lower management scores in that sector. The West Midlands has a relatively large production sector and within that, a sizable number of firms at tiers 3, 4 and 5 in supply chains. The dynamics of supply chain management can mean that those firms have less autonomy as they effectively deliver to specs and prices set by customers. Those firms have often evolved to be efficient at low margin work, while constrained investment and limited autonomy reduces the need for leadership and management skills. Therefore, we can distinguish between efficient management and business leadership that can help drive firms and regional activity higher up value chains.

Secondly, there is evidence of an under-supply of management and leadership skills in the West Midlands. According to Lightcast data between April 2021 and April 2023, a total of 177,965 managerial job postings were advertised but only 91,902 potential employee CVs with management skills were available at that time.⁵⁴ Over a decade, Lightcast data shows an increase of 75% in demand for management skills and a 280% increase in demand for leadership skills listed as requirements in job postings.⁵⁵ We know Recruiting staff with relevant managerial skillset appears particularly challenging in medium-sized companies. Low investment in training is cited as a reason for poor productivity gains. Business consultancies engaged revealed that small organisations that they work with often face leadership and management capability challenges in terms of financial literacy.

The region's business leadership organisations are leaning-into this issue. The three Chambers of Commerce led the Business Commission West Midlands 2024 report⁵⁶ which observed that "a lack of business management knowledge amongst smaller firms was likely to impede their development aspirations".

⁵⁴ Keshwara, B. (2023) West Midlands Future Prosperity: Upgrading management skills for growth <u>https://www.managers.org.uk/wp-content/uploads/2023/07/West-Midlands-Report-A4-V4.pdf</u>

⁵⁵ Keshwara, B. (2023) West Midlands Future Prosperity: Upgrading management skills for growth <u>https://www.managers.org.uk/wp-content/uploads/2023/07/West-Midlands-Report-A4-V4.pdf</u>

⁵⁶ Greater Birmingham Chamber of Commerce (2024) Business commission West Midlands interim report https://issuu.com/greaterbirminghamchamberofcommerce/docs/bcwm_interim_report_24

What works is reasonably clear:

- Improving the training and qualification levels of UK and West Midlands managers, including help to apply skills strategically for small and medium sized companies.⁵⁷
- Clarity about the specific leadership and management skills and behaviours managers need to display and develop. One example is the Help to Grow: Management programme: a 12-week training initiative delivered through a network of business schools across the UK, with 12 modules and providing comprehensive support for SME leaders, including one-on-one business mentoring, peer learning, and access to an Alumni Network. The programme was designed to enhance leadership and management capabilities, equipping participants with the skills needed to implement changes within their businesses and drive productivity improvements. An independent evaluation of the programme found that: "the programme appears to be contributing positively to all individual outcomes set out in the programme's Theory of Change, particularly those related to personal development: skills, knowledge and understanding, business planning and strategy, and networks and collaboration.⁵⁸
- Business owners having the confidence in the business environment to make long-term choices about value-enhancement and productivity.

Therefore, the priority is to create a genuinely business-centred supportive business environment, where firms embarking on major changes in their life cycle have access to good quality information—from peers, private sector or publicly-funded sources—which amplifies the benefit for the firm and its employees.

Innovation Adoption. While the UK ranked fifth out of 133 countries in the World Intellectual Property Organisation (WIPO) 2024 Global Innovation Index, it ranked 31st in knowledge absorption. A study by CityREDI on Productivity and Prosperity in the West Midlands (2020)⁵⁹ found that differences in innovation adoption explained a significant portion of productivity variation between firms in the region. Firms that introduced new products or processes had notably higher productivity growth than those that did not. However, the proportion of such innovating firms in the West Midlands is lower than elsewhere; the 2023 UK Business Innovation Study puts the West Midlands as one of three regions with the lowest proportion of innovation active businesses in 2020-2022 (35%).⁶⁰ While 'new to the market R&D' is covered in the Research, Development and Commercialisation section, a 2018 Enterprise Research Centre study⁶¹ examined the 'new-to-the-firm innovation' angle which found a link with effective leadership and management to drive the diffusion of new technologies and best practices. The dependencies are:

1. **Creating culture of continuous improvement**. Business leaders set the ambition and risk appetite for firms to be curious, explore external technologies and to overcome barriers like resistance to change should they arise.

⁵⁷ Department for Business Innovation & Skill (2012) Leadership & management in the UK - the key to sustainable growth

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32327/12-923-leadership-management-key-to-sustainable-growth-evidence.pdf

⁵⁸ Department for Business, Energy & Industrial Strategy (2023) Evaluation of Help to Grow: Management

https://www.employmentstudies.co.uk/system/files/resources/files/help_to_grow_management_end_of_year_one_evaluation_report.pdf

⁵⁹ Billing, C, Cepeda Zorrilla, MR, Collinson, S, Green, A & Pan, F 2020, Regional Productivity Differences, Skills and Inclusive Growth: Survey Findings. <u>https://pure-oai.bham.ac.uk/ws/portalfiles/portal/227073360/Productivity_project_Survey_Results_-_Feb_2020.pdf</u>

⁶⁰ Department for Business & Trade (2024) United Kingdom innovation survey 2023: report

https://www.gov.uk/government/statistics/uk-innovation-survey-2023-report/united-kingdom-innovation-

⁶¹ ERC (2018 Business innovation, diffusion and productivity in the West Midlands <u>https://www.wmca.org.uk/media/2229/business-innovation.pdf</u>

- 2. **Understanding intangible investments**. Business leaders need to be skilled at understanding the return on investment of intangible investments, and what changes to business practices (e.g. training, retooling) are needed to minimise risk and maximise return.
- 3. **Collaboration and partnerships**. Business leaders can foster collaboration, both with other businesses and research/academic partners, which are vital for innovation. External capacity can help identify potential partners, navigate intellectual property issues, and structure effective collaborations, particularly for smaller firms.
- 4. Advocacy. A supportive external culture through business representative bodies, trade associations and civic leaders can improve the awareness of technologies that can be applied and practical steps businesses can take.

The West Midlands has, through Catapult centres and research institutes, a strong base of translational research for firms exploring new-to-market activity for relevant firms. Partners in the Black Country are currently exploring options to address the lower absorptive capacity across that local business base. The 'new-to-business' technology adoption is also dependent on the business leadership capacity of firms and approaches to business development. For example, the region's relatively low wage base can mean the 'tipping point' of investing in automation technologies is different to other regions. Through interventions like peer networks, Help to Grow: Management, Made Smarter and the Business Energy Advice Service, there are examples of helping firms to adopt established technologies.

The Everyday Economy. Improving business leadership, management and technology adoption is not only important for high-tech businesses that are the most productive in the region, but also highly significant for the everyday economy⁶². 63% of the West Midlands' workers are employed in everyday economy under business models that typically seek to minimise labour costs through low-pay and time-management⁶³. We define this as the 'low road' through which businesses can seek productivity gains in the short-term and improve the businesses bottom line, but, in the long-term, undermine business growth through encouraging worker churn, sustaining low wages and generating negative social outcomes that ultimately undermine the regional business environment. Strengthening business leadership and management capabilities, enabling them to take the 'high-road', and focussing on retaining, training and fairly compensating staff, should help generate productivity increases in the everyday economy and realise longer-term societal benefits. There are a number of further policy levers available to help shape the development of the everyday economy in the West Midlands. These include:

- At a national level, the Government could set higher minimum standards and regulations such as those proposed in the forthcoming Employment Rights Bill.
- The WMCA and its local authorities could also play a role by:
 - Setting stricter conditions around public procurement, grants and other forms of support;
 - Using planning mechanisms to require local employment practices;
 - Insourcing services; and
 - \circ $\;$ Developing charters to promote job quality and good practices.
- Helping workers in the everyday economy indirectly through skills provision, improving accessibility through transport and supporting housing affordability and quality.

⁶² Defined as "[Everyday economy sectors are] relatively more labour-intensive economic activities, where there are limits to how much capital-intensity can be achieved without compromising service quality. They are also non-tradable activities that serve a local market rather than being exported... Broadly speaking, our definition of the EE encompasses the following sectors: health, education, social care, public administration, protective services, retail, hospitality, leisure, personal services, the arts, tourism, construction, utilities, domestic transport and production of food." <u>20250331-everyday-economy-in-the-wmca-final.pdf</u>

^{63 20250331-}everyday-economy-in-the-wmca-final.pdf

Connection with other sub-systems

Subsystem	Connection Strength	Rationale
Overall 'connected		8/11
Economic geography and polycentricity	No	NA
Industrial composition	Yes	Industries in the West Midlands tend to be less productive than elsewhere in the country. We believe a key factor for this is the quality of business leadership and management.
Research, development and commercialisatio n	Yes	A key factor in innovation adoption and diffusion is the quality of business leadership and management. In the West Midlands the benefits of the innovation don't spread throughout the regional economy and the regional productivity remains limited. This may be due to limited absorptive capacity of firms as well as the insufficient diffusion and adoption mechanisms. UK data show that management practice scores are positively correlated with R&D investment and innovation outputs
Investment	Yes	Low investment in training is cited as a reason for poor productivity gains. Business consultancies engaged revealed that small organisations that they work with often face leadership and management capability challenges in terms of financial literacy. Poor knowledge of managing cash flow and setting clear business plans limits firm growth aspirations.
Life chances	Yes	Creating the foundations for healthy lives is good for businesses; they stand to benefit from a larger workforce made up of all the talents of the region. Additionally, providing equality of opportunity for all communities would enable the West Midlands to realise more of the talents of its diverse population. (See Life Chances section)
Skills and participation	Yes	There is evidence that management and leadership skills are under- supplied in the region. The Business Commission West Midlands 2024 Interim Report ⁶⁴ observed that "a lack of business management knowledge amongst smaller firms was likely to impede their development aspirations".
Housing and placemaking	No	NA
Transport	No	NA
Energy	No	NA
Institutions	Yes	The quality of business leadership and management seems to be a particular challenge for the West Midlands in comparison with other regions. A more devolved and less 'one size fits all' approach to addressing this could unlock greater gains.
Perceptions and narrative	Yes	The West Midland's perceptions and narrative is important to attracting and retaining skills business leaders to the region.

Figure 20: Connection with other sub-systems

⁶⁴ Greater Birmingham Chamber of Commerce (2024) Business Commission West Midlands Interim Report 24 <u>https://issuu.com/greaterbirminghamchamberofcommerce/docs/bcwm_interim_report_24</u>

Section 4.5: Investment

Hypothesis: Private investment demand and public investment into infrastructure is relatively low in the region. Both of these constrain productivity growth in the West Midlands.

Private investment. Underinvestment has been chronic in the UK economy for decades for several underlying structural reasons^{65 66}. Post-2010 austerity measures have particularly weakened public investment^{67 68}, while the 2008 financial crash, closely followed by Brexit, has negatively impacted private investment^{69 70}. Evidence points to the unequal distribution of capital investment across UK regions, showing significant variation both between high- and low-productivity regions and within regions themselves⁷¹. By way of example, from 2011-2017, public and private investment demand in the West Midlands lagged London by 12% and 25% respectively⁷².

Research by Ben Gardiner has attempted to untangle the relationship between capital stocks and productivity at a regional level^{73 74}. It shows that capital intensity (capital stock per capita) has a positive effect on labour productivity, especially in manufacturing sectors, where the authors point to the rising significance of automation. They also note that investment in business services, especially in information and communication technologies (ICT), understates the significance of investment in promoting labour productivity growth. ICT investment can have a transformative effect on business activity, although evidence from the last 15 years suggests that the benefits of the ICT revolution have not yet been realised in higher levels of economic growth¹⁶.

The best comparative measure of capital investment is Gross Fixed Capital Formation, which ONS produce at national, ITL1 and ITL2 levels on an experimental basis. Comparing ITL2 areas shows that the West Midlands has performed slightly below comparator areas in capital investment since the 2008 financial crash.

ITL 2 Area	Change in GFCF – 2008 to 2020
Northumberland and Tyne & Wear	41%
Tees Valley and Durham	29.3%
Greater Manchester	22.8%
Merseyside	19.7%
Wider West Midlands	19.4%
West Yorkshire	11.3%
South Yorkshire	10.2%

Figure 21: Change in Gross Fixed Capital Formation 2008 to 202075

Statistics https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/articles/experimentalregionalgrossfixedcapitalformationgfcfestimatesbyassettype1997to2020/2022-05-10

es Chadha, J. and Samiri, I. (2022). Macroeconomic perspectives on productivity. https://www.productivity.ac.uk/research/macroeconomic-perspectives-on-productivity/

⁶⁶ Bart van Ark and O'Mahony, M. (2024). What explains the UK's productivity problem? <u>What explains the UK's productivity problem? - The Productivity Institute</u>

⁶⁷ The Resolution Foundation. (2023). Ending stagnation: A new economic strategy for Britain. <u>https://economy2030.resolutionfoundation.org/reports/ending-stagnation/</u> ⁶⁸ Bart van Ark and O'Mahony, M. (2024). What explains the UK's productivity problem? <u>What explains the UK's productivity problem? - The Productivity Institute</u>

bar vari Ark and O'Mahony, M. (2024). What explains the UK's productivity problem? <u>What explains the UK's productivity problem?</u> - The Productivity Institute

⁷⁰ Haskel, J. and Martin, J. (2023). How has Brexit affected business investment in the UK? How has Brexit affected business investment in the UK? - Economics Observatory

⁷¹ Becker, M. and Martin, J. New insights on regional capital investment in the UK – 1997 to 2019. https://www.productivity.ac.uk/research/new-insights-on-regional-capital-investment-in-the-uk-1997-to-2019/ ⁷² Stansbury, Turner, Balls (2023) Tackling the UK's regional economic inequality: Binding constraints and avenues for policy intervention

^{*}Stansbury, furner, Baits (2023) facking the OK's regional economic inequality. Binding constraints and avenues to poucy inter https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/198_AWP_final.pdf [last accessed 28/02/25]

⁷³ Gardiner, et al. (2020) Regional disparities in labour productivity and the role of capital stock

https://scholar.google.com/citations?view_op=view_citation&hl=en&user=2h9JgdMAAAAJ&citation_for_view=2h9JgdMAAAAJ:JV2RwH3_STOC

⁷⁴ Gardiner, et al. (2021) Levelling up left behind places: The scale and nature of the economic and policy challenge

 $[\]label{eq:https://scholar.google.com/citations?view_op=view_citation&hl=en&user=2h9JgdMAAAAJ&citation for view=2h9JgdMAAAAJ:ns9ci8rnVeACAAAJ&citation for view=2h9JgdMAAAAJ:ns9ci8rnVeACAAAAJ&citation for view=2h9JgdMAAAAJ&citation for view=2h9JgdMAAAJ&citation for view=2h9JgdMAAAJ&citation for view=2h9JgdMAAAJ&citation for view=2h9JgdMAAAJ&citation for view=2h9JgdMAAAJ&citation for view=2h9JgdMAAAJ&citation for view=2h9JgdMAAAJ&c$

⁷⁵ ONS - Experimental regional gross fixed capital formation (GFCF) estimates by asset type - Office for National

There is relatively little in-depth research on regional capital investment in the UK due largely to data limitations. Indeed, Zymek and Jones in their 2020 evidence review for the then Industrial Strategy Council and Levelling Up White Paper (UK Government, 2022) both noted the lack of available data and research on regional capital investment and stocks in the UK.⁷⁶

Across the wider literature that does exist on regional, non-London economies, there is evidence that investment financing is an outcome of both supply and demand conditions but that demand conditions are likely to be more influential: financial investment in a region is likely to be low because the returns to this investment are low, and not because of supply constraints. While there is some evidence that a lack of access to equity financing in particular may be constraining an (important) subset of high growth potential SMEs, the supply of capital isn't a barrier in regional economies⁷⁷.

Wilson, Kacer, and Wright (2019) analysed all equity investments in SMEs in the UK 2011-17, and found that 90% of variation in deal flow can be explained by three differences in regions' economic structure, and therefore the investable opportunities in the region: the number of SMEs, the share of "high-growth firms", and the share of firms in high-tech manufacturing or knowledge-intensive services, implying that the composition of businesses in the economy and the quality of those businesses and how they are led and managed were the key to securing private equity investment⁷⁸.

McCann et al put forward an explanation of the UK's regional investment problem, arguing that the 2008 Global Financial Crisis triggered profound capital market shocks which were asymmetric across UK regions and which subsequently favoured the UK's most prosperous regions, most notably London⁷⁹. The underlying signals used by McCann et al of how financial markets evaluate different places in terms of relative commercial risk pricing were obtained from detailed commercial real estate investment data, and their research suggests that there is a 250 to 300 basis points 'risk premium' to capital investing outside of London and the south-east⁸⁰.

Although a relatively small part of overall levels of investment, recent data from the West Midlands Growth Company surge in foreign direct investment (FDI), positioning it as a leading region in the UK outside of London. In the 2023/24 financial year, inward investment projects in the WMCA area totalled 70, creating 6,082 jobs. This was significantly higher than other combined authority areas outside London. For Greater Manchester it was 61 and 3,493, for Liverpool 30 and 561, and for the West of England it was 38 and 1,342. However, in an economy of £77 billion, such investment, while important, is a relatively small part of overall investment in the wider economy.

What we can infer from the limited data that exists is that while private investment in the West Midlands is significantly lower than London and the south-east, this is likely to be predominantly a demand-side issue and there is no clear evidence as to whether the West Midlands is significantly worse than other non-London and south-east parts of the UK.

https://www.tandfonline.com/doi/full/10.1080/00343404.2024.2398620#abstract

- ⁸⁰ Daams, McCann, Veneri & Barkham (2023) Capital shocks, the great recession, and UK regional divergence
- https://www.tandfonline.com/doi/full/10.1080/00343404.2024.2398620#d1e2453

⁷⁶ Zymek, R., and B. Jones. 2020. UK Regional Productivity Differences: An Evidence Review. London, UK: Report for the Industrial Strategy Council.

⁷⁷ Tackling the UK's regional economic inequality: Binding constraints and avenues for policy intervention | Harvard Kennedy School

⁷⁸ Wilson, Kacer and Wright - 2019 - Understanding Regional Variations in Equity and Growth Finance: An Analysis of the Demand and Supply of Equity Finance in the UK Regions https://papers.srn.com/sol3/papers.cfm?abstract_id=3252346

⁷⁹ Daams, M. N., McCann, P., Veneri, P., & Barkham, R. (2024). Capital shocks, the great recession, and UK regional divergence.

<u>Public investment.</u> Infrastructure spending per capita has been consistently lower in regional cities compared to London. By way of example, for the period 2021-22, public expenditure on transport in the West Midlands was £687 per head, compared to £1,212 in London⁸¹; and we considered R&D investment in the section above. The public investment figure in the West Midlands includes spending related to the 2022 Commonwealth Games held in Birmingham. Transport connectivity between and within regional cities also lags behind international standards⁸². Changes to patterns of public sector expenditure in the West Midlands region are shown in Table 2 below.

Sector/Year	2017 to 2018	2018 to 2019	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023
General public services	7,718	7,379	7,328	6,547	9,893	14,718
Defence	3,431	3,572	3,750	3,958	4,328	4,949
Public order and safety	2,504	2,552	2,637	3,104	3,126	3,521
Economic affairs	3,707	5,151	5,447	16,527	8,740	11,005
Health	12,910	13,290	14,208	19,122	149,000	18,378
Social protection	24,104	24,623	24,657	26,625	26,702	28,968
Remainder	15,606	18,149	18,911	16,872	18,911	18,624
Total managed expenditure	69,880	74,716	76,938	92,755	90,475	100,163

Figure 22: Public sector expenditure in ITL1 West Midlands, 2018-2023, £ million⁸³

There has been a significant increase in public sector expenditure between 2018 and 2023, with health and social protection accounting for the majority (65%) of public investment, similar to other UK regions. (This includes the increase in healthcare and social protection spending in 2020 and 2021 when the Covid-19 pandemic hit the UK). However, capital expenditure shows a less coherent picture, noting increases in transport expenditure across the period but a decline if transport is excluded.

Capital Expenditure	2017 to 2018	2018 to 2019	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023
1. General public services	290	278	435	540	523	405
2. Defence	911	960	967	1,095	1,396	1,962
3. Public order and safety	146	159	186	258	222	268
4. Economic affairs	1,896	2,775	2,938	4,794	3,516	4,283
 A. of which: enterprise and economic development 	17	80	107	1,712	-127	432
B. of which: science and technology	403	600	626	636	637	522
C. of which: employment policies	12	5	0	6	10	6
D. of which: agriculture, fisheries and forestry	-30	-23	-9	-14	17	51
E. of which: transport	1,493	2,112	2,216	2,453	2,977	3,272
5. Environment protection	102	88	103	182	168	169
6. Housing and community amenities	470	504	788	681	687	580
7. Health	509	594	662	1,333	979	1,077
8. Recreation, culture and religion	108	122	229	160	200	201
9. Education (excludes training)	635	687	672	737	708	767
10. Social protection	46	44	31	39	61	43
EU transactions	0	0	0	0	0	0
Accounting Adjustments	2,242	1,796	1,319	1,454	1,656	-940
Total capital expenditure	7,356	8,208	8,331	11,272	10,115	8,816

Figure 23: Public sector capital expenditure in ITL1 West Midlands

 ⁸¹ HMT. HMT Public Expenditure Statistical Analyses (PESA) - GOV.UK https://www.gov.uk/government/collections/public-expenditure-statistical-analyses-pesa
 ⁸² The National Institute of Economic and Social Research. (2024). https://niesr.ac.uk/wp-content/uploads/2024/12/PP40-Transport-Connectivity-in-the-UK.pdf?ver=MOGgpYhVWQzKHZQnVQK9

⁸³ Office for National Statistics (2025) Public sector finance https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicsectorfinance

Given this data is ITL1 region only, covering the West Midlands region, it is difficult to draw specific conclusions relating to the West Midlands Combined Authority area with further work required to explore the availability and robustness of this data but ITL1 data does begin to suggest that public sector investment in the region is relatively low.

Connection with other sub-systems

Subsystem	Connection Strength	Rationale
Overall 'connected		11/11
Economic geography and polycentricity	Yes	While polycentricity is less conducive to agglomeration, investment in transport infrastructure and to harness the complementary roles of cities and boroughs is key to harnessing polycentricity as a strength.
Industrial composition	Yes	Private investment is closely correlated with position on the value chain with increased private investment at a firm level, everything else being equal, moving firms up the value chain and increasing productivity.
Research, development and commercialisation	Yes	Both private and public investment in R&D and associated capital expenditure drive levels of innovation.
Business leadership, management and technology adoption	Yes	The Business Commission West Midlands 2024 Interim Report observed that "a lack of business management knowledge amongst smaller firms was likely to impede their development aspirations". Business consultancies engaged revealed that small organisations that they work with often face leadership and management capability challenges in terms of financial literacy. Poor knowledge of managing cash flow and setting clear business plans limits firm growth aspirations and capital investment plans
Life chances	Yes	Currently, people from ethnic minority and disabled communities find it more challenging to access investment in the West Midlands, removing these barriers could enable greater investment in the regions (see Life Chances section).
Skills and participation	Yes	Increasing investment requires a higher skilled workforce to utilise and take advantage of the technological changes enabled by higher levels of investment
Housing and placemaking	Yes	High housing costs are directly linked to lower productivity across OECD countries over a long time period. This could be because high housing costs encourage investments into housing / land assets and reduce the pool available for expanding and innovating in the real economy. In addition, public investment in (e.g.) infrastructure unlocks
Transport	Yes	additional housing sites. Transport needs to be aligned with existing or potential travel demand and development opportunities, transport investment can simply
Energy	Yes	create underused capacity in the transport system. Expanding and improving the productivity of the West Midland's manufacturing and other energy intensive industries requires public and private investment.
Institutions	Yes	To take full advantage of a range of private investment, including FDI and capital attraction, a coordinated approach and narrative across the higher education sector, local, regional and national government is essential.
Perceptions and narrative	Yes	Investment in the region attracts additional investment. Boosting and improving the regional narrative could be a way of attracting additional investment.

Figure 24: connection with other subsystems

Section 4.6: Life Chances

Hypothesis: Giving every child and young person better starts in life is the most important action we can take to enable them to live longer, happier, more purposeful, productive and fulfilling lives. For working age residents of the West Midlands, far too many reduce their hours or leave the labour market entirely to undertake caring responsibilities, reducing their earnings potential, which affects women in particular. Alongside this, there are well-evidenced racial inequalities in the labour market and economy that affect a significant number of West Midlands residents.

The population of the West Midlands is growing, young and diverse—but also faces a broad range of challenges linked to high levels of deprivation. The West Midlands State of the Region report provides a comprehensive overview of the region's population profile, summarised as follows.

- The WMCA is the second largest city region by **population** in the UK. Over the next two decades, its population is expected to grow by 380,000, the second largest relative share of growth of any other city region. This compares to the situation in some other countries which are forecast to see a declining population over time.
- The WMCA is also the second **youngest** city region of the UK, bar Greater London, and is home to one of Europe's youngest and most ethnically diverse cities, Birmingham. In Birmingham, some 28% of the population is under the age of 20, and 36% is under the age of 25. Its youthful population is expected to continue to grow over the next 10-15 years. However longer-term population projections suggest that the over 65s population will also be fast growing across all seven districts of the West Midlands metropolitan local authority areas.
- The WMCA is a highly **ethnically diverse** region, with 44% of our residents identifying as being from an ethnic minority background. White British are the largest ethnic group at 56%, accounting for 1.6m of our 2.9m residents. Around 20% of our residents have a Pakistani, Indian or Bangladeshi background, and an aggregate of 10% have a Black heritage. Only Greater London is more ethnically diverse than the West Midlands.
- Faith plays a significant role in the lives of our residents. 66% of WMCA residents practice a faith, the highest of any combined authority area. The makeup of our faith communities is also very diverse compared to the national picture, with strong representation of Muslim (17.2% in the West Midlands vs 6.5% nationally), Sikh (5.1% vs 0.9%) and Hindu (2.3% vs 1.7%) followers⁸⁴.

On account of the facts above—our large population, young demography, ethnic diversity—the West Midlands could be said to have a demographic dividend within reach. However, the evidence shows that there are serious barriers holding back our residents from being able to fully participate in the economy, which also hold back our economy.

⁸⁴ Office for National Statistics (2021). <u>Religion, England and Wales - Office for National Statistics</u>

https://www.ons.gov.uk/people population and community/cultural identity/religion/bulletins/religionengland and wales/census2021 to the second seco

Early years and youth employment. Children in the wider West Midlands region are more likely to die in childhood than in overall for England. While there are some bright spots in some parts of the region when it comes to children's school readiness⁸⁵, the overall picture of early years development in all parts of the region—with the exception of Solihull—is a challenging one relative to the national average. The WMCA has the highest levels of poverty nationally⁸⁶, with child poverty (43%) having long-lasting impacts on life chances. Almost half of children in Birmingham (48%), Sandwell (47%), Walsall and Wolverhampton (46%) were in families living in poverty in 2022-2023.⁸⁷ By the age of 16, children in the WMCA area across all ethnic groups achieve lower Progress 8 scores, a measure of educational progress, than the England average.

These cumulative factors set back our young people back and create barriers to work. Our youth claimant rate (8.8%) is higher than the UK average (5.0%) and is rising faster. We see particularly high rates in Wolverhampton (10.7%), Birmingham (9.9%) and Walsall (9.4%) where around one in ten young people are unemployed. The number of youth claimants has increased by 9.6% in the last year and by 30.1% since March 2020 pre-pandemic. Between 2012 and 2021, the proportion of young people not in employment and training reporting a mental health issue tripled from 7.7% to 21.3% nationally. NEET prevention teams across the region are also increasingly citing mental health as a major barrier to young people's engagement in education and work.

Given the youthfulness of the West Midlands' demography, our theory of growth recognises the need to ensure children across the region are well-prepared as they start school and remove the barriers between young people and employment.

Economic inactivity, caring responsibilities and inequalities. 26.1% of our working age residents, or nearly half a million (487,600) people, are classed as being economically inactive. This is the highest relative share of all other combined authority areas. Over a quarter of this figure, or just under 122,000 people, are economically inactive because of their caring responsibilities. Economic inactivity due to caring responsibilities in the West Midlands is substantially higher than the second-highest combined authority area (Greater Manchester, where 19.2% are economically inactive for this reasons)⁸⁸. This role remains predominantly gendered, which largely explains the gender disparity in economic participation and is one of the key reasons why women in the WMCA area earn 11% less than men, despite having similar levels of highest qualification achieved, and face a 7.4% employment gap.

To put this into perspective, if, hypothetically, the number of people who are economically inactive but caring for people entered employment (122,000), the West Midlands would close its employment gap with the national average⁸⁹. While this is a hypothetical illustration, the impacts of closing the gap even by a share of this figure, as reported by parents themselves, would be significant. Analysis by the Joseph Rowntree Foundation shows two out of three parents would work more if there was more funded childcare provision⁹⁰. Similarly, the Rose Review found that £250 billion of new value could be added to the UK economy if women started and scaled new businesses at the same rate as men. While 1 in 3 entrepreneurs nationwide were women, male-

https://www.resolutionfoundation.org/publications/uneven-ground/

⁸⁵ Department for Health and Social Care (2024) Fingertips - Public health profiles

https://fingertips.phe.org.uk/search/school%20readiness#page/1/gid/1/pat/126/ati/502/are/E08000028/jid/90631/age/34/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1

⁸⁶ Joseph Rowntree Foundation (2024). Uk Poverty 2024: The essential guide to understanding poverty in the UK https://www.jrf.org.uk/uk-poverty-2024-the-essential-guide-tounderstanding-poverty-in-the-uk

⁸⁷ The Resolution Foundation (2024) Uneven Ground: Assessing the State of UK Geographic Economic Inequality Facing the New Government

⁸⁸ Evans, J and Carla, C. (2024) Poverty proofing the future of early years childcare https://www.jrf.org.uk/child-poverty/poverty-proofing-the-future-of-early-years-childcare

⁸⁹ If hypothetically 122,000 people entered employment, the total number of people in work would be 1,424,200, which would mean an employment rate of 76% (of 1,872,900). The employment rate for Great Britain is 75.5%. This is a hypothetical illustration of the extent of the challenge and opportunity. Data from <u>NOMIS</u>.

led SME's are 5 times more likely to scale their businesses to over £1million; and only 1% venture capital funding went to businesses founded by all-female teams.⁹¹

Because of the scale of this constraint, our theory of growth recognises the need to support our residents with caring responsibilities to increase economic activity.

<u>Ethnicity, labour market inequality and underemployment</u>. There are clear racialised inequalities in jobs and skills outcomes for WMCA residents: on aggregate, people from racialised communities are more likely to be economically inactive and are around twice as likely to be unemployed than White British people. The employment gap for people from racialised communities is 5.9% compared to White British people, and the race pay gap in the West Midlands is around 7.5%.

These inequalities point to discrimination in the labour market. Overall, Black, Asian and other racialised or ethnic minority groups perform well in education and are characterised by relatively high rates of participation in post-compulsory education, but success in education does not translate to success in employment—both in terms of both employment rates and types of jobs⁹². Using a definition of underemployment as a lower level of actual employment for a particular ethnic group than predicted employment based on the employment rate by qualification and age across the population, it is estimated that in 2019 employment for people from minority ethnic groups in the WMCA area was 38,300 (or 9%) lower than it would have been if employment rates by qualification matched the average in 2022, a reduction from 54,500 (or 14%) lower in 2019. In both years, estimated underemployment was greater for women than for men⁹³.

Evidence indicates that, on average, individuals from ethnic minority groups make more applications to get a job than their white counterparts. In addition, the duration of unemployment tends to be longer for individuals from ethnic minority groups, and this is associated with wage penalties and cumulative disadvantage. There are a range of barriers that at least some racialised communities experience at different stages of their lives from early life career aspirations, through education and training, transitions into work and in-work progression ⁹⁴. This research resonates with qualitative insights from Youth Futures Foundation and Youth Employment UK, which show young people are concerned about facing race discrimination in the workplace.⁹⁵

- 92 Owen, D.W. and Green, A.E. (2024) 'Geographical and socio-economic patterns of under-employment in the West Midlands, UK',
- https://warwick.ac.uk/fac/soc/ier/people/dowen/conferences/20240606_ersa_paper_dowen_final_v2.pptx
- ⁹³ **Owen, D.W. and Green, A.E.** (2024) 'Geographical and socio-economic patterns of under-employment in the West Midlands, UK', <u>https://warwick.ac.uk/fac/soc/ier/people/dowen/conferences/20240606_ersa_paper_dowen_final_v2.pptx</u>

⁹⁵ Youth Futures Foundation (2024), Discrimination and work: breaking down the barriers faced by ethnically minoritised young people, <u>https://youthfuturesfoundation.org/publication/discrimination-and-work/</u>; Youth Employment UK (2025) Youth Voice Census 2024 Report https://www.youthemployment.org.uk/youth-voice-census/results/

⁹¹ HM Treasury (2018), The Alison Rose Review of Female Entrepreneurship https://www.gov.uk/government/publications/the-alison-rose-review-of-femaleentrepreneurship

⁹⁴ Owen, D.W. and Green, A.E. (2024) 'Geographical and socio-economic patterns of under-employment in the West Midlands, UK', https://warwick.ac.uk/fac/soc/ier/people/dowen/conferences/20240606 ersa paper dowen final v2.pptx

As well as constraining labour market outcomes, racial inequalities also constrain entrepreneurship and business growth. Leading studies from the Centre for Research in Ethnic Minority Entrepreneurship at Aston University has found that people from ethnic minority communities are two times more likely to start a business than the population generally. However, just 43% of ethnic minority-led businesses go on beyond the 42-month mark (at which point a business usually becomes income generating), while for white-owned companies that figure is 67%. CREME contend that removing the barriers to success, such as difficulties in accessing finance, that ethnic minority businesses face could enable them to quadruple their national contribution to GVA, from £25 billion to £100 billion annually.⁹⁶ The WMCA is seeking to close the entrepreneurship gap and has launched an action learning project to connect ethnic minority-led businesses to available growth support, through Business Growth West Midlands, the Race Equalities Taskforce and 5 community led hubs (2024).

Our theory of growth recognises racialised barriers to prosperity as a constraint on the region's economy—one that it affects up to 45% of our residents.

Health and its economic determinants. People in the WMCA area die earlier than the England average. Aligning with national trends, life expectancy in the WMCA is declining and the gap between the WMCA life expectancy and the England average is widening. The WMCA area performs less favourably than England on several measures, including: higher mortality rates for cancer, cardiovascular disease, and respiratory diseases; lower rates of physical exercise; higher rates of obesity, and worsening conditions contributing to the fastest growing rate of child poverty in England (Towers et al., 2024). The rise in work-limiting health problems and long-term sickness or disability as reasons for economic inactivity in the West Midlands have risen faster than in the UK as a whole (Green and Houston, 2023). Long-term health problems or disability that limit the type or amount of work that can be done rose in the West Midlands by more than 1-in-50 of the population aged 16-64 years (from 10.6% to 12.8%) during the three years 2019-22, around double the rate of increase for the UK as a whole (Green and Houston, 2023). More recent evidence shows a sharp increase since the COVID-19 pandemic in the prevalence of health problems among the population of working-age (16-64 years) and that this has contributed to rises in economic inactivity (Houston et al., 2023; Health Foundation, 2024).

26.7% of the WMCA population is disabled according to the Family Resource Survey 2022/23. This represents 780,000 of our residents and is a higher proportion that the England average (24%). Evidence shows that disabled people score worse on all wellbeing indicators than their non-disabled counterparts, and find it more difficult to travel and secure good qualifications, housing and employment⁹⁷. Disabled entrepreneurs currently account for approximately 25% of the nation's 5.5 million small businesses, but only 8.6% of total small business turnover. Four fifths feel they have unequal access to opportunities and resources. Estimates suggest that improving opportunity for disabled founders could unlock an additional £230 billion for the UK economy. Spearheaded by Small Business Britain, the Lilac Review will identify barriers facing disabled entrepreneurs and how these can be addressed⁹⁸.

Our theory of growth recognises the burden of ill-health on our economic performance. The overarching focus of our economic strategy is to address the economic determinants that drive ill-health in the first instance.

⁹⁶ Aston University (2022), Time To Change: a Blueprint for Advancing the UK's Ethnic Minority Entrepreneurship <u>https://www.aston.ac.uk/research/bss/abs/centres-hubs/creme/time-to-change</u>

⁹⁷ West Midlands Combined Authority, 2024. "Making the West Midlands an Exemplary Region for Disabled People 2024". Link: https://www.wmca.org.uk/media/fyslerne/making-the-west-midlands-an-exemplary-region-for-disabled-people-final.pdf

⁹⁸ Small Business Britain (2024), The Lilac Review <u>https://lilacreview.com/</u>

Connection with other sub-systems

Subsystem	Connection Strength	Rationale		
Overall 'connectedness' score		8/11		
Economic geography and polycentricity	No	NA		
Industrial Composition	No	NA		
Research, development and commercialisation	Yes	The Smart City Region 5G test and learn project is pioneering new approaches to community diagnostics and healthcare digitisation, supporting the region's work on public service innovation. Additionally, improving life chances of people in the region is likely to boost the skills profile – enabling innovation – of the population through attracting and retaining talent in the West Midlands. (See research, development and commercialisation section)		
Business leadership, management and technology adoption	Yes	Creating the foundations for a healthy, well lives is good for businesses; they stand to benefit from a larger workforce made up of all the talents of the region. Providing equality of opportunity for all communities would enable the West Midlands to realise more of the talents of its diverse population.		
Investment	Yes	Currently, people from ethnic minority and disabled communities find it more challenging to access investment in the West Midlands, removing these barriers could enable greater investment in the regions.		
Skills and participation	Yes	Our residents need the foundations of wellbeing in place to be in a position to access skills, training and get access to good jobs.		
Housing and placemaking	Yes	Good quality, appropriate and diversified housing stock that is accessible and meets the needs of the individual will increase productivity.		
Transport	Yes	Transport is a lever to connect people to jobs, if the jobs are available and there is demand in the economy; and if people have the skills, training and personal development support to be able to access them.		
Energy	No	NA		
Institutions	Yes	Improving people's life chances requires an integrated policy approach to public services that can address the complex challenges and opportunities that hold people back in the West Midlands.		
Perceptions and narrative	Yes	The perceived chances for a good life in the region significantly impacts perception and narrative (see perceptions and narrative section)		

Figure 25: connection with other subsystems

Section 4.7: Skills and Participation

Hypothesis: The West Midlands has a shortage of higher-level (Level 3 and above) skills, which is forecast to increase over the next decade—and is the most significant skills-related constraint to economic growth.

Overall, qualification levels are improving in the WMCA, but they remain lower than the national average and there are significant disparities between local authorities across the WMCA. This restricts growth in the region, with employers reporting persistent skills shortages, with around 1 in 4 vacancies classed as 'hard to fill', particularly in roles that require advanced and/or higher skills.

Basic skills and participation remain an issue for many in the region. Around 1 in 10 adults in the WMCA have no formal qualifications. This contributes to the share of the working age population that are economically inactive (26%). The region also has industrial specialisations in low productivity sectors, characterized by a high concentration of low-skilled and often precarious employment. This reduces resident and employer incentives to invest in skills. Addressing this is vital if we are to enable residents to get onto the skills ladder and progress into further learning and better jobs.

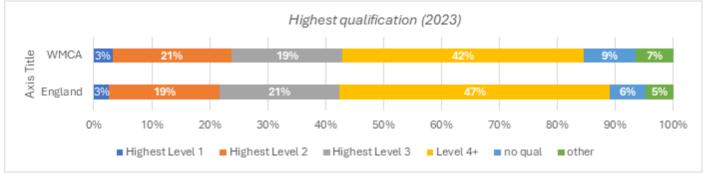


Figure 26: Highest qualification achieved (WMCA compared to England), Annual Population Survey

The WMCA is moving towards a higher-skill economy. As illustrated below, over the last ten years the most significant increases in qualification levels among residents have been at the graduate level (Level 4) and Level 2. However, the region has not been as successful in progressing residents into Level 3 qualifications, in part due to lack of access to technical provision, 62% are qualified at Level 3 or above, compared with 68% nationally. We think this lack of progression to Level 3 is a key constraint on the region's productivity and growth.

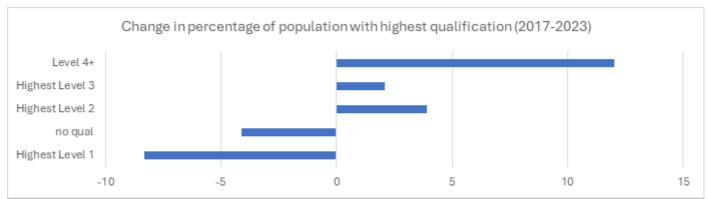


Figure 27: Change in percentage of population with highest qualification (2017-2023), Annual Population Survey

The move towards a higher-skill economy is projected to continue over time. The National Foundation for Educational Research project that by 2035, more than half (55%) of all roles in the WMCA area will require skills and qualifications at Level 4 and above. In addition to replacement demand, forecasts for the WMCA area predicts between 2025-2035 per annum growth in employment by qualification will rise by 1.4% at level 4 and by 0.9% at level 5 (illustrated in the chart below). Developing skills at these levels will also provide opportunities for residents to progress further into employment that requires skills and qualifications at Level 6 and above.

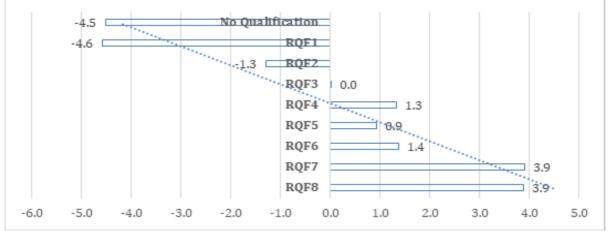


Figure 28: Projected Skills Needs (Labour market and skills projections: 2020 to 2035, DfE, 2020)

Supporting our residents to attain higher-level (Level 3 and above) skills is particularly important because:

- On average, residents in the West Midlands with Level 3 qualifications achieve 16% more in earnings are 4% more likely to be employed than those with Level 2. Analysis of job postings in the WMCA area over the past 12 months shows that, on average, vacancies requiring a level 3 qualification have an advertised annual salary nearly £4,000 higher than those requiring a level 2 qualification.
- As qualification attainment levels increase (L4+) so too does the positive return in earnings for those gaining the qualifications. For example, Level 5 return for men is 21% and for women 29%. The Department for Education's analysis shows investment in Level 3 is higher value for money than Level 2⁹⁹.
- People with higher level qualifications and who develop higher level skills throughout their working lives are more resilient to labour market change.

⁹⁹ Department for Education (2025) Measuring the net present value of further education in England <u>https://www.gov.uk/government/publications/measuring-the-net-present-value-of-further-education-in-england</u>

Working with employers to understand the nature of demand for skills and to encourage them to invest and utilise skills is going to be key to achieving the scale of upskilling we need. Against the backdrop of projected changes to the skills profile of the labour market, the large majority of the West Midlands' future workforce—some 80%—is already in work. Therefore, upskilling our residents with higher qualifications means engaging with the workforce, not just those in formal education. This is in employers' interests as much as our residents and strongly links to the business leadership and management sub-system outlined in a previous section.

While upskilling our residents via the formal education system and for those already in work is a priority, on its own it will not translate into economic gains for the West Midlands. Providing a supply of the right skills is vital. We think that Level 3 and above skills in science, technology, engineering and maths are particularly important for the generation of new ideas and the ability of firms to convert new ideas into higher output and productivity. These skills also provide a platform from which individuals can train, retrain and develop specialisms.

STEM skills also provide a set of core skills which can be applied across various fields and industries, particularly in sectors and clusters which require green technologies and processes. Increasingly, green skills are understood to be crucial for resilience of firms across a wide range of sectors, in addition to traditional energy intensive industries. Developing the green skills of our current and future workforce is important for both our achieving net zero ambitions as well as maximising growth and employment opportunities, given the region has the country's largest green workforce¹⁰⁰

More West Midlanders have graduate degrees than are currently working in the region¹⁰¹ and those who do attain a higher education qualification in the West Midlands are less likely to stay in the region upon graduation than elsewhere in the UK¹⁰². This is known as the 'brain drain'. We think the answer to this is to work with businesses to create economic opportunities for those qualified to graduate-level of above to work in the region, which is one of the functions of earlier subsystems focused on business leadership and management, innovation and investment; and later subsystems focused on housing and perceptions of the region.

¹⁰⁰ TechUK (2023) The West Midlands: The UK's energy modernisation hub <u>https://www.techuk.org/resource/the-west-midlands-the-uk-s-energy-modernisation-hub-guest-blog-by-west-midlands-growth-company.html</u>

¹⁰¹ Stansbury, A., Sloan, M., Turner, D., Kennedy, H., & Balls, S. (2023). Tackling the UK's regional economic inequality: Binding constraints and avenues for policy intervention. <u>https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/198_AWP_final.pdf</u>

¹⁰² Sharp, et al. (2024) The market-based assets theory of brand competition https://ideas.repec.org/a/eee/joreco/v76y2024ics096969892300317x.html

Subsystem	Connection	Rationale		
Strength				
Overall 'connectedr		10/11		
Economic	Yes	Functional polycentricity creates a larger labour market pool and more		
geography and		opportunities for different types of jobs across the region, where		
polycentricity		underpinned by an effective transport system (See economic geographic and polycentricity section)		
Industrial	Yes	Skills provision is tailored to the region's priority sectors and how our		
Composition		industrial forecast is forecast to change over time.		
Research,	Yes	People with higher-level skills who work for businesses increase the capacity		
development and		of those businesses to absorb new innovations—a key part of how we will		
commercialisation		increase translational R&D adoption across the region.		
Business	Yes	There is evidence that management and leadership skills are under-supplied		
leadership,		in the region ¹⁰³ .		
management and				
technology				
adoption				
	Yes	As higher-level skills are integral to firms' leadership and management		
Investment		capability and absorbative capacity, they enable businesses to take on new investments.		
Life Chances	Yes	A good start in life and support to reach a position of work-readiness, are the prerequisite steps for residents to be able to access higher-level skills.		
Housing and	Yes	Without appropriate housing or 'liveable' neighbourhoods, we run the risk		
placemaking		of upskilling our residents only for them to leave the region.		
Transport	Yes	Transport improves the flow of people through the labour market, creating		
		more opportunities for people to access jobs and employers to access the		
		talent they need.		
Energy	No	NA		
Institutions	Yes	Improving the region's skills profile is a policy challenge that requires strong		
		local and regional institutions who can tailor and deliver devolved programmes.		
Perceptions and	Yes	Only 42% of graduates choose to stay in the region after completing their		
regional narrative		studies, lower than other parts of the UK. This is partly a factor of how the		
v		region is perceived, alongside the availability of economic opportunities.		

Connection with other sub-systems

Figure 29: Connection with other sub-systems

Section 4.8: Housing and Placemaking

Hypothesis: The West Midlands' housing system is constraining regional productivity through stifling agglomeration benefits, displacing investment, reducing household resilience and increasing deprivation. Addressing these challenges will require the region to significantly increase house building across different tenure types, densify housing in urban centres and around the region's transport hubs, helping to create the conditions for vibrant high streets.

There is an undersupply of the right mix of housing in the West Midlands that leads to an affordability challenge. In the West Midlands, there is strong evidence of the undersupply of the appropriate types of housing in the right places, leading to a significant affordability challenge. Housing is the largest single expense for households in the West Midlands¹⁰⁴: private renters spend more of their income on it the West Midlands than they do anywhere in England except the South East, London and South West¹⁰⁵. The median price of a house in the WMCA area is 6.61 times the median workplace earning - above the maximum ratio of 5 the ONS defines as affordable and having increased significantly from the 4.77 ratio in 2013¹⁰⁶¹⁰⁷¹⁰⁸. Lastly, there are more than 64,000 households on social housing wait lists already, with 5,600 living in temporary accommodation¹⁰⁹¹¹⁰.

The Resolution Foundation estimates an additional 116,000 homes will be required over the next 15 years in the 'Birmingham Urban Area'—a level of housebuilding that would require a doubling the recent housebuilding rate alongside addressing skills shortages in the regional construction industry to support this level of activity¹¹¹¹², but is in line with our latest target of 244,000 homes in the West Midlands over 20 years¹¹³. Not all of the homes the region needs to build will be funded by the public sector, but where the WMCA role has a role as a gap funder for sites which would not be brought forward without public sector intervention its focus is on utilising derelict or underused brownfield sites to unlock new homes¹¹⁴. For example, the WMCA is helping to transform the West Works site at Longbridge and working closely with Sandwell Council on Friar Park Urban Village, a new residential community and is the largest brownfield development for housing in the West Midlands.

Although the supply and affordability of housing is a challenge for the region, some groups are particularly effected. For example, temporary accommodation: two thirds of the lead applicants were women, more than half were single mothers, and people from Black African backgrounds as well as those households with a disabled family member were overrepresented¹¹⁵. Interviewees living in temporary accommodation identified the private rented sector as being a key issue, and raised concerns around poor quality and unaffordable housing, as well as debt and unstable employment.¹¹⁶

¹º4 West Midlands Combined Authority (2024). West Midlands State of the Region 2023-2024 https://www.wmca.org.uk/media/bipfjwys/state-of-the-region-2023-report-250324.pdf

¹⁰⁵ West Midlands Combined Authority (2024). West Midlands State of the Region 2023-2024 https://www.wmca.org.uk/media/bipfjwys/state-of-the-region-2023-report-250324.pdf

¹⁰⁶ West Midlands Combined Authority (2024). West Midlands State of the Region 2023-2024 <u>https://www.wmca.org.uk/media/bipfiwys/state-of-the-region-2023-report-250324.pdf</u>
¹⁰⁷ Office for National Statistics (2024) Employee earnings in the UK – 2024 <u>https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annual</u> arnings/2024

¹⁰⁸ The cost of housing varies significantly across the WMCA area, with the average house price ranging from £206,000 in Sandwell to £355,000 in Solihull. West Midlands Combined Authority (2024). West Midlands State of the Region wmca.org.uk/media/bipfj wys/state-of-the-region-2023-report-250324.pdf 2023-2024 https://v 9 WMCA Housing and Regeneration Functional Strategy https://www.wmca.org.uk/documents/integrated-settlement/housing-regeneration-functional-strategy/

¹¹⁰ West Midlands Combined Authority (2024). West Midlands State of the Region 2023-2024 https://wmca.org.uk/sotr ¹¹¹ Brandily, P. et al (2023) A tale of two cities (part 1) https://economy2030.resolutionfoundation.org/wp-content/uploads/2023/09/A-tale-of-two-cities-part-1-Birmingham.pdf

¹² WMCA Housing and Regeneration Functional Strategy https://www.wmca.org.uk/media/n1lfizxi/housing-regeneration-functional-strategy.pdf

¹¹³ Brandily, P. et al (2023) Å tale of two cities (part 1) <u>https://economy2030.resolutionfoundation.org/wp-content/uploads/2023/09/A-tale-of-two-cities-part-1-Birmingham.pdf</u> ¹¹⁴ WMCA Housing and Regeneration Functional Strategy <u>https://www.wmca.org.uk/media/n1lfizxi/housing-regeneration-functional-strategy.pdf</u>

ca.org.uk/documents/homelessness-taskforce/families-and-young 115 MEL Research (2021) Families Living in Temporary Accommodation: report for the West Midlands Combined Authority Homelessness Taskforce http://www.action.com/action/acti milies-in-ta-final-report/ vmca-hor ess-taskforce-f 16 MEL Research (2021) Families Living in Temporary Accommodation: report for the West Midlands Combined Authority Homelessness Taskforce https://www.mca.org.uk/documents/homelessness-taskforce/families-and-young-

s-taskforce-famil ies-in-ta-final-report/

<u>The undersupply of housing reduces productivity by: (1) redirecting investment away from</u> more productive activities; (2) increasing deprivation and creating cost pressures on public services; and (3) reducing household resilience.

Redirecting investment away from more productive activities. Investment into housing, land and real estate generates few positive technology spillovers and innovation which can drive productivity and growth¹¹⁷. Instead, it can displace investment that otherwise would have flowed to other more innovative sectors of the economy; damaging productivity growth over the long-term¹¹⁸. This is particularly true in economies – like the UK – where the value of housing and land as an asset has outstripped growth in the rest of the economy and other assets¹¹⁹. Across the country, 1 in 5 homes are now owned by private landlords¹²⁰.

The OECD has noted there is a significant and negative relationship between high house prices and productivity in a dataset covering 24 countries over almost 50 years. Although the effect in the UK was noted to be less strong, on average across all countries over the time period an increase of housing prices by 55 basis points corresponded to a 1% reduction in labour productivity growth¹²¹. High house prices in city centres in particular may be inducing people to move away from urban areas – negatively impacting productivity by further shrinking the effective size of the labour market – as well as making it more difficult for city centres to support the vibrant culture that attracts people to them¹²².

In the West Midlands, the prices of housing have been rising rapidly relative to wages and the regional economy's size¹²³. If this trend continues, it creates the risk of dampening future investment demand into productive economic assets and overall future growth.

Increasing deprivation and the cost of public services. Living in poor quality, cold and damp houses also increases incidences of health issues, reducing people's ability to earn and further fuelling poverty¹²⁴, while growing up in poor housing conditions is strongly associated with diminution, lower future earnings and underutilisation of lifetime human capital¹²⁵. This ultimately leads to higher public spending pressures, by increasing the demand for social services and drawing funding away from other potential investments. The Centre for Economics and Business Research estimates that the annual direct savings to the exchequer from building one social housing unit is £6,222 per year through reductions to benefits, health care costs and increases in tax receipts alone¹²⁶. If the West Midlands were able to clear its social housing backlog then, we could expect this to free up almost £400 million of public spending in the region per year.

https://www.economicsobservatory.com/how-might-house-prices-affect-workers-productivity-in-oecdeconomies#:~:text=What%20does%20recent%20research%20show,productivity%20in%20most%20developed%20countries.

¹²³ Office for National Statistics (2023) Housing affordability in England and Wales

¹¹⁷ MaClennan, D and Long, J (2023) How does the housing market affect UK productivity? <u>https://www.economicsobservatory.com/how-does-the-housing-market-affect-uk-productivity</u>

¹¹⁸ MaClennan and Long (2023) How does the housing market affect UK productivity? <u>https://www.economicsobservatory.com/how-does-the-housing-market-affect-uk-productivity</u>

¹¹⁹ Ryan-Collins, J (2024) The demand for housing as an investment <u>https://www.ucl.ac.uk/bartlett/publications/2024/oct/demand-housing-investment</u>

¹²⁰ Ryan-Collins, J (2024) The demand for housing as an investment <u>https://www.ucl.ac.uk/bartlett/publications/2024/oct/demand-housing-investment</u> ¹²¹ Farzanegan, M. and Gholipour, H. (2024) How might house prices affect workers' productivity in OECD economies?

¹²² Transport for West Midlands (2025) Reimagign transport in the West Midlands <u>https://www.tfwm.org.uk/media/guwcjkfw/wm-ltp-core-summary-v0-4.pdf</u>

https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housingaffordabilityinenglandandwales/2023

¹²⁴ The Health Foundation (2025) Moving to healthy homes https://www.health.org.uk/reports-and-analysis/briefings/moving-to-healthy-homes#lf-section-205251-anchor

¹²⁵ Finch, D. (2023) Moving to healthy homes <u>https://cityfutures.ada.unsw.edu.au/documents/662/Productivity_Final.pdf</u>

¹²⁶ Estimated £16.8 billion of direct benefits to the exchequer for 90,000 social houses over a 30 year period - Cebr_report.pdf

Reducing household resilience. Where housing costs are high relative to income, households are less able to withstand economic shocks¹²⁷. Economic shocks can lead to increases in inflation and/or interest rates, availability of credit, as well as changes in employment status¹²⁸. These factors reduce households' disposable income and their ability to maintain or retain their housing. Where housing costs are lower relative to income, there is more flexibility in household income to manage these periods. Lower resilience to economic shocks as a consequence of relatively high housing costs is likely to be an issue in our region. The average net income once housing costs are deducted is lower across our region compared to £29,700 for England¹²⁹. Within this regional average, there are areas that are likely to be less resilient than others, for instance, MSOA 058 in Birmingham has an average net income once housing costs are deducted of £16,800 per annum, and MSOA 052 in Birmingham £16,300 per annum.

The houses we are building aren't in the right places or dense enough, creating more car dependency and reducing the vitality of our high streets. Internationally, it is generally the case that the larger a city is, the greater the productivity of its workers¹³⁰¹³¹. Economics literature and research explain this phenomenon through the concept of agglomeration: the positive productivity benefits urban locations gain from having large numbers of workers and businesses located nearby and therefore accessible to each other. However, somewhat uniquely, cities in the UK—particularly outside the South East of the country—do not seem to enjoy agglomeration benefits. That is to say, there is a very little relationship between productivity and size of cities¹³². This constrains the 'effective labour market size' of the UK's cities (the number of potential workers who can access job opportunities easily during peak travel hours) and so prevent the realisation of agglomeration benefits.

A major explanation for this small effective labour market size is low housing density. In the West Midlands, Birmingham's urban core is only a third as dense as London for example¹³³. The Centre for Cities has also compared the density of Birmingham to Munich, a relatively economically successful German city; and finds that whereas 74% of Munich's population can access the city centre within 30 minutes, only 34% of Birmingham's population can¹³⁴ despite the fact Birmingham has a larger transport network—indicating that the core difference is the density of housing. Evidence from the New Economics Foundation suggests homes are being built at an increasing rate outside of our urban centres and in rural areas, for a number of reasons¹³⁵¹³⁶.

¹²⁷ Brown, T. (2022) Cost of living, economic resilience and government policy - House of Lords Library <u>https://lordslibrary.parliament.uk/cost-of-living-economic-resilience-and-government-policy/</u>

¹²⁸ Andrews, D. (2010), "Real House Prices in OECD Countries -- The Role of Demand Shocks and Structural and Policy Factors", OECD Economics Department Working Papers, No. 813, OECD, Paris

 ¹²⁹ Figures cited in this paragraph calculated based on Office for National Statistics Household income estimates (equivalised) for financial year ending 2020
 ¹³⁰ National Institute Economic Review (2022) The productivity performance of different types of uk regions and the challenges of levelling up https://www.niesr.ac.uk/wp-content/uploads/2023/01/261-McCann-Productivity-Challenge-of-Levelling-Up.pdf

¹³¹ Caset et al. (2023) The productivity effects of polycentricity: A systematic analysis of urban regions in Europe https://doi.org/10.1111/pirs.12765

¹³² National Institute Economic Review (2022) The productivity performance of different types of uk regions and the challenges of levelling up https://www.niesr.ac.uk/wp-content/uploads/2023/01/261-McCann-Productivity-Challenge-of-Levelling-Up.pdf

¹³³ Brandily, P. et al (2023) A tale of two cities (part 1) <u>https://economy2030.resolutionfoundation.org/wp-content/uploads/2023/09/A-tale-of-two-cities-part-1-</u> Birmingham.pdf

 ¹³⁴ Centre for cities (2018) Mapping the 30-minute city <u>https://www.centreforcities.org/story/mapping-the-30-minute-city/</u>
 ¹³⁵ New Economics Foundation (2025) <u>Trapped Behind The Wheel: How England's new builds lock us into car dependency</u>

https://neweconomics.org/uploads/files/NEF_Trapped-Behind-The-Wheel-updated.pdf

¹³⁶ Centre for Cities (2021) Measuring up Comparing public transport in the UK and Europe's biggest cities <u>https://www.centreforcities.org/wp-content/uploads/2023/11/measuring-up.pdf</u>

Low housing density makes the maintenance and regeneration of vibrant high-streets in the region much more difficult. Besides the economic advantages of density—and the associated benefits this can bring to high-streets—increasing the population within a given area is associated with more successful local high-streets¹³⁷. Building more housing and more densely is a key ingredient to reviving and sustaining vibrant high-streets and to ensuring the new houses we are building offer desirable places for people to live that are well connected to other parts of the region and the landscape and cultural amenities it offers—our geographic diversity being one of our regional strengths.

In the context of the West Midlands' polycentric structure, densifying housing and the placemaking activity it supports cannot be pursued in and around Birmingham alone. A more appropriate approach is to embrace the opportunities across the urban cores of our cities and boroughs plural, and ensure they are well-connected to each other. In the Resolution Foundation report, for example, they propose that 87,000 of the new 116,000 homes for the Birmingham Urban Area should be developed in the city centre while 29,000 should be developed outside this area but within 500m of a railway station less than 30 minutes from the city centre¹³⁸.

This strategy is commonplace in polycentric regions overseas, such as in Belgium¹³⁹, and would play to the strength of the region's polycentricity. We are already seeing this strategy start to take route in the West Midlands, with proposals such as the City Centre West Development in Wolverhampton, City Centre South in Coventry, housing and regeneration efforts in Dudley around the Wednesbury to Brierley Hill Metro Corridor and Walsall's Town Centre Masterplan, while the extension of the East Birmingham – Solihull Metro would link a population the size of Newcastle upon Tyne into Birmingham city centre. These example projects integrate, to different degrees, housing development, placemaking, the revisioning of the role of high streets and alignment with transport hubs.

¹³⁷ Centre for Cities (2019) City centres: past, present and future Their evolving role in the national economy <u>https://www.centreforcities.org/wp-content/uploads/2019/02/2019-02-13-City-centres-past-present-and-future.pdf</u>

¹³⁸ Brandily, P. et al (2023) A tale of two cities (part 1) <u>https://economy2030.resolutionfoundation.org/wp-content/uploads/2023/09/A-tale-of-two-cities-part-1-Birmingham.pdf</u>

¹³⁹ Vlaanderen is ruimte (2021) Brochure to the White Paper on the Spatial Policy Plan for Flanders <u>https://www.omgeving.vlaanderen.be/sites/default/files/2021-</u> <u>11/BRV_kleinwitboek_ENG.pdf</u>

Connections with other sub-systems

Subsystem	Connection Strength	Rationale
Overall 'connectedness' score		6/11
Economic geography and polycentricity	Yes	The region's polycentricity gives the region the ability to build more densely and closer to transport hubs across the region's towns and cities.
Industrial composition	No	NA
Research, development and commercialisation	No	NA
Business leadership, management and technology adoption	No	NA
Investment	Yes	High housing costs are directly linked to lower productivity across OECD countries over a long time period. This could be because high housing costs encourage investments into housing / land assets and reduce the pool available for expanding and innovating in the real economy. High housing costs reduce the amount of household income that can be spent locally as well as reducing the effective labour market size.
Life chances	Yes	High housing costs increases deprivation and poverty, reducing the future skills of people who grow up in those household, and encourage overcrowding and poor quality housing, taking people out of the labour market for health reasons.
Skills and participation	Yes	Low density housing reduces the number of skilled workers in the labour market by reducing its effective size. High housing costs encourages overcrowding and poor quality housing, taking people out of the labour market for health reasons.
Transport	Yes	As well as in city centres, housing needs to be densified around transport hubs to increase the effective labour market size. Low density housing reduces the concentration of the population, making public transport less viable.
Energy	No	NA
Institutions	Yes	Strong local institutions will be needed to set out strong spatial plans linked to economic models of development.
Perceptions and narrative	No	NA

Figure 30: Connection with other sub-systems

Section 4.9: Transport

Hypothesis: Because of our polycentricity, the West Midlands needs to better connect our boroughs to our cities and our cities to each other and improve public transport connectivity into Birmingham specifically, helping to reduce the region's car dependency.

How do people move around our region? Mostly by car and on foot.

By bu	IS	By bicycle	By car (driver or passenger)	Powered two- wheelers	By rail	By taxi	On foot
6.2		1.6	49.1	0.2	1.8	2.2	39.0

Figure 31: How do people move around our region (Source: TfWM Modal Share: April 2024 to March 2025 – Blended method)

Why do people move around our region? Mostly for leisure and shopping, then for work.

	Business & escort business	Commuting & escort commuting	Education & escort education	Holiday / day trip	Leisure	Other including just walk & escort home (not own) / other	Personal business	Shopping & escort shopping / personal business
By trips	2%	16%	16%	4%	21%	8%	9%	24%
By total stage distance per-person- per-year (miles)	6%	23%	5%	17%	27%	4%	7%	12%

Figure 32: Why do people move around our region (Source: National Travel Survey 3-year average 2019, 2022, 2023)

Transport shapes local economic growth by enhancing connectivity, reducing travel times, and fostering trade and labour mobility. Extensive research has demonstrated that investments in transport, whether in urban rail, high-speed rail (HSR), or road networks—can lead to significant economic transformations. However, transport investment on its own will not automatically lead to economic benefits. If misaligned with existing or potential travel demand and development opportunities, transport investment can simply create underused capacity in the transport system.

It is important to note that while transport is an economic growth lever, this isn't its only function. It has social and environmental purposes, too. Most notably, up to 2,300 people die early due to long term exposure to air pollution every year in the West Midlands¹⁴⁰; while there were 57 fatalities on the West Midlands' roads (2022) with a slight decrease of 49 (2024) and around 950 people suffer from serious, sometimes life-changing injuries each year¹⁴¹. These are serious issues that demand attention. The role of this theory of growth is to look primarily at the primary economic functions of transport.

 ¹⁴⁰ West Midlands Combined Authority (2025) Air Quality <u>https://www.wmca.org.uk/what-we-do/environment-energy/air-quality/</u>
 ¹⁴¹ Transport for West Midlands (2023) Refreshed Regional Road Safety Strategy <u>https://www.tfwm.org.uk/media/rmyd1vzf/refreshed-regional-road-safety-strategy-2023-2030.pdf</u>

Overall, West Midlands' residents are making fewer but longer journeys. But even today, transport is a constraint on our economy. This will only increase against the backdrop of projected population increase of 380,000 over the coming two decades. This is most acute with respect to Birmingham, home to the busiest train station outside of London¹⁴² and 42% of the WMCA area's jobs, around 70,000 of which are held by WMCA residents from outside of Birmingham.

- Using TfWM data, between 2008 and 2018, over 200,000 fewer residents were able to access Birmingham city centre by bus within 45 minutes as a consequence of increased traffic creating congestion and increased levels of on-street parking (reducing capacity), and other factors¹⁴³.
- The National Infrastructure Commission projects that transport will constrain future growth in Birmingham more than any other UK city¹⁴⁴. Birmingham will see the most growth in city-centre jobs but has the lowest transport capacity hence the size of its capacity gap. The Commission argues the city should be a priority for mass transit investment.
- While rail represents only a small number of journeys (c1%), Birmingham's rail network is, of all cities in England and Wales, the busiest during morning peak times and the second busiest during afternoons and evenings — reflecting the local, regional and national functions of the West Midlands' transport system¹⁴⁵.

While the pressures on Birmingham's transport connectivity are acute and need to be addressed, our polycentric economic geography requires a broader focus than just on Birmingham alone. As we saw in the polycentricity sub-system, transport is one of the key levers available to the West Midlands to more closely integrate our boroughs to our cities and our cities to each other and realise the advantages of our polycentric geography. The benefits of functional integration extend both ways: businesses that are looking for the particular characteristics that cities have to offer get access to an expanded workforce; and residents of our boroughs get access to jobs in cities that may not set up in boroughs. There is some¹⁴⁶ evidence that places with higher commuting links into Birmingham have higher wages. Fiscally, this serves cities which benefit from the additional business rates generated by the additional economic activities they are enable to accommodate; and the boroughs in the form of a more stable Council Tax base by strengthening residents' earning potential. Progress is being made towards better connecting our boroughs to our cities and cities to each other. However, as we saw in the polycentricity sub-system, the flows of people between our cities and our boroughs is too low.

Addressing the constraints on the public transport system requires a detailed understanding of the factors preventing residents from using it. In the West Midlands, the affordability of transport is a major issue—it is the biggest household cost after housing—and some residents are discouraged from using public transport by safety concerns. Just increasing the supply of 'hard' infrastructure without addressing these barriers is unlikely to shift users' behaviours towards using public transport and alleviate congestion on the network.

¹⁴² Office of Rail and Road (2024) Estimates of station usage <u>https://dataportal.orr.gov.uk/statistics/usage/estimates-of-station-usage/</u>

¹⁴³ Transport for West Midlands (2024) Bus Service Improvement Plan <u>https://www.tfwm.org.uk/media/0g1johwp/bsip-2024-v2-3.pdf</u> ¹⁴⁴ National Infrastructure commission, 2025. 'Transport' <u>https://nic.org.uk/themes/transport/</u>

¹⁴⁵ Stansbury, A., Sloan, M., Turner, D., Kennedy, H., & Balls, S. (2023). Tackling the UK's regional economic inequality: Binding constraints and avenues for policy intervention. <u>https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/198_AWP_final.pdf</u>

¹⁴⁶ Centre for Cities, 2024. How does trickle-out work? Does 'trickle out' work? How cities help their surrounding towns | Centre for Cities

In addition, increasing the supply of public transport is not the only lever to be pulled to alleviate pressure on the network. We need to reduce the demand for transport, too. 60% of trips of 1-2 miles in length are made by car, many of which could be made by other modes of transport like active travel: walking, wheeling, cycling or scooting. Building denser neighbourhoods where core services are easily accessible—known as 15-minute cities—would help to enable this, alongside making our streets safer.

Connections with other sub-systems

Subsystem	Connection Strength	Rationale
Overall 'connectedness	s' score	8/11
Economic geography and polycentricity	Yes	Transport is one of the most important levers for harnessing the advantages of our polycentric model and facilitating the closer integration of the cities and boroughs across the region.
Industrial composition	Yes	Improved connection times between the West Midlands and London opens possibilities for the relocation of firms and operations out of London to take advantage of lower costs – in the context of the West Midlands' relatively affordable housing costs compared to other regions.
Research, development and commercialisation	No	ΝΑ
Business leadership, management and technology adoption	No	ΝΑ
Investment	Yes	Investment in transport infrastructure is key to harnessing polycentricity as a strength.
Life chances	Yes	Transport improves the flow of people through the labour
Skills and participation	Yes	market, creating more opportunities for people to access jobs and employers to access the talent they need.
Housing and placemaking	Yes	Building homes close to public transport interchanges would create both demand for housing and transport, leveraging one of the advantages of our polycentric geography.
Energy	Yes	The decarbonisation of the transport system will place increase demands on the electric grid across the region.
Institutions	Yes	Increased devolved powers and stronger local institutions could improve the region's ability to spatially plan effectively and, paired with greater fiscal devolution, capture some of the benefits from making difficult policy decisions.
Perceptions and narrative	No	NA

Figure 33: connection with other subsystems

Section 4.10: Energy

Hypothesis: Securing a grid connection and high energy prices are challenging in many parts of the country, but they are a particular challenge in the West Midlands because of the disproportionate number of manufacturing businesses running high temperature processes across dispersed sites. The West Midlands has the ability to mitigate these challenges and reduce its energy consumption by pursuing smart energy systems.

The UK has comparatively high industrial energy cost compared to similar countries. For example, the UK's electricity costs are 34-39% higher than in Germany, 31%-53% higher than in France and up 400% more than those in the US^{147 148 149}. Due to the West Midlands' significant proportion of energy-intensive industries running high-temperature processes across dispersed sites, these high national prices lead to three challenges that constrain the region's productivity and its transition to net zero.

- **Competitiveness.** For example, in 2023 businesses spent the equivalent 4% of regional GVA on energy costs double what was spent in 2022 and effectively representing a 2% drag on the West Midland's potential GVA¹⁵⁰. In the short-term, high national electricity prices make the region's businesses less competitive compared to international rivals.
- **Reduced investment demand.** High-electricity prices reduce businesses' profits and so scope for investment in the region¹⁵¹. Over the longer-term, as discussed in the previous sub-systems, lower investment is associated with lower productivity and innovation.
- Net zero transition. Dispersed clusters of industrial energy demand make decarbonisation
 more costly due to the complexity and inefficiencies involved in infrastructure
 investments¹⁵² ¹⁵³. Combined with high-electricity prices today, the uncertainty around the
 perceived cost to electrify these businesses further disincentivises investment –
 constraining growth and slowing the net zero transition¹⁵⁴.

It often takes businesses between 5 and 10 years to establish new energy network connections in Great Britain and there are no new electricity transmission connections planned for the West Midlands until 2036¹⁵⁵. This presents a significant issue because the net zero transition will require widespread electrification of energy demand currently met by gas and petroleum. Industrial electricity use is expected to increase by 78% in the region between 2024 and 2050. Overall, increased electricity demand from industry and technologies such as heat pumps and electric vehicles will put additional pressure on the distribution network¹⁵⁶, leading to a significantly constrained grid by 2030 without further investment^{157 158}.

¹⁴⁷ Department for Energy Security and Net Zero (2025) International industrial energy prices https://www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices

¹⁴⁸ Helm, D (2025) The Times - Better energy policy could save British industries <u>https://www.thetimes.com/article/d7213155-72c9-4a40-85df-b285bc2bfb4c</u>
¹⁴⁹ Helm, D (2025) Competitive industrial electricity prices <u>https://dieterhelm.co.uk/publications/competitive-industrial-electricity-prices/</u>

¹⁴⁹ Helm, D (2025) Competitive industrial electricity prices <u>https://dieternelm.co.uk/publications/competitive-industrial-electric</u> ¹⁵⁰ West Midlands Industrial Energy Taskforce Final Report <u>https://www.wmindustrialenergy.co.uk/final-report</u>

¹⁵ Aldersgate Group (2021) Accelerating the Decarbonisation of Industrial Clusters and Dispersed Sites <u>https://www.aldersgategroup.org.uk/content/uploads/2022/03/Accelerating-the-Decarbonisation-of-Industrial-Clusters-and-Dispersed-Sites.pdf</u>

¹⁸² UKRI (2023) Enabling Net Zero: A Plan for UK Industrial Cluster Decarbonisation https://www.ukri.org/wp-content/uploads/2023/11/UKRI-141123-EnablingNetZeroPlanUKIndustrialClusterDecarbonisation.pdf

 ¹⁵³ Department for Energy Security and Net Zero (2024) Enabling Industrial Electrification Call for evidence on fuel-switching to electricity <u>Enabling Industrial Electrification: summary of responses</u>
 ¹⁵⁴ Diesing, P., Lopez, G., Blechinger, P. and Breyer, C. (2025) 'From knowledge gaps to technological maturity: A comparative review of pathways to deep emission reduction for energy-intensive industries', *Renewable and Sustainable Energy Reviews*, 208, pp. 115023.

¹⁸⁵ National Grid National Grid - Research Assistant https://www.nationalgrid.com/electricity-transmission/connections/research-assistant

¹⁵⁶ National Grid (2025) Distribution Future Energy Scenarios – National Grid Electricity Distribution https://www.nationalgrid.co.uk/distribution-future-energy-scenarios-map

¹⁵⁷ Aldersgate Group (2025) Electrifying Industry and Distribution Networks: Consideration for policymakers https://mcusercontent.com/c0baca4990b9062dd6688dd4f/files/e771f8e2-c094-eaa6-47f7-

⁸ee5e2ca8c04/Aldersgate_Group_Electrifying_industry_and_distribution_networks.pdf

¹se Siemens (2023) Accelerating the electrification of everything https://assets.new.siemens.com/siemens/assets/api/uuid:df95fbbe-640e-40cf-82e6-9dc3f608186b/Electrification-Whitepaper-FINAL.pdf

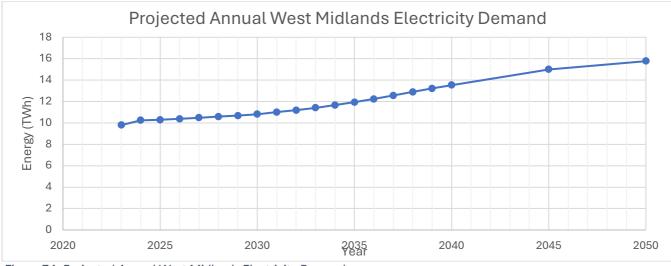


Figure 34: Projected Annual West Midlands Electricity Demand

The Government's Mission for Clean Power by 2030 prioritises increasing clean energy generation. However, this offers limited investment opportunities for the West Midlands, as the region does not have the requisite sites for offshore wind, coastal hydrogen, and solar farms require.

Instead, the West Midlands Regional Energy Strategy¹⁵⁹ emphasises smart demand management and electrification—smart energy systems—as key pathways to regional decarbonisation and reducing costs. Smart, flexible and digital energy system solutions can do this through improving grid efficiency and capacity and shifting demand loads to periods when there is sufficient renewable energy^{160 161 162}.

The West Midlands has the strengths to be able to leverage these opportunities. The region has the country's largest green workforce¹⁶³ and a strong track record of innovations – such as the Black Country Industrial Cluster's concept of Zero Carbon Hubs that enable small groups of nearby emitters to begin to decarbonise¹⁶⁴. The West Midlands is also located at the centre of the UK's power distribution network, home to the headquarters of National Grid, Cadent and E.ON, as well as Xoserve – the UK's largest central data service for the gas market – and Enzen, a leading energy consultancy¹⁶⁵. The use of smart energy systems could contribute to up to 3% national annual productivity growth by the 2030s as electrification enables wider applications¹⁶⁶.

¹⁵⁹ West Midlands Combined Authority (2025) West Midlands Regional Energy Strategy <u>https://www.wmca.org.uk/what-we-do/environment-energy/energy-capital/policy/regional-energy-strategy/</u>

¹⁶⁰ Siemens (2023) Accelerating the electrification of everything https://assets.new.siemens.com/siemens/assets/api/uuid:df95fbbe-640e-40cf-82e6-9dc3f608186b/Electrification-Whitepaper-FINAL.pdf

¹⁶¹ IEA (201) Productivity – Multiple Benefits of Energy Efficiency 2019 – Analysis <u>https://www.iea.org/reports/multiple-benefits-of-energy-efficiency-</u>2019/productivity

¹⁶² Midlands Engine (2023) Smart Energy – An Energy System for the 21st Century <u>https://www.midlandsengine.org/wp-content/uploads/2022/11/FINAL-REPORT-</u> Smart-Energy-An-Energy-System-for-the-21st-Century.pdf

¹⁶³ TechUK (2023) The West Midlands: The UK's energy modernisation hub <u>https://www.techuk.org/resource/the-west-midlands-the-uk-s-energy-modernisation-hub-guest-blog-by-west-midlands-growth-company.html</u>

¹⁶⁴ Black Country Industrial Cluster (2025) <u>https://bcinc.org.uk/</u>

¹⁶⁵ TechUK (2023) The West Midlands: The UK's energy modernisation hub https://www.techuk.org/resource/the-west-midlands-the-uk-s-energy-modernisation-hub-guest-blog-by-west-midlands-growth-company.html

¹⁶⁶ Ajayi, V. and Politt, M. (2024) Green growth and net zero policy in the UK: Some conceptual and measurement issues

https://www.sciencedirect.com/science/article/pii/S2211467X24002153?via%3Dihub

Connection with other sub-systems

Subsystem	Connection Strength	Rationale
Overall 'connectedness	s' score	5/11
Economic geography and polycentricity	Yes	The region's functional polycentricity supports an array of different economies which are diffused across a wider range of places.
Industrial composition	Yes	The region's functional polycentricity supports an array of different industries, some of which are dispersed industrial and high energy usage manufacturing sites particularly located in the Black Country. These would be more competitive if energy were more easily and cheaply available.
Research, development and commercialisation	Yes	Innovation is helping the region to harness its strength in smart energy systems, which, in turn, will help the region to reduce its energy demand.
Business leadership, management and technology adoption	No	NA
Investment	Yes	Business investment is often stymied by energy network connection delays. A business could apply to National Grid Electricity Distribution for a larger connection (e.g. to power more advanced machinery or computers) but be quoted up to a 10 year wait before the connection can be made
Life chances	No	NA
Skills and participation	No	NA
Housing and placemaking	No	NA
Transport	No	NA
Institutions	Yes	Greater devolved powers to influence energy generation and usage in the West Midlands could boost the availability and cost of energy in the region.
Perceptions and narrative	No	NA

Figure 35: Connection with other sub-systems

Section 4.11: Institutions

Hypothesis: Notwithstanding recent progress, limited devolution to the West Midlands holds back our economy. Making the most of devolution—and effectively delivering a regional economic strategy of the kind proposed in our theory of growth—will require stronger horizontal and vertical links between public institutions and regional partners.

While progress is being made to devolve more powers and autonomy to the West Midlands and other English regions, further policy and fiscal devolution should be a key part of any West Midlands—and national—growth strategy. Understanding the impact of institutions on growth in the West Midlands can be more challenge than the other sub-systems for two main reasons. Firstly, institutions have indirect effects on economic performance: they influence the design and implementation of policy, rather than impact growth directly in the way skills, innovation and business support and housing do. Secondly, finding appropriate international comparisons to shed light on the impact of institutions on economic growth is difficult because local, regional and national contexts and histories vary significantly between countries. However, we think there is strong, albeit circumstantial evidence that the centralisation of power in the UK is an important structural factor in explaining the West Midlands' economic challenges.

The UK is both unusually centralised¹⁶⁷ and unusually spatially unequal¹⁶⁸. Local authorities in the UK rely on central government for over 60% of their funding and only raises 19% of its revenue through local taxes – much below the OECD average of 37%¹⁶⁹. For Combined Authorities – and the WMCA is not exception – almost all of its funding comes from central government grants. Across the UK as a whole only 6p in every £1 is retained by local government, the majority of that by local authorities in the form of Council Tax¹⁷⁰. A large share of local government's spending in the UK is directed from the centre through statutory responsibilities and conditional grant funding¹⁷¹. Legislative and executive power are retained overwhelmingly in Whitehall and the absence of a written constitution means that local government is constantly vulnerable to interference from central government¹⁷²¹⁷³. Alongside this internationally extreme centralisation of power is equally extreme regional inequality. As mentioned in the introduction, the gap between the most and least productive regions in the UK is as wide as the entire Eurozone¹⁷⁴. Additionally, across 28 broader economic measures of inequality, the UK was consistently one of the worst performers among OECD countries¹⁷⁵.

¹⁶⁷ Pabst, A., and Westwood, A. (2021). The politics of productivity: institutions, governance and policy. <u>https://www.productivity.ac.uk/wp-content/uploads/2021/12/WP015-Politics-of-Productivity-FINAL-131221.pdf</u>

¹⁶⁸ Carrascal-Incera, A., McCann, P., Ortega-Argilés, R., & Rodríguez-Pose, A. (2020). UK interregional inequality in a historical and international comparative context. <u>https://doi.org/10.1017/nie.2020.26</u>

 ¹⁶⁹ Breach, A. and Bridgett S. (2022) Centralisation Nation <u>https://www.centreforcities.org/wp-content/uploads/2022/09/Final-Centralisation-Nation-02-09-2022.pdf</u>
 ¹⁷⁰ OECD, 2024. <u>https://www.oecd.org/content/dam/oecd/en/topics/policy-issues/subnational-finance-and-investment/subnational-governments-infrastructure-finance-2024.pdf</u>
 2024.pdf/ jcr content/renditions/original./subnational-governments-infrastructure-finance-2024.pdf

¹⁷¹ Productivity Institute (2021) The Fiscal Implications of 'Levelling Up' and UK Governance Devolution <u>https://www.productivity.ac.uk/wp-content/uploads/2021/12/PIP008-</u> Fiscal-Implications-FINAL-081221-1.pdf

¹⁷² Newman, J. and Hoole, C. (2024). The intersection of productivity and governance capacity in spatial inequality: the case of England's devolution periphery. <u>https://www.tandfonline.com/doi/full/10.1080/21582041.2024.2435440</u>

Newman, J. and Kenny, M. (2023). Devolving English government. https://www.bennettinstitute.cam.ac.uk/wp-content/uploads/2023/04/Devolving-English-Government.pdf ¹⁷³ McCann (2021) The Fiscal Implications of 'Levelling Up' and UK Governance Devolution <u>https://www.productivity.ac.uk/wp-content/uploads/2021/12/PIP008-Fiscal-Implications-FINAL-081221-1.pdf</u>

¹⁷⁴ Carrascal-Incera, A., McCann, P., Ortega-Argilés, R., & Rodríguez-Pose, A. (2020). UK interregional inequality in a historical and international comparative context. https://doi.org/10.1017/nie.2020.26

¹⁷⁵UK 2070 Commission (2019) Perceptions of Regional Inequality and the Geography of Discontent: Insights from the UK <u>https://uk2070.org.uk/wp-content/uploads/2019/01/01-McCann-UK-Regional-Inequality-Debates.pdf</u>

Historical data from OECD countries indicates that decentralised sub-central governance systems are largely conducive to stronger and more balanced interregional growth and development processes over the long-run¹⁷⁶. Case studies can help illustrate the potential impact of devolution on growth. For example, in 1990, Germany was 7.4% less productive than the UK, had a GDP per capita that was 8.0% lower than UK and was far more regionally unequal that the UK having reunified East and West Germany¹⁷⁷. Since then, Germany has invested an average of €70 billion per year – much of it granted freely to regional government under equalisation payments – on boosting regional equality¹⁷⁸. By 2017, Germany's GDP per capita was 13.2% larger than the UK's and it had higher regional equality; meaning that Germany growth over the 27 years outperformed the UK's by nearly 21%¹⁷⁹.

We can also compare Scotland to the West Midlands. In 1999 – when the Scottish Parliament met for the first time – Scotland had a similar GVA per capita of £13,996, the West Midlands had a GVA per capita of £14,027 and the West Midlands region had a GVA per capita of £13,788¹⁸⁰. Since then, GVA per capita growth in Scotland has significantly outperformed the West Midlands – as well as all areas in the country except London and the South East – and so is now approximately 18% higher than the West Midlands and 14% higher than in the wider West Midlands region¹⁸¹.

Lastly, the history of growing spatial inequality and government centralisation seem to align in the UK¹⁸². From the 1980s, HMG reformed and reduced the policy autonomy of local government¹⁸³ and adopted an economic model that centred London as the motor of the nation's economy that would attract and diffuse technology across the rest of the country¹⁸⁴. Over this time period, the amount of funding dedicated to regional interventions halved as a percentage of the UK's GDP¹⁸⁵. Following these policy changes, regional inequality began to grow substantially from the early 1990s – approximately trebling on the Theil index between 1990 and 2010 while regions in the majority of other European countries were becoming more equal¹⁸⁶.

¹⁷⁶ Carrascal-Incera, A., McCann, P., Ortega-Argilés, R., & Rodríguez-Pose, A. (2020). UK interregional inequality in a historical and international comparative context. https://doi.org/10.1017/nie.2020.26

¹⁷⁷ Ajayi, V., & Pollitt, M. G. (2024). Green growth and net zero policy in the UK: Some conceptual and measurement issues.

https://doi.org/10.1016/j.esr.2024.101506

¹⁷⁸ Ajayi, V., & Pollitt, M. G. (2024). Green growth and net zero policy in the UK: Some conceptual and measurement issues. https://doi.org/10.1016/j.esr.2024.101506

¹⁷⁹ Ajayi, V., & Pollitt, M. G. (2024). Green growth and net zero policy in the UK: Some conceptual and measurement issues. https://doi.org/10.1016/j.esr.2024.101506

¹⁸⁰ Office for National Statistics (2024) Regional gross value added (balanced) per head and income components

 $[\]underline{https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominal regional grossvalueadded balanced perhead and income components and the second second$

¹⁸¹ This difference in performance is all the more stark if we consider that North Sea oil production – a major asset for the Scottish economy – peaked at the beginning of this analysis. So Scotland's GVA grew relative to the WM from a 1999 baseline despite falling contributions from oil revenue. Reuters (2025). <u>The fall of UK North Sea oil and rise of offshore wind | Reuters https://www.reuters.com/world/uk/fall-uk-north-sea-oil-rise-offshore-wind-2025-01-03/</u>

¹⁸² McCann, P, (2023), Levelling-up economics <u>https://ifs.org.uk/inequality/wp-content/uploads/2023/02/Levelling-up-economics-IFS-Deaton-Review-of-Inequality.pdf</u>

¹⁸³ Newman, J and Kenny M (2023) https://www.bennettinstitute.cam.ac.uk/wp-content/uploads/2023/04/Devolving-English-Government.pdf

¹⁸⁴ McCann, P, (2023), Levelling-up economics <u>https://ifs.org.uk/inequality/wp-content/uploads/2023/02/Levelling-up-economics-IFS-Deaton-Review-of-Inequality.pdf</u>

¹⁸⁵ McCann, P, (2023), Levelling-up economics https://ifs.org.uk/inequality/wp-content/uploads/2023/02/Levelling-up-economics-IFS-Deaton-Review-of-Inequality.pdf

¹⁸⁶ Carrascal-Incera, A., McCann, P., Ortega-Argilés, R., & Rodríguez-Pose, A. (2020). UK interregional inequality in a historical and international comparative context. <u>https://doi.org/10.1017/nie.2020.26</u>

None of these pieces of evidence are strong enough on their own terms to lead to the conclusion that the centralisation of power in the UK is the primary driver behind the productivity inequalities holding back the country and the West Midlands. Our theory of growth has proposed a wide range of factors that explain why the West Midlands is not at its full economic potential. However, taken together we believe they make a compelling case that the centralisation of power in the UK is a fundamental economic constraint that helps to explain regional economic disparities in the UK and the West Midlands' economic underperformance. Further devolution to the region and local areas is, at a minimum, the 'glue' that holds together a locally-led economic strategy and will help to generate better economic outcomes. The Institute for Government, for example, has set out the specific mechanisms through which devolution can drive growth¹⁸⁷, by enabling policy interventions to be more closely tailored to local conditions; to be 'joined up' across different policy areas to amplify their collective impact; to be adapted in response to what works locally; by enabling greater policy experimentation and innovation; and by crowding in the resources of regional partners beyond the public sector. Furthermore, Professor Phillp McCann has articulated the role that sub-national institutions play in building investor confidence in the process of regional transformation, as a driver of economic development¹⁸⁸.

There has been some promising progress on devolution and decentralisation. The West Midlands has received its first Integrated Settlement, a £389 million funding package combining 21 funding streams from 7 different government departments, effective from 1 April 2025. The Integrated Settlement aims to bring improvements in the funding approach for the West Midlands. It will: eliminate competitive bidding processes; provide more local flexibility in policy design to realise mutually agreed outcomes; introduce longer-term funding visibility (two-year allocations from 2026); establish a "devolution by default" principle'; move away from fragmented, competitive funding models towards a more strategic, predictable approach going forward. However, there are still problems with this approach, including funding being tied to departmental remits, and improvements in funding efficiency not being a technical fix for the financial challenges facing local councils¹⁸⁹.

Despite recent progress and the fact we are heading in the right direction, there is potential for further devolution to the West Midlands. For example, only around 10% of skills and training funding that flows through the West Midlands is devolved to the WMCA. A third of publicly-funded business advisors are employed by public agencies other than the WMCA and local authorities. Whereas £761 million in public funding for translational R&D flowed through the WMCA last year, the proportion under devolved control was, as part of the Innovation Accelerator programme, a fraction of that at £11 million.

¹⁸⁷ Pope, T., Dalton, G. Coggins, M. (2023) How can devolution deliver regional growth in England

https://www.instituteforgovernment.org.uk/sites/default/files/2023-05/devolution-and-regional-growth-england.pdf

¹⁸⁸ McCann (2021) The Fiscal Implications of 'Levelling Up' and UK Governance Devolution <u>https://www.productivity.ac.uk/wp-content/uploads/2021/12/PIP008-Fiscal-Implications-FINAL-081221-1.pdf</u>
¹⁸⁰ Device L (2025) Overheld and the productivity of the productity of the productivity of the productivity of the pr

Making the most of devolution—and effectively delivering a regional economic strategy of the kind proposed in our theory of growth—will require greater local government capacity and capabilities in the West Midlands and denser horizontal networks with regional partners.

Devolution enables the West Midlands to lead its own economic transformation, but does not guarantee it. At the regional-level, the WMCA and its partners will need to strengthen their policy design and implementation capacities and capabilities¹⁹⁰¹⁹¹. Internationally, evidence shows that strong local and regional government institutions that are integrated and have strong horizontal linkages with policy partners across places is associated with better economic outcomes¹⁹². There are three key advantages to strengthen the horizontal links between the region's institutions, outline below.

<u>Firstly, to enable the West Midlands to leverage a larger amount of spending power to drive its</u> <u>economic transformation</u>. There are many public and private sector organisations across the region that have a shared interest in driving growth and/or addressing the wider underlying challenges that hold it back discussed in this paper. To illustrate, Figure 35 below shows the annual spending power¹⁹³ of key partner organisations across the West Midlands, illustrating that while the WMCA's spending power is £1.2 billion per year, the total spending power of key regional partners is over eight times larger at around £10 billion per annum. This is a very cautious underestimate of the region's collective spending power and excludes, for example, the West Midlands Pension Fund, which manages over £20 billion in assets.

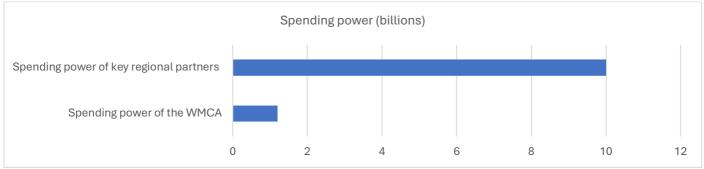


Figure 36: Spending Power in the West Midlands¹⁹⁴

<u>Secondly, to enable us to better understand regional challenges and opportunities</u>. There is a real diversity of partners working in different policy areas and places across the region. We believe that this diversity of perspectives creates a range of expertise and ideas about how we could improve outcomes in the region. If we had greater capacity to align investments in the region and could draw from a wide range of knowledge, we think we would be able to improve our collective capabilities to address shared problems. Progress is being made towards this end in the West Midlands. In 2024, the region commenced an Economic Development Functions Review to look at how it can deliver activity in the most efficient, coherent and impactful way¹⁹⁵.

¹⁹⁰ Newman, J. and Hoole, C. (2024). The intersection of productivity and governance capacity in spatial inequality: the case of England's devolution periphery. https://www.tandfonline.com/doi/full/10.1080/21582041.2024.2435440

¹⁹¹ Hoole, C. et al. (2023). England's catch-22: institutional limitations to achieving balanced growth through devolution. https://www.tandfonline.com/doi/full/10.1080/21582041.2023.2203122

¹⁹² Beyond Polycentricity: Does Stronger Integration Between Cities in Polycentric Urban Regions Improve Performance? - Meijers - 2018 - Tijdschrift voor Economische en Sociale Geografie - Wiley Online Library

¹⁹³ Centre for Local Economic Strategies (2023) Inclusive Economies Partnership - Spending Power in the West Midlands https://www.canva.com/design/DAF0_71gael/yfBTBhgbxLHB3bbnKRptnw/view

¹⁹⁴ Centre for Local Economic Strategies. <u>https://www.canva.com/design/DAF0_71gael/yfBTBhgbxLHB3bbnKRptnw/view</u>

¹⁹⁵ West Midlands Combined Authority (2024) WMCA Board report <u>https://governance.wmca.org.uk/documents/s20400/Report.pdf</u>

<u>Third, to enable the region to be more innovative with its policy making and approach to delivery</u>. We could work with our partners to test out and learn from experimental interventions that could be scaled or adapted across the region. Combined with a greater alignment of resources and sharing of knowledge to generate ideas, we think this experimentation would have an even greater potential to address some of the most challenging and sticky policy issues we face.

Connection with other sub-systems

Subsystem	Connection Strength	Rationale			
Overall 'connectedness		11/11			
Economic geography and polycentricity	Yes	The West Midlands functional economic area has multiple levels of governance and leadership. Given the region's functional polycentricity, political and policy leadership will need to incorporate multiple strategies that serve the region's needs but come together as a coherent whole.			
Industrial composition	Yes Local institutions able to adapt policy to the region's d industrial composition and crowd in investment could significant impact on the West Midland productivity.				
Research, development and commercialisation	Yes	According to the ONS data in the financial year ending 2021, London and the South East received a combined £5.4 billion in public-funded gross R&D expenditure, accounting for 40.4% o the UK's total. In contrast, the WM region's share was significantly lower (45% of London), highlighting a regional imbalance in public R&D investment. A more devolved approach with more empowered local institutions could support better innovation investment and adoption.			
Business leadership, management and technology adoption	Yes	The quality of business leadership and management seems to be a particular challenge for the West Midlands in comparison with other regions. A more devolved and less 'one size fits all' approach to addressing this could unlock greater gains.			
Investment	Yes	To take full advantage of what FDI has to offer regional economies, a coordinated approach across the higher education sector, local, regional and national government and research funders is required			
Life chances	Yes	Improving people's life chances requires an integrated policy approach that can address the complex challenges and opportunities that hold people back in the West Midlands.			
Skills and participation	Yes	Improving the skills profile and acquisition of the region is a policy challenge that would benefit from a more devolved approach to tailor interventions to the WM context.			
Housing and placement	Yes	Strong local institutions will be needed to set out strong spatial plans linked to economic models of development.			
Transport	Yes	Increased devolved powers and stronger local institutions could improve the region's ability to spatially plan effectively and, paired with greater fiscal devolution, capture some of the benefits from making difficult policy decisions.			
Energy	Yes	Greater devolved powers to influence energy generation and usage in the West Midlands could boost the availability and cost of energy in the region.			
Perceptions narrative	Yes	Stronger local institutions can more clearly and effectively articulate the opportunities available in the region and take actions to drive genuine positive change in the West Midlands.			

Figure 37: Connection with other sub-systems

Section 4.12: Perceptions and Narrative

Hypothesis: Perceptions of the West Midlands represent a barrier to attracting people and investment. This is not a narrow branding issue and recent successes represent a foundation for improvement.

People's and businesses' perceptions of the West Midlands are important. People's perceptions of a region are developed over time based on factual information, personal experience, history and cultural memory and media influences. They matter for attracting and retaining people in the region, boosting community cohesion and quality of life¹⁹⁶¹⁹⁷ and enabling better institutional integration¹⁹⁸. Businesses' perceptions are important primarily for influencing investment in the region. Below, we set out the evidence on how both perceive the region.

People's perceptions of the West Midlands. The West Midlands is recognised for its rich cultural heritage and contributions. It boasts more parks than Paris, more canals than Venice, and the most Michelin stars outside of London. The region is home to world-class museums, galleries, theatres, and cinemas, and has given the world Shakespeare, heavy metal, and bhangra¹⁹⁹. These cultural offerings have consistently attracted people to the region. For example, the success of "Peaky Blinders" is credited with a 26% increase in domestic visitors to Birmingham and a 19% rise in international tourists²⁰⁰. The WMCA's three major cities—Birmingham, Coventry, and Wolverhampton—boast some of the UK's best universities and cultural assets²⁰¹. The region's location is an attractive asset, with easy access to London and other parts of the UK²⁰², as it its diverse population. The West Midlands has a varied reputation when it comes to liveability. Some view it as an attractive place to live due to its affordable living costs and amenities.

However, there are also challenges which negative impact people's perceptions of the West Midlands in and outside the region. These include:

 52% of adults in the West Midlands felt a strong sense of <u>belonging to their immediate</u> <u>neighbourhood community</u>, which is lower than the England average of 61%. This percentage has remained relatively stable over the past few years, with minor fluctuations. The sense of belonging in the West Midlands has consistently been slightly lower than the national average.

¹⁹⁶ West Midlands Combined Authority (2021) West Midlands Culture and People <u>https://www.wmca.org.uk/documents/culture-digital/west-midlands-culture-and-people/west-midlands-culture-and-people/</u>

¹⁹⁷ Department for Culture Media and Sport (2024) Community Life Survey 2023/24: Neighbourhood and community - GOV.UK

https://www.gov.uk/government/statistics/community-life-survey-202324-annual-publication/community-life-survey-202324-neighbourhood-and-community ¹⁹⁸ Meijers, E., Hoogerbrugge, M., & Cardoso, R. (2017). Beyond Polycentricity: Does Stronger Integration Between Cities in Polycentric Urban Regions Improve Performance? https://doi.org/10.1111/tesg.12292

¹⁹⁹ West Midlands Combined Authority (2021) West Midlands Culture and People <u>https://www.wmca.org.uk/documents/culture-digital/west-midlands-culture-and-people/west-midlands-culture-and-people/</u>

²⁰⁰ West Midlands Growth Company (2023) New Birmingham film studio announced following landmark investment

https://www.investwestmidlands.com/news/2023/03/21/digbeth-loc-studios-investment-announced/

²⁰¹ West Midlands Growth Company (2025) Living in the West Midlands <u>https://www.investwestmidlands.com/set-up-in-west-midlands/why-the-west-midlands/quality-of-life/</u>

²⁰² West Midlands Growth Company (2022) Live. Learn. Earn. : An Introduction to the West Midlands <u>https://www.investwestmidlands.com/wp-content/uploads/2022/04/West-Midlands-Quality-of-Life.pdf</u>

- There has been a slight decline in <u>perceptions of local area attractiveness</u> over the past few years, indicating a need for initiatives to improve the physical and social environment²⁰³.
- Parts of our region, particularly the Black Country, are often seen as industrial. This image
 can lead to perceptions of the area being outdated or lacking in modern amenities; an
 image seen demonstrated on popular social media sites²⁰⁴. Negative stereotypes about
 the region's industrial past and social issues can impact its ability to attract skilled workers
 and investment²⁰⁵. Moreover, there is a perception that the West Midlands struggles with
 economic issues, such as high unemployment rates and a reliance on manufacturing²⁰⁶.
- The West Midlands has a <u>graduate retention rate</u> of 42.0%, which is lower than the UK average²⁰⁷. This indicates that fewer graduates choose to stay in the region after completing their studies compared to other parts of the UK. The West Midlands' retention rate is among the lowest in the UK, with only the East Midlands (33.8%) having a lower retention rate for STEM graduates. This suggests that the region faces significant challenges in retaining graduates, particularly in high-demand fields.
- Alongside economic factors and liveability, the region's <u>limited visibility</u> in the marketplace can impact its attractiveness to people to the West Midlands. Efforts to improve the region's profile and promote its strengths are essential to address this challenge²⁰⁸. Continued investment in educational infrastructure and marketing is crucial to enhance the region's attractiveness and ensuring that the West Midlands is seen as a dynamic and supportive place for graduates will help improve retention rates.

Businesses perceptions of the West Midlands. According to perception studies from the West Midlands Growth Company (WMGC), poor perceptions of the region are not a significant inhibitor of investment decisions²⁰⁹. Birmingham's success in attracting FDI – including on the back of the 2022 Birmingham Commonwealth Games – highlights positive perceptions among international investors, particularly in the technology sector. EY's Attractiveness Survey found that those familiar with the West Midlands had a positive perception of the region. They cited its strengths, such as its business environment, cultural assets, and infrastructure, which align well with the region's marketing messages. Positive perceptions of the West Midlands, particularly in sectors like technology and manufacturing, have contributed to increased FDI.

https://www.reddit.com/r/AskABrit/comments/i3i78e/what are the common stereotypes for people in/?rdt=41566

²⁰⁶ Insight (2025) West Midlands Growth Company Business and Tourism Programme Final Evaluation

²⁰³ Department for Culture, Media and Sport (2024) Community Life Survey 2023/24: Neighbourhood and community

https://www.gov.uk/government/statistics/community-life-survey-202324-annual-publication/community-life-survey-202324-neighbourhood-and-community ²⁰⁴ Reddit (2020) What are the common stereotypes for people in West Midlands? : r/AskABrit

²⁰⁵ Riley, r. (2020) Changing Perceptions of Birmingham <u>https://blog.bham.ac.uk/cityredi/changing-perceptions-of-birmingham/</u>

gcinsight.co.uk/projects/west-midlands-growth-company-business-and-tourism-programme-final-evaluation/

²⁰⁷ Kollydas, K. (2021) Regional Brain Drain and Gain in the UK: Regional Patterns of Graduate Retention and Attraction <u>https://blog.bham.ac.uk/cityredi/regional-brain-drain-and-gain-in-the-uk-regional-patterns-of-graduate-retention-and-attraction/</u>

²⁰⁸ Kollydas, K. (2021) Regional Brain Drain and Gain in the UK: Regional Patterns of Graduate Retention and Attraction <u>https://blog.bham.ac.uk/cityredi/regional-brain-drain-and-gain-in-the-uk-regional-patterns-of-graduate-retention-and-attraction/</u>

²⁰⁹ Department for Culture, Media and Sport (2024) Community Life Survey 2023/24: Neighbourhood and community

https://www.gov.uk/government/statistics/community-life-survey-202324-annual-publication/community-life-survey-202324-neighbourhood-and-community-life-survey-202324-annual-publication/community-life-survey-202324-annual-public

However, challenges remain with how businesses perceive the region.

- Many businesses still associate the region with its <u>industrial history</u>, viewing it as outdated and lacking modern amenities. This perception can overshadow the significant advancements and modernisation efforts in the area^{210 211}. More work needs to be done to highlight the opportunities, attract investment and skilled workers to high-productivity tech, creative industry, financial, and professional services sectors in the West Midlands²¹².
- The EY Attractiveness Survey also highlighted the region's limited <u>visibility</u> in the marketplace. The West Midlands lags behind competitor destinations in terms of recognition and awareness, a barrier to attracting more investment and interest. This lack of awareness can contribute to a general negative or indifferent perception of the West Midlands.²¹³
- There is a perception that the West Midlands struggles with economic issues, such as <u>poverty</u>, <u>deprivation and high unemployment</u>. These challenges can deter potential investors and businesses from considering the region.²¹⁴
- <u>Negative cultural stereotypes</u> about the region persist and can negatively impact the region's image.²¹⁵

What the region has been doing to improve perceptions. The region has been taking steps to improve perceptions among businesses and people. Recently, the 'It Starts Here' regional marketing campaign²¹⁶ to reset negative perceptions, increase the visibility of the region's innovation ecosystem, and improve the city and region's reputation. It both highlights the history of innovation as the place where breakthroughs happen and the contributions that the West Midlands has made to the world, as well as opportunities for the future. These include developments in green power, game changing technologies, next-generation services and life-changing sciences, thus showcasing the region's Future Mobility, Digital Technologies, ProfTech and Life Sciences sectors. Additionally, the Business and Tourism Programme has sort to use the 2022 Commonwealth Games to highlight the region and embed positive perceptions of the West Midlands into the international imagination, driving long-term economic benefits through new overseas investment and additional export deals²¹⁷.

²¹¹ Cooper, A. (2024) West Midlands at a crossroads: overcoming barriers and seizing growth opportunities

²¹³ Insight (2025) West Midlands Growth Company Business and Tourism Programme Final Evaluation

²¹⁵ Insight (2025) West Midlands Growth Company Business and Tourism Programme Final Evaluation

here/?utm_source=wmgrowthcom&utm_medium=pagelink&utm_campaign=it_starts

²¹⁰ Insight (2025) West Midlands Growth Company Business and Tourism Programme Final Evaluation

gcinsight.co.uk/projects/west-midlands-growth-company-business-and-tourism-programme-final-evaluation/

https://www.thebusinessdesk.com/westmidlands/news/2091459-west-midlands-at-a-crossroads-overcoming-barriers-and-seizing-growth-opportunities ²¹² Burke, T. (2023) 'Birmingham on the map': a city rethought <u>https://www.egi.co.uk/news/birmingham-on-the-map-a-city-rethought/</u>

gcinsight.co.uk/projects/west-midlands-growth-company-business-and-tourism-programme-final-evaluation/

²¹⁴ Insight (2025) West Midlands Growth Company Business and Tourism Programme Final Evaluation gcinsight.co.uk/projects/west-midlands-growth-company-business-and-tourism-programme-final-evaluation/

gcinsight.co.uk/projects/west-midlands-growth-company-business-and-tourism-programme-final-evaluation/

²¹⁶ West Midlands Growth Company (2025) It Starts Here <u>https://www.investwestmidlands.com/it-starts-</u>

²¹⁷ Insight (2025) West Midlands Growth Company Business and Tourism Programme Final Evaluation

gcinsight.co.uk/projects/west-midlands-growth-company-business-and-tourism-programme-final-evaluation/

How we can go further. Although these programmes have been successful, we think we need to go further to improve regional perceptions and develop a strong story that sets out the opportunities in the West Midlands to the wider world. To do this, we think we need to do 8 things:

- Promote positive stories. The West Midlands suffers from limited visibility in the marketplace and a lack of consistent investment in long-term strategies to improve this. Highlighting success stories and positive developments in the region can help counteract negative stereotypes. This includes highlighting local businesses, cultural events, and community initiatives.
- 2. Enhance visibility. Increasing the visibility of the region's strengths through media, social media, and public relations can help reshape perceptions. This includes promoting the region's cultural heritage, modern amenities, and economic opportunities. Collaborations with influencers and media outlets can amplify these messages. A consistent, well-funded strategic approach to marketing the region can improve visibility and attract more investment.
- 3. Develop a strong, shared regional narrative. Creating a coherent and compelling regional narrative or unique selling proposition (USP) can help unify the region's image. This narrative needs to emphasise the West Midlands' strong economic foundations—outlined in an earlier chapter—and should be developed in a way that includes local communities in order to create a sense of ownership and recognition of the story. Consistent messaging across all platforms is key.
- 4. Engagement with local communities. Involving local residents in initiatives to improve the region's image can foster a sense of pride and ownership. Community events, public consultations, and local projects can help residents feel more connected and positive about their region. Social networks and cultural norms within social enclaves can limit exposure to novel lifestyle choices and hinder wider community integration. This means it is essential to promote wider integration and engagement between diverse communities to improve social cohesion and perceptions.
- 5. **Invest in infrastructure and amenities**. Continued investment in infrastructure, public transport, and amenities can improve the region's liveability and attractiveness. Highlighting these improvements can help change perceptions about the region being outdated or industrial. There is a need to leverage cultural assets and events to enhance perceptions and attract tourists and residents.
- 6. Leverage partnerships. Collaborating with businesses, educational institutions, cultural organisations, and the voluntary, community sector and other public sector organisations can help promote the region's strengths. Partnerships can lead to joint initiatives that highlight the West Midlands as a vibrant and dynamic place to live, work, and invest.
- 7. Address stereotypes directly. Acknowledging and addressing negative stereotypes headon can be an effective strategy. This can involve public campaigns that challenge misconceptions and provide factual information to counteract stereotypes.
- 8. **Monitor and adapt**. Regularly monitoring public perceptions and adapting strategies based on feedback and changing circumstances is crucial. Surveys, focus groups, and social media analysis can provide valuable insights into how perceptions are evolving.

Connection with other sub-systems

Subsystem	Connection Strength	Rationale
Overall 'connectedness' score		8/11
Economic geography and polycentricity	Yes	Perceptions often focus on individual cities, making city-based comparator data more relevant. The absence of a consistently coherent regional narrative or unique selling proposition (USP) for the West Midlands may have hindered efforts to counter negative narratives and highlight the region's progress and attractiveness to people, businesses, and investors.
Industrial composition	Yes	(See industrial composition section) Industrial composition forms a core part of the region's external image and attractiveness to outside investment
Research, development and commercialisation	Yes	Fewer graduates choose to stay in the region after completing their studies compared to other parts of the UK. The West Midlands' retention rate is among the lowest in the UK, with only the East Midlands (33.8%) having a lower retention rate for STEM graduates
Business leadership, management and technology adoption	Yes	The West Midland's perceptions and narrative is important to attracting and retaining skills business leaders to the region.
Investment	Yes	Investment in the region attracts additional investment. Boosting and improving the regional narrative could be a way of attracting additional investment.
Life chances	Yes	Improvements in the physical environment, such as urban revitalisation projects, can provide visual evidence of positive change. This can influence perceptions by showing tangible progress and investment in the region.
Skills and participation	Yes	The latest student graduate retention data provides several insights into retention rates and the attractiveness of the region. The West Midlands has a graduate retention rate of 42.0%, which is lower than the UK average. This indicates that fewer graduates choose to stay in the region after completing their studies compared to other parts of the UK. The West Midlands' retention rate is among the lowest in the UK, with only the East Midlands (33.8%) having a lower retention rate for STEM graduates
Housing and placemaking	No	NA
Transport	No	NA
Energy	No	NA
Institutions	Yes	Stronger local institutions can more clearly and effectively articulate the opportunities available in the region and take actions to drive genuine positive change in the West Midlands.

Figure 38: Connection with other subsystems

Section 5: Conclusion—A Whole Systems View

The West Midlands' theory of growth gives a holistic view of what the challenges and opportunities are to realising our vision of inclusive growth—higher living standards across all parts of the West Midlands. It acknowledges that to achieve economic transformation, we need to attend to the region's key drivers of growth in parallel as part of a joined-up strategy, which local, regional and national partners have important roles in delivering. Developing our understanding of what needs to change has involved using West Midlands-specific evidence to identify and analyse 12 sub-systems that we believe interact to create the low-productivity, lowwage equilibrium that is at the core of why the region is not yet at its full potential. Against each of these sub-systems, the West Midlands' theory of growth sets out hypotheses that capture the essence of what the key challenge and/or opportunity is, which will enable us to test our understanding through a programme of action learning.

While our theory of growth has sought to be holistic, it has also sought to prioritise—both in terms of which challenges and opportunities to focus on in the first place, and in distilling what the core essence of each is. The next stage of developing our theory of growth will involve engagement with our regional partners and further analysis to understand *which priorities are the highest priorities*, taking our analysis a step further to the next level. Below, we set out some of the factors that will be considered to help us prioritise our priorities.

Some sub-systems are more central to economic transformation than others

We have conceptualised the economy as a system comprised of a wide range of factors that interact with one another to generate the economic outcomes we see in the region. As we outlined in detail above, there are distinctive internal dynamics within each sub-system, but it is how they interact and reinforce each other that generates the outcomes of the West Midlands economy.

As part of the analysis of each sub-system in section 4, we suggested—in the tables towards the end of each section—what the strong and direct links are between sub-systems to show how they are connected. This allows us to gain greater insight of which sub-systems are most central to our economic system and are therefore more likely crucial to unlocking wider systems change. This analysis shows that the Institutions sub-system is connected with every other sub-system considered, alongside Investment, Skills and Participation and Industrial Composition. The rest, with the exception of Energy, were connected to roughly half of the others. Systems thinking is important because:

- It is how the economy functions in the real world and how economic outcomes are generated.
- It breaks down silos between policy areas, and requires those with policy and investment responsibilities to understand who they depend on and who depends on them, if the West Midlands is to be successful in delivering economic transformation.
- It explains why we need to take an action learning approach to understanding the impact we are making, because it is not clear from the outset exactly how change in one subsystem will affect another and our progress overall—for better or for worse.
- However, connectedness on its own is not necessarily a measure of importance. Further work will need to be done to move from the analysis presented in the theory of growth to a concrete prioritisation.

This analysis shows that the Institutions and the Investment sub-systems are connected with every other sub-system considered. Skills and Participation, Industrial Composition and Economic Geography & Polycentricity are connected with at least three quarters of the other sub-systems. The rest, with the exception of Energy, were connected to roughly half of the others

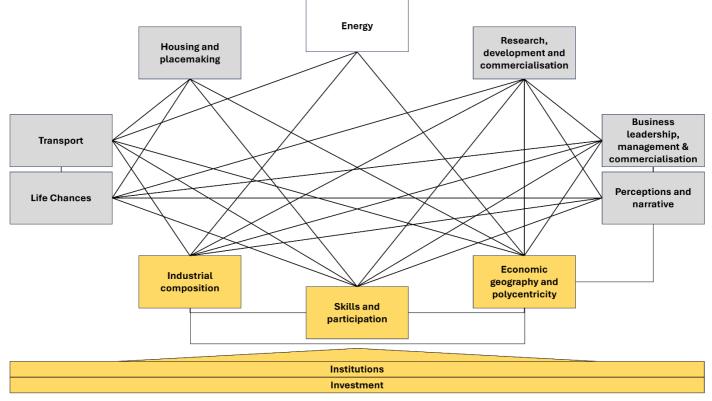


Figure 39: subsystem connections

Sub-systems have different roles in shaping the West Midlands' economy and the type of growth our vision seeks to generate

To explore the role that we think each sub-system is playing in this wider system, following the in-depth analysis we have suggested that we can categorise them into four different groups – below – related to boosting growth and economic inclusion. Sub-systems can appear in more than one of these categories as their roles can be multi-faceted. These groups are:

- 1. Sub-systems that need to be addressed to instigate new growth
- 2. Sub-systems that need to be addressed to remove constraints to growth
- 3. Sub-systems that need to be addressed to ensure everyone can benefit from additional growth
- 4. Sub-systems that shape the context the context for the West Midlands and are likely to be consistent for at least the medium term.

The diagram below visualises each sub-system across these groups. We have also retained the colour scheme used in the systems map above so that gold sub-systems are the ones which were most connected, silver the second most connected and white the least connected.

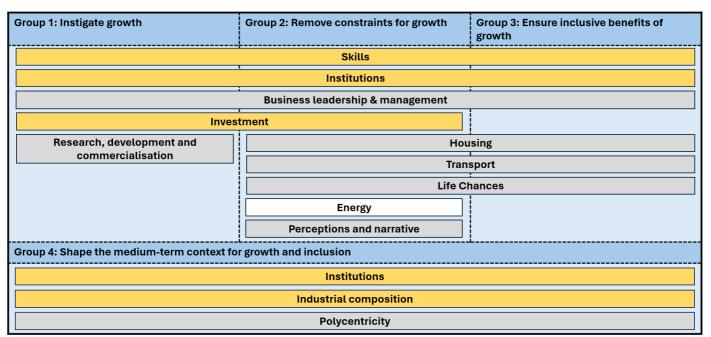


Figure 40: How subsystems sit across different categories

Lessons from other regions the West Midlands is similar to suggest some factors are particularly important to economic transformation

Throughout our work on West Midlands Futures over the past year and a half, we have sought to learn the lessons from how other regions have achieved economic transformation—both in the UK and overseas. This has shaped how the West Midlands thinks about economic transformation and how we need to approach it to be successful, based on what has worked elsewhere²¹⁸.

Most recently, this has involved undertaking in-house analysis of which regions are most appropriate for the West Midlands to learn more specific lessons from, based on how similar we are to them across a basket of metrics, which have seen the highest productivity growth and a supplementary qualitative assessment²¹⁹. This analysis suggests the West Midlands has the most to learn from:

- Lille, France. Although the rate of growth in Lille has not exceeded that of France overall, labour productivity in France well exceeds that of the UK. While other places such as Lyon also exhibit some similarities to the WMCA area, Lille is more similar due to its polycentric nature, and a median age that is even younger than Birmingham's. Additionally, Lille is connected to London and Paris via Eurostar; similar to the potential gains of HS2 for Birmingham. Lille has made significant investment in infrastructure to support the region's strong position as a logistics hub has ensured strong and consistent employment and productivity growth in the logistics sector.
- Greater Porto, Portugal. Porto scores similar to WMCA, is polycentric, and has similarities in its industrial clusters around ICT, automotive. It has seen impressive growth in its sectors, underpinned by a combination of direct funding, fiscal incentives, infrastructure, startup support, and investment promotion. It also plays the role of a "second city" to Lisbon, similar to the West Midland's role in relation to London.

²¹⁸ West Midlands Combined Authority (2024) West Midlands Futures: Grand Challenges – Lessons Learned From Elsewhere <u>https://www.wmca.org.uk/what-we-do/research-and-insights/west-midlands-futures/west-midlands-futures-grand-challenges-lessons-learned-from-elsewhere/</u>
²¹⁹ West Midlands Combined Authority (2025). "International Comparators for the West Midlands Identifying and learning from city-regions most similar to the West

²¹⁹ West Midlands Combined Authority (2025). "International Comparators for the West Midlands Identifying and learning from city-regions most similar to the West Midlands". Link: <u>https://www.wmca.org.uk/media/koofvl1r/20250303-international-comparators-for-the-west-midlands-report.pdf</u>

- Saxony, Germany. Of the German regions, Saxony has seen growth exceeding the
 national average in 2010 to 2019, as the former East Germany states catch-up. Subsidies
 to encourage innovation, strong labour market policies and a local digital strategy
 underpin its' journey to now being termed 'the cradle of German mechanical engineering'.
 The growth rates in other similar places notably the Ruhrgebiet has been below the
 German average in that period; while another potential comparator, the international
 Meuse-Rhine region, has significantly different governmental set-ups that make it a less
 appropriate comparator.
- Lombardy, Italy. The region exhibits a very high similarity score, is polycentric (Milan-Bergamo Brescia), and has similarities in its industrial composition. While its regional productivity growth rate, with the exception of Brescia, has lagged behind the average Italian growth rate, there are potentially lessons for both the WMCA area and Lombardy as it seeks to return to growth.

The next phase of our theory of growth will delve further into the details of these examples in particular to help us refine and fitness what needs to be prioritised.

Most importantly, we want to hear from our local, regional and national partners who have a stake in the West Midlands' economic transformation and 'test and learn'

Understanding the evidence and lessons from elsewhere is vital to economic transformation because of just how complex it is, but it only takes us so far. The next phase of developing the West Midlands' theory of growth will involve testing our assumptions with local, regional and national partners—not just once but over time, to make sure they are and remain relevant. This will involve:

- Testing our vision of what success looks like and our understanding of the specific challenges we have introduced and what needs to change as part of each sub-system, alongside other pertinent and related questions facing the region, as part of the West Midlands Futures Green Paper consultation process. The West Midlands Futures Green Paper consultation process will lead to the production of the West Midlands Growth Plan, a Spatial Development Strategy, further work on Public Service Innovation and a Net Zero Five-Year Plan, drawing on the analysis above.
- Pursing an action-learning approach that will enable us to test our hypotheses, assumptions and real world projects that bring them to life. This means that our theory of growth will continually be revisited, iterated and improved based on the lessons we generate through actions. This will be a key feature of how we convene regional partners beyond the public sector around our vision of economic transformation, so that we can learn the lessons from them.

