

West Midlands Futures

Grand
Challenges –
What You Told
Us



West Midlands
Combined Authority

Selected paraphrased interview quotes.

“It feels to me like actually for the most part, that the West Midlands region should be one of the best-connected places in the country – north to south and east to west. It should be a hub to all sorts of spokes.”

“When we talk about what we're good at in the region, we talk historically and I think we have got to shift that to about the things we are becoming known for, the things we are strong in and the new exciting developments here.”

“Making policy strategically for the whole region is the central almost existential challenge of the combined authority model. We need to get to that point where people think about the outcomes and economic and social health of the region as a whole, not just look at their local indicators and think their slice.”

“Looking at the map of multiple deprivation in Birmingham, it hasn't changed one iota in at least three decades. The disadvantaged areas today are the same ones that they were back in the 70s.”

“When we hear that this place is going to be the new Kings Cross. I'm like, OK, but can the people of Wolverhampton actually spend the money like you would do in Kings Cross? Have we got the employment for those people?”

“As we are moving into the next generation of manufacturing around net zero, global supply chains and new industries, can we still say that the West Midlands is the best place to set up these businesses? Are we still at the leading edge of that technology and can we compete with places in East Asia?”

“If you fix the middle, you fix the nation! The West Midlands is so intrinsic to the whole success of the whole country really.”

“WM has one of Europe's most diverse populations – but it isn't utilised. Underlines the importance of skills to making the most of this!”

Table of Contents

Executive summary	3
Introduction and approach	5
What are the region’s Grand Challenges and the Big Questions we could use to explore them?	6
Introducing Grand Challenges	6
What do the interviews, desktop and Megatrends research tell us about the region’s Grand Challenges?	7
Grand Challenge one: Breaking out of the low productivity, low wage and high deprivation equilibrium created by the West Midlands’ economic system	7
Grand Challenge two: Making the most of the West Midlands’ national geography	14
Grand Challenge three: Maximising the benefits of the region’s demography and diversity	16
Grand Challenge four: Developing a unifying regional narrative.....	17
Grand Challenge five: Creating effective regional institutions.....	19
Wider context: Megatrends in the West Midlands	21
Annex: The literature we read and interviews we conducted	25

Executive summary

The report is part of the first phase the West Midlands Futures (WMF) project. WMF aims to create a shared vision for the region's long-term future and its places in the UK's and global economy. The vision will be developed jointly with our Local Authority, business, community, and other partners.

The first phase of this project – the clarify phase – seeks to identify the big questions and opportunities which the vision will likely need to address to drive change in the West Midlands in the long-term.

This report takes insights gained from 79 academic, think-tank and government papers; 53 interviews with more than 70 interviewees from the private sector, civil service, academia, local government and think tanks; and a workshop testing initial findings to:

1. Make the case to use the concept of 'Grand Challenges' to frame the challenge of driving significant change in the West Midlands over the long-term.
2. Propose 6 Grand Challenges that a regional vision should address.
3. Suggest a series of 'Big Questions' that will help us better understand the dynamics of each Grand Challenge in the next phase of WMF.

However, this report does not attempt to propose solutions to these Grand Challenges. This will be considered in later phases of West Midlands Futures.

What are the WM's Grand Challenges & what could be the big questions we use to explore them?

If a vision wants to really transform what it is like to live, work and study in the West Midlands, it is not enough to simply identify the region's challenges and opportunities. We need to take a step back and think about what it is that creates these challenges and opportunities in the first place.

To distinguish these types of policy problems, we have used the term 'Grand Challenges'. In this report we have drawn from the clarify phase research to propose 5 Grand Challenges we think a regional vision will need to consider alongside 4 'Megatrends' that we think will shape the future context for each of them in the West Midlands. For the Grand Challenge and Megatrends, we have also drafted corresponding 'Big Questions' that we will explore in the next phase of WMF to build our understanding of what causes them and how they might be disrupted. The 'Grand Challenges' and 'Big Questions' are summarised in the table below.

Suggested Grand Challenge	Suggested Big Questions
Breaking out of the low productivity, low wage and high deprivation equilibrium created by the WM's economic system.	<ol style="list-style-type: none"> 1. What are the causes of WMs' low productivity, low wage & high deprivation economic system? 2. What is our theory of change for how we might break out of this low productivity, low wage and high-deprivation equilibrium? 3. There have been many comparisons between London and the West Midlands, what can the West Midlands learn about driving economic system change to drive better outcomes from similar international regions?
Making the most of the WM's national geography.	<ol style="list-style-type: none"> 4. What are the opportunities & challenges that stem from WMs' central national location? 5. What are the opportunities and challenges relating to the region's polycentric geography and the size and relationships between its towns and cities?
Maximising the benefits of the region's demography and diversity.	<ol style="list-style-type: none"> 6. How is the population of the West Midlands likely to change over the next two decades? 7. How should we address the likely benefits and challenges arising from the region's demography and diversity now and in the future?
Developing a unifying regional narrative.	<ol style="list-style-type: none"> 8. What is the ambitious, authentic and unifying narrative for the West Midlands that would enable greater regional collaboration and have credibility on a global stage? How can this identity be crafted in the context of our polycentric regional structure?
Develop regional structures able to address the WMs' systemic problems & seize long-term opportunities.	<ol style="list-style-type: none"> 9. What are the strengths and weaknesses of the current region-wide structures and partnership arrangements in addressing the Grand Challenges? 10. What can we learn from other similar regions about the kinds of regional institutions – and their capacities and capabilities – that can support large-scale transformation?
Anticipated megatrends that cut across all of the challenges above	
a. Technology and digitisation – AI, automation and the emergence of new technologies	
b. Climate change and net zero – changes to weather events, food production, business models and energy	
c. Rising geopolitics – changes to global supply chains and re-shoring of production	
d. Demographic trends – ageing population, increased migration	
Suggested big question	<ol style="list-style-type: none"> 11. Are the megatrends we have identified the most relevant to the region and to what extent can we understand their implications? What can we know about what they are likely to be; and how do they apply to the other Big Questions? 12. What is the counterfactual scenario to one in which we do not intentionally respond to the Grand Challenges and opportunities and megatrends on the horizon?

Introduction and approach

The primary purpose of this report is to lay the groundwork for a regional vision that could help coordinate the actions of WMCA and partners over the long-term.

The findings in this report draw from three different research activities. A desktop review of 79 articles from the relevant literature on the West Midlands, its challenges and opportunities, effective systems change policy making and regional strategies. Secondly, a series of 53 interviews with more than 70 different interviewees from the WMCA, our partners, academics and civil servants. Lastly, we tested a version of the report with LA colleagues in a workshop on the 22nd of March 2024 (see annex 1 for full list of the literature we read and organisations we spoke to). This version of the report has been amended following their comments.

These research activities helped us build an initial understanding of:

- The big challenges that shape people's lives in the West Midlands.
- The system dynamics that sustain and recreate these challenges as patterns over the long term.
- How to conceptualise these types of problems as Grand Challenges.

We have not set out a 'theory of change' in this report to respond to the identified Grand Challenges, as we anticipate that this would be better developed with colleagues through exploring the Big Questions that we design together in the next phase of research.

What are the region's Grand Challenges and the Big Questions we could use to explore them?

Introducing Grand Challenges

Before we get into the challenges and opportunities the West Midlands faces, it is worth spending a little time thinking about the conceptual framework through which we can understand them.

Outcomes like wages, house prices, carbon emissions, skills qualifications etc. in the West Midlands are driven by the interactions between many different variables within a system. To take an illustrative example, let's think about pay. Pay is directly driven by the job opportunities available. However, the job opportunities that are available are driven by, to give a far from exhaustive list, the types of businesses in the region, investment, size of the labour market, regulations, qualification levels, the amount of time an individual has been able to dedicate towards gaining qualifications, quality of education institutions, travel time to job, individuals' behaviours shaped by previous experiences in the world and so on. Moreover, these secondary drivers are all influenced by other variables too. Zooming out, we can think of pay in the West Midlands (or any other outcome) as being driven by a system of factors that respond and react to each other continuously over time.

Taking this frame of reference, when we are trying to identify the region's big challenges, we need to ask ourselves four questions:

1. What are the consistent patterns of outcomes produced in the West Midlands over the long-term?
2. Which of these patterns significantly influence people's lives in the region?
3. What are the systems dynamics that drive the recreation of these persistent and significant patterns over the long-term?
4. What are the potential opportunities to change these systems dynamics to generate new patterns with better outcomes?

The big challenges are those systems dynamics that consistently reproduce patterns of outcomes in the West Midlands that have and continue to significantly affect people's lives. Borrowing from academic literature, we have used the term 'Grand Challenges' to describe these types of challenges. In the next section we will look at the initial Grand Challenges identified and the potential Big Questions that could speak to them.

What do the interviews, desktop and Megatrends research tell us about the region's Grand Challenges?

This section proposes five Grand Challenges drawing from the literature review and interviews. **The phrase challenge is used here neutrally, a challenge can be thought of as a problem that needs to be overcome to address a negative phenomenon or seize a positive potential opportunity.** We have also proposed a number of 'Big Questions' to help us explore each Grand Challenge in the next phase of WMF.

The below represents what the literature we have engaged with says and what interviewees have told us and so are not all views the WMCA necessarily shares. There will and should be views on additional Grand Challenges facing the region, and on whether some of the challenges introduced below are priorities. However, the role of this report is to take stock of what we have read and heard to date.

Grand Challenge one: Breaking out of the low productivity, low wage and high deprivation equilibrium created by the West Midlands' economic system

We use the term economic system here to capture the wide range of outcomes created by the way the West Midlands' economic system, as a whole, produces and distributes wealth. This terminology goes beyond the narrow definition of the economy that is often used, to include things like health outcomes, transport, quality of life and combines the 'foundational' and 'frontier' economies together. It takes a systems view of the interrelatedness of all these phenomena.

If we look at this system, we can see the West Midlands is characterised by a low wage, low productivity and high deprivation equilibrium. In this system the majority of the population cannot access well paid jobs, the region experiences high levels of absolute and relative poverty, deprivation, high levels of inequality between other places in the country and within the region itself, worse health outcomes, lower skills, high levels of housing unaffordability, and stretched public services.

Part of this is a national problem. The UK has been experiencing growth in regional inequality since deindustrialisation in the first place and austerity in the early to mid-2010s. The UK has a problem with low productivity – highlighted by the poor performance of the UK's cities when compared to similar regions internationally – high inequality, low demand for investment, low capital intensity and spending on R&D, and poverty.

Moreover, the policy responses to these challenges on a national level have been inadequate, siloed, largely place-blind, and often focused on securing the highest returns on investment of the marginal pound over the short-term. To take public R&D and transport spending as an example, these have been disproportionately focused on the South East of England where the benefit-cost ratio can be more easily shown to be higher than other places in the country in the short term. However, this creates a self-reinforcing effect, where the places that are more productive and dynamic – those surrounding London – regularly outcompete areas in the rest of the country leaving them further behind and increasing the gap between the returns on the marginal pound in

the future influencing future spending decisions. Over the long term, this locks the UK into a path where the richer regions attract more spending and investment and the poorer regions miss out, ultimately undermining the success of the country.

Additionally, given the centralised nature of policymaking in the UK, the responsibility to drive development in left behind places in the country has predominantly fallen on central government. As we will see in the section on lessons in responding to Grand Challenges, one of the prerequisites for effective policymaking in this space is long term commitment. In the UK, policy interventions have had significant churn following changes in government and policy priorities over the course of many years. This has significantly limited any effectiveness these interventions could have otherwise had.

However, part of this is certainly a regional challenge. Even within the national context, the West Midlands is underperforming. Compared to other regions in the country outside of London, the West Midlands is less productive, pays its workers less well and has higher levels of deprivation. These three dynamics, this report argues, can be viewed as the basis for a Grand Challenge. Simply, low productivity pushes down wages for the region leading to more poverty, deprivation, and inequality.

However, this is not sufficient to explain why these patterns exist. In the clarify phase we dug into these observed and long-standing patterns to understand what might be upholding them. Below we summarise the key factors, identified in the literature review and interviews, that are likely to be sustaining these dynamics. **It is worth reiterating here though that this is just an initial view based on the research and that we will need to explore these dynamics in more detail to understand how they might be manifesting and how we could more effectively address them.**

While reviewing these, the reader should bear in mind that we should not look at these factors as individual problems but connected as part of a self-reinforcing system that creates consistent patterns over the long-term following the logic of Grand Challenges.

Underinvestment: There are lower levels of public and private investment - particularly in productivity enhancing capital - into the region, low levels of capital reallocation from unproductive businesses to high productive businesses, less access to private finance and higher-risk premia attached to investment in the West Midlands. Capital underinvestment, especially, undermines sources of prosperity and generates negative outcomes for people's day to day lives over the long term. This likely contributes to the phenomena we see in the region such as the same types of businesses in the West Midlands being less productive than their comparators elsewhere in the country. Although underinvestment is a self-reinforcing dynamic - investment tends to follow investment - it is not sufficient to explain the low levels of productivity, low wages, and high deprivation in the region because even where the investment does exist, businesses rarely choose to use it to enhance their productivity.

Industrial composition: There was evidence to suggest the region's industrial composition itself contributed towards this low productivity, low wage, and high deprivation equilibrium. Firstly, although constituting the minority of the region's businesses, the West Midlands' relative specialisation in manufacturing industries was a cause of longer-term concern for the region's productivity. Although the West Midlands' productivity in manufacturing was around the UK median for those industries, the international competitors that existed on or at the same level of the supply chain as the West Midlands were seen to have structural advantages that might undercut the region's current manufacturing specialties. In particular, there was a concern around the long-

term viability of these industries given competition from regions like East Asia that have cost advantages, are significantly larger than the West Midlands, and benefit from government industrial support. Without moving up the supply chain to higher value more capital-intensive manufacturing, there was a concern that this would be a drag on the West Midlands' productivity and create further deprivation if these jobs could not be maintained or replaced. Moreover, the high energy intensity of these industries at a time when we need to be moving away from fossil fuels due to the climate crisis - see the Megatrends section – combined with the fact that the West Midlands does not have access to the cheap sources of significant energy that it enjoyed during the industrial revolution, was a potential long-term challenge. Furthermore, the number of workers employed or supporting the production of combustion engines in the region is seen as a systemic vulnerability to the West Midlands' economic system. The skillsets required to produce the combustion engine are very different to those required to produce an EV battery, and pivoting between them needs significant support that is not yet present. Lastly, the West Midlands is very dependent on a few individual companies to support the regional economy – such as Jaguar Land Rover – introducing further systemic risk. Away from manufacturing, there was concern about the lack of presence of the UK's key modern growth industries – in particular in tradeable services – in the West Midlands. In the immediate term, the absence of these industries was seen to be a missed opportunity to boost the region's productivity and wages. In the longer term, considering that the UK is the world's second largest services exporter and the government's patchy support for industrial sectors, the continued absence of these industries could be a cause of the region being left further behind. Finally, increasing the prominence of these sectors, and more widely the diversity of the industrial composition, tends to lead towards more resilient economies that are more equipped to adapt to unpredictable local and global changes.

High numbers of small and medium enterprises: There are significant numbers of small and medium enterprises (SMEs) in the West Midlands. Typically, though this is not true of all, small and medium enterprises are less productive and pay lower wages than larger companies. Therefore, the number of these types of enterprises in the region is a factor in the region's lack of productivity and supporting SMEs increase their productivity and grow will be an ongoing priority for the WMCA and partners. However, there was a misalignment between the interviews and the data regarding the scale of this problem in the West Midlands. In the data, the West Midlands is not particularly remarkable for its share of SMEs in its economic make-up when compared to other places in the UK. However, there was a perception in the interviews that the number of SMEs was a particularly pertinent problem for the region.

Low business capacity: Linked to this is the relative lack of capacity of businesses in the West Midlands to undertake strategic transformations or onboard new technology that would increase the productivity of their businesses and manage external investment. This is often attributed to poor business leadership but could also be a consequence of the high numbers of small and medium enterprises in the region, which tend to have lower capacity, tools available to them to innovate and productivity which constrains businesses' ability to try new things.

Lack of scaling: Though the region has had the second highest number of startups in the country outside of London over the last seven years, many of these failed to scale and therefore deliver real productivity benefits and associated wages to the West Midlands. This could be partly linked to the capacity and size of businesses in the region, but also to the policy programmes which focussed on business startups and getting funding out the door rather than scaling the startups to create beneficial outcomes for the West Midlands' economic system. The significance of this challenge, and the potential benefits that could be realised with greater scaling, should be explored further in the next phase of the research underpinning a regional vision.

Low levels of skills and high unemployment: The region has lower numbers of skilled workers at every level, higher levels of workers without qualifications than the UK average, struggles to retain and attract graduates comparatively, and attracts significant international migration for unskilled work. This has two broad sets of consequences. On the one hand, it is a further disincentive for investment as businesses looking to invest in their productive capabilities, move into new sectors, and / or adopt different business models need to be able to access skilled workers in the region. On the other hand, it also has a distributional impact as it means that those who are in or come to the region and who lack skills cannot benefit for more productive and higher paying businesses setting up and expanding in the West Midlands. Furthermore, it perpetuates the challenge of high unemployment and makes the region less resilient to the challenges that new technology, like AI and automation, may bring to the existing jobs market. Without addressing this problem there will likely be diminished demand for investment, higher inequality as benefits accrue for those who already have high level qualifications and / or who moved to the region attracted by the businesses, rather than for the residents of the region today, and decreasing access to good jobs for people without qualifications as role requirements are impacted by new technology. In the LA workshop, some participants cautioned about reducing this challenge purely to skills, arguing that the most important thing was the labour market and how it balanced the supply and demand for workers and within this, skills was only part of the story. Lastly, participants discussed the challenges of attracting and retaining skilled workers in the region due to issues around the quality of schools, accessibility of green spaces and leisure amenities.

External appeal to investors and businesses: Another factor identified as having contributed to the low productivity, wages, and high levels of poverty in the region was the low profile of the West Midlands externally and, in particular, internationally. Many interviewees suggested that there was no clear West Midlands international brand that could be used to attract investors to the region and the predominant view amongst potential investors was that the West Midlands is a bit of a backwater.

Business incentive structure: There are also certain incentive structures that helped perpetuate the low wage, low productivity, and high deprivation equilibrium in the West Midlands' economic system. First among them is that the West Midlands has what can be understood as a negative comparative advantage to other places in the country of relatively low labour costs. These factors disincentivize businesses from making the investments in capital that would increase their productivity and even the businesses who may want to make these investments are constrained by the lack of skilled workers needed to operationalise new capital and technology in the region. Secondly the process to gain planning permission to open new businesses or expand businesses is seen as unnecessarily slow and costly. This creates a disincentive for additional investment as returns need to be great to outweigh the cost of the planning process.

Agglomeration effects: Although the West Midlands is home to cities with large populations, their effective size - measured by the amount of the population that can travel to city centres during busy times and driven largely by housing density and the scale of the transport network - is much smaller. This means that the West Midlands misses out on the expected benefits of agglomeration seen in other European cities - although not in UK cities, outside of a few exceptions, as this challenge is national. A small effective city size limits the labour pool for businesses, exacerbating the obstacles that the lack of skilled workers generates for investment. A significant part of this problem in the West Midlands is housing density around key transport hubs.

Housing: However, housing itself is also a problem that contributes to the negative outcomes of the West Midlands' economic system. There is a discrepancy between population growth in the West Midlands and the number of houses being built. This leads to housing pressures and drives up the costs of housing, which

reduces people's disposable income, increases overcrowding, leads to poor quality housing options, falling housing affordability, increasing number of people in temporary accommodation and sleeping rough and exacerbates poverty.

Nostalgia: There was also a concern that the West Midlands' rich history of industrial manufacturing might lead it to make strategic choices based on nostalgia rather than a realistic assessment of where the region's future opportunities lie. This was most explicit in the interviews.

Quality of life: The impacts of the quality of life in the region can be divided into two broad categories. Firstly, the failing high streets, underfunding of community infrastructure, number of cultural amenities, leisure and wider cultural offering, high levels of minor crime and lack of accessible green assets all undermine community cohesion, and can increase deprivation and inequality. Secondly, they act as disincentives for people to move to and / or stay in the region. This further shrinks the labour market and undermines business investment. Boosting quality of life is important not just from a justice and poverty perspective but also as an enabler of greater prosperity.

Poverty, deprivation, and inequality: The West Midlands has higher levels of deprivation than many other places in the country, significant inequality between the West Midlands and other regions in the UK, significant inequality inside the West Midlands between different places, many insecure and low paying jobs and significant health inequalities. Moreover, these are not equally distributed between the different groups of people that live in the West Midlands. People from global majority communities tend to have more negative experiences across all of the above outcomes. Furthermore, there is still a significant gender pay gap – in particular following the birth of children, and an even greater disability pay gap - see Grand Challenge three. In and of themselves, these are the outcomes produced by the economic system that we want to change. However, they are also a cause of the region's lack of productivity and prosperity. High numbers of people in poverty, growing up in poverty and experiencing deprivation leads to lower skills qualifications, more pressure on public services, worse quality of life and a smaller labour market. All of this exacerbates the problems of low wages and in turn creates more poverty.

Fragility: In the LA workshop, participants added another factor that helps create these outcomes, the WM economic system was too dependent on a few large firms, and this introduces a fundamental fragility to the region. Furthermore, participants said that the firms in question were at significant risk from the changes that are likely to be brought about by global Megatrends and are struggling to invest in innovative technologies that may allow their business models to adapt on their own.

Text box 1: Additional UK-wide historical challenges influencing these factors in the WM.

It is also worth considering and understanding these WM factors in the context of the UK's longer-run macroeconomic history and political context. In particular:

- The UK is one of the most centralised countries in the OECD area, and even more extreme when compared to similarly large countries. This greatly reduces local and regional government's ability to undertake the significant and long-term interventions needed to move the needle on this challenge.
- Furthermore, the vast inequality geographical in the country when compared to OECD peers – if you strip out London and the South-East, the UK is the poorest country per capital in Northern Europe.
- Additionally, the history of the WM's economic system should be understood within the history of the UK. In particular, moving from an imperial country that exported many goods (which the WM excelled in) to a post-colonial country whose international economic strength moved further towards services and finance (areas in which the WM does not have a deep history).
- Lastly, the UK's ambition to have Scandinavian level public services with American taxes creating significant financial burdens for local / regional government which makes responding to these challenges extremely difficult.

Although there are likely to be more, the above factors illustrate the dynamics of the West Midlands' current economic system. However, the clarify phase also looked at some of the opportunities that exist in the region to potentially transform this system. These are:

- **High value manufacturing:** As the country's manufacturing heartland with a developed industrial commons and experience bedding into international supply chains, the West Midlands could play a nationally leading role in the emergence of the UK's advanced manufacturing and established medical technology sector. Moreover, if the region can prepare for it, the green transition offers significant manufacturing opportunities to the West Midlands through things like EV manufacturing, the electrification of energy-intensive industries and infrastructure and battery electric storage. Lastly on manufacturing, businesses in the West Midlands could become much more productive and support better jobs through effectively adopting AI and automation into their business models.
- **Diversification:** The UK's status as the world's second largest exporter of services and the West Midlands' relative lack of service industries offers the region a significant opportunity to boost its productivity, prosperity and number of well-paying jobs as well as its economic resilience. The West Midlands has increasingly prominent and emerging sectors in this space including finance, financial software, creative industries, gaming, and law. Furthermore, hybrid working could potentially offer people in the West Midlands a chance to access these opportunities elsewhere. Lastly, innovation in existing and new sectors is potentially a significant opportunity for the West Midlands' economic system. Both the high number of startups in the region and the young population could act as catalysts for this opportunity.
- **Research and innovation partners:** There are several very strong potential research and innovation partners that can be found in the region. For example, its universities, red brick colleges, Energy

Systems Catapult, High Value Manufacturing Centres, Plug and Play, Horiba and Miro and other institutions. These institutions are also magnets to attract and retain skilled people in the region.

- **Growing prominence:** There is a sense that the region is growing in prominence. Interviewees pointed to the high number of people relocating to the West Midlands, the Commonwealth Games, HS2, and a consistently high level of business confidence in the region as evidence of this.
- **Inclusive growth:** The region's inclusive growth agenda provides the opportunity to ensure that any future increases in prosperity are widely felt and are translated into outcomes that benefit people in the region.
- **University students:** The West Midlands as a whole has the second highest number of higher education students in the UK. This offers an opportunity for the West Midlands if a more significant number of these students can be retained in the region.
- **Skills programmes:** Lastly, although skills were identified as a fundamental challenge for the region, the work that the West Midlands Combined Authority and its partners have been undertaking through its skills programmes was seen as pioneering and providing a good basis to design future programmes to tackle this challenge more effectively.

In the LA workshop, participants suggested some things that we need to do to begin addressing this challenge. They were:

- **Build understanding, be proactive and focus on the system:** Participants firstly discussed the need for local and regional government to build our understanding of this challenge, our regional strengths that we can build on and the different dynamics that support it. Then, the need to get on the front foot to try and disrupt this system and generate better outcomes from this system. Specific examples of this were the need to understand the spatial diversity in the manifestation of this challenge – e.g., this looks different in Birmingham as it does in Warwick – and how we might be able to use our skills programmes to support the emergence of different sectors in the region that enable people to get better paid jobs and spread prosperity. Participants also remarked that building our understanding was a precursor to being able to make the different strategic trade-offs to make real progress.
- **Improve our capabilities and align complementary interventions:** Maximising the benefits from joining up policy interventions in pursuit of overarching strategic goals was a point frequently raised by participants. Examples of this included ensuring that supply side and demand side interventions worked together, linking up skills interventions and careers advice with the jobs that were available and linked with our regional ambitions to grow inclusively, supporting these aspirations through housing and transport interventions, doing what we can in early years interventions as the moment at which we can have the maximum impact on the skills individuals acquire, thinking about how we may encourage investment in line with our objectives through our planning policies, supporting and investing in the right types of enterprises that will bring the opportunities we seek to grow. However, these types of interventions would need to be coordinated at the right spatial scale in the region and over a sufficiently long time period to make a difference. Moreover, as what will work to help us realise our regional ambitions, participants noted that it would be sensible to apply experimental and snowballing strategies in the region where possible. These strategies should seek to identify a portfolio of promising opportunities to support with additional support being provided to those which are demonstrating significant success. This also means increasing our capabilities to identify these opportunities with

novel data methods and evaluation techniques that allow us to assess our impact. Lastly, we need to vocally make the case for the need and possibility of change. This will be needed to motivate and crowd partners in to contribute to addressing systemic challenges in a way that everyone benefits – see next bullet.

- **Work with partners:** On our own, as regional and local government, our ability to drive significant change will be limited. Participants said that this means it is vital we can work with partners on shared strategic objectives over the long term. This includes communities, businesses, international investors, universities etc and means that we need to see our position more as system leaders and convenors to coordinate this action in a chosen direction. To do this we will need to collaborate more deeply and effectively and think about what policy levers we can use in novel ways to enable this co-creation.
- **Look beyond the frontier firms:** Participants also said that we need to look beyond the frontier firms when thinking about how to address economic systems problems. We need to be thinking about how we support the sectors in which most people work, the most deprived communities in the West Midlands and those businesses which do not necessarily want to scale significantly. The key to this will be providing a diversity of support options that collectively can help us realise our strategic goals.
- **Select the right comparators:** Lastly, we need to pick the right comparators to learn from. This means not just defaulting to London as the comparison for our regional strategy but potentially looking internationally too.

Potential Big Questions

We have identified three Big Questions that we could look to answer to explore this Grand Challenge, these are:

1. What are the main causes of the West Midlands' low productivity, low wage and high deprivation economic system?
2. What is our theory of change for how we might break out of this low productivity, low wage and high-deprivation equilibrium?
3. There have been many comparisons between London and the West Midlands, what can the WM learn about driving economic system change to drive better outcomes from similar international regions?

Grand Challenge two: Making the most of the West Midlands' national geography

The interviews and literature review suggested the West Midlands' geography and connectivity to the rest of the country – and globe - could be a unique asset for the region.

Firstly, the West Midlands is surrounded by several significant functional economic areas (FEA). There is London to the south; Manchester, Liverpool, Leeds, and Sheffield in the north; Bristol, Gloucestershire and Wales in the west and the East Midlands to the east. This provides the opportunity to tap into multiple different FEAs across the country, benefit from positive spillovers stemming from them and develop industries which are drawn to a central location – such as logistics. Moreover, businesses and venture capital tend to invest

close to where they are already established. As the West Midlands is within reach of multiple different functional economic areas, this should theoretically increase the region's available pool of potential investors. Lastly, HS2 provides an opportunity to deepen some of these advantages. With the connection to London becoming closer and more reliable, there is opportunity to benefit from the UK's wealthiest region. In the LA workshop, participants said though that this may bring some challenges if the West Midlands becomes a periphery of London through increased connectivity.

The West Midlands also has access to two significant airports - Birmingham International and East Midlands Airport, the largest cargo airport in Europe. These provide good access to international markets, are attractive to businesses, can help augment existing aerospace clusters, and could play a beneficial role in integrating the West Midlands into global supply chains.

Another potential geographic strength for the West Midlands is its polycentricity within a single FEA. Unlike many other FEAs, which are dominated by one large city, the West Midlands has a number of significant cities functioning as a single, tightly connected economy. The different strengths these cities provide, their assets and their size could attract a wide range of diverse businesses and people to the region.

Conversely, there are potential policy challenges associated with our polycentricity – e.g., greater distance between population/economic nodes across the wider region. In the LA workshop, participants said that further work was seen to be needed to increase connectivity and realise the benefits of polycentricity (see next theme) and to improve the quality of life on offer to people in the region.

Furthermore, some academics argue that mid-size cities stand to benefit from a changing global economic environment characterised by rising geopolitical tensions, climate change, new technology, remote work, and a growing demand for capital spending in industry. They argue that these dynamics are focussing politicians on near-shoring and friend-shoring critical industries; opening up opportunities for mid-sized cities with industrial expertise, space for large plants, skilled workers and who can coordinate policy interventions to use these assets through a place-based approach.

Maximising these benefits will require us to think more holistically about the region, its strengths, the diversity of experiences within it, how we might work more effectively with other regions, and, linked to Grand Challenge five, partnership structures that ensure policy and investment complementarity.

Potential Big Questions

We have identified two Big Questions that we could look to answer to explore this Grand Challenge, these are:

1. What are the opportunities and challenges that stem from the West Midlands' location in the centre of the country?
2. What are the opportunities and challenges relating to the region's polycentric geography and the size and relationships between its towns and cities?

Grand Challenge three: Maximising the benefits of the region's demography and diversity

The West Midlands has a disproportionately young population, Birmingham is the youngest major city in Europe, and almost half the region belongs to an ethnic group other than 'White British'. A young and diverse population could attract businesses and investors to the region as it tends to provide a larger workforce, build international connections, help us develop an exciting regional narrative and increase the innovative potential of the economy. In the LA workshop, an example given was Goldman Sachs opening offices in Birmingham partly on the basis of the region's diversity. However, participants thought we often did not view our diversity as an opportunity but more something to be managed. Moreover, participants also said we place a greater emphasis on other types of diversity other than cultural / ethnicity in the region. For example, neurodiversity and SEND education and learning.

However, the region risks squandering this opportunity. Firstly, interviewees and the desktop research suggested that there is significant structural discrimination in the West Midlands' economic system. Racialised communities in the West Midlands are more likely to suffer negative health outcomes, experience difficulties accessing good jobs and housing, have worse transport connectivity, and undergo poorer experiences in education and criminal justice. For example, Black, Pakistani and Bangladeshi people in the West Midlands are far more likely to experience poverty; the disability pay gap in the region is above the English average at 14.7% and the gender pay gap stood at 10.8% in 2022. Collectively, interviewees argued that these experiences, among others, exclude many residents from the region's diverse communities from accessing opportunities.

Secondly, the research suggested that it is difficult to be young in the West Midlands. The region suffers from some of the highest levels of youth unemployment, economic inactivity, struggles to retain graduates, and low skills in the UK – approximately 30% of the West Midland's young people in the region hold fewer than 5 GCSEs and the region has the highest proportion of the working age population in England with no qualifications. These injustices make life worse for residents and cap the region's potential; jeopardising the potential demographic dividend of a young and diverse population.

However, in the LA workshop participants also stressed that there were not only challenges for young demographics in the region, noting that there were high levels of economic inactivity in the 55-64 age groups, reducing the size of the labour markets and contributing to self-perpetuating problems like poverty and deprivation.

Without remedying these inhibitors, this potential opportunity could turn into a cost through higher spending on public services, greater poverty and crime, deprivation, and structural inequality – all of which fuel further challenges.

Potential Big Questions

We have identified two Big Questions that we could look to answer to explore this Grand Challenge, these are:

1. How is the population of the WM likely to change over the next two decades?
2. How should we address the likely benefits and challenges arising from the region's demography and diversity now and in the future?

Grand Challenge four: Developing a unifying regional narrative

A key takeaway from the research was that the West Midlands, although a region with shared challenges and opportunities, lacked a strong regional identity with a clear idea of where it was trying to go.

Compared to other UK city regions, this lack of regional identity was seen in the interviews to be quite rare. People thought places such as Greater Manchester, the North East and South Yorkshire had strong regional identities even though they also had, to different extents, quite significant place-based diversity.

This lack of identity was perceived in the literature and by the interviewees we spoke to, to have a number of consequences for the region. Firstly, interviewees in particular thought it stymied the region's ability to work collectively. Secondly, it created a challenge for generating public buy-in from people who live, work and study across the region and the absence of this support was predicted to prove especially tricky if the West Midlands wanted to undertake the actions necessary for long-term regional transformation. Lastly, it was seen as a barrier to attracting partners and potential investors to the region as it made it hard to tell a story about what the region was, where it was trying to go and its offering.

In the LA workshop, participants first suggested why a regional identity was important for the West Midlands. Locally, participants said that a shared narrative could act as a unifying force that could enable us to more effectively work on the challenges and opportunities to shape our region. Furthermore, it would encourage local politicians to see their role as two-fold, representing their local place through councils and their wider region through the work of the WMCA. On a national level, some participants thought it would be helpful in managing our relationship with government, making clear where we wanted to go, our challenges and opportunities and could lay the groundwork for our devolution strategy. Internationally, it was seen as a potentially valuable tool for raising the region's profile and attracting investment.

Furthermore, in the interviews some people saw the strength of, and at times contrast between, local identities in the region as an insuperable barrier to creating a wider regional story. They argued the strength of these identities, grounded in local places and built up over time, would fracture any wider regional identity and cause it to appear artificial. However, other interviewees disagreed, suggesting identities were flexible, evolved in response to material circumstances and were not necessarily mutually exclusive. They argued identities develop around things that materially impact people's lives, and a reason behind the lack of a West Midlands regional identity was that, to date, this had not been a meaningful label for people to adopt. Moreover, they

argued that the emergence of new identities would not necessarily displace existing ones. They supported this by referencing the experience of identity in Europe where many political structures are relatively modern constructions that people identify with because they speak to their day-to-day experiences. These people said that further devolution and the emergence of stronger regional governance structures could provide the seeds for a West Midlands regional identity to germinate - as has occurred in Greater Manchester.

In the LA workshop, some people pointed out that there was no clarity on what was meant geographically by the West Midlands either. For example, should the WM narrative be focussed on the WMCA core area? Or, the area covered by the non-constituent authorities? Or, more broadly – even extend to the entire West Midlands geographic region. However, others questioned whether an identity needed to be tightly defined, but rather could speak to shared artifacts like Manchester’s identity around music and football rather than the LA boundaries.

Overall, there were a few key principles identified in the clarify phase research that a regional identity must satisfy to provide an effective platform and momentum for regional transformation. The first was that it must be authentic - speaking to what the region really is and its relation to the things that people find important in their lives, rather than being a political construction imposed from the top down. The second was that it needs to be ambitious, not limited by its past, and imagining a plausible, tangible future that generates better outcomes. Additionally, it must be coherent; able to tell an inspiring story about where the region has come from, how it fits together and where it is trying to go. Lastly, it needs to be malleable as a meaningful regional identity cannot be imposed from the top down; it needs to be owned and developed by the people who live, work, and study in the region. Therefore, although the WMCA and its partners can help encourage the process to form a regional identity, they cannot direct it. The identity needs to evolve and be developed by people in the region. This bottom-up approach necessitates malleability to allow different themes and stories to emerge and be brought together.

In the clarify phase interviews, we asked participants to identify themes a regional identity could develop around. These are summarised below:

- **Diversity in the region:** The region’s ethnic, national, geographical, and polycentric diversity could underpin a regional identity. The West Midlands was seen to be incredibly diverse and a place that has long acted as a magnet for people from different parts the country and globe. Geographically, the diversity between the region’s urban and rural environments is something people thought could be celebrated. Lastly, the fact the region has multiple cities contained within it, that one interviewee described as ‘the world’s largest village’, was seen as a potential source of wider regional identity.
- **Industry and manufacturing:** The region’s industrial history and contribution to the world is a source of pride for many. Moreover, the fact the region has kept its industrial heritage is an attribute that it might benefit from with the potential resurgence in manufacturing. However, the vision here should not be hooked on nostalgia.
- **Diversification and growing prominence:** While there was recognition of the West Midlands’ strong industrial past, there was also a sense that the West Midlands is evolving towards a new future and that a regional identity should reflect this. People cited the diversification of the economy and the growing recognition of the region as evidence of this.

- **Youth:** The fact the region has cities with some of the youngest populations in Europe was seen as a potential basis for identity that compliments the idea that the region is going forwards, generating excitement, and making a new name for itself.
- **Food:** Although there are many different cuisines in the West Midlands, stemming from its diversity, a shared love of good food, with the region being home to the second highest number of Michelin star restaurants in the UK for example, was seen as a potential basis for identity.
- **Quality of life:** The region's natural and cultural amenities, alongside its comparatively affordable lifestyle, and its centrality within the UK, are all advantages of living in the West Midlands that an identity could encompass and celebrate.
- **Distinctiveness within the UK:** The West Midlands was viewed as distinctive and not worried about copying other regions of the UK. This self-confidence and uniqueness could play into an identity.
- **People's characteristics:** People from the West Midlands were seen to have common characteristics such as friendliness, humility, industriousness, and a practical mindset.
- **The region's size:** The size of the West Midlands and number of different people it encompassed could feed into a wider regional identity.
- **Devolution:** The region's position at the forefront of English devolution could be a source of pride and an enabler for a wider regional identity to emerge. Furthermore, the Bull transport network could potentially provide a visual symbol of the West Midlands region for the many people interacting with it regularly.
- **Public services and institutions:** People were proud of public services, like the NHS and universities in the region, and these assets could be part of a wider, unifying regional identity.
- **Sports:** The legacy of the commonwealth games and the regions football teams could help inform a regional identity.

Potential Big Questions

We have identified one Big Question that we could look to answer to explore this Grand Challenge, these are:

1. What could an ambitious, authentic and unifying narrative that could enable collaboration over the long-term look like for the WM? How can this identify be created in the context of a polycentric regional structure?

Grand Challenge five: Creating effective regional institutions

The interviews and the literature review argued that significant progress has been made recently towards developing more effective structures in the West Midlands. However, interviewees also said that more work needed to be done to develop regional partnership structures capable of driving systems change. In particular, many interviewees argued regional strategy was currently too often focused on how funding and policy

interventions were to be divided up amongst the localities¹. Furthermore, that there was insufficient focus on the region's long-term direction and recognition that to get there, partners would have to collaborate.

In terms of what these structures might look like, the interviews and literature review surfaced several key attributes. Firstly, these regional structures must acknowledge the interconnectedness of the West Midlands' challenges and the requirement to address these holistically with partners over the long term. The research argued that this means the West Midlands' regional structures must be able to:

- Manage short term trade-offs to realise longer term benefits;
- Undertake policy collectively and with agility to manage the inherent uncertainty associated with driving systems change;
- Improve our abilities to model, test and revise our assumptions about what works in the region and the impacts we are driving;
- Improve our institutional memory; and
- Use our strategic long term objectives to shape the future of devolution with government.

Moreover, as the WMCA and LA partners lack the resources, knowledge and clout to drive system change alone, regional governance structures must be able to crowd-in a variety of partners behind long-term, strategic objectives to propel change. This includes businesses, communities, other public sector organisations, and government. Additionally, regional structures will need the buy-in of local people to undertake and maintain the strategic interventions required to drive systems change. This means demonstrating the impact of the West Midlands' regional structures on local people's lives, partnering with residents, workers, and students in the region to align on regional ambitions, and evaluating whether our interventions and strategies are creating the desired impact. However, our partners' diversity prevents a uniform approach to developing regional structures. Consequently, a key challenge will be how we develop these individual partnerships in a way that balances meaningful collaboration with overall strategic coherence.

Lastly, these partnership structures must be considered in relation to the future of public service delivery. The rapidly rising costs of the current model are making it increasingly unsustainable to deliver these services without significantly more funding. How we might develop regional structures capable of ameliorating this challenge where possible and making the case to government for reform should be incorporated under this Grand Challenge

In the LA workshop, participants thought that the devolution deal had given the WM's governance structures real impetus to working together more effectively and underpinning this with democratic accountability. Some participants, but others disagreed, also thought that there was a broad set of shared priorities for the region, even if there was disagreement on how best we might achieve them. Lastly, the hub-spoke model for delivery in the region was seen to be effective in some areas, notably for business support.

¹ However, there was an acknowledgement that there was a lot of good work going on in different places on different themes but a lack of an overarching approach. In section five this paper looks at some of the objectives of a selection of these strategies.

However, there were many more areas where participants thought that we needed to improve to address the regions challenges and opportunities. Firstly, participants reflected we needed to work more effectively together at a political level in the region. In the first place this means agreeing a common set of shared objectives that leaders are committed to realising over the long term. This means leaders recognising, prioritising and really working through trade-offs behind closed doors but then standing together on a shared platform of what the region is trying to achieve. Participants pointed to GMCA as an example of good practice in this type of working and coming together to better realise regional ambitions. However, this is not to say that there should be one-size fits all solutions to realise these ambitions across the region, there needs to be space to adapt interventions to local place dynamics in pursuit of common goals. This also means that there need to be tighter and long-term political structures to bring leaders together to discuss regional priorities and review progress against changing them.

At an official level, participants said that this means we also need long-term governance structures that bring together key actors from across the region to design, implement and evaluate strategies across the region over the long-term and improve institutional memory. However, to be effective these structures would need to speed up decision making, agree a common set of metrics and tools to evaluate progress and assign clear responsibility to different people across the region. Moreover, these structures need to avoid the trap of policy thematic siloes, different areas need to work together to achieve common aims and maximise complementarities.

Participants also discussed the need for us to partner more effectively with important actors in the region outside of local government. Examples included learning from the (former) LEPs in bringing in the private sector to work with us on shared issues, universities, anchor alliances, social economy organisations and national government agencies. Relatedly, participants also said that we needed to embed expertise more effectively from these partners into our organisations. Lastly, participants reflected we needed to improve our regional evaluation capabilities too to be able to test what is working / what is not working and learn from this.

Potential Big Questions

We have identified two Big Question that we could look to answer to explore this Grand Challenge, these are:

1. What are the strengths and weaknesses of the current region-wide structures and partnership arrangements in addressing the Grand Challenges?
2. What can we learn from other similar regions about the kinds of regional institutions that can support large-scale transformation?

Wider context: Megatrends in the West Midlands

However, a regional vision cannot consider these big challenges and systems dynamics in a vacuum as influences from outside the region will create new challenges and opportunities. In conjunction with the

University of Birmingham, WM REDI and City REDI, Midlands Engine produced a report on the Megatrends² that are anticipated to significantly influence the region over the medium to long term, these are:

Technology and digitisation: New technology and digitisation are likely to have a significant, lasting and increasing impact on the region's economy. AI and automation are predicted to fundamentally change the business models and skills needed of the West Midlands' industries and it is unclear if the region's residents will be able to capitalise on these opportunities. Furthermore, new high-tech sectors are likely to grow in prominence in the West Midlands. These include the space and gaming industries, Agri-Tech and MedTech. Lastly, changes to ways of working driven by hybrid working and a growing focus on sustainable business models offer opportunities and challenges for the region.

Climate change and net zero: Climate change is going to have significant global impacts. Most immediately, a warming world will trigger more frequent and stronger extreme weather events and impact global crop yields. A growing global population will exacerbate this. The transition to net zero will generate significant impacts. Firstly, the decarbonisation of business will create new industries, demand for green energy sources, demand for new materials to support these industries and net zero supply chains. The need to invest in net zero public transport infrastructure and green homes will also increase. These changes must be supported by greater research and development funding targeted at accomplishing net zero. Moreover, regardless of efforts to reduce emissions, investment in our infrastructure to protect it from the impacts of climate change that are already locked in is essential.

The West Midlands aims to become a net zero region by 2041. However, like many regions in the UK, we are not on course to meet our local NZ ambitions and there are several hard problems we must address to turn this around. We must confront the region's reliance on cars – as current travelling patterns are incompatible with our net zero ambitions – and the energy intensity of the West Midlands' businesses. Shifting people from cars to public transport will be impossible without significant investment in public transport infrastructure, particularly given the region's polycentricity. Similarly, without a strategic plan and resources to implement it, there is significant risk that enterprises in the West Midlands will not be able to make the shift to green energy and more efficient manufacturing.

Failure to tackle these challenges creates additional risks. Firstly, continued reliance on cars will exacerbate air pollution across the region. Secondly, without additional investment to transition towards green industries, many of the West Midlands' businesses will be at risk of producing products for which there is decreasing global demand. Given the global trend towards greater electrical vehicle usage, the market for the combustion engines that are produced in the West Midlands will shrink, and it is not guaranteed that the region will be able to switch from making combustion engines to EV batteries or relevant alternative technologies at the same level as now. The skillsets involved in the two supply chains are very different and the combustion engine has intricacies that the region's supply chains have specialised to support. However, given the West Midlands' manufacturing strength, if this investment is provided, the transition to green technologies could provide a

² The EU and OECD have also produced Megatrend forecasts with similar findings. We have used the City REDI, Midlands Engine and University of Birmingham's framework though as they have focussed on the megatrends most likely to impact life in the West Midlands.

significant economic opportunity in battery storage, advanced manufacturing, electric vehicle production and other associated green industries. Lastly, the status quo of inadequate regional investment in climate adaptation means the damage created by climate change will be much greater and continue to stifle the quality of residents' lives and potential of the region.

Rising geopolitical tensions: Rising geopolitical tensions endanger international cooperation, global supply chains, energy provision and costs, food systems and high-tech manufacturing. The emerging consequences of this are a growing focus on the regionalisation and reshoring / friendshoring / nearshoring of critical supply chains, investment in industries determined as vital for national security, and growing trade-barriers. This is problematic for the globalised supply chains that shape today's economy – and in which many of the West Midlands' industries are embedded. This trend has been augmented globally by the consequences of the Covid pandemic and nationally through Brexit. However, the rising importance of manufacturing in previously de-industrialising countries, as mentioned in Grand Challenge two, provides an opportunity for the West Midlands to use its industrial expertise to attract investment and benefit from this new environment.

Demographic trends: Much of the developed world is getting older as people live longer and have fewer children and becoming increasingly urbanized. We are also observing higher levels of international migration globally. Although the West Midlands currently has a younger demography than many of its peers, these overarching trends are likely to affect the region, nonetheless. This will pose significant challenges to public services dependent on the contributions of the working age population and increase the importance of keeping an older working population healthier. However, it also presents an opportunity for the region if the West Midlands can sustain its demographic advantage over its peers even as it ages. Furthermore, as future international migration to the region is likely to be driven by need for people of working age, a growing global majority population and potentially climate impacts, how we make the most of this will be a key challenge for the region – see Grand Challenge three.

In the LA workshops participants said that we would need to be forward looking, build a nuanced understanding of the opportunities and challenges that these Megatrends could have on the region and try and shape their impact in the region. To do this we will need to – working with partners - improve our horizon scanning and forecasting abilities in the West Midlands. From the present moment, these are likely to involve understanding how things like AI might displace some existing economic activity, increase productivity in other areas, redistribute economic outputs and disperse skill-sets more widely. Understanding what opportunities and challenges this is likely to create for the West Midlands' economic system is a requisite to maximising this Megatrend's benefits and ameliorating its challenges. Other examples include understanding how the reemergence of the US and the continuing emergence of SE Asia and South Asia in the manufacturing sector might impact the West Midlands or similar the impacts driven by climate change – with the WM being the UK's second largest net zero economy. To be able to be proactive in this way will also require political buy-in and so we need to make sure local leaders are also thinking about these challenges as well as the more day-to-day issues facing the region.

Participants also discussed the types of tools we could use to get on the front foot once we have a better understanding of where we are trying to go. Some mentioned how we might be able to use procurement more effectively to encourage the construction of new or retrofitting of old houses with heat pumps, others

discussed how we might work with partners to ensure the new jobs created by automation and AI are good jobs and not low-paid ones which require 12 hour shifts, and another mentioned how we could use this understanding to underpin our internationalisation strategy. One participant pointed to the example of Barcelona and how it responded to digital trends in the form of Airbnb with its housing and tourism policy. Participants also reflected that working in this way, trying to shape markets to deliver better outcomes, would require join-up across the region at both a political and official level.

Potential Big Questions

We have suggested two Big Questions to address the first three Megatrends. The fourth Megatrend, demographic trends, is discussed as part of Grand Challenge three.

1. Are the Megatrends we have identified the most relevant to the region and to what extent can we understand their implications; what can we know about what they are likely to be; and how do they apply to the other Big Questions?
2. What is the counterfactual scenario to one in which we do not intentionally respond to the Grand Challenges and opportunities and Megatrends on the horizon?

Annex: The literature we read and interviews we conducted

Desktop review	
Publishing institution	Article title
Bennet Institute	Devolving English Government
Birmingham Chamber of Commerce	Policy Manifesto
BT Group	Race to the Top
Centre for Cities	Does 'trickle out' work? How cities help their surrounding towns
Centre for Cities	Do City Centres really benefit their wider areas?
Centre for Cities	Centralisation nation
Centre for Cities	All cylinders: The role of the Midlands Engine in the British economy
Centre for Cities	At the frontier: The geography of the UK's new frontier
Centre for Cities	Making places: The role of regeneration in levelling up
Centre for Cities	Measuring up: Comparing public transport in the UK and Europe's biggest cities
Centre for Cities	Net Zero: decarbonising the city
Centre for Progressive Policy	Fair Growth – Opportunities for economic renewal
Centre for Progressive Policy	Could a UK manufacturing revival be a path to inclusive growth?
Centre for Progressive Policy	How the government's new university-led industrial clusters can support inclusive growth
Centre for Progressive Policy	How to create good jobs in England's towns
Centre for Progressive Policy	Levelling up our productivity requires a new focus on technology diffusion
Centre for Progressive Policy	Chapter 10 People, place, space and city-regions: towards an integrated or systemic approach to reading city-region

	regeneration economies in: A Research Agenda for Regeneration Economies (elgaronline.com)
CBI	Government must make big choices or the UK will lag behind
CIPD	An Industrial Strategy for the Everyday Economy
CIPFA	Investing in regional equality: lessons from four cities
CIPFA	Addressing regional inequalities in the UK: levelling to where?
DLUHC	Levelling Up the United Kingdom
Economic statistics centre for excellence	A bottom up industrial taxonomy of the UK
Envision Utah	Envision Utah
European Group for Organizational Studies journal	Tackling Grand Challenges Pragmatically
Gov.UK	West Midlands Local Industrial Strategy
IFG	How can devolution deliver regional growth in England?
Industry and Innovation journal	From market fixing to market creating: a new framework for innovation policy
IPPR	Making Markets in Practice
LA strategies	Walsall 2040 vision
LA strategies	2030 Group Strategy - Coventry
LA strategies	Council Plan 2022 – 2025 - Dudley
LA strategies	Relighting our City - Wolverhampton
LA strategies	Big City Plan - Birmingham
LA strategies	Solihull Economic Strategy 2023 - 32
LA strategies	Vision 2030 - Sandwell
Local Trust and the Young Foundation	Levelling up our communities: US – UK Fact finding mission
Midlands Engine	Megatrends in the Midlands
NEF	Skills for a new economy

OECD	Experimental governance: Conceptual approaches and practical cases
OECD	Regions in Industrial Transition: A new approach to persistent problems
OECD	OECD Regional Outlook 2023
ONS	Regional gross disposable household income, UK: 1997 to 2021
Onward	Levelling Up Locally
Onward	Giving back control: Realising the potential of England's mayors
Onward	Double Devo: Extending Town and Parish Councils
Onward	Turnaround: Learning from 60 years of Regeneration Policy
Parliament	Poverty in the UK: Statistics
Resolution Foundation	Institutional reform for Inclusive Growth
Resolution Foundation	Lessons from successful 'turnaround' cities for the UK
Resolution Foundation	A tale of two cities – A plausible strategy for productivity growth in Birmingham and beyond
Resolution Foundation	Ready for Change: How and why to make the UK economy more dynamic
Resolution Foundation	Creating a Good-Jobs Economy in the UK
Resolution Foundation	Sharing the benefits: Can Britain secure broadly shared prosperity
Resolution Foundation	Minding the (productivity and income) gaps
Santa Fe Institute	Complexity economics
Structural Change and Economic Dynamics	In order to stand up you must keep cycling
The Productivity Institute	Capital shocks and UK regional divergence
The Productivity Institute	Tackling the UK's regional economic inequality: binding constraints and avenues for policy intervention
The Productivity Institute	Why Hasn't Regional Policy Worked

The Productivity Institute	New insights on regional capital investment in the UK – 1997 to 2019
The Regional Studies Association	Regional Innovation Governance: Introducing the Concept of the Entrepreneurial Region
The Royal Society of Arts	Unleashing the potential of the UK’s cities
UCL Institute for Sustainable Resources	Policy, innovation and cost reduction in UK offshore wind
Welsh Government	Well-being of Future Generations (Wales) Act 2015: the essentials [HTML] GOV.WALES
WM REDI	Productivity in the West Midlands
WM REDI	Investing in regional equality: Lessons from four cities
WM REDI	State of the Region 2021
WM REDI	Connecting Communities
WM REDI	Graduate pathways: Identifying patterns of regional retention and attraction
WMCA	Reimagining transport in the West Midlands Transport for West Midlands (tfwm.org.uk)
WMCA	WMCA Objectives
WMCA	Race Forward
WMCA	Equity and Inclusion Scheme 2022-24
WMCA	Health of the region
WMCA	Inclusive Growth Framework Fundamentals
WMCA	State of the Region 2021
WMCA	State of the Region 2023-2024
WMCA	Regional Skills Plan
WMCA	Inclusive Growth Fundamentals
WMCA	LTP learnings for WM2035
WMCA	WM Digital Roadmap
WMCA	Plan for growth

WMCA	Growing the Social Economy in the WMCA area
WMCA	WM 2041
WMCA	Five Year Energy Plan
WMCA	West Midlands International Strategy Framework

We also interviewed people from the following organisations:

- Aston University
- Birmingham City University
- Bennet Institute
- Black Country Chambers of Commerce
- Blavatnik School of Governance
- British Business Bank
- Business partner organisations and forums
- Centre for Cities
- Centre for Progressive Policy
- Centre for a New Midlands
- City of Wolverhampton College
- Civil Servants across 6 departments
- Coventry University
- Greater Manchester Combined Authority
- Institute for Government
- Local Authority colleagues
- March 2024 workshop with LA colleagues considering an early draft of this report.
- Metro Dynamics
- Midlands Connect
- Midlands Engine
- Minerva Business Angels
- Network Resilience
- October 2023 Economic Symposium with policy partners, academics and think tanks.
- Organisation for Economic Cooperation and Development
- Onward
- Productivity Institute
- Resolution Foundation
- Social Economy partners
- Solihull College
- Trade Union Congress
- University of Birmingham

- Warwick University
- West Midlands 5G
- WM Growth Company colleagues
- WMCA colleagues