



**GREATER
MANCHESTER
INDEPENDENT
PROSPERITY
REVIEW**

EVIDENCE UPDATE: REFLECTIONS

October 2022

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FOREWORD



Professor Diane Coyle
Bennett Institute,
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This Reflections Report is a timely and welcome update of the sustained work done by researchers at the Greater Manchester Combined Authority (GMCA) – with input and challenge from many others – to understand and monitor how the economy of the city region is doing. As the report notes, this is a process that has been going on since the 2009 Manchester Independent Economic Review. That was published as the aftershocks of the financial crisis were still apparent. Since then, Greater Manchester (GM) – like the rest of the country – has experienced the headwinds of sustained austerity, the coronavirus pandemic, and now the energy and inflation shock. The winter ahead is likely to be challenging.

In this context, this report, including the commentaries from my fellow Reviewers and other experts, contains some important messages. I will highlight just four.

One is that productivity still matters, although it can seem an abstract piece of economic jargon. It is a measure of what can be got out of the resources available. Without improved productivity living standards cannot rise over time. It is all the more important to use resources well when they are scarce; and significant productivity improvements are about organising activities better and enhancing skills, rather than making cost efficiencies.

The second message is that productivity is not all that matters. The pandemic reinforced the message that health is fundamental. It has also led many people to evaluate their quality of life, with consequences for working patterns and transport.

For some young people in particular there are lasting consequences for mental health and well-being. In general, more people are more concerned about their broader well-being and the character of the place they live.

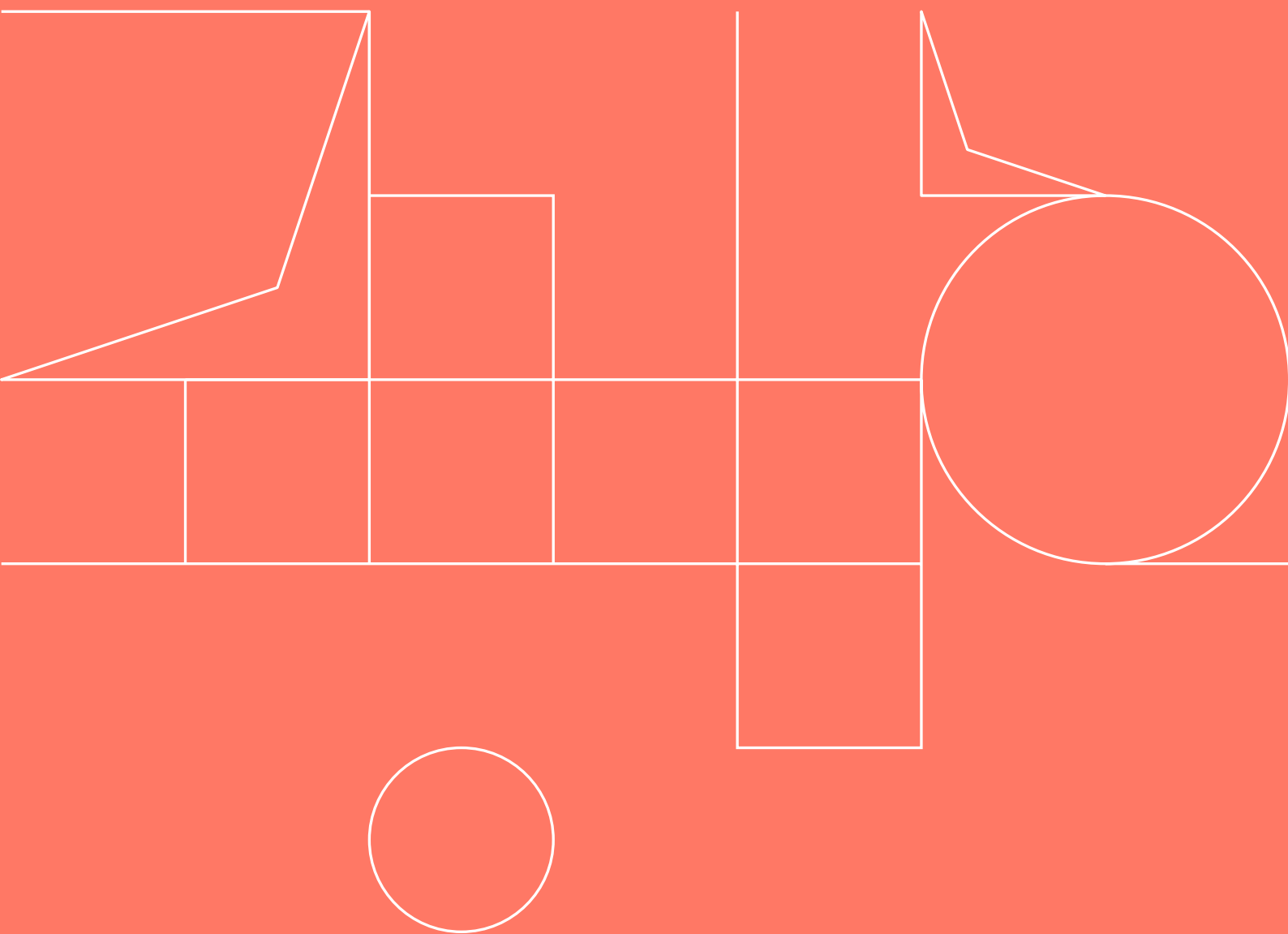
The third message is the importance of sustainability. There is rightly a focus on the net zero target. This is not only because climate change – as we have experienced with this past summer’s weather patterns globally – is a massive threat, but also because there are opportunities for investment and good jobs in the net zero carbon transition. However, sustainability has other dimensions, such as access to clean air, clean water and green spaces, urban trees, and biodiversity. The need for improvements in our natural inheritance is all too evident.

Finally, this report emphasises the need for policies and decisions to connect up. All the assets available to the people of GM need to work together reinforcing each other, and all the parts of the city region must progress together. There is much more in the report, but this is the key message: **the right kind of growth, for everyone.**

A handwritten signature in black ink, reading "Diane Coyle". The signature is fluid and cursive, with the first name "Diane" and the last name "Coyle" clearly distinguishable.

Professor Diane Coyle
Bennett Institute, University of Cambridge

01. INTRODUCTION





The Greater Manchester Independent Prosperity Review (the Prosperity Review) was carried out in 2019 under the leadership of a panel of experts: Professor Diane Coyle (Chair of the Panel), Stephanie Flanders, Professor Ed Glaeser, Professor Mariana Mazzucato, Professor Henry Overman and Darra Singh.

They were responsible for commissioning studies into four areas for the city region building on the rigorous analysis undertaken for the Manchester Independent Economic Review in 2009 (MIER, 2009). These areas included: analysis of productivity, including a granular analysis of the 'long tail' of low-productivity firms and low pay; analysis of education and skills transitions; exploration of the city region's innovation ecosystems, national and international supply chains and trade linkages and sources of global competitiveness; and work to review the infrastructure needs of Greater Manchester (GM) for raising productivity, including the potential for new approaches to unlock additional investment (GMCA, 2019a).

This formed the basis for the Greater Manchester Local Industrial Strategy (LIS) (GMCA, 2019b) in 2019 which provides a plan for good jobs and growth in the city region jointly agreed by GM and UK Government. It has deployed an approach which builds on GM's economic and scientific strengths and opportunities, whilst improving the foundations of productivity. The newly refreshed Greater Manchester Strategy : *Good Lives for All* (GMCA, 2021a) provides the strategic framework detailing how the city region will create a fairer, greener and more prosperous city-region across all parts of the conurbation, it builds on the Local Enterprise Partnership Economic Vision (GM LEP, 2020) and the Living with Covid-19 Plan (GMCA, 2020a). The Prosperity Review was then updated with a report to assess the initial impacts of Covid-19, One Year On (GMCA, 2020b).

The Local Industrial Strategy is now being refreshed and we have seen significant economic developments since 2019. We have a better understanding of the large-scale disruption caused by Covid-19, (even if we are still unclear about the longer-term implications), an emerging understanding of the impact of the UK's exit from the European Union, and are now in the midst of an energy and inflation shock.

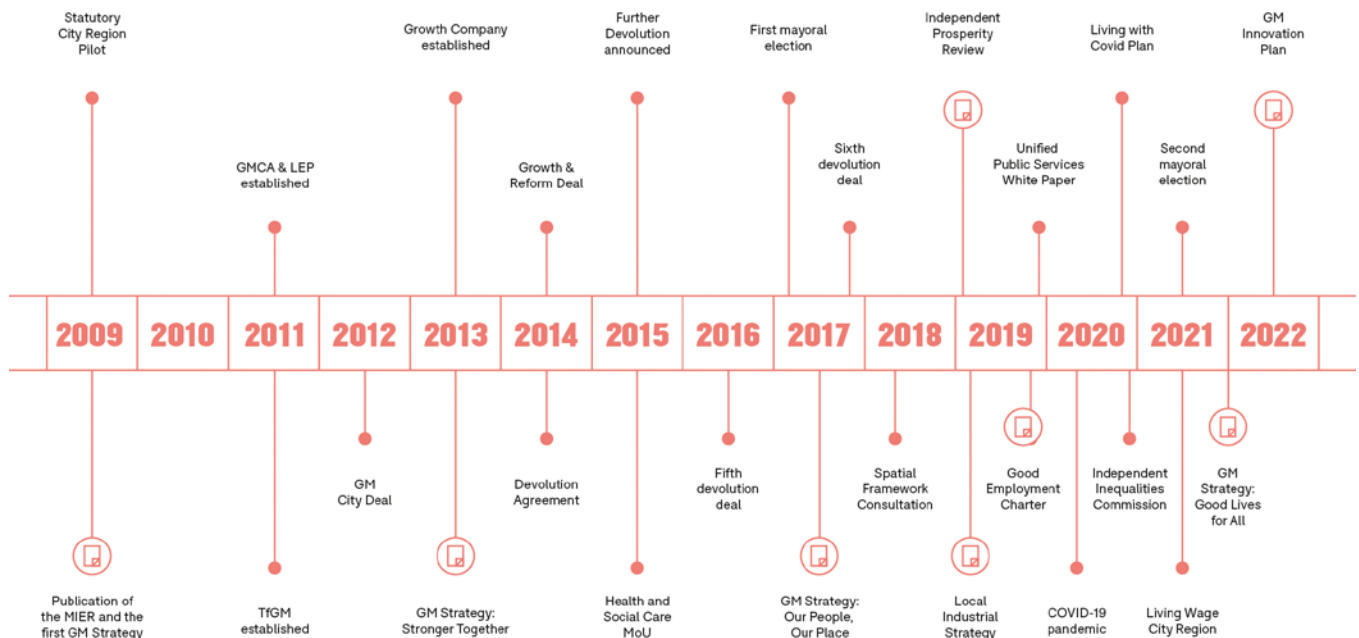
Set against this context, the Greater Manchester Combined Authority (GMCA) Research Team has returned to update the evidence base informing the Local Industrial Strategy and the Reviewers have been given the opportunity to assess that evidence, provide their insights and challenge the city region where necessary.

This evidence update explores seven inter-connected thematic areas: carbon neutrality; health inequalities; productivity and the business base; the labour market; skills utilisation and employer investment in skills; trade; and transport. The analysis is set within the context of recent changes and underlying chronic stresses.

Seven research reports covering each theme have been published alongside this Reflections Report¹. In addition, the evidence update includes inputs from the Economy 2030 Inquiry (Resolution Foundation, 2022), together with other collaborators - Alliance Manchester Business School, the Productivity Institute University of Manchester, and Systems Science in Public Health and Health Economics Research Consortium (SIPHER)². The work introduces new evidence, as well as drawing on the practical experience of the last three years.

This Reflections Report is the final paper for the evidence update. It commences with an overview of the economic context in GM including an outline of the changes and stresses to which the economy has been subjected. It then summarises the key findings and reflections from each of the research reports and includes commentary and reflections from reviewers and experts on each of these topics. A summary of key issues for a refreshed Local Industrial Strategy to consider based on the research findings and reflections is included in each section.

Figure 1: GM devolution timeline



02. ECONOMIC CONTEXT IN GREATER MANCHESTER





PRODUCTIVITY PERFORMANCE IN GREATER MANCHESTER

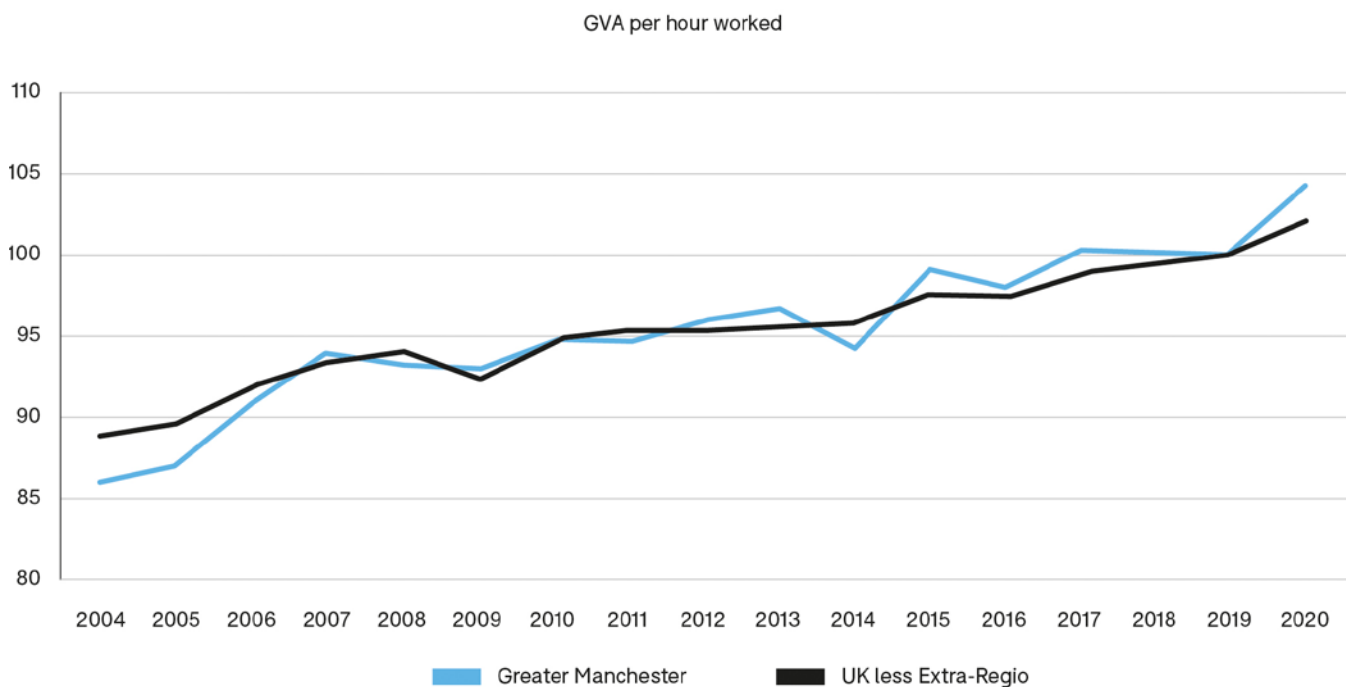
The latest productivity data, released by ONS in July 2022 highlights GM as one of the biggest improvers on productivity performance in the last ten years, with GM contributing more to UK productivity growth than all but two other International Territorial Level 2 (ITL2) areas between 2010 and 2020³.

The chart below shows the growth of productivity in GM and the UK from 2004-2020 (with values indexed to 2019). It shows more rapid productivity growth in the years preceding the 2008 financial crisis and then a slowing down of productivity growth in both the UK and GM in the years following the crisis. In this period (2010-2020) however, in six of the years during the period 2010-2020, GM's productivity grew more quickly than the UK's.

Despite these improvements, the gap between London and the South East and GM is not closing at an aggregate level. That latest data confirms the continuation of the trend identified in the Prosperity Review that GM has productivity at approximately 90% of the UK average. This gap is substantially larger than the gap between European capital cities and their second-tier equivalents (GMCA, 2019c). Raising GM's productivity to the UK average would generate an additional £8.6bn of GVA per annum.

A further contributing factor to GM's productivity challenge is geographic variation between parts of the city region. There is a difference of £13,000 of GVA per job between GM's most productive sub-region and its least productive⁴. Raising the productivity of all parts of the city region to the GM average would create an additional £3.4bn of GVA per annum.

Figure 2: Growth of productivity in GM and UK 2004 to 2020 (values indexed to 2019)



Source: ONS Sub regional productivity

CHANGES AND CHRONIC STRESSES

Since the Prosperity Review was first written a great deal has changed. We have experienced a global pandemic and are now in the midst of an inflation and energy price shock. More is known about the long-term productivity impacts of the Global Financial Crisis – and the implications of the UK's exit from the EU are starting to become clearer. All these economic changes are underpinned by chronic stresses caused by poverty and inequality.

Changes impacting on GM's economy

Global financial crisis

GM and the UK experienced a sharp decline in productivity growth in the years following the financial crisis: annual increases in productivity shrank from an average of 1.7% for the UK and 3% for GM (2004-2007) to 0.9% for the UK and 1.1% for GM (output per hour)⁵.

Poor labour productivity performance over the course of the 2010s has had a stagnating effect on household disposable incomes and this precedes the challenging period we are now in. As articulated by Andy Haldane, former Chief Economist of the Bank of England: "Productivity is what pays for pay rises. And productivity is what puts the life into living standards" (Bank of England, 2018). Increasing productivity (how much output is produced for a given input such as hour of work) is an enabler for improving living standards via higher real wages, particularly in the long run and as a necessary condition for sustainable economic growth. To ensure living standards for all are raised though, it must be supported by policy choices that ensure everyone can contribute to, and benefit from, growth.

Research by The National Institute of Economic and Social Research for The Productivity Institute quantified the impact that poor productivity performance has had on living standards with its finding that had the UK continued to grow at 2% per year over the last decade (output per hour worked)⁶, it would have given each worker an extra £5,000 per year in wage rises. This equates to around 20% of average annual earnings and masks the considerable regional disparities that add up to this loss (NIESR, 2022). For residents in GM this represents a huge dent in their living standards, which will be compounded further by the price rises associated with the current cost of living crisis.

UK's departure from the European Union

The latest intelligence for GM shows that following the UK's departure from the European Union, Foreign Direct Investment has held up and whilst the number of goods exporting firms has remained relatively stable, overall values of goods exports fell in GM and nationally in the first year of the pandemic. This is supplemented by a national fall in the openness and competitiveness of UK economy. Between 2019 and 2021 UK trade openness fell by eight percentage points (compared to a two percentage point decline in France) (Resolution Foundation, 2022) and locally businesses have reported that whilst they are currently absorbing the additional costs associated with EU Exit, with rising prices of energy and raw materials, difficult decisions will soon need to be made (GM Chamber of Commerce, 2022).

Coronavirus

The global pandemic has had a significant impact on people's lives. Restrictions have now receded, but the aftermath will be long lived. It has exposed inequalities that were deeply entrenched in the city region. The urgency to address poor health outcomes and inequalities broadly in GM has grown as a result of Covid-19. A worrying trend of the pandemic has been the rise in inactivity – 20,300 more GM residents left the labour market between the end of 2019 and the end of 2021, particularly men and those with ill-health. The distribution of inactivity growth appears to be uneven across the city region. The pandemic provided new ways of working remotely particularly for higher earners, but there is limited evidence on the ultimate effect of this change on GM's economy either spatially or from a productivity perspective. Lockdowns provided real progress in carbon reduction (largely due to lack of travel), but these gains have been eclipsed as travel has opened up⁷.

THE COVID-19 PANDEMIC EXPOSED INEQUALITIES WHICH WERE DEEPLY ENTRENCHED IN THE CITY REGION. THERE HAS BEEN A WORRYING RISE OF INACTIVITY AS RESIDENTS HAVE LEFT THE LABOUR MARKET

Inflation and energy shock

The inflation and energy price shock, sparked by Russia's invasion of Ukraine, has characterised much of 2022. It has been driven primarily by higher gas and fuel prices, along with a global rise in the price of raw materials and the prices of manufactured goods.. Those on the lowest incomes across the city region are worst affected as they spend a much higher proportion of their household income on essentials such as gas and electricity bills. It is estimated that about 450,000 (approx. 40%) of households in GM have a discretionary income of less than £124 per month based on a sample of data from Experian's MOSAIC⁸.

THOSE ON THE LOWEST INCOMES ARE WORST AFFECTED BY THE INFLATION AND ENERGY PRICE SHOCK AS THEY SPEND A MUCH HIGHER PROPORTION OF THEIR INCOME ON ESSENTIALS.

Chronic Stresses

Poverty and inequality

**ENDEMIC ISSUES OF
POVERTY AND INEQUALITY
ARE COMPOUNDING THE
'COST OF LIVING' CRISIS
WHICH IS UNFOLDING**

Endemic issues of poverty and inequality characterise the UK and GM economies. They resulted in very different experiences amongst residents in GM during the Covid-19 pandemic, and are compounding the 'cost of living' crisis which is unfolding today.

Evidence from GM's Resident Survey (February 2022) shows that job insecurity is high in GM – almost a fifth of respondents said that they thought they were likely to lose their job and become unemployed in the next twelve months (GMCA, 2022a)⁹. 309,000 GM residents are in receipt of Universal Credit payments to help with living costs and 103,000 GM residents are claiming out-of-work benefits (Jobseekers Allowance plus the number of Universal Credit claimants who are required to look for work). 287,000 GM residents are claiming help towards housing costs and this figure has risen since the pandemic (November 2021) (247,000 GM residents claimed housing benefit pre-pandemic, November 2019).¹⁰

There are 180,000 children aged between 0-19 living in households in GM with an income below the poverty line (GMPA, 2022)¹¹. Some 26% of children in GM are eligible for free school meals (approximately 121,000 children). This is five percentage points higher than the average rate of Free School Meals in England (a gap equivalent to 24,000 additional GM children) (GMPA, 2022)¹². The GM Resident Survey (September 2022) found that over 40% of respondents have experienced at least some degree of food insecurity in the last twelve months (GMCA, 2022a)¹³. Assuming that this sample is representative of the wider GM population, this is equivalent to approximately 500,000 households across the conurbation having experienced some form of food insecurity over the last 12 months, and is a 30% increase comparing results between February and September 2022. In GM, people from racially minoritised groups are significantly more likely to have eaten less than they should have because of a lack of money or other resources, compared to the GM average (53% compared to 33%) (GMCA, 2022a).¹⁴



Andy Haldane
Chief Executive
The Royal Society of Arts

ADDRESSING IMBALANCES BETWEEN THE UK AND GREATER MANCHESTER, AND WITHIN GREATER MANCHESTER

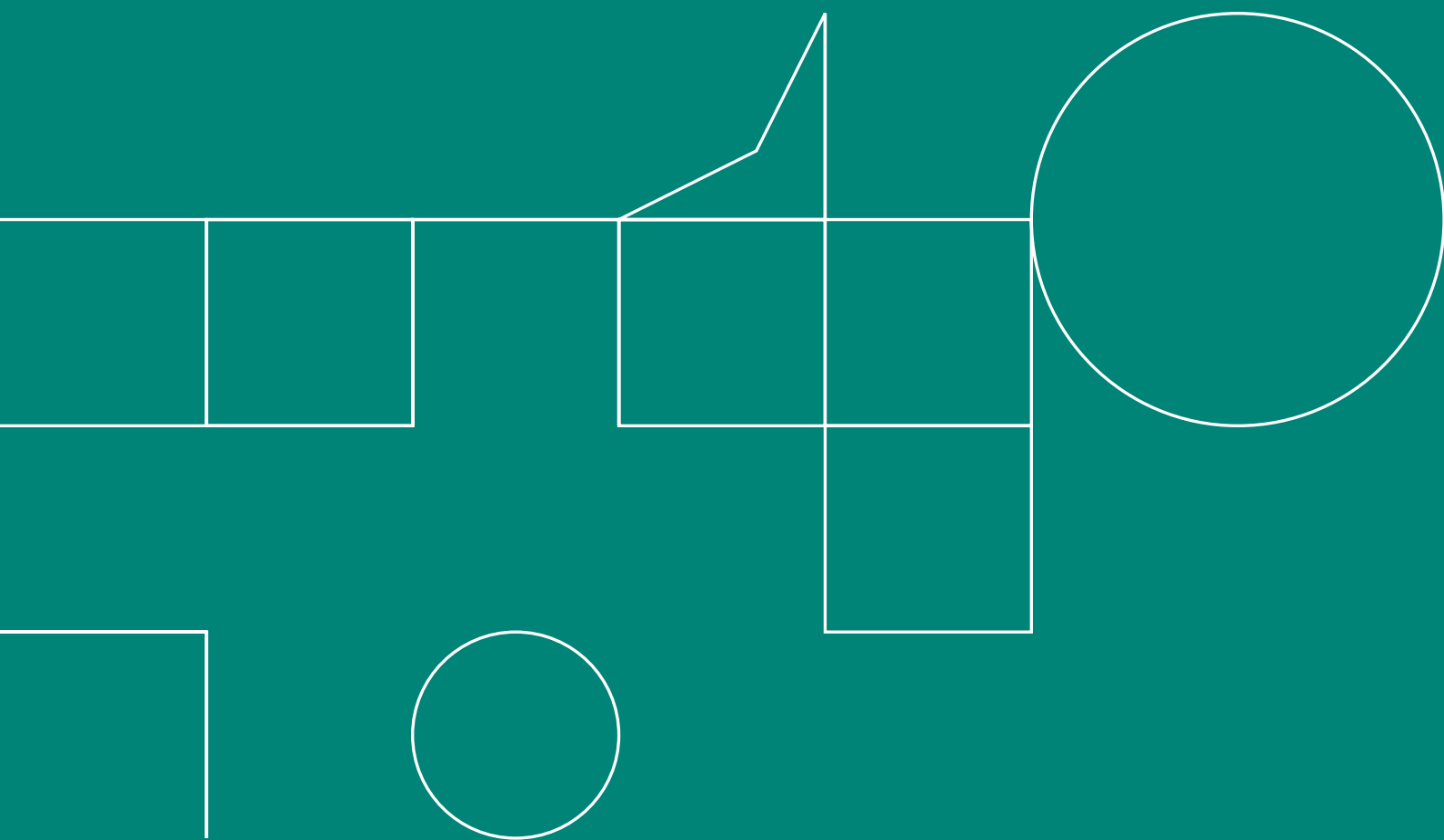
The arithmetic of growth tells a very clear story at a UK and GM level. We have experienced longstanding flatlining of productivity and real pay for the last 15 years and all growth since the global financial crisis has come courtesy of an expansion of workforce rather than an improvement in the productivity of that workforce. But as a result of Brexit and Covid-19, the workforce is now contracting. This means that without a rebuild in the scale and skills of the workforce to boost productivity it is difficult to understand where future growth will come from.

The response to this challenge must come from the bottom up. This is the essence of the White Paper on Levelling Up (DLUHC, 2022). It has set out a clear blueprint for growth which is driven at the local level. Local leaders need to be empowered to deliver local plans using local agency and local knowledge as it is only at a local level that places can join up the policy dots and deliver an effective local strategy.

For these local plans to stimulate growth, greater devolution and support for skills and transport improvements is needed. Consolidated funding streams are also essential for the city region so that they can be used efficiently and effectively in the places that need them most and pivoted as intelligence and evidence emerges on the areas of highest need. Specific support for skills and the rapid acceleration of the integrated transport system proposed is key to ensure access to economic opportunities by everyone, as part of an inclusive growth plan.

The evidence gives further weight to taking a people-centred approach to local economic development. There is much further for us to go in enhancing community power and spurring community development if the large and long-standing problems afflicting the UK's left-behind communities are to be tackled. The GM Independent Inequalities Commission (GMCA, 2020c) recommended that GM creates a Community Wealth Hub to support and grow co-operatives, mutuals, social and community enterprises, staffed by people from the co-operative and community sector. That would be a significant step in the right direction. As GM develops and looks to make its economic strategy more responsible and responsive, it should reflect on how community led approaches can be brought into the forthcoming economic strategy more fully.

03. SUMMARY INSIGHTS





This latest update of the Prosperity Review evidence base explores seven inter-connected thematic areas (carbon neutrality, health inequalities, the business base, the labour market, skills utilisation and employer investment in skills, trade, and transport) set within the context of the major changes and chronic stresses which have affected the economy, as summarised in the previous section.

Each thematic area is the subject of a research paper published alongside this Reflections Report, which can be found at <https://www.greatermanchester-ca.gov.uk/what-we-do/economy/greater-manchester-independent-prosperity-review>¹⁵. This section sets out a summary of the main messages from each research paper. A box at the end of each summary highlights the key issues raised by the research for a refreshed Local industrial Strategy to consider.

CARBON NEUTRALITY

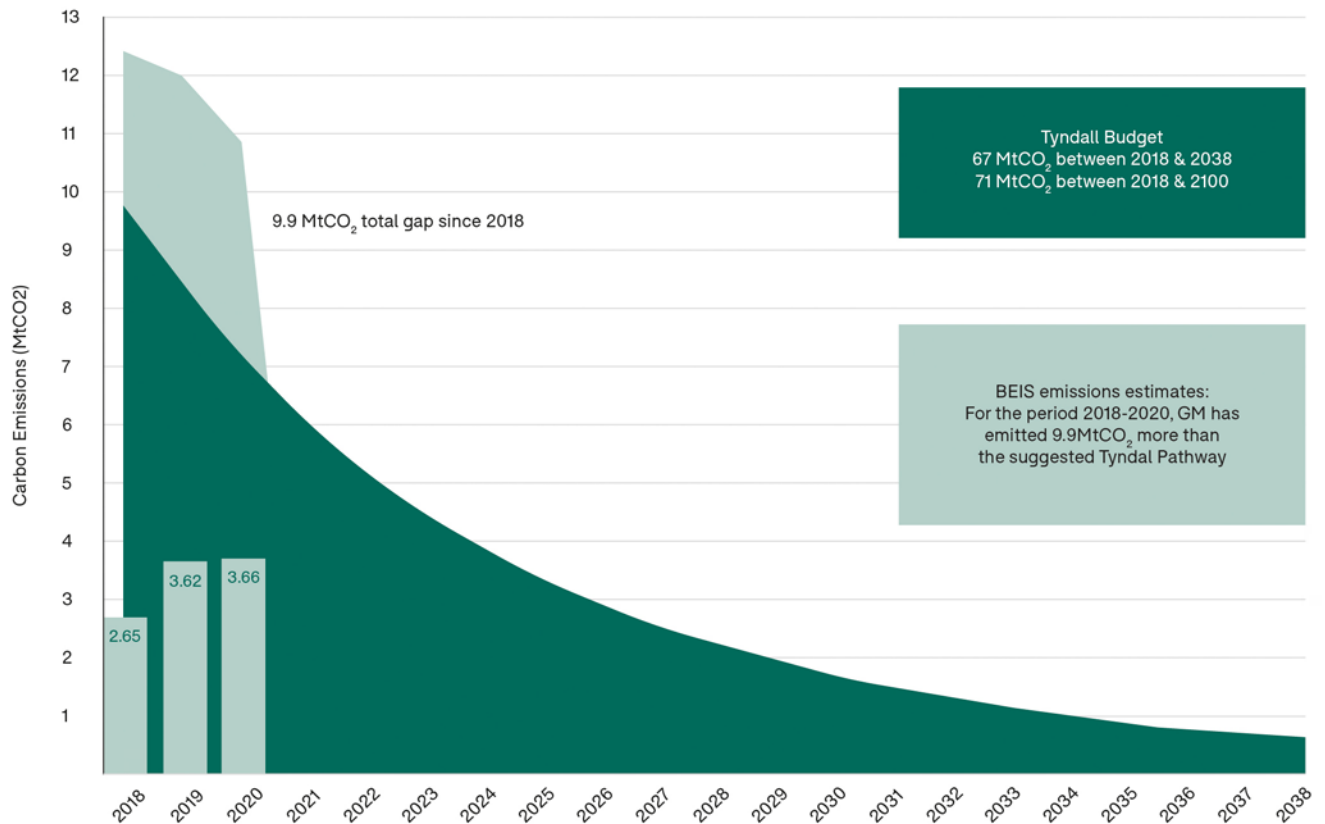
Looming over the other developments referred to in this report is that of the climate emergency. The 2019 Prosperity Review described GM's carbon neutrality ambition as impressive and the right thing to do based on climate change evidence, whilst also creating opportunities for innovation, improved resource efficiency and the development of new industries. However, it also said that the challenges it creates should not be underestimated (GMCA, 2019a). The target to be carbon neutral by 2038 is a science-based target that recognises the city-region's 'fair and equitable' contribution towards international climate agreements (GMCA, 2019d, Kuriakose et al. 2018). Since then, the signs of the climate crisis are becoming more evident in extreme weather events, such as more frequent floods and sudden heatwaves.

Progress to date against the 2038 carbon budget (set at 67 million tonnes carbon-dioxide (MtCO₂) for the period 2018-2038) is shown below. Since 2018, GM's emissions are cumulatively 9.9MtCO₂ above where they should be against the budget. **On present trajectories, analysis has shown that GM is only four years away from using up this carbon budget unless rapid reductions in emissions are achieved, especially in how we heat our buildings and transport ourselves (totalling 71% of current emissions)**¹⁶.

To maximise the chances that carbon neutrality can be achieved, it will be necessary for the transition to be embedded into a coordinated and system-wide policy approach that stimulates increased and well-targeted investments across innovation, infrastructure and skills.

Whilst climate change is a global problem, the solution will require local action. Research by Innovate UK and PwC has highlighted the value of a 'place perspective' with regard to decarbonisation: **the adoption of low-carbon measures based on local characteristics, needs and opportunities requires far less investment and results in nearly double the energy savings and social benefits** (compared with a place-agnostic approach) (Innovate UK, PWC, 2022). Local city region action also recognises the need for a **'fair' allocation of responsibility for action and investment for different areas** – as well as galvanising a wide variety of actors around an agenda that is going to involve momentous adaptation for cities.

Figure 3: GM's carbon emissions (since 2018) compared to the suggested pathway to a carbon neutral city-region in 2038. Dark green represents budget from the Tyndall Centre, and actual emissions estimates from BEIS (2020)



Source: BEIS Local Authority Emissions Estimates 2020 (2022 data). Dark green shows the Tyndall Budget for Greater Manchester (2018-2038); the light green area shows the current gap between GM's cumulative emissions (2018-2020), and the suggested Tyndall budget; and the light green columns show the in-year gap between emissions and suggested carbon neutral pathway

Estimates of the scale of investment needed for GM to reach carbon neutrality by 2038 in relation to the energy system alone have been put at **£64 billion**¹⁷ (with approximately 70% of this being required under 'business as usual' activity, regardless of carbon reduction efforts). Of this, almost £6 billion will be required by 2025. Yet only 10% of this is within direct public sector control. A further £4.6bn will be the responsibility of individual households and businesses (including energy costs), and the remainder funded through novel commercial models. This implies **the role of cities is as much about convening and coordinating change, and nurturing the conditions for innovation, rather than directly funding and directing it**. It is also important to remember that decarbonisation may also yield longer term cost savings, as the roll-out of more efficient, resource-respecting technologies and methods occurs.

Think tanks, consultancies and research organisations have produced models projecting which technologies and occupations are most in scope for growth or decline as net zero carbon horizons draw closer. Whilst useful to review, these forecasts have not been majored upon in this report. Instead, much of the intelligence comes from listening to businesses, experts and stakeholders. This intelligence has shown that certain sectors appear to be more self-evidently at the frontier of climate-related change than others. Of particular importance are the decarbonisation of heat, improvements to energy efficiency and electrification. **Sectors likely to be especially prominent in the net zero carbon transition include construction (especially retrofit), transport, energy, and resource and environmental management** (GMCA, 2022b).

Skill mixes within these areas will be very profoundly reshaped by net zero carbon. Some 'brown jobs' (heavy industry, extraction etc) may eventually disappear altogether (although GM has relatively few such jobs). Others will still be essential but will see transformations in their dominant technological paradigms: mechanics will need to adapt to the gradual electrification of car transport, for example¹⁸.

In some respects, net zero carbon reinforces the longstanding preoccupations of local policymakers. **There is a more general need for technical and digital skills, founded on high quality STEM-based learning (Science, Technology, Engineering and Mathematics).** Future innovation and adaptation to technological change depends on expanding such skills (whether green or non-green). Decades-old concerns with skills shortages in technical fields such as construction and engineering overlap with skills planning for net zero carbon.

But green skills are also likely to involve more specific - and advanced - development needs. Such skills are in addition to those generally offered by providers. An installer of low carbon heating systems, for example, will require a wider range of skills than any single trade. In these areas, shortages are compounded by **a need for curriculum adaptation**. The GM Retrofit Taskforce has found there is **likely to be a requirement for up to 8,000 additional construction workers over the next five years if existing retrofit trends continue - and they will require additional specialist training** (GMCA, 2022b).

THE ROLE OF CITIES IS AS MUCH ABOUT CONVENING AND COORDINATING CHANGE, AND NURTURING THE CONDITIONS FOR INNOVATION, RATHER THAN DIRECTLY FUNDING AND DIRECTING IT.

THERE IS A MORE GENERAL NEED FOR TECHNICAL AND DIGITAL SKILLS, FOUNDED ON HIGH QUALITY STEM-BASED LEARNING (SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS).

REDUCING EMISSIONS AND REACHING CARBON NEUTRALITY BY 2038 REQUIRES INNOVATION IN TECHNOLOGY, FINANCE AND DELIVERY MECHANISMS. IT ALSO REQUIRES INVESTMENT IN RESEARCH AND DEVELOPMENT AND SKILLS TOGETHER WITH WIDER ECONOMIC AND LIFESTYLE CHANGES.

Skills provision across apprenticeships, further education and universities in GM will need to keep evolving to meet the decarbonisation challenge. But what is clear is that the Reviewers' recommendation in their 2019 report (GMCA, 2019a) – that upskilling needs to be a priority for the city region – is as relevant now as it was then. The evidence points towards the requirement for a more coherent and joined-up local skills system so that it can respond to the needs of the local employer (see the separate section on Skills utilisation and employer investment in skills). Yet this will need to recognise and account for an increasing number of other pressures on employers, such as financial constraints and supply chain costs, so that employers are able to take advantage of any upskilling provision that is put in place.

However, **there is a role for policymakers and partners in the skills system in respect of encouraging and monitoring provision.** For example, ensuring employers and providers engage with new apprenticeship standards that are relevant to net zero carbon is important to their success (examples here might be Domestic Electrician Level 3, Low Carbon Heating Technician Level 3, and Landscaping Technical Manager Level 5) (GMCA, 2022c).

Reducing emissions and reaching carbon neutrality by 2038 requires innovation in technology, finance and delivery mechanisms, as well as investment in research and development, skills development, as well as wider economic and lifestyle changes. There is a limit to what can be achieved through technocratic structures and the advocacy of new technology alone, however. In September 2022, the UK Government commissioned an independent review into how to deliver the net zero commitments whilst maximising economic growth and investment, supporting energy security, and minimising the costs borne by businesses and consumers. The review will report by the end of 2022. **There is a need for the whole economy to operate in a manner that is supportive of carbon neutrality (and wider ecological limits), whilst recognising, acknowledging and addressing various challenges to achieving a fair and just transition.**

Meanwhile, and more optimistically, keeping sight of and nurturing the opportunities of the net zero transition also remain fundamental. Technological advance, living cost reductions, new business models and methods, and, of course, an enhanced environment and climate, remain realistically attainable goals. The enhancement of our natural environment and green spaces will not just be a necessity for the city region to adapt to the climatic changes we are already experiencing, but will bring about co-benefits in addressing wider socio-environmental challenges such as poor air quality, biodiversity loss and human health and wellbeing.



Professor Henry G. Overman

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Anna Valero

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London School of Economics

HIGH INVESTMENT TO IMPROVE PRODUCTIVITY AND ACHIEVE THE NET ZERO TRANSITION

Carbon neutrality alone is not a silver bullet for reversing the UK's economic stagnation and addressing inequalities. Domestic implementation of climate policies and targets will not necessarily lead to domestic economic benefits or ensure that these benefits, and costs, are shared fairly. To help achieve these objectives, the transition must be embedded into a coordinated and system-wide policy approach that stimulates increased and well-targeted investments across innovation, infrastructure, and skills.

If done right, GM and the UK could see higher living standards, and better health and wellbeing, underpinned by businesses innovating and adopting cutting-edge clean technologies and practices fit for the mid-21st century.

This will not happen without significant investment. The Interim Report of The Economy 2030 Inquiry (Resolution Foundation, 2022) argues that the 2020s need to be a high investment decade if the UK wants to improve its productivity and achieve the net zero transition. Not only is such investment needed to address the challenges to come, but also to address years of low investment across the UK. Historically low levels of investment by consecutive UK governments and by UK firms in new technologies, process innovation, people, Intellectual Property (IP) and management practices play an important part in explaining the UK's poor productivity compared to the G7. And differences in these investments across areas also play a role in explaining differences between the north and south of the UK. Historically, arguments about spatial disparities have focused on public sector investment but the Economy 2030 report highlights the crucial importance of better understanding and stimulating private sector investment, particularly in intangible capital. Newly available experimental data from the Office for National Statistics provide an opportunity to learn more – and the GMCA and the What Works Centre for Local Economic Growth are currently working together to see how this data can further our understanding.

What we already know is that seizing opportunities relating to the UK's specialisms in clean technologies could generate increased investment and national and regional growth opportunities. Analysis of patent data shows that, although patents – as with R&D activity more generally – tend to be concentrated in the 'golden triangle' of Oxford, Cambridge and London, areas outside these regions tend to be more specialised in clean technologies. Similar patterns occur for firms providing net zero-related goods and services.

There are also interesting – and, for a government wishing to redistribute R&D spending and 'level up' the country, helpful – geographic patterns in the return on investments in clean innovation. Investments in certain clean technologies, such as tidal and offshore wind, generate relatively high national economic returns. But notably, investments in such areas in less innovation-intense regions generate strong returns for those regions (and little leakage). Local initiatives, such as Innovation GM, can play an important role in identifying local strengths and coordinating local partners to take advantage of these.

While some of this investment will need to be in physical and intangible capital, complementary investment in people and skills is urgently needed to improve labour market outcomes for individuals, and productivity and growth in firms – including stimulating the invention and diffusion of new clean technologies and ensuring that new "green jobs" are available to all. In the absence of this investment the potential economic benefits of the net zero transition are unlikely to go those that need them most.

Finally, encouraging this investment needs a long-term strategy – both for the UK and for local areas such as GM – to aid coordination and reduce the uncertainty that can be so damaging to private sector investment.



Carly McLachlan
Professor of Climate and
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A STEP CHANGE IS NEEDED TO EMBED ZERO CARBON IN ALL THAT WE DO

There is much activity and collaboration in GM driven by accelerating the delivery of emissions reductions, enhancing our resilience and our prosperity. However, progress is too slow: our emissions reductions in 2020 (the latest year of data) rely heavily on decarbonisation of the national grid and seem likely to bounce back to some extent following the end of Covid-19 restrictions. To really make progress we need to approach this as a process of transformation. It's not just about infrastructure, but in how we think about and embed zero carbon in all that we do. This is a mindset change that we must support and challenge each other to embed across GM, affecting the way we think about things like planning, priorities, decision-making, trade-offs, co-benefits, payback, value and justice.

The challenge is significant, but work that has taken place over many years across different stakeholder groups in GM makes us well placed to make this step-change and genuinely lead the transformation nationally. But make no mistake, this is a step change. It's not more of the same, not a few tweaks, but a deep, cultural shift in how we decide on priorities and how we deliver on them, how we challenge the status quo and long held assumptions. We will need to continue to work with other cities and local authorities to share what works, and importantly, what doesn't. We must also evidence to national government where we need support and be clear on how they can facilitate us to deliver locally, be that through businesses, local government, charities or other organisations.

Developing a thriving green economy isn't a single priority, but a cross-cutting and different way of thinking about the economy and society. It is about moving beyond pilots and trials towards rapidly scaling solutions that create value and good jobs in GM. Justice and equity are key. People across GM must be able to see, and experience, how they will live good, enjoyable and rewarding lives in our transformed city region. Significant increases in energy prices should sharpen our focus on a rapid and just transition to zero carbon and make the various benefits of doing so even clearer.

KEY POINTS ON CARBON NEUTRALITY FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- While the Local Industrial Strategy published in 2019 identified low carbon as a frontier sector, the growth opportunities from decarbonisation are not yet being fully realised. Networks such as Innovation GM will have a crucial role to play in that.
- Decarbonisation needs to be accelerated and is not yet on track towards carbon neutrality by 2038. It needs to be considered in all aspects of GM's economic and business agenda.
- The transition to a decarbonised economy needs to be embedded into a coordinated and system-wide policy approach that stimulates increased and well-targeted investments across innovation, infrastructure and skills.
- Sectoral contributions to decarbonisation need to be better understood. Sectors likely to be especially prominent in the net zero carbon transition include construction (especially retrofit), transport, energy, and resource and environmental management
- There is a general need for technical and digital skills, founded on high quality STEM-based learning (Science, Technology, Engineering and Mathematics). Future innovation and adaptation to technological change depends on expanding such skills.

HEALTH INEQUALITIES

The 2019 Prosperity Review found that the interactions between poor physical and mental health and growth stand out dramatically in GM, with its analysis finding that poor health outcomes have a significant negative impact on the productivity of city regions. The Reviewers concluded that health needs to feature far more prominently in discussions of human capital, labour market participation, and productivity (GMCA, 2019a).

The evidence update has sought to assess the latest evidence on the economic impact of health inequality.

GM HAS – IN GENERAL – WORSE HEALTH THAN IS TYPICAL FOR THE UK, BUT THERE ARE SOME SIGNS OF IMPROVEMENT IN LIFE EXPECTANCY.

GM has – in general – worse health than is typical for the UK, but there are some signs of improvement in life expectancy. In parts of GM population health outcomes are far below normal expectations – especially for men. Healthy life expectancy for males in Oldham is just 56.63 years, for example - ten years below state pension age. Meanwhile, within GM, neighbouring local authorities can have sharply different health patterns. A man born in Manchester can expect to live 3.92 years less than his peer born in next-door Trafford; for women the gap is 3.36 years¹⁹.

Prior to the Covid-19 pandemic there had been some improvement, however. A study undertaken by the University of Manchester and recently published in *The Lancet*, assessed the impact of the devolution of health and social care powers to Greater Manchester between 2014 and 2019. The study found that compared to similar areas elsewhere in England with similar pre-devolution trends, following devolution, life expectancy in Greater Manchester was 0.2 years (95% CI: 0.182 to 0.210) higher than expected. This figure may seem modest for an individual, but is significant when considered for the population as a whole. Another way of looking at the increase is that it was 2.2 times greater than the average change in the rest of the country between 2014 and 2019. The analysis was unable to determine the exact reasons behind the increase, but the authors suggest it might be due to “coordinated devolution across sectors, affecting wider determinants of health and the organisation of care services.” (Britteon et al, 2022).

LEVELS OF DEPRIVATION IN GM WORSENE THE IMPACT OF THE COVID-19 PANDEMIC.

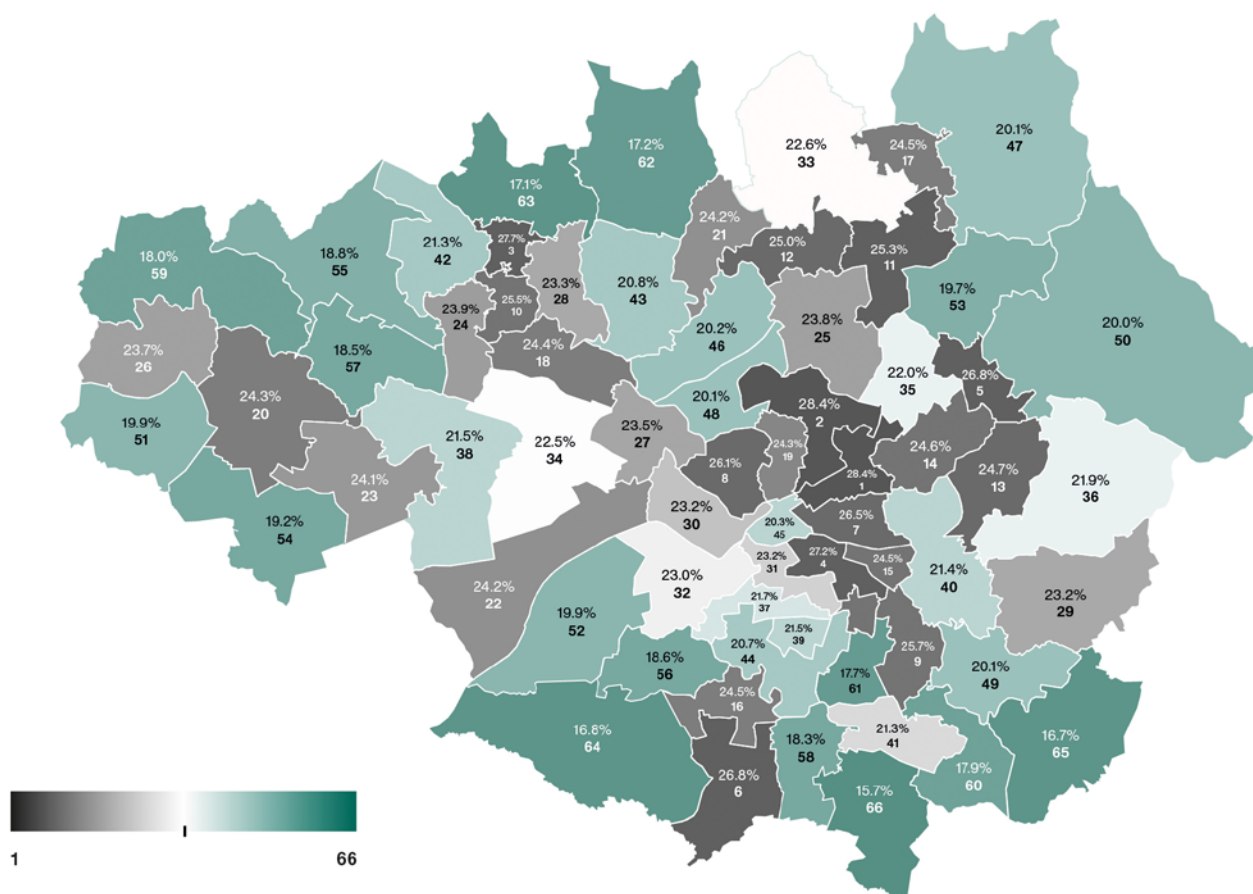
Despite these prior improvements, GM residents appear to have been more affected by the Covid-19 pandemic than other areas of the UK. **Levels of deprivation in GM worsened the impact of the Covid-19 pandemic.** Mortality ratios from Covid-19 tended to move with deprivation deciles, research has found. According to The Institute for Health Equity high Covid-19 mortality rates in GM relate to its socio-demographic characteristics, previous health status, living and working conditions and occupations, ethnicity, levels of deprivation and physical interconnectedness (M, Marmot et al, 2021)²⁰.

GM's productivity has been about 10% below the national average in recent years. Among the causes – explaining about 30% of the productivity gap (Bambra, Munford, Brown et al, 2018) – is lower labour market participation caused by health problems. There are very strong correlations between employment levels and health conditions. **Research found that as much as 75% of the variance in employment rates across the neighbourhoods of GM is accounted for by health (correlations for mental and physical ill-health were similar) (GMCA, 2022d).**

Improving population health and reducing health inequalities is critical to address economic under-performance in the city region. This could include continued expansion of mental health provision, and recommissioning and scaling up employment support programmes that take a health and employment approach. Further research and analysis into the extent to which perception of health (both individuals' perceptions and perhaps employers', too) acts as a barrier to employment could provide valuable insights. Such insights would help to ensure employment support programmes are tailored to address both real and perceived health issues, for example.

Increased use of tools such as those being created by the SIPHER consortium project – including the SIPHER Synthetic population, a 'digital twin' of individuals with attributes very similar to the actual population of GM – can be used for analysis, simulation and decision making. The SIPHER tools can support decision makers to optimise interventions and maximise the impacts on health, health inequalities, employment and productivity²¹. The map of the working-age population with a recent mental health issue below is an example of a synthetic population dataset. It is used here to show which neighbourhoods could be targeted for investment to drive both health and economic improvements.

Figure 4: % of working age population and neighbourhood rank where mental health had affected ability to work



Source: Modelled data sourced from University of Essex, Institute for Social and Economic Research (2022). Understanding Society: Waves 1-11, 2009-2020 and Harmonised BHPS: Waves 1-18, 1991-2009. [data collection]. 15th Edition. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-16>. Map depicts % of working age population with 'Mental health meant worked less carefully (last four weeks)' ranked in order of 1 to 66 with 1 (black) being the worst performing (highest % of working age population where mental health meant worked less carefully over the last four weeks) and 66 (green) being the best performing (lowest % of working age population where 'mental health meant worked less carefully' over the last four weeks)

**ONE OF THE KEY WAYS TO
IMPROVING WELL-BEING
IS TO INCREASE THE
NUMBER OF PEOPLE IN HIGH
QUALITY JOBS**

While the evidence in respect of the economic impact of health is of most concern to an economic strategy, the relationship runs the other way, too. Employment is a major influence on health.

In general, people in employment have better health than the unemployed. This means that the move from joblessness into work typically brings well-being improvements – at least initially. Yet the interaction is subtle. Research has found that precarious work has negative effects on mental well-being. Similarly, where employees are in poor health, this can be the trigger for reductions in the stability of employment (Gray et al, 2020).

Although greater work flexibility brings advantages for employees, these depend on who is driving the decision-making process. If the flexibility is imposed by employers, thereby removing control, this can lead to deteriorations in mental health (Joyce et al, 2010).

Such findings imply that **one of the key ways to improving well-being is to increase the number of people in high quality jobs – stable, decently-paying positions where employees feel they have autonomy**. This is the objective behind several current local programmes, such as the GM Good Employment Charter, the Living Wage City Region initiative, and, to some extent, programmes such as Working Well.

The operating model co-ordinated by Health Innovation Manchester²² provides a route to supporting health and care services, as well as residents, to recover from the pandemic, by using a population health management approach. Example projects since the publication of the Local Industrial Strategy include the development of the GM Care Record into a digital asset with the potential to tackle health inequalities and transform care.

The health and care system in GM is left with significant challenges after Covid-19 and more marked challenges than other places in England, so continued innovation will be needed to boost population health (including mental health) and recovery from the pandemic. This does however provide an opportunity to further grow the health innovation and life sciences sector across different areas of GM and to have a substantial impact on the health, wellbeing and prosperity of GM residents.

EMPLOYMENT IS A MAJOR INFLUENCE ON HEALTH.



Professor Sir Michael G. Marmot
Professor of Epidemiology at
University College London, Director
of the UCL Institute of Health Equity

NOT ONLY IS THERE A STRONG SOCIAL JUSTICE CASE FOR ADDRESSING HEALTH INEQUALITIES, THERE IS ALSO A PRESSING ECONOMIC CASE

There are considerable inequalities in life expectancy and health between and within different local authority areas within GM. Covid-19 has exposed differences in health outcomes amongst the population. 'Build Back Fairer in Greater Manchester' (Institute of Health Equity, 2021) evidenced that more deprived and minoritized groups had a higher Covid-19 mortality rate than white groups and that the Covid-19 mortality rate in Greater Manchester generally has been higher than the average in England.

Health inequalities are largely preventable. Not only is there a strong social justice case for addressing health inequalities, there is also a pressing economic case and improving health will improve economic productivity and reduce the burden on public and local authority services. Action on health inequalities requires action across all the social determinants of health, including the early years, education, work, income, home and community.

We have long known for example that being in good employment is usually protective of health while unemployment, particularly long-term unemployment, contributes significantly to poor health. The nature of employment matters, too: poor quality jobs can have a detrimental effect on physical and mental health.

We at the Institute for Health Equity recommend that, as GM emerges from the pandemic, effort is focused on improving health and well-being by increasing the numbers of people in high quality jobs – stable, decently-paying positions where employees feel they have autonomy. Programmes such as the Greater Manchester Good Employment Charter, the Living Wage City Region initiative, and Working Well are making a difference, but more could be done. Interventions must also be targeted on the populations and geographies experiencing the greatest inequality.

KEY POINTS ON HEALTH INEQUALITIES FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- Since the finding of the 2019 Prosperity Review that poor health outcomes have a significant negative impact on the productivity of GM, the evidence of that has only become more compelling.
- There is also a very strong correlation between employment levels and health conditions.
- Both the growth opportunities from health innovation and the economic determinants of (mental and physical) health therefore need to be embedded in the refreshed Local Economic Strategy.

THE BUSINESS BASE

The 2019 Prosperity Review concluded that GM has some world-class strengths, particularly in advanced materials and health innovation, supported by other high productivity sectors, which, if not nationally unique, remain important strengths and include: manufacturing, digital and creative industries, and professional services (GMCA, 2019e). It also found that the balance of employment had shifted towards lower productivity sectors and activities in recent years. The Reviewers therefore recommended that the issues that need to be addressed were both at the high-skill, innovative frontier and in the 'long tail' of low productivity businesses (GMCA, 2019a). Differences in productivity between firms in the same sector were in many cases more pronounced than those between firms in different sectors, so there was significant potential for productivity growth across all sectors of the economy. This report for the evidence update assesses structural change in the economy as a result of Covid-19 and summarises progress in supporting the frontier and foundational economy since 2019. **The Covid-19 pandemic caused rapid and large-scale disruption to the economy of both the UK and GM.** One finding of the Greater Manchester Independent Prosperity Review (GMCA, 2019a), was that GM's economy was 'the most diverse of any city region'. Whilst data is still emerging on the total economic impact of the pandemic and needs to be closely monitored, initial evidence suggests that state support for the economy through furlough, business grants, loans and other support programmes was effective in preventing long-term structural change to many elements of the city region's economy, thus retaining its diversity (GMCA, 2022e).

This is not to say that there have not been substantial economic impacts, but that on a range of measures these effects do not appear to be as deep and long lasting as initially feared. This is well exemplified by analysis of trends in employment by sector. Broadly speaking, the trends that were in place before the pandemic remain apparent. This includes an overarching trend towards more rapid growth in employment in service-based industries. Services jobs growth accounted for 77% of jobs growth in GM between 2015 and 2019 (+104,000 jobs)²³.

However, a close examination of the data does reveal some fluctuation in the fortunes of certain sectors. For example, counter to national trends, employment in the logistics sector shrank by 10% during the first months of the pandemic. This was largely as a result of reductions in employment in 'Passenger and Freight Transport by Road and Rail' and 'Postal and Courier activities'. Despite this trend, the number of logistics firms in GM continued to grow. Whilst these trends require close monitoring in the future, when examined in the context of overall employment volumes, they do not yet suggest a marked shift in sectoral employment in GM (GMCA, 2022e).

DESPITE THE LARGE SCALE ECONOMIC DISRUPTION CAUSED BY THE COVID-19 PANDEMIC, THE FINDING OF THE 2019 PROSPERITY REVIEW THAT GREATER MANCHESTER'S ECONOMY WAS 'THE MOST DIVERSE OF ANY CITY REGION' STILL STANDS

GREATER MANCHESTER CONTINUES TO HAVE WORLD-CLASS STRENGTHS, PARTICULARLY IN ADVANCED MATERIALS AND HEALTH INNOVATION, SUPPORTED BY OTHER HIGH PRODUCTIVITY SECTORS, WHICH, IF NOT NATIONALLY UNIQUE, REMAIN IMPORTANT STRENGTHS AND INCLUDE: MANUFACTURING, DIGITAL AND CREATIVE INDUSTRIES, AND PROFESSIONAL SERVICES

A MORE SOPHISTICATED UNDERSTANDING OF SECTOR STRENGTHS HOWEVER IS NOW EMERGING. THE SYNERGIES BETWEEN THE FOUR FRONTIER SECTORS ARE BEING EXPLOITED IN CONJUNCTION WITH THE OPPORTUNITIES ARISING FROM CROSS-CUTTING TECHNOLOGY FAMILIES WITH A PARTICULAR FOCUS ON: SUSTAINABLE ADVANCED MATERIALS, ARTIFICIAL INTELLIGENCE, DATA AND ADVANCED COMPUTING, AND DIAGNOSTICS AND GENOMICS.

THERE IS NOW A GREATER FOCUS ON SUPPORTING THE FOUNDATIONAL ECONOMY. COVID-19 HAS ALSO BROUGHT TO BEAR THE IMPORTANCE OF THESE SECTORS THAT PROVIDE THE INFRASTRUCTURE FOR EVERYDAY LIFE AND SUPPORT HUMAN NEEDS DIRECTLY.

Growth in high-skilled, high-value, high-productivity employment remains an essential priority for GM. Building on the recommendations of the Reviewers, this continues to be focused around four complementary and interconnected frontier sectors: sustainable advanced materials and manufacturing, health innovation and life sciences, digital and creative, and net zero.

A more sophisticated understanding of these sector strengths however is now emerging. The synergies between these four frontier sectors are being exploited in conjunction with the opportunities arising from cross-cutting technology families with a particular focus on: sustainable advanced materials, artificial intelligence, data and advanced computing, and diagnostics and genomics.

Research has been accelerated by Innovation GM (IGM). IGM is a triple-helix partnership organisation which brings together leaders of business, universities, and public institutions to deliver the Innovation GM 2030 Vision. Linking with this Vision is the GM Innovation Accelerator pilot (a partnership activity with Government) which has a developed local innovation plan (IGM, 2022). **The Innovation Accelerator is an opportunity for local and national government and innovation agencies to work with business to co-design, deploy, and evaluate new approaches to place-based innovation.** Beyond the Innovation Accelerator, GM is seeking investment and policy support aligned with the GM Devolution Trailblazer. This would anchor and sustain the region's innovation ecosystem.

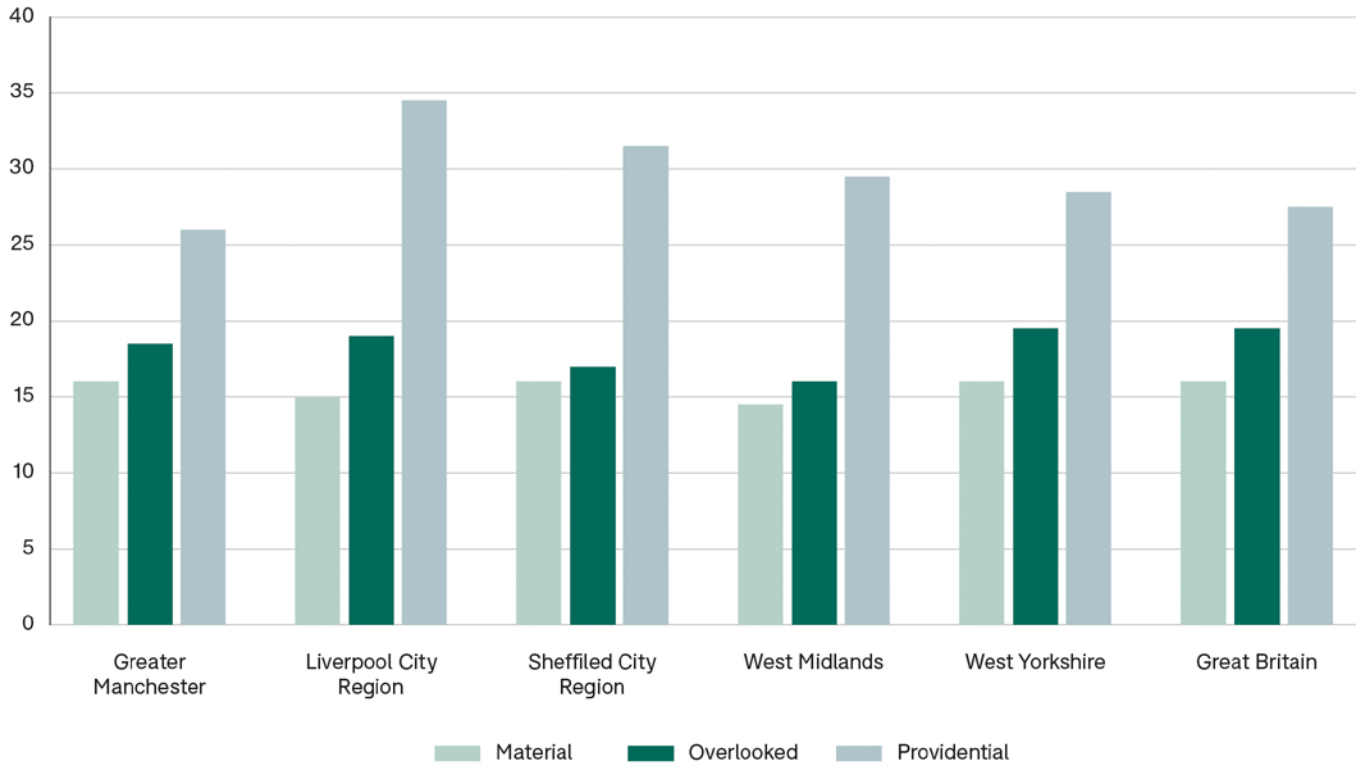
This activity sits alongside a greater focus on supporting the foundational economy. Reviewers in the One Year On report said that “a greater focus was needed to support businesses in the foundational economy in GM to adopt a sustainable footing” and this remains as relevant as ever (GMCA, 2020b). Covid-19 has also brought to bear the importance of ‘foundational sectors’ that provide the infrastructure for everyday life and support human needs directly.

The definition of the foundational economy used in the Greater Manchester Independent Prosperity Review is: “that part of the economy that creates and distributes goods and services consumed by all (regardless of income and status) because they support everyday life.”²⁴ It divides the foundational economy into two distinct categories: the material and the providential. The material includes sectors such as energy, transport, utilities and retail which connect households to daily essentials. The providential includes sectors such as Health and Social Care, Education, Housing, Funerals and public administration which provide the universal services available to all citizens.

Based on this definition, 41% of the total GM workforce were employed in foundational economy jobs in 2020. This proportion fell consistently for four years from 44% in 2015 to 40% in 2019 before recovering slightly in 2020. It broadly matches that of the UK, where foundational economy employment fell from 42% of all employment in 2015 to 40% in 2019 before recovering in 2020 to 41%. GM has a lesser reliance on foundational economy employment than other comparable UK cities, including Liverpool (50%), Sheffield (49%), Leeds (44%) and Birmingham (44%).

The ‘overlooked economy’ including “goods and services culturally defined as essential and requiring occasional purchase, for example, a sofa or “goods and services that are socially defined as essential such as haircuts, house maintenance or a meal out” stands separate from the foundational economy but nonetheless includes services that can be considered essential. When the overlooked economy is included, GM’s share of foundational economy employment rises to 61% of the workforce. A full comparison of all elements of foundational economy employment between city regions (and nationally) is provided in the chart below.

Figure 5: Percentage of employees employed in constituent elements of the Foundational Economy



Source: Business Register and Employment Survey

Few large-scale programmes exist in the city region or elsewhere that attempt to raise pay, skills, employment standards and improve services in the foundational economy. On the back of the Local Industrial Strategy, GM is developing a programme for the Foundational Economy. A key focus for any investments or support should be to learn what works, encourage experimentation and increase capacity for innovation in this underpinning part of the economy.

Location and working patterns

One area where, unsurprisingly, there does appear to have been longer-term structural change is in the adoption of hybrid working. However, the data relating to this area is relatively recent with many of the data sources having been introduced in direct response to Covid-19 and consequently not benefitting from a lengthy time series. Other sources are novel in their collection methods and therefore need to be treated cautiously as they are often not subject to the level of statistical rigour of officially produced data.

However, analysis of this data has shown that working-from-home volumes, both nationally and in GM, have settled at a level higher than observed in the period preceding the pandemic. It appears increasingly unlikely that there will be a return to the relatively low volumes of people consistently working from home prior to the pandemic. Whilst the scale of the change is substantial, working from home remains a reality for a minority of GM's workers. Workers in higher-paid, higher-skills occupations were more likely to work from home than those in the lower-paid roles²⁵. Further monitoring of data is required to see if changing patterns of employment are emerging – for example, increased volumes of individuals living in GM but working further afield given the ability to undertake hybrid working.

Despite some businesses adopting a more hybrid working approach, the number of sites under construction for all sectors (office, retail, industrial and warehousing) is above pre-pandemic levels²⁶ and **since the 2019 Prosperity Review, key employment and business sites have been identified across GM as Growth Locations due to their distinct assets and opportunities.** As designated sites with allocated employment, transport accessibility, housing, education and skills provision, they aim to bring forward development at scale and facilitate growth across the economy, and especially within GM's frontier sectors.

GM's Growth Locations

The **North East Growth Corridor** will deliver thousands of quality jobs and new quality, low carbon homes linked to sustainable transport. Northern Gateway, Atom Valley, (1.2m sqm) is the North West's largest development site focused on high-value manufacturing and is being developed in partnership with the private sector, universities and national partners.

The **Airport and Southern Growth Corridor** aims to facilitate international business and tourism growth. Opportunities include the delivery of highspeed rail, through HS2, at the Airport and into the city centre. It also includes continued redevelopment of Stockport town centre. Health-focused employment growth is planned for development at Medipark & Roundthorn Industrial Estate and Wythenshawe Hospital, linking to mixed-use regeneration of Wythenshawe Town Centre.

The **Eastern Growth Cluster** will link the key development opportunities of Ashton Moss and St. Petersfield in Ashton Town Centre, and through the creation of a Mayoral Development Zone. The development will build upon Tameside's existing strengths in advanced materials and manufacturing of coatings, plastics and textiles and take advantage of the borough's city region leading digital connectivity. Hyde Growth Triangle will deliver over 2,000 new high-quality, low carbon homes at Godley Green Garden Village improving transport connectivity and supporting the regeneration of Hattersley and Hyde Town Centres.

The **Central Growth Cluster** will create over 90,000 new jobs with direct opportunities through the Oxford Road Corridor, Manchester Piccadilly and Salford's Innovation Triangle comprising Media City and The Quays (including future growth at Wharfside), Salford Crescent and Salford Royal Foundation Trust.

The **Western Gateway** will develop connections with the Port of Liverpool (and its Freeport status) through the development of a tri-modal freight hub at Port Salford. This will provide sustainable freight transport operations which will include rail and road links, on-site canal berths, a rail spur and container terminal. There is the potential to create 25,000 new jobs, capitalising on port and planned employment space at Carrington, Port Salford, Trafford Park and Trafford City.

The **Wigan and Bolton Growth Corridor** will deliver significant housing growth, bringing contaminated brownfield land into use facilitated by new multi-modal transport infrastructure. The development of a quality bus corridor, motorway link road and enhanced rail will connect residents with employment and skills opportunities within the boroughs and across GM. Employment growth will be driven by logistics, manufacturing (notably food) and distribution, and around 12,000 new quality homes will be created. Health innovation opportunities will be realised through the delivery of the GM Health Innovation Campus linked to the Royal Bolton Hospital.

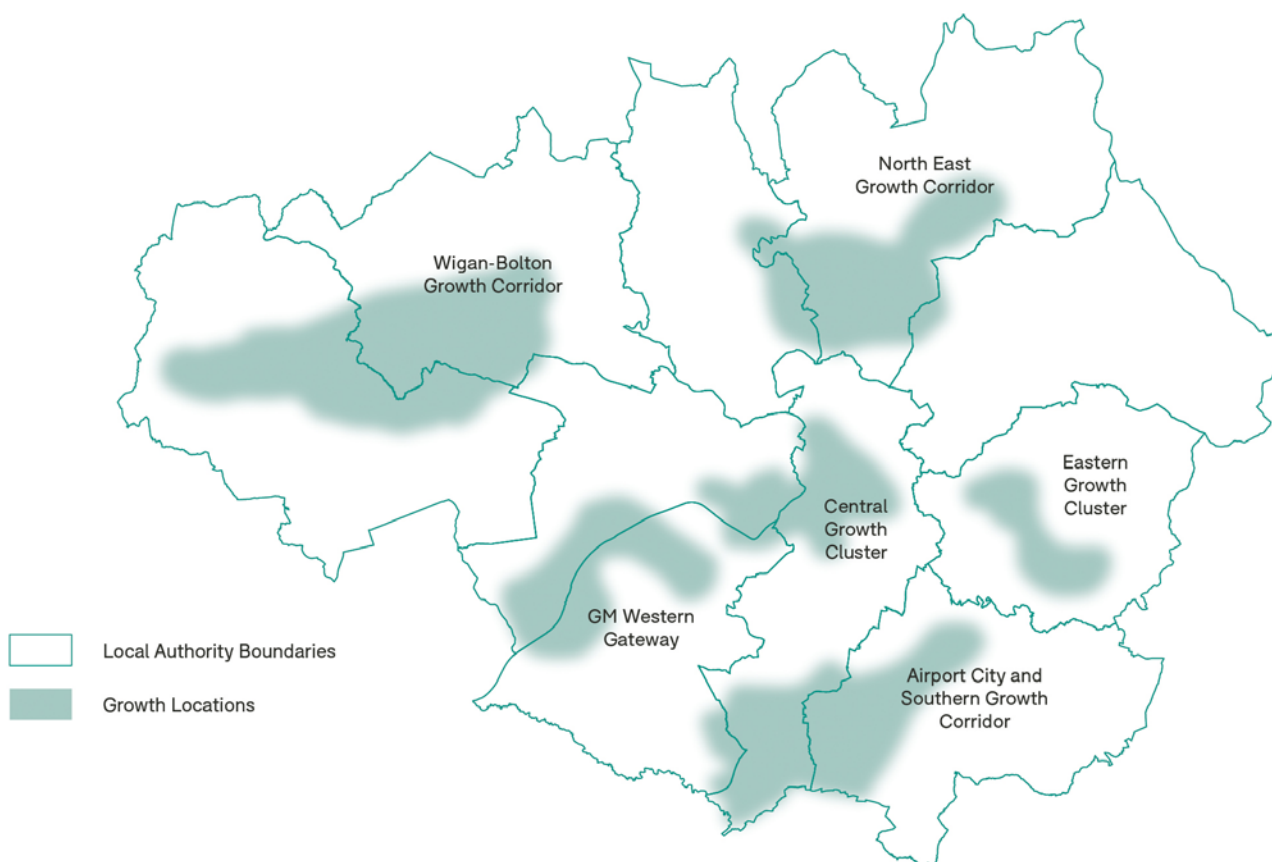


Figure 6: Growth Locations

Business creation and type

GM has also retained its position as a strong performer on business creation compared to the national average. This has declined since the pandemic, but GM continues to outperform the UK average. Business birth rates reached a high of 119 per 10,000 working-age population in 2017 before decreasing to 93 in 2020. Over the same period, the UK average decreased from 100 in 2016 to 88 business births per 10,000 working-age population in 2020²⁷. Whilst GM continues to outperform the UK average, it underwent a more rapid rate of reduction than the UK (-19% vs -12%). As the Prosperity Review found, there continue to be notable differences in business birth rates across GM's districts. Trafford had the highest business birth rate per 10,000 working age population in 2020 (115). Tameside had the lowest (61).²⁸

There has been recent progress in better understanding the strengths of different business types. The Prosperity Review identified that GM has a strong voluntary, community and social enterprise sector and recent work has explored best-practice models and the extent to which GM has the necessary conditions and support mechanisms in place to allow social enterprise to thrive in the city region (GMCA, 2019a). The work has found a complex and interconnected network of support and identified the demonstration and measurement of impact as a key challenge for the sector.



Professor Richard Jones
Vice-President for Regional
Innovation & Civic Engagement,
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R&D INVESTMENT TO BOOST ECONOMIC GROWTH IN THE CITY REGION

The fundamental driver of productivity growth is innovation, which finds ways of reducing the inputs needed to produce existing goods and services, and develops entirely new, highly valued goods and services. Not all innovation arises from formal research and development, but it is striking that the UK's stagnating productivity growth follows a period in which the overall R&D intensity of the UK economy declined substantially, and that the UK's weak performance in productivity growth compared to international comparator countries is correlated with comparatively low R&D intensity.

In terms of productivity, the UK is a highly divided country. The Greater South East – London, the Southeast, parts of East Anglia – has an economy with a comparable level of productivity to other high-performing Northern European economies, but most of the rest of the country more closely resembles Southern Italy, Spain or Portugal. Moreover, the UK's large second-tier cities – Birmingham, Manchester, Glasgow and so on – instead of being drivers of the national economy, actually have levels of productivity below the national average.

It will not be possible for one corner of the nation to carry the economy of the whole country, so it should be a priority to raise the productivity of those parts that are currently lagging behind their potential – particularly the UK's large, second tier cities. This is the pre-eminent economic driver that the development of science and innovation policy needs to focus on. If the goal of “levelling up” is to increase productivity in underperforming regions, then perhaps the goals of innovation policy should include the use of applied R&D, together with other interventions to promote innovation diffusion and workforce development, explicitly to develop innovation and manufacturing capacity.

Public sector R&D investment has been used in Germany – both directly and indirectly via federal fiscal transfers to poorer states, who then choose to spend their money on R&D – to boost economic growth in regions with weaker economies. Given the well-documented correlation with increased economic growth, it is reasonable to hypothesise that this pattern of R&D investment in Germany has played a role in the economic strength of East Germany overtaking that of the North of England in the past decade²⁹ and, thus, in the regional inequality of GDP falling in Germany while it has risen in the UK³⁰.

GM's growth locations have the potential to drive investment – including business R&D – in those sectors that have the potential for high productivity growth, the frontier sectors identified in the local strategy. The sector focus for each growth location must reflect the existing business base in that place, as well as the potential for new investment there, including foreign direct investment from firms at the technology frontier. Thus the sector focus of each growth location may differ to reflect the particularities of each place, while city-wide institutional networking should connect each growth location to GM's full range of innovation assets. The goal must be to ensure that all parts of the city-region feel the benefits of innovation and the resultant productivity improvements.

INSIGHTS ON INTERNATIONAL BEST PRACTICE FOR GREEN AND JUST CITY REGIONS

The Covid-19 pandemic has highlighted the role and importance of our ‘foundational sectors.’ Whilst high-tech innovation in the frontier economy is necessary to overcome some of the challenges we currently experience in pursuit of carbon neutrality, innovation in our foundational economy is crucial to laying the foundations for progress to net zero carbon in everyday activities. Exploiting the interconnection between frontier and foundational sectors may be essential to a local economy that can deliver carbon neutrality and social equity. This requires a shift from adopting a purely supply-side focus to one that considers demand and collective consumption (public, households) as key levers and drivers for innovation, and from a sole focus on economic growth to a focus on supporting multiple value creation (social, economic, environmental).

Alliance Manchester Business School (AMBS) working closely with GMCA has been exploring a number of best practice case studies that exemplify good practice in the pursuit of just and green sustainability transitions. These are Amsterdam, the Basque Country and Washington DC. Amsterdam and the Basque Country represent innovative conceptual frameworks for local sustainability policymaking. Washington D.C. represents a strategic plan for the implementation of local policy initiatives. These, whilst evidently not the only places thinking about these agendas, offer valuable insights for GM, particularly with regard to the relationship and interplay between frontier and foundational sectors.

All the cases are useful illustrations of how to frame priorities, particularly in placing social equity and wellbeing centre stage. The identification of such region-specific challenges and the framing of policy priorities is key and can be done in several ways, including through participatory prioritisation, design and experimentation mechanisms such as foresight, innovation contests, living labs and hackathons.

These cases help make visible the potential trade-offs between societal and environmental objectives and values. For instance, supporting carbon neutrality may not necessarily advance social welfare. This implies that multiple policy instruments will be required to support the net zero transition and social objectives, but also that their implementation will need to be closely monitored and co-ordinated.

The importance of anchoring missions locally is apparent from the case studies. Mission-oriented policies tend to be not only biased towards frontier sectors but also to global problems, and this ‘big science for big problems’ approach leaves out a vast majority of people and places. Missions involving foundational sectors and local communities would be one way to embed inclusive approaches to decarbonisation.

A final lesson concerns learning from others and forming alliances that can address common problems and shape potential markets for solutions. In this report only three examples of regional economies were explored. However, other places are adopting ‘just’ and ‘green’ approaches to design their economic policies that could be explored to understand their implementation and impacts. Collaborating with cities with similar challenges and values can support policy learning, but also widen potential markets that help upscale local innovations to new places or fields of application.

KEY POINTS ON THE BUSINESS BASE FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- The frontier sectors of sustainable advanced materials and manufacturing, health innovation and life sciences, digital and creative, and net zero remain crucial to driving growth and productivity in the city region.
- Understanding of the crucial role of innovation in driving productivity growth is continuing to develop, particularly through the business-led Innovation GM network. This needs to be embedded in the refreshed Local Industrial Strategy.
- The fundamental importance of the Foundational Economy is now better understood, including due to the impact of the Covid-19 pandemic. It needs to play a more prominent role in the refreshed Strategy.
- The six Growth Locations which have now been identified in GM provide a stronger basis for ensuring that the economic assets of all parts of the city region can contribute to productivity and growth.

THE LABOUR MARKET

IN PARTS OF GM, NEARLY A THIRD OF THE WORKING AGE POPULATION WERE INACTIVE AT THE END OF 2021

Figure 7: Economic inactivity, 16-64 year olds, Jan-Dec 2019 -Jan-Dec 2021

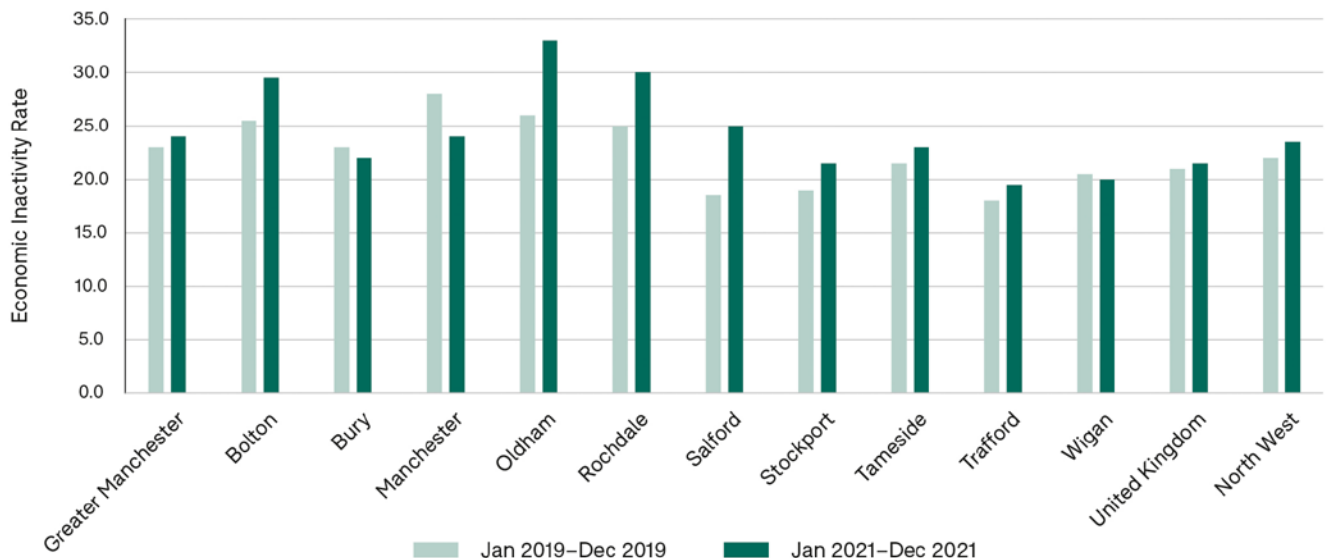
The Prosperity Review noted the success of GM's Working Well programme and the subsequent co-commissioning of the Work & Health Programme in showing how local commissioning and integration can improve health outcomes. The Reviewers suggested that there was potential to build on this to find new approaches to improving human capital and productivity. They also recommended that the city region and government should work together to put the Work & Health Programme on a long-term footing and there should be further local control of both employment programmes and services and benefits currently delivered by the Department for Work & Pensions and Jobcentre Plus, so that they can be better integrated (GMCA, 2019a).

The evidence update has broadly reinforced the positions on the labour market set out in the 2019 Review.

Nationally, the focus has been on a rise in economic inactivity, as more people have stopped 'participating' in the labour market (whether through working or looking for work), often for health-related reasons. This effect can also be seen in GM where inactivity has risen by 5% or about 20,300 people, especially among men³¹ (compared with 2.3% nationally between the end of 2019 and the end of 2021).

Indeed, in parts of GM, nearly a third of the working age population were inactive at the end of 2021 (Oldham: 32.1%; Rochdale: 30%; Bolton 29.5%).³²

Inactivity on this scale positions some GM districts in the top 10 local areas in the UK for economic inactivity and suggests that pronounced social distress has followed the virus in hitting traditionally low-income areas (GMCA, 2022f).



Source: Annual Population Survey

However, what appears to be under-appreciated in the national debate on the fall-out from Covid-19 has been the scale of variation in economic effects.

While some parts of GM have certainly witnessed a trend to inactivity, this is far from uniform. In GM's largest district, Manchester, economic inactivity fell but unemployment rose to high levels (8.8% in 2021). Such rates are among the highest of any UK local authority (among others, Birmingham's unemployment rate was higher at 9.4%).³³

Some puzzles remain to be explained. For example, it is unclear why the increases in health-related inactivity should affect men more than women. But in the case of Manchester, the reason for different Covid-19 impacts for neighbouring areas may lie in population dynamics: the regional centre has a younger population than elsewhere (GMCA, 2022f).

Manchester's experience is far from exceptional, however. Around the UK, plenty of other areas have seen falls in economic inactivity – against the national trend. Among Mayoral Combined Authorities, the inactivity risers and fallers are evenly balanced. This demonstrates again the pronounced importance of a local and place-based perspective for economic policymaking.

Although the underplaying of place-based divergence regarding the labour market impacts of Covid-19 emerges strongly from research, **a more concerning feature is the questionable reliability of a good deal of labour market information.** There are wide error margins for national surveys at local authority level. In addition, different datasets tell different stories. **Administrative data drawn from the benefits system suggests a much more severe labour market fallout from the pandemic than survey data.**

Some closely watched local indicators (for example, the claimant count which measures people claiming unemployment benefits, such as Universal Credit and Jobseekers Allowance, and is more reliable for small local geographies) imply more serious joblessness flowing from the Covid-19 pandemic than the 'approved' labour market surveys. The claimant count more than doubled in the early months of 2020 in response to the first lockdown. It has fallen since but remains at a high level, suggesting ongoing socio-economic impacts³⁴.

Despite many worrying signals regarding the effects of Covid-19 - and therefore the preparedness of the city region for the cost of living crisis - some indicators suggest unexpected resilience. One of the more surprising after-effects was heightened employer recruitment activity. **The numbers of job adverts have repeatedly set new records.** The recruitment activity appears to be broad-based – with growth in high-paying jobs (over £50,000 a year), as well as a rise in 'mid-paying' work (the proportion of jobs paying between £20,000 and £30,000 rose from 32% to 37%).³⁵ All occupational levels experienced similar patterns with a fall in vacancies followed by robust growth. Labour and skills shortages flowing from the pandemic, and exacerbated by other economic changes such as Brexit, remain very apparent in late 2022.

ADMINISTRATIVE DATA DRAWN FROM THE BENEFITS SYSTEM SUGGESTS A MUCH MORE SEVERE LABOUR MARKET FALLOUT FROM THE PANDEMIC THAN SURVEY DATA.

KEY POINTS ON THE LABOUR MARKET FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- A better understanding of the variations in the labour market in different parts of the city region is now developing and the refreshed Local Industrial Strategy needs to draw on that.
- The Covid-19 pandemic has led to increased inactivity – meaning people (particularly men) who have left employment but are no longer looking for work – in parts of the city region. This is likely to be related to the health impacts of the pandemic.
- There is still a significant demand for skilled labour across GM's diverse business base which is not currently being met.

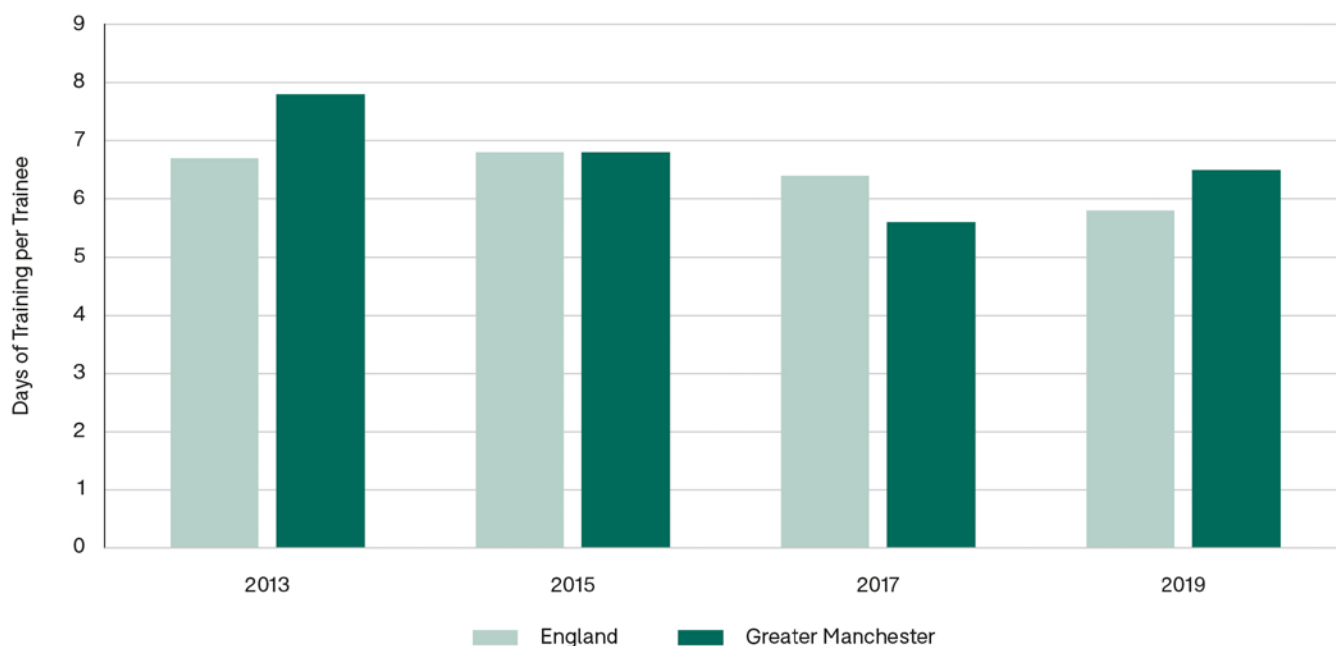
SKILLS UTILISATION AND EMPLOYER INVESTMENT IN SKILLS

Levels of skills are often cited as a driver of productivity and the findings of the 2019 Prosperity Review again highlighted this. It also noted that **differences in higher-value employment and the utilisation of skills appear to be the most important factors driving differences in local economic performance (GMCA, 2019c)**. Employers need to be able to put the newly-developed skills to good use and be fully committed to further growing and refining the skills of their workforce in the light of technological and business change. Fresh intelligence has expanded on these themes.

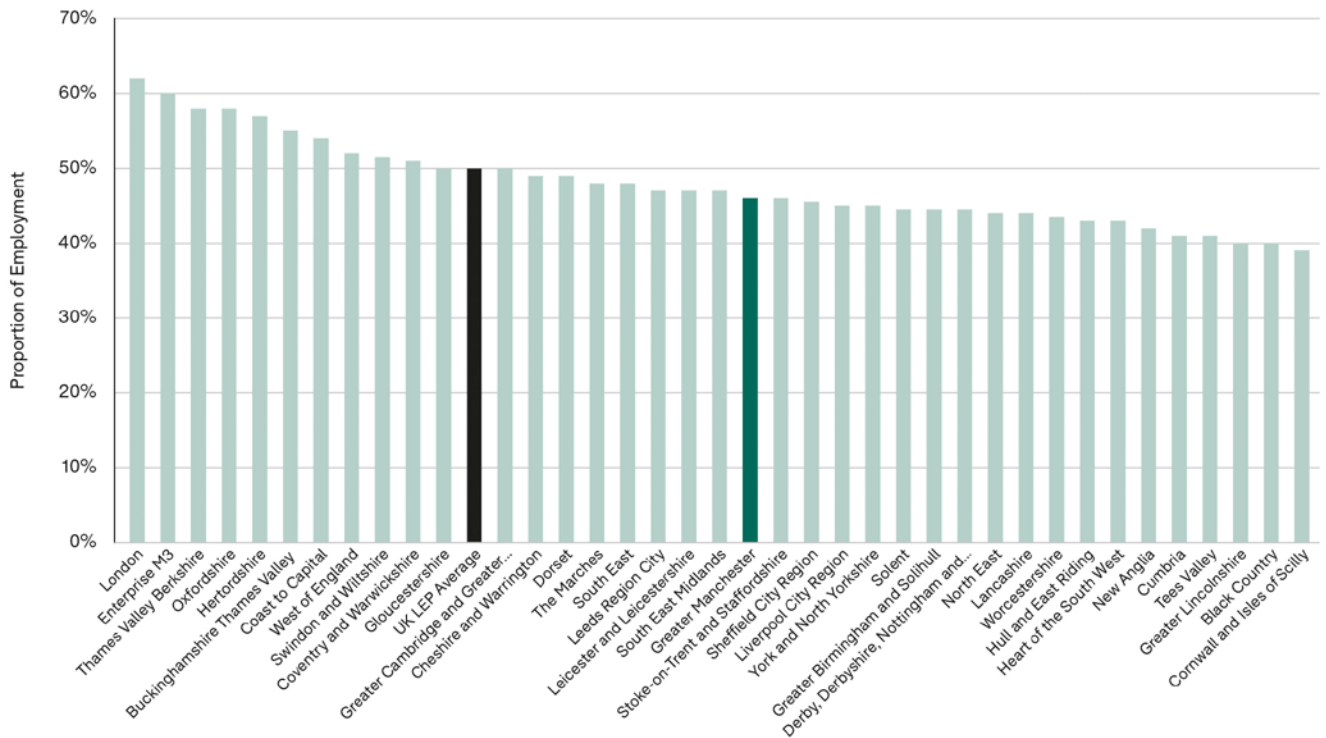
Although the data is a little ambiguous, employers appear to be investing less in skills over time. The average number of days training in GM in 2019 was more than a day less than in 2013 (although there were some improvements between 2017 and 2019) (GMCA, 2022g). Explanations include the changing incentives to invest in skills as the funding burden shifts to individuals and the state. But the 'low skills trajectory' of the economy more generally cannot be ruled out (demonstrated, for example, by the growth of foundational economy sectors and the ongoing prevalence of low pay, linked to productivity stagnation as described earlier).

Although in some respects the behaviour of GM businesses around skills compares relatively favourably to other areas – with that improvement in skills investment between 2017 and 2019 – at a UK-wide level, the willingness of employers to invest in and develop their workforces seems to be decreasing. Trends are moving in precisely the opposite direction from that anticipated by debates about the needs of an innovative, adaptive, digitally enabled economy (GMCA, 2022g).

Figure 8: Employer investment in training – investment per trainee, GM, 2019



Source: ESS, 2013, 2015, 2017, 2019



Source: Annual Population Survey. Notes: 'high skill job' proxied by people employed in one of the top three occupational groups of managers, directors and senior officials; professional occupations; and associate professional and technical occupations.

GM has a below average share of highly-skilled employment (defined through the proxy of combining employment in the top three occupational categories of managers, professionals and associate professionals). Although the proportion of jobs in these categories has been rising over time, in 2020 some **47% of jobs were in these occupational groups in GM**, compared with a national average of 50%. Yet this proportion is **far lower than in more prosperous parts of the country (eg. 62.2% in London; 58% in the Oxfordshire LEP area)**.³⁶ This shortfall implies there are fewer opportunities for highly-skilled people in GM. The structures of employment - demand - may therefore act to limit the economic uplift from skills investments and disincentivise the highly skilled from careers in the city region. Areas that are 'not London and the South East' can be characterised by the 'shallower' nature of opportunities for the highly skilled.

Figure 9: Proportion in 'highly skilled' employment, English LEP areas, 2020

PEOPLE WITH SKILLS AT LEVEL 4 AND ABOVE GREW BY 87% BETWEEN 2004 AND 2020. OVER THE SAME PERIOD THE NUMBER OF JOBS IN THE TOP THREE OCCUPATIONAL GROUPS GREW BY 46%.

Indeed, although there are particular sectors with skills shortages in particular within the digital sector where demand for high skills is outstripping supply, yet when assessed at an overall, aggregate level, the demand for high skills actually appears to be lagging supply. **People with skills at level 4 and above grew by 87% between 2004 and 2020. Over the same period the number of jobs in the top three occupational groups grew by 46%.**³⁷

The 2019 Prosperity Review indicated that graduate retention is an important ingredient in raising future productivity. GM is a major centre for higher education and the city region aims to encourage more of its graduates to stay in the conurbation. There has been a significant expansion of graduate education over the last few decades that has started to feed through into the skills profile of the population. In respect of graduate retention, research has found that for the 2018/19 graduates from GM-based higher education institutions, **44% opted to stay in GM after graduation to begin their careers** (GMCA, 2022h).

In total, **74% of the graduates of GM universities entered ‘high-skilled work’ if they stayed in GM**, but this proportion is a little lower than graduates who opt to go elsewhere to begin their careers. The ‘all areas’ proportion of graduates who entered high-skilled work was 78%. And this rises to 84% for the graduates who moved to London for work (GMCA, 2022h).

These patterns help contextualise findings on skills utilisation. **Some 36% of employers in GM reported they had at least one member of staff with skills and qualifications above what was necessary to do their jobs, according to the most recent data from the Employer Skills Survey (ESS, 2019).** This was higher than the UK national average (34%) while broadly similar to many other comparable areas.³⁸

GRADUATE RETENTION REMAINS AN IMPORTANT INGREDIENT IN RAISING FUTURE PRODUCTIVITY. THERE HAS BEEN A SIGNIFICANT EXPANSION OF GRADUATE EDUCATION OVER THE LAST FEW DECADES THAT HAS STARTED TO FEED THROUGH INTO THE SKILLS PROFILE OF THE POPULATION.



Stephanie Flanders
Head of Bloomberg Economics

IMPROVING LOCAL LABOUR MARKET CONDITIONS FOR STRONGER AND INCLUSIVE GROWTH

No city region can wave a magic wand at its labour market. But local leaders need to do what they can to shape local employment conditions. Our (the Reviewers') original recommendations highlighted the potential of the Good Employment Charter to be a mechanism not just to encourage minimum standards, but to also act as a means for spurring wider workplace improvements – for example, better leadership, people management and skills utilisation. These areas of focus remain key.

The Covid-19 pandemic has changed local and national labour markets in ways that we still do not fully understand, but the basic message of the research in this evidence update is that improving skills supply and employer investment in skills remain vital to supporting a flourishing foundational economy and the broader economy more generally. Skills investment will enable GM to adapt to the changes needed to reach carbon neutrality, for example. And it cannot only be one-off, short-term investment but a lifelong effort to ensure that individuals' skills stay current and support higher productivity. So it is disappointing to see a continued overreliance on the early phases of education. Although some skills budgets have been devolved to local areas (the Adult Education Budget), local control over areas such as wider post-19 skills funding and classroom-based technical education might well make it easier to tackle low skills levels in certain areas of the country to do more to upgrade skills and so drive up productivity.

High quality apprenticeships continue to offer an important route into the workplace, but numbers have dropped following government reforms and we are seeing disparity and underrepresentation between different genders, cultures, ages and disabilities in different sectors and across the apprenticeship workforce as a whole. This needs to change. As the research also finds, we should be cautious about assuming that skills improvements will necessarily increase pay. The relationship is complex and context-dependent. Yet the main point is to develop a suite of practical local interventions that help steer labour markets in a direction that does not simply reproduce and reinforce existing patterns of inequality.

I have always considered the GM Good Employment Charter a useful way for the city region to set expectations. It is also a way for businesses to show their GM-affiliations and credentials – the sense that they want to be part of the city region and its economic story. So it is good to hear that the number of supporters and full members (members are accredited against Charter benchmarks) has been increasing steadily. The Good Employment Charter is also taking steps to ensure it is addressing issues in the foundational economy – and not just growing its membership by picking off large employers who find it relatively easy to meet the requirements.

KEY POINTS ON SKILLS UTILISATION AND EMPLOYER INVESTMENT IN SKILLS FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- The decline in employer investment in training and development is a drag on productivity growth and needs to be reversed.
- Businesses should be supported to take the opportunities of the higher-skilled employment base which is developing in GM.
- Lifelong investment in skills is critical for individuals to ensure that their skills stay current in the workplace and support higher productivity, yet there continues to be an overreliance on early phases of education.
- Tools in the city region for raising employment standards, and therefore productivity, such as the Good Employment Charter and embedding social value in procurement, need to be fully developed.

TRADE

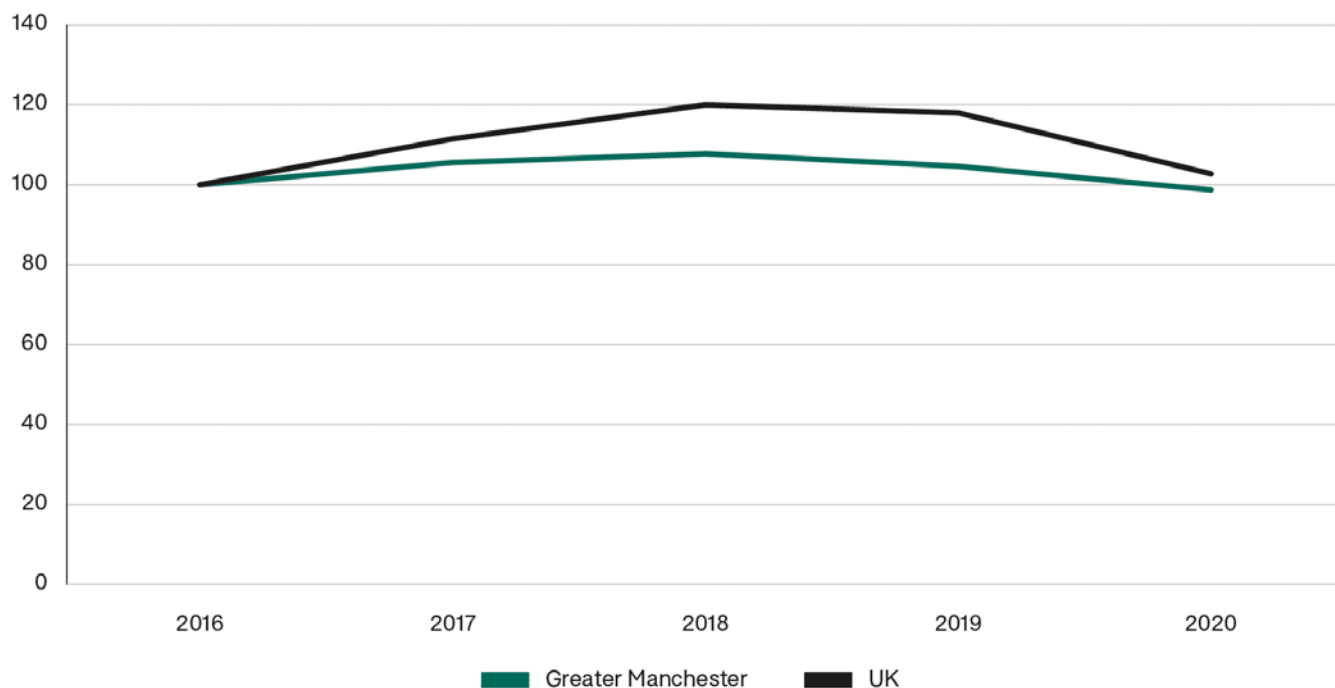
The Prosperity Review found that the main characteristics associated with higher-performing firms are those that trade internationally and/or are foreign-owned. Analysis has been undertaken to assess how the exporting of goods and services has changed over the period 2016 to 2021 and in response to the UK's decision to leave the European Union.

Despite being one of the UK's largest economies, GM punches below its weight with regard to export performance. GM was the 17th largest exporter of goods in the UK out of all International Territorial Level 2 (ITL2) regions in 2020³⁹. GM was the 9th largest exporter of services in the UK out of all 41 ITL2 regions. These rankings would need to rise to around 6th place out of all ITL2 regions to simply match the city region's GVA contribution ranking.

GM's goods exports grew substantially more slowly than the UK's between 2016 and 2019 (3.2% vs 18.3%). However, exports of goods from GM were more resilient in the first year of Covid-19 than those of the wider UK (-5.7% vs -13.6%). GM had greater reliance on trade with the European Union than the wider UK which intensified in the first year of Covid-19 as GM's share of goods exports to the EU grew to 59% whilst the UK's fell to 45%. Across the whole period 2016 to 2020, total exports in GM declined by 2.7% while UK exports rose by 2.2%.⁴⁰

DESPITE BEING ONE OF THE UK'S LARGEST ECONOMIES, GM PUNCHES BELOW ITS WEIGHT WITH REGARD TO EXPORT PERFORMANCE.

Figure 10: GM and UK goods exports indexed to 2016



Source: HMRC

GM HAS NOT YET SEEN ANY SIGNIFICANT CHANGE IN THE NUMBER OF FIRMS EXPORTING GOODS FOLLOWING THE INTRODUCTION OF THE UK-EU TRADE AND CO-OPERATION AGREEMENT (TCA) IN JANUARY 2021.

Data on services is less detailed than on goods, only covering the period 2017-2019 and providing limited detail on destination countries. It shows, however, that similarly to goods exports, **GM service exports growth (+6.8%) did not keep pace with UK growth (+13.5%) in the period preceding the pandemic** (GMCA, 2022i). Exports to the EU accounted for 19.9% of GM's total service exports, compared to 19.1% for the UK as a whole.⁴¹

Research has revealed that **GM has not yet seen any significant change in the number of firms exporting goods following the introduction of the UK-EU Trade and Co-operation Agreement (TCA) in January 2021.**⁴² Trading relationships are by their very nature long-term and this explains much of the finding – it is mirrored nationally.

Nevertheless, overall values of goods exports did fall in GM and nationally in the first year of the pandemic and GM businesses report that the cost and complexity of exporting (including both tariff and non-tariff hurdles) has increased for many businesses.⁴³ This is accompanied by continued uncertainty about the ultimate cost of exports and reports of additional difficulties in trading through UK and international ports.

The Interim Report of the 2030 Economy Inquiry found that whilst there had not been a large, immediate decline in trade following the implementation of the TCA, **the UK had suffered a decline in the 'openness and competitiveness' of its trading relationships.** They forecast that by 2030 this will lead to UK firms exporting 24% less than if the UK had retained EU membership (Resolution Foundation, 2022). **Export performance in GM will need close monitoring in the coming years to identify the extent of consequent changes in the nature and scale of exporting activity.**

KEY POINTS ON TRADE FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- GM continues to punch below its weight in export performance, and this is a drag on productivity. Opportunities for export and inward investment need to be considered in the development of GM's frontier sectors.
- Businesses in the city region who are involved in international trade will need advice and support which is responsive to the UK's changing trading relationship with the EU, and to the sometimes rapid changes in global trading patterns.

TRANSPORT

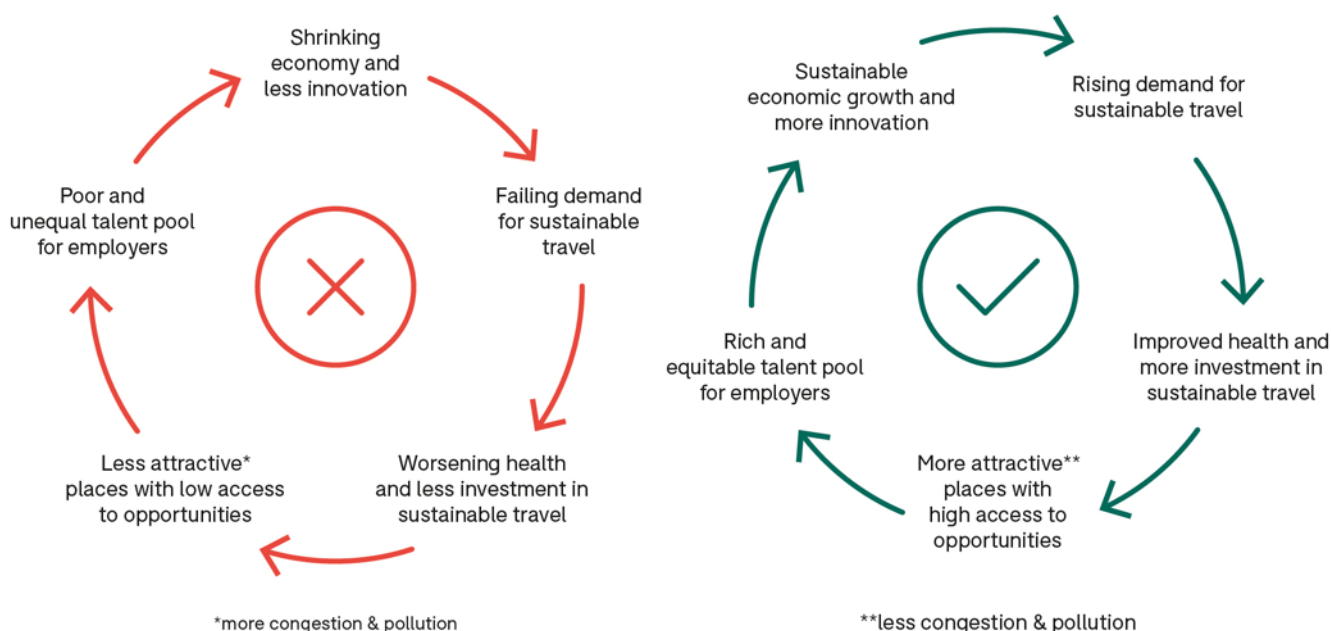
The Prosperity Review concluded that for parts of GM with lower productivity, pay and living standards, there needs to be better access to jobs in the centre and improved quality of jobs locally, enabled by an integrated transport system. The Reviewers said that this would be a necessary – if not sufficient – measure to tackle social and spatial disparities (GMCA, 2019a).

Critical regional and national infrastructure such as Northern Powerhouse Rail and HS2 were recognised in the Prosperity Review and Local Industrial Strategy as a vital part of GM's long term transport strategy, alongside a compelling case for increasing infrastructure investment generally to improve connectivity (GMCA, 2019f). This evidence update has therefore focused more on local transport integration, the role of active travel and local public transport (buses and trams), and the economic case for its improvement.

Creating and sustaining high demand for active travel and local public transport is important to access jobs, support innovation, productivity and economic growth, attract new firms to locate in the area, help shape greener and healthier places and unlock new development sites for businesses and housing. **It can also avoid the symptoms of economic decline, as set out in the vicious and virtuous cycles below (and in more detail in the GM Transport Strategy 2040) (TfGM, 2021a).**

GM has made significant progress in delivering on the Reviewers' recommendations in recent years. **The Bee Network – GM's plan for an integrated transport system which will join together buses, trams, cycling and walking and rail – is being delivered (TfGM, 2021b).**

Figure 11: How high demand for active travel and public transport is needed for sustainable economic growth: illustrative vicious and virtuous cycles.



**A STRENGTHENED PUBLIC
TRANSPORT NETWORK WILL
CERTAINLY CREATE GREATER
ACCESS TO EMPLOYMENT
OPPORTUNITIES FOR ALL, AND
PARTICULARLY FOR LOWER
INCOME HOUSEHOLDS WHO
ARE LIKELY TO BE RELIANT ON
PUBLIC TRANSPORT.**

GM has secured £1.07bn from the City Region Sustainable Transport Settlement to enable the early Bee Network priorities, set out in our Five-Year Transport Delivery Plan (2021-2026) (TfGM, 2021c), to be delivered. It is essential that despite the significant shocks of the pandemic and cost of living crisis this work continues at pace to boost productivity, pay, jobs and living standards across GM, and to significantly cut carbon emissions.

As highlighted in the Prosperity Review, devolution has given GM more tools at its disposal to affect change. This includes bus franchising. In 2021, the decision was taken to run buses in GM under a franchised system, coordinated by the GMCA (GMCA, 2022j). Bus reform forms an important component of delivering a Bee Network that can meet the demands of both passengers and the city region's economy. An adult bus fare price cap at £2.00 a journey or £5.00 a day introduced in September 2022 is a key element of transforming the bus network and helping to mitigate the rising cost of living. It helps to link deprived communities to amenities, services, and job opportunities across the region and helps keep people moving to support the economy.

These activities are supported by GM's statutory Local Transport Plan which was updated in January 2021. The suite of documents includes the GM Transport Strategy 2040 (the '2040 Strategy') that sets out a vision for GM to have 'world-class connections that support long-term, sustainable economic growth and access to opportunity for all.' (TfGM, 2021a).

A strengthened public transport network will certainly create greater access to employment opportunities for all, and particularly for lower income households who are likely to be reliant on public transport. It is important to highlight that the way some people travel (or whether they travel much at all) has evolved significantly since the start of the pandemic. Some have benefitted from increased digital and home working; or have started walking and cycling more as part of wider lifestyle changes. Others – especially less affluent people – have fewer choices about how, when or where they travel for day-to-day activities and may have become more reliant on using cars due to disruption and reductions to public transport services or safety concerns. As the cost of second-hand vehicles and fuel continues to increase, the cost of running a car is becoming more of a burden for many households, particularly for those on low incomes.

The location of public transport stops and stations in GM is generally well targeted. Whilst many on low incomes do have access to public transport, there are around 180,000 people categorised as 'Financially Stretched' and 'Urban Adversity' (through CACI's Acorn Consumer Classification) who live in the 20% least accessible areas by public transport. There are challenges in these locations that may require more attention and understanding, such as 'forced car ownership' – where communities who, despite having low incomes and financial concerns (likely to be increasing amidst the on-going cost of living crisis) deem personal car keeping a necessity to access opportunities. **The interventionist approach set out in the 2040 Strategy opens the way for a future where car ownership is not considered essential regardless of where in GM people live. There is a need to better understand what additional action public agencies can take to support modal shift from private car to sustainable travel in locations where 'forced car ownership' is a problem.**

Alongside increasing access to jobs, public transport is important for connecting young people to places of learning. 64% of young people (aged 16-18) use public transport every week (TfGM, 2021d). The Mayor's Our Pass initiative, which provides free bus travel for 16-18-year-olds, is helping to widen accessibility to public transport and embedding behaviours around the use of public transport as the first-choice option from an early age.

There is evidence to suggest that, in the short term at least, perceptions of public transport were negatively affected because of the pandemic. Further monitoring is required to determine the extent in which significant long-term changes have taken root. **As of June 2022, demand for public transport was hovering at around 75% of pre-Covid November 2019 levels.**⁴⁴ A significant proportion of this relates to the shift to hybrid working, particularly for middle and higher-income earners. It has also increased reliance on cars for safety and accessibility reasons. The added environmental impact of sustained internal combustion engine car use, coupled with the rising price of fuel, makes this a particularly troubling trend – around 60% of trips are made by car (TfGM, 2021e). This suggests that change is going to be harder than the Reviewers envisaged and **GM will need to move faster and focus more on behaviour change to increase the appeal of public transport to a wider market to enable the city region to unlock the wider benefits that rising demand for sustainable travel brings. This will require continued support from central government at this critical juncture.**

Even prior to Covid-19, GM faced challenges in growing its public transport patronage. **The comparatively low density and polycentric nature of GM has major implications for travel, including but not limited to the ability to operate commercially viable, high-frequency public transport networks.** Research by Centre for Cities suggests that on average, just 35% of residents in a selection of UK ‘Northern Cities’ including Manchester are well connected by public transport to their centres, compared with nearly 70% in a selection of ‘European equivalents’ (Centre for Cities, 2022). Whilst access to the centre is not the only area of focus GM has, this research does emphasise the importance of population density in supporting high quality public transport networks by acknowledging that ‘much of the disparity can be attributed to differences in population density among these cities.’ **Places for Everyone (GMCA, 2021b)– the draft Joint Development Plan for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan – alongside Stockport’s emerging Local Plan will ensure all new developments are sustainably integrated into GM’s transport network or supported by new infrastructure.**

Sustained growth in active travel and public transport does not only bring the economic benefits outlined above – it will also bring health and decarbonisation benefits. In GM, more than 1 in 3 adults are not physically active enough to maintain good health. This is a key driver for the ambition to develop a transport system that supports people in leading active, healthy lives (TfGM, 2021f).

As acknowledged by the DfT’s recent Transport Decarbonisation Plan (DfT, 2021) there is no single action that will solve the transport carbon challenge in GM, and the public sector, businesses and citizens will all need to take co-ordinated action across three main areas (avoid, shift and improve).

It is also very important that the transition to a decarbonised transport system does not exclude those least able to respond, who in any case contribute much less to the carbon problem due to their lower levels of mobility and car use.

There is a huge opportunity to tackle carbon whilst also tackling inequalities and helping to boost productivity, pay, jobs and living standards in the poorest communities in GM. **There would be multiple benefits of a carbon neutral transport system, including new highly-skilled employment opportunities associated with scaling up technological solutions, as well as a range of wider health and wellbeing benefits.** GM, alongside other UK city regions, needs to be part of a much more co-ordinated national approach to reduce the need to travel, shift travel on to more sustainable modes of transport, and rapidly decarbonise vehicle fleets (GMCA, 2022k).

**GREATER MANCHESTER
WILL NEED TO MOVE
FASTER AND FOCUS MORE
ON BEHAVIOUR CHANGE TO
INCREASE THE APPEAL OF
PUBLIC TRANSPORT TO A
WIDER MARKET TO ENABLE
THE CITY REGION TO
UNLOCK THE WIDER BENEFITS
THAT RISING DEMAND
FOR SUSTAINABLE TRAVEL
BRINGS**

**SUSTAINED GROWTH IN
ACTIVE TRAVEL AND PUBLIC
TRANSPORT DOES NOT
ONLY BRING THE ECONOMIC
BENEFITS OUTLINED
ABOVE – IT WILL ALSO
BRING HEALTH AND
DECARBONISATION BENEFITS.**



Vernon Everitt
GM Transport Commissioner

ON TRANSPORT AS AN ENABLER OF THE ECONOMY

This is an exciting time for transport in GM. New powers have given us the means to build a fully-integrated public transport system for the first time – the Bee Network – that will help residents and businesses here access new economic opportunities, creating thousands more homes, businesses and jobs.

GM is a fast-growing, innovative city region and a key driver of growth at the heart of the United Kingdom. It was here that Rolls met Royce; that the world's first inter-city railway was constructed and that the Manchester Ship Canal made a city 40 miles inland Britain's third busiest port.

Today, this same entrepreneurial spirit is driving the creation of thousands of new homes, jobs and businesses, with the fastest population growth of any metropolitan county in the last ten years. GM contributes £74.8bn in GVA⁴⁵ to the national economy, second only to Greater London, and is forecast to continue growing at pace over the coming years.

Transport is a key enabler of better outcomes for people and is central to attracting additional long-term investment in GM. The emerging Bee Network is a fully integrated transport system that brings together buses, trams, active travel and, ultimately, suburban rail and will transform how people get around GM.

Delivery of this vision is already well underway – including significantly reduced bus fares – enabling the greatest transformation of a city region's transport network anywhere in the country. The Bee Network will support sustainable population growth and create healthier and more attractive places with high levels of access to opportunity for all.

GM has always worked in partnership with governments of all colours and used significant local funding commitments in recent decades to lay firm foundations for an integrated transport system. We are building on this through the Bee Network to ensure this city region has the transport services and infrastructure it needs to support its future sustainable growth.

KEY POINTS ON TRANSPORT FOR THE REFRESHED LOCAL INDUSTRIAL STRATEGY TO CONSIDER:

- Creating and sustaining high demand for active travel and public transport is crucial to enable everyone to access economic opportunities and contribute to growth, and for businesses to invest and grow.
- The economic and business opportunities from GM's progress towards a more integrated and affordable public transport network need to be fully exploited.
- There is a need to better understand what additional action public agencies can take to support modal shift (from private car to active and sustainable travel) where issues around public transport accessibility and 'forced car ownership' are a problem, including for people on low incomes. These factors can help to explain economic imbalances across the city region (see report on productivity and the business base).
- Active travel and public transport are critical to Greater Manchester's ambitions for improved health and wellbeing, and the decarbonisation of the city region's economy, as set out in this evidence update.
- Alongside health and wellbeing benefits, our ambition for a carbon neutral transport system will help to generate highly skilled jobs associated with scaling up technological solutions. We need to make sure Greater Manchester residents can develop the skills they need to take full advantage of these opportunities.



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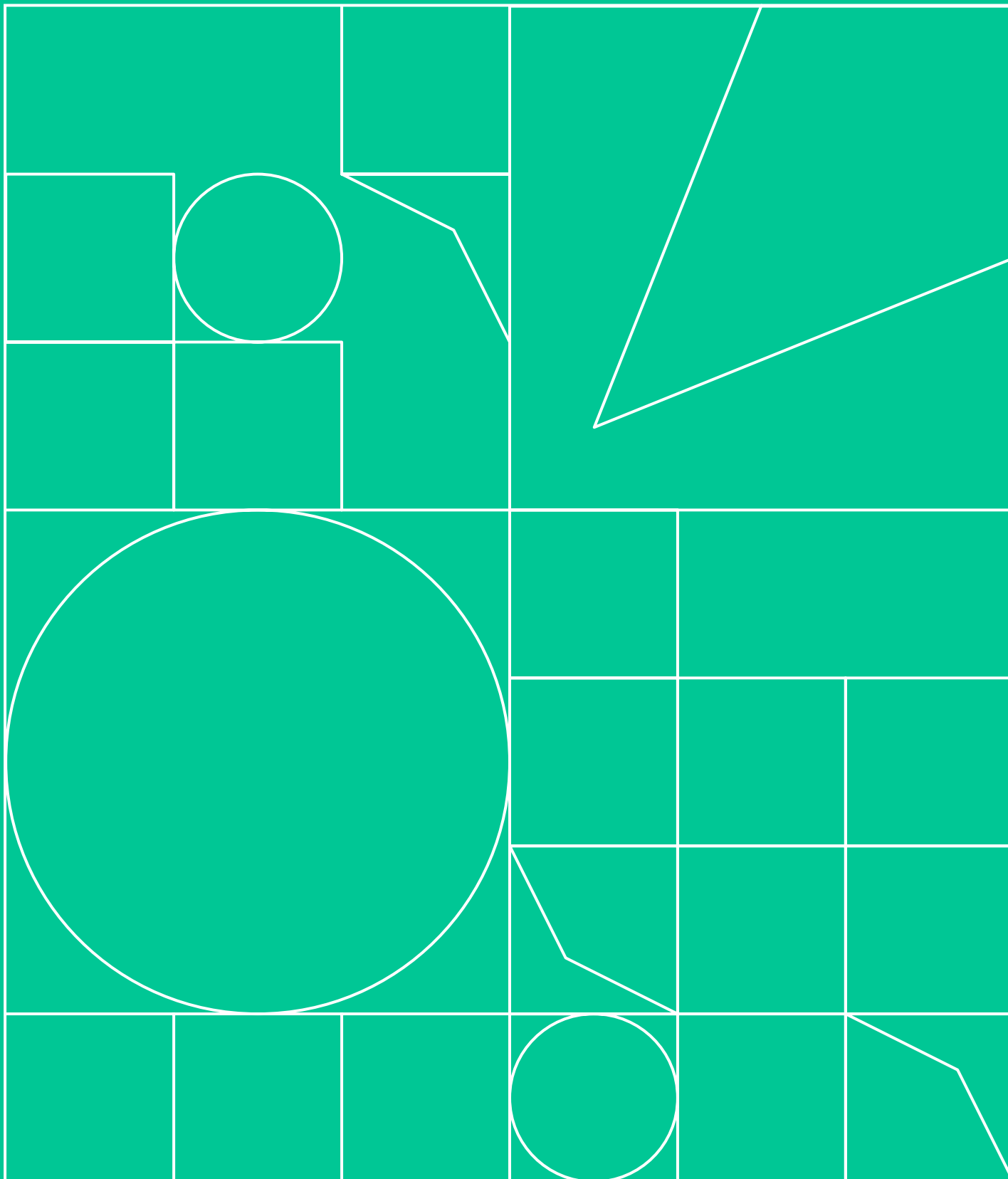
ENDNOTES

- 1 This report is accompanied by seven thematic research papers which are available at [Greater Manchester Independent Prosperity Review - GMCA\(greatermanchester-ca.gov.uk\)](https://www.greatermanchester-ca.gov.uk/greatermanchester-independent-prosperity-review).
- 2 Systems Science in Public Health and Health Economics Research (SIPHER), *Systems Science in Public Health and Health Economics Research - Sipheris* a major investment by the UK Prevention Research Partnership (UKPRP), which brings together scientists across six universities, three government partners at local, regional and national level, and ten practice partner organisations. SIPHER's vision is a shift from health policy to healthy public policy. This means all policy sectors working together to tackle health inequalities and improve the health of the public.
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- 11 GM Poverty Action (2022) GM Poverty Monitor. Available at [Poverty Monitor 2022: Child Poverty - GM Poverty Action \(gmpovertyaction.org\)](https://www.gmpovertyaction.org/poverty-monitor-2022-child-poverty)
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- 15 This report is accompanied by seven thematic research papers which are available at [Greater Manchester Independent Prosperity Review - GMCA\(greatermanchester-ca.gov.uk\)](https://www.greatermanchester-ca.gov.uk/greatermanchester-independent-prosperity-review)
- 16 Analysis undertaken by GMCA Research Team to understand progress against the GM carbon budget using BEIS emissions estimates (available here: [UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics-2005-to-2020)).
- 17 EY undertook this work on behalf of GMCA to start to explore the outputs of the Local Area Energy Plan in more detail. This initial insight work has not been published but is used by the GMCA in their work.
- 18 Such options are those that regardless of wider socio-political changes that may be unknown at present, these activities will generate positive outcomes, compared to the initial cost of implementing them, for example, fabric retrofit of properties which will reduce energy demand regardless of the source of energy
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