

September 2024

# A new Liverpool-Manchester Railway

## Building a route to prosperity

**GMCA** GREATER MANCHESTER COMBINED AUTHORITY

**LIVERPOOL CITY REGION** COMBINED AUTHORITY

**WARRINGTON** Borough Council

**Cheshire West and Chester**

**Cheshire East** Council

**ST HELENS** BOROUGH COUNCIL

**MANCHESTER** CITY COUNCIL

**TRAFFORD** COUNCIL

**Transport for Greater Manchester**

**MAG Manchester Airport**

**PEEL PORTS GROUP** PORT OF LIVERPOOL

**Liverpool City Council**







## Foreword

### Co-chairs of the Liverpool-Manchester Railway Board



**Steve Rotheram**  
Mayor of the  
Liverpool City Region



**Andy Burnham**  
Mayor of  
Greater Manchester

Two centuries ago, the Liverpool and Manchester Railway revolutionised the way our world moved. It was the world's first inter-city passenger railway, setting the standard for innovation and ambition. Now, as we mark its 200th anniversary, we stand at the cusp of another transformation — one that can once again unite our great city regions, bolster our economy, and shape our future.

The Liverpool-Manchester corridor is not just a route between two cities; it's a vital artery of opportunity, home to 5.4 million people, 3 million jobs, and contributing around £150bn annually to the UK economy. This corridor is rich with potential, hosting world-class innovation zones, a thriving Freeport, key international gateways, and growing economies in places like Warrington and Cheshire. It's a place where ideas, commerce, and cultures converge, creating a vibrant economic region of national and global significance.

However, the promise of the Northern Powerhouse — a new, fast west-east rail link — remains unfulfilled. For over a decade, we've faced delays, broken promises, and shifting priorities. Meanwhile, our infrastructure lags, still constrained by the limitations of Victorian-era design. The time for action is now. We cannot afford to wait any longer.

Despite these challenges, our regions have not stood still. We've modernised the Merseyrail network, extended the Manchester Metrolink, developed major ports and airports, and created world-leading innovation districts. Imagine what more we could achieve with the right

infrastructure in place — linking people to jobs, innovators to entrepreneurs, and unlocking billions in economic synergies.

This project isn't just about laying new tracks. It's about unlocking capacity, creating seamless connections, and opening up new economic horizons. It's about turning stations into hubs of activity, fostering high-density development, and supporting our Net Zero ambitions by shifting freight from road to rail. Most importantly, it's about giving our residents the chance to thrive in a dynamic, interconnected economy.

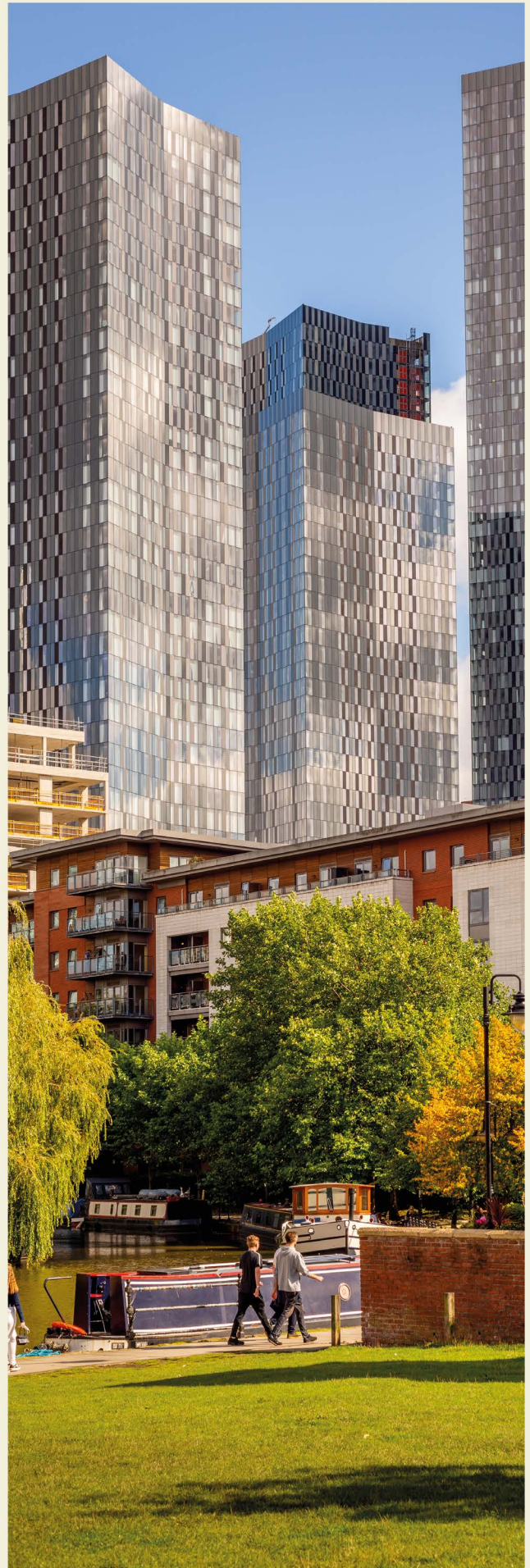
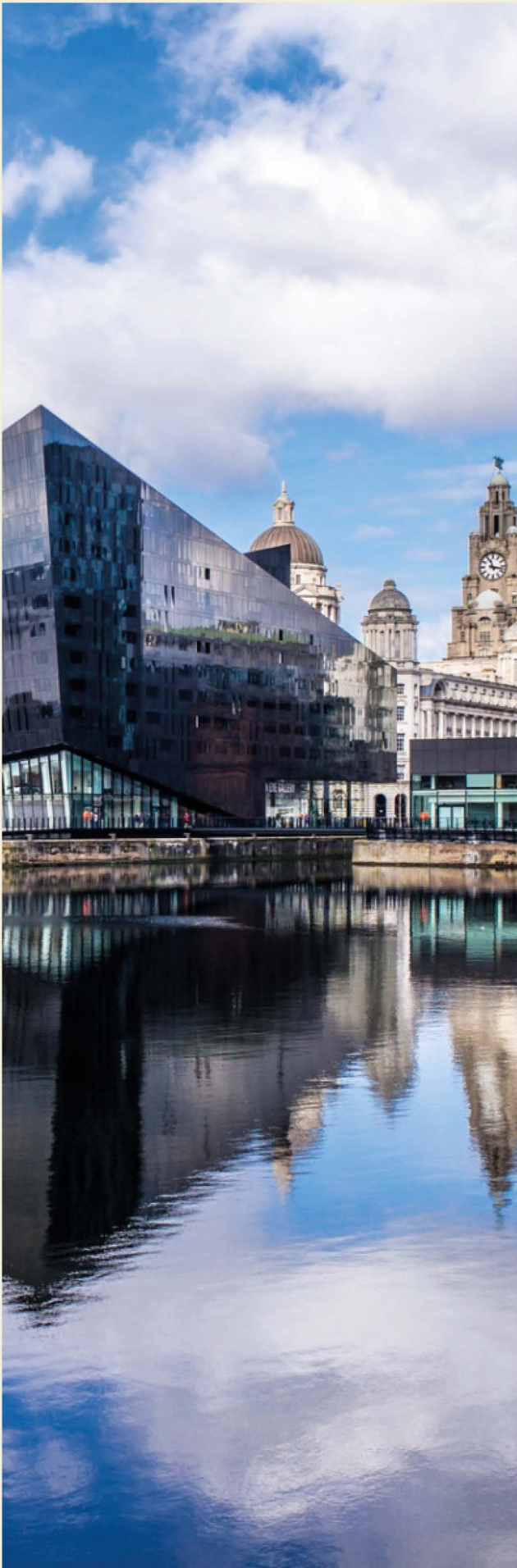
This report sets out a compelling investment case, showing how a modern rail network can act as a catalyst for national growth, delivering substantial returns to the Treasury while transforming the North's economic landscape. We need to work together—across governments, the private sector, and our Liverpool-Manchester Railway Board — to make this vision a reality.

Let's get it right and get it done. Together, we can pave the way for a future that echoes the ambition of our past, ensuring that our city regions continue to lead, innovate, and prosper for the next 200 years.

*Steve Rotheram*

*Andy Burnham*









## Summary

# A new Liverpool-Manchester Railway: building a route to prosperity

The story of the railways began in this very region 200 years ago, with the world's first inter-city rail service — the Liverpool-Manchester Railway. Passenger operations began just six years after the railway company was founded by local leaders and entrepreneurs in 1824.<sup>1</sup>

The legacy of this early Victorian infrastructure persists and continues to provide a vital — but ageing — backbone to the region's economy today. Two centuries on, the North West has evolved into a modern, knowledge-intensive economy, but still relies on infrastructure designed for a completely different era. Reliability, capacity and average journey times are poor compared with similar areas, and are a barrier to growth.

A step-change is now needed to catalyse the next era of economic innovation across the Liverpool-Manchester Growth Zone — a region that is vital to driving wider UK prosperity.

**The Liverpool-Manchester Railway (LMR) Board has been established to provide a unified, place-based voice on how best to improve connectivity and deliver economic growth across our region — building on the ambition, ingenuity, and urgency that prior generations of local leaders took to this same task.**

We must learn the lessons of HS2, where a top-down scheme inhibited the ability of local people and places to shape the project and maximise benefits, and where the design focus could have been more focused on the *quality* of connectivity (including frequency and reliability of services) — not just the speed.

We want to work with Government to develop the right scheme and a pragmatic, incremental delivery approach that will unlock benefits at each stage and provide certainty for local partners and private investors. This will maximise our ability to deliver the benefits that truly matter: more employment (including higher-quality jobs), accelerated housing delivery, stronger placemaking in our town and city centres, and ultimately, a better quality of life.

Across the region, we've already laid the foundations and are ready to deliver. This report sets out an economic opportunity for our region that can be achieved through targeted investment, sustained commitment, and genuine partnership.

An opportunity to...



### The Liverpool-Manchester (LM) Growth Zone comprises five areas...

- Greater Manchester
- Liverpool City Region
- Warrington
- Cheshire East
- Cheshire West & Chester

 **5.4 million**  
Residents

 **2.9 million**  
Jobs

 **Manchester Airport**

The UK's global gateway in the North — the busiest airport outside London and third busiest in the UK

 **Port of Liverpool**

The UK's 3rd busiest and largest transatlantic port





### The right Liverpool-Manchester Railway scheme could deliver...

- 1** Regular, reliable and faster trains
- 2** Expanded capacity on existing lines for more frequent railway services
- 3** Transformational enhancements to city centre stations
- 4** Improved integration with local public transport

### Potentially unlocking significant economic and social opportunity...

- A more productive region potentially generating an additional circa **£7BN ANNUAL GVA**.\*
- Supporting delivery of circa **300,000 NEW HOMES** over 20 years, and potentially as many as 500,000 in this time.\*\*
- 40,000+ HIGH-QUALITY JOBS** in the LM Growth Zone by 2050.\*\*\*

### Local leaders are ready to work in partnership...

Together with Government, we can co-develop the right scheme for the Liverpool-Manchester Railway. A partnership approach will bolster the benefits for the North and the rest of the UK, bringing greater prosperity and a better quality of life for our people and places. Local leaders can help strengthen the business case for this project, through integration of local policies, planning and investments that maximise the social, economic, and financial value created by the LMR.

## Connecting seven major growth opportunities



\* Net regional GVA uplift for the LM Growth Zone in 2050, expressed in 2024 prices, for a scenario that includes both the LMR and associated development impacts. Refer to modelling note in Annex for further information.

\*\* Based on a high-level analysis of current and potential future planning policy, as informed by the National Planning Policy Framework revisions under consultation as of September 2024.

\*\*\* Based on the same scenario as for the GVA estimate. Refer to modelling note in Annex.

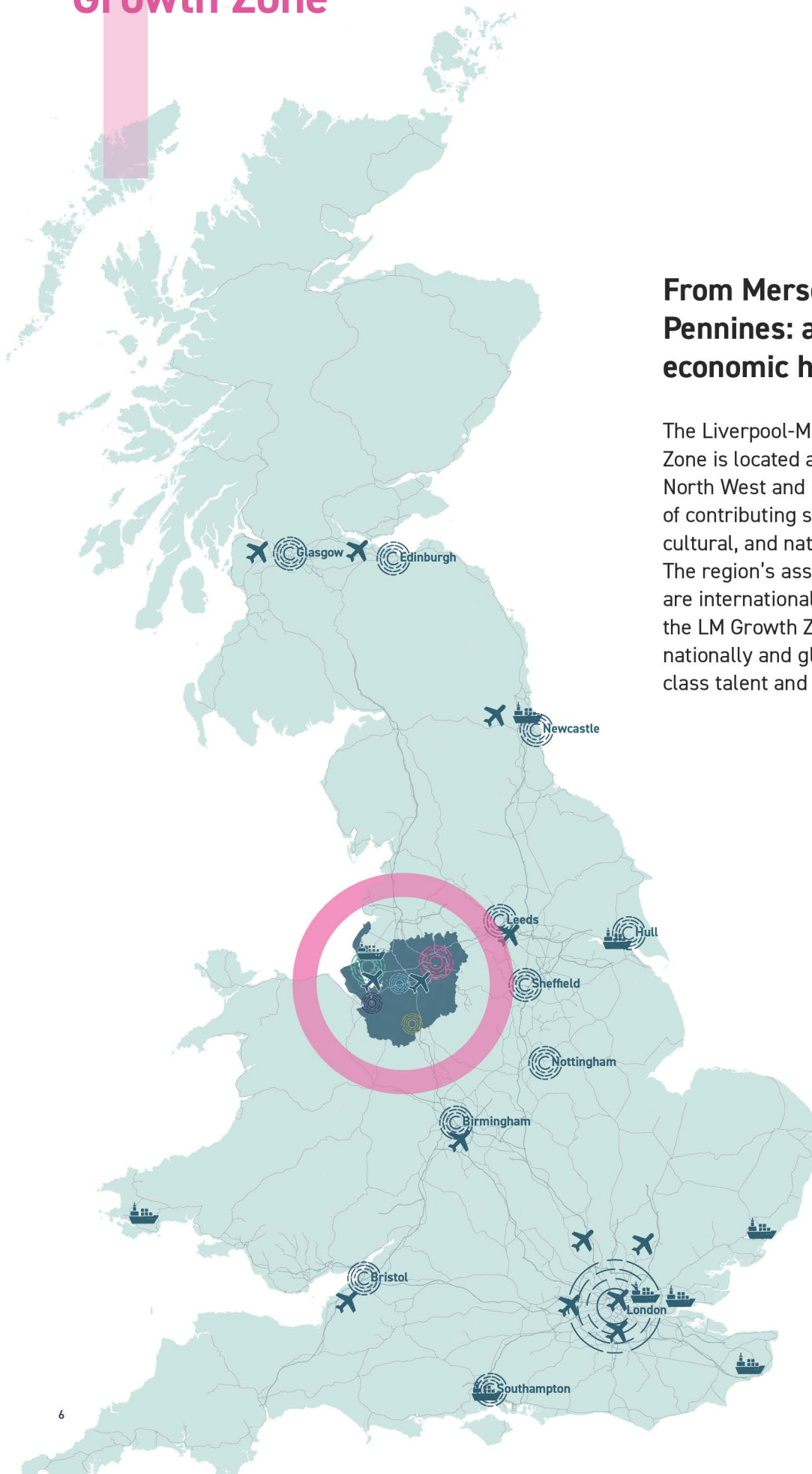




# The Liverpool-Manchester Growth Zone

## From Merseyside to the Pennines: a growing economic heart in the North

The Liverpool-Manchester (LM) Growth Zone is located at the heart of the North West and has a rich history of contributing significant economic, cultural, and natural value to the UK. The region's assets, talent, and research are internationally recognised, enabling the LM Growth Zone to compete both nationally and globally to attract world-class talent and inward investment.







- Major Airports
- Major Seaports
- Major Stadiums & Arenas

There are five areas comprising the LM Growth Zone, each with their own distinct – yet interconnected – economies and cultures.

This area also has important economic interactions and connectivity with the wider North West region, North Wales, and the North East.

The LM Growth Zone has always been an engine for economic growth and social change, with crucial assets like the Ship Canal, Manchester Airport, Port of Liverpool, and the Liverpool City Region Freeport. Over the past two centuries, this area has been a hub for technological and social innovation. Recently, it has shifted towards a knowledge-based economy, bolstered by world-class universities and a global reputation for arts, creative production, media, culture, heritage and sport (including being home to four of the biggest football clubs in Europe).



**5.4 million**

Residents

Comparable in size with Denmark, Ireland and Scotland



**2.9 million**

Jobs

389,000  
Human Health  
& Social Care

271,000  
Professional,  
Scientific &  
Technical

375,000  
Wholesale &  
Retail Trade

187,000  
Manufacturing



**Manchester  
Airport**

The UK's global gateway in the North – the busiest airport outside London and the third busiest in the UK

**Port of Liverpool**

The UK's 3<sup>rd</sup> busiest and largest transatlantic port



160,000+ students  
across 10 Universities &  
Higher Education Institutes





## A strong foundation, but a persistent gap in economic performance

The national productivity challenge is well-documented and a critical priority for the new Government.

Evidence from the University of Manchester's Productivity Institute<sup>2</sup> and the Northern Powerhouse Independent Economic Review<sup>3</sup> highlights the significant and persistent productivity gap between the North West and the rest of the UK.

**GVA per worker in the North West\* is nearly 10% below the national average.<sup>4</sup>**

Regional productivity disparities within the UK are long-standing, and **the gaps are much greater than nearly all other countries in Europe.<sup>5</sup>** This inter-regional economic disparity is of national importance. International research has shown that economic disparity among regions significantly impacts the overall economic potential of a nation.<sup>6</sup>

**The productivity gap in the North West is not from a lack of strategic assets, expertise or opportunities.**

Some areas, particularly Southern Manchester and Cheshire, are performing well. Cheshire exceeds the national productivity average due to high-value clusters in sectors such as life sciences and chemicals.<sup>7</sup> However, historical underinvestment across a range of areas, particularly infrastructure, is holding the region back as a whole.

The Northern Powerhouse Independent Economic Review concludes that transforming productivity across the region will "require investment and improved performance in a number of critical areas especially skills, innovation, and inward investment, alongside transport infrastructure and services."

**The 'size of the prize' from such investment is clear.**

If the productivity gap with London and the South East was closed, the North West would contribute an additional £17 billion to the UK economy every year — benefiting people in all parts of the country.<sup>8</sup>



\* Where possible, the data in this report aligns with the five areas of the Liverpool-Manchester Growth Zone. However some data is only available at the North West region level, which is broader. Where regional data has been used, this is specified in the text.



## Better connectivity plays a crucial role in boosting growth, productivity and prosperity

**A modern economy requires high-quality connectivity to reach markets and support innovation, particularly in cities and urban regions where networks can generate new ideas, new businesses, new innovations, and new opportunities.** Connecting businesses across a diversity of sectors is a catalyst for innovation and entrepreneurship, particularly in more knowledge-based economies, where creativity and ideas breed competitive advantage.

**The UK lags behind its global competitors in infrastructure, ranking only 31st in the world for efficiency of rail services.**<sup>9</sup> Historically the UK has underinvested in infrastructure relative to its peers,<sup>10</sup> in particular in the north of England where according to the IPPR North, transport spending from 2009/10 to 2019/20 was £349 per person, compared to London at £864 per person – a gap of £86 billion over that decade.<sup>11</sup>

When big cities thrive, their surrounding areas benefit as well – towns and villages with strong commuting links to prosperous cities tend to enjoy higher average incomes. This is true for those commuting into major cities for employment and those providing local services in well-connected towns and villages.

Evidence suggests that accessibility among the towns, cities, and major urban centres of Liverpool and Manchester remains relatively low. Only two towns outside the Liverpool City Region have a commuter share into Liverpool higher than 20% – the lowest among the UK's eight largest cities outside London<sup>12</sup>. Addressing the LM Growth Zone's growth constraints requires supporting larger flows of skills and capital into its cities to broaden job access and ensure better matching of skills with employment opportunities.

A fundamental challenge for the northern economy is improving interactions between its high-performing economic clusters to facilitate better knowledge-sharing, supply chain expansion, and innovation. The UK boasts a world-leading research base, with several headquarters within and around the LM Growth Zone. However, physical and economic barriers across the area currently restrict the trade and business interactions needed to translate ideas into competitive products and services on the global stage. Improved connectivity, particularly rail, is critical to overcoming these barriers.

**There is also a growing need across the LM Growth Zone to build more housing** appropriate to meet future demand and foster denser, more economically efficient places. Improved inter-regional transport connectivity facilitates easier movement, broadening commuter horizons and enhancing the viability of regeneration/development sites in city centres, brownfield sites and peripheral areas.

Improved transport connectivity combined with higher housing density will help alleviate housing supply pressures and address the underperformance of UK cities and regions by expanding talent pools and attracting more people, businesses, and services.

Finally, and importantly, better connectivity can lift families and communities out of poverty and deprivation by providing easier, faster and more reliable access to jobs and services. This is a key challenge across parts of the LM Growth Zone.

**We cannot lose sight of the fact that, ultimately, economic growth is really about providing a better quality of life for the people of our communities.**





## Two similar regions, two divergent pathways

**There are many similarities between the North West of England and the Randstad in the Netherlands, including population, scale and density.**

The Randstad, the heart of the Dutch economy, includes Amsterdam, The Hague, Rotterdam, and Utrecht. With a population of about 8.2 million,<sup>13</sup> it is comparable to the North West's 7.4 million.<sup>14</sup> The core cities of the Randstad are also similarly distanced from each other as Liverpool, Manchester, Warrington, and Chester. Each region has a major international port and airport.

**Despite being of similar profile to the North West, the Randstad is almost twice as productive.** This gap has been extensively analysed by researchers such as Tom Forth and the Centre for Cities.<sup>15</sup>

GDP per person in the Randstad substantially exceeds that of the North West region – approximately £52,000 compared to £33,000.<sup>16</sup>

While the Randstad's productivity stems from various factors, including high R&D levels, the reliable and frequent rail connectivity between its hubs is a key contributor to its economic performance.<sup>17</sup> This connectivity enables the region to function effectively as an integrated economic zone, with a fluid labour market across its towns, cities, and rural areas.

### TRANSPORT INVESTMENT IN THE RANDSTAD

The Randstad rail and metro network has received major investment in recent decades, with further investment planned to achieve the 2040 goal of offering door-to-door travel times of under one hour between its four major cities. Completed investments include:

- €7bn high-speed rail link between Amsterdam, Rotterdam and Antwerp (completed 2009).<sup>18</sup>
- €1.1bn Randstadrail light rail and bus system between The Hague, Rotterdam and Zoetermeer (completed 2007).<sup>19</sup>
- €1.6bn 11.5km Beneluxlijn extension of the Rotterdam metro network (completed 2002).<sup>20</sup>

### BENEFITS TO THE RANDSTAD

GDP per capita in the Netherlands has increased in the period following these connectivity investments, overtaking the UK in that time, with GDP increasing particularly significantly in the Randstad.

**The quality of rail connectivity in the Randstad is significantly better than between the largest cities in the North of England, with greater frequency, faster journeys and higher reliability of service, providing commuters with greater flexibility, certainty and ease of travel.**<sup>21</sup>

This quality of service is a key reason there are roughly twice as many passenger-kilometres per year in the Randstad compared to the North West, despite the similar number of stations.<sup>22</sup>

The greater flow of labour from the towns and cities within the Randstad to the core cities of Rotterdam and Amsterdam allows the region to be more economically integrated, and for the cities to be economically denser. For instance Amsterdam, which is similar in size to Central Manchester and Liverpool, has a 33% higher employment density.<sup>23</sup>

Density is crucial in the 21st-century economy, where significant value creation is formed through the exchange of ideas, creativity, and data, facilitated by face-to-face collaboration. The Randstad's diverse sectors and greater labour flows make it more economically integrated than the North of England, allowing it to compete with other major integrated economic zones across Europe and the world.

For example, Lille and Paris, Copenhagen and Malmö, and Düsseldorf and Cologne have all experienced significant productivity improvements through recent investments in transport that have brought these cities and the towns that surround them closer together. As cities in the North West increasingly rely on knowledge-intensive services, labour flows supporting cross-industry collaboration become vital as an engine for productivity growth.



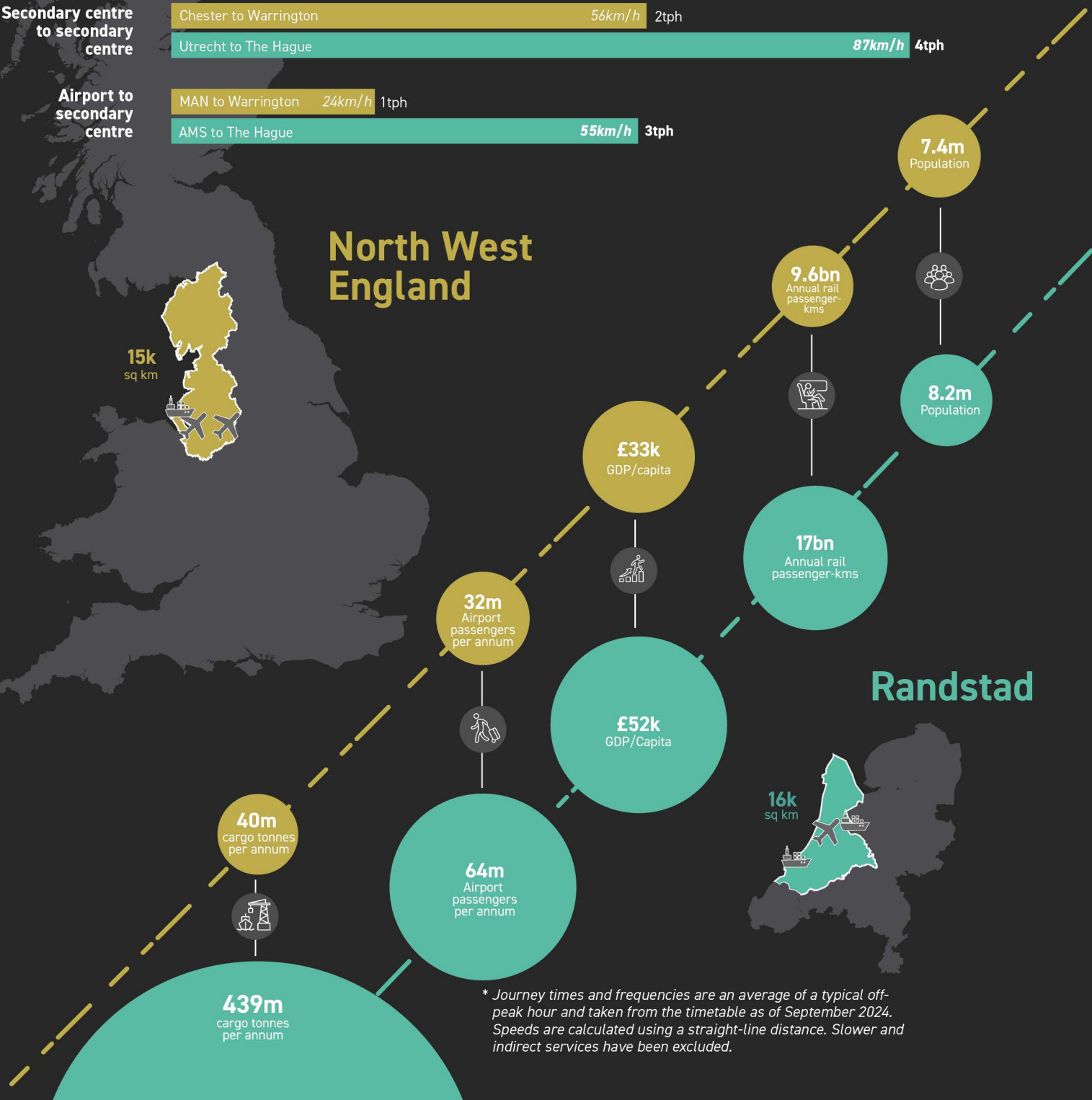
## The Randstad

*More frequent trains and faster journeys\**<sup>24</sup>

Largest two economic centres	Liverpool to Manchester	70km/h	4 trains per hour (tph)
	Amsterdam to Rotterdam	84km/h	5tph
Largest centre to secondary centre	Manchester to Warrington	59km/h	4tph
	Amsterdam to Utrecht	81km/h	6tph
Secondary centre to secondary centre	Chester to Warrington	56km/h	2tph
	Utrecht to The Hague	87km/h	4tph
Airport to secondary centre	MAN to Warrington	24km/h	1tph
	AMS to The Hague	55km/h	3tph

## North West England

15k  
sq km



\* Journey times and frequencies are an average of a typical off-peak hour and taken from the timetable as of September 2024. Speeds are calculated using a straight-line distance. Slower and indirect services have been excluded.



# The Liverpool-Manchester Railway: On-track for transformation

## The transport network today is of strategic national importance...

The multi-modal transport network in the LM Growth Zone is crucial to a well-functioning, productive UK economy, with some of the nation's most important connectivity links:

- **The West Coast Mainline:** one of Europe's busiest mixed-use railways, connecting major cities from London to Scotland and carrying freight from major ports across the UK and mainland Europe via the Channel Tunnel.
- **The Transpennine, Hope Valley and North Wales rail routes:** providing east-west connectivity across northern England and north Wales.
- **The M6 and M62 motorways:** the M6 serves as the only continuous motorway between London and Scotland, while the M62 is the primary east-west route in northern England.
- **Port of Liverpool:** The UK's fourth largest port by tonnage (and third largest when combined with the Manchester Ship Canal), and the nation's primary transatlantic gateway.
- **Manchester Airport:** The UK's global gateway in the North – the busiest airport outside London and the third busiest in the UK.
- **Liverpool John Lennon Airport:** providing further international connectivity for freight and passengers through one of the UK's highest-rated airports.

## ...but is now struggling to meet our changing and growing needs

The rail network in the LM Growth Zone is under immense pressure, struggling to accommodate a mix of long-distance, local, and freight services, all vying for capacity on one of the world's oldest rail networks. The demands on this network are substantial:

- Manchester's four city centre stations are the second busiest in the country outside of London and the South East, with Liverpool's stations ranked fourth. Liverpool Central is also the busiest underground station outside of London.
- Between 1998 and 2019, rail demand in the North West of England grew by 178% – faster than London and the South East. While COVID-19 reduced demand, passenger numbers at both Liverpool Lime Street and Manchester Piccadilly were at 78% of 2018/19 levels (as of 2022/23) and demand is continuing to recover.<sup>26</sup>
- The network also handles significant freight traffic, including flows to and from the Port of Liverpool, one of the UK's busiest ports, and Trafford Park, which manages approximately 20 daily intermodal services to and from the UK's deep-sea ports.

### A NETWORK THAT IS AT CAPACITY

Central Manchester's rail network is broadly at capacity and unable to accommodate additional services, as evidenced by the disruption seen following the implementation of a new timetable in 2018. **This bottleneck impacts the entire zone, limiting services from east of the Pennines to Liverpool and reducing direct access to Manchester Airport.**

Station capacity is another critical issue. Liverpool Lime Street, Liverpool Central, Manchester Airport, and Manchester Piccadilly stations experience high platform utilisation (particularly the through lines at Piccadilly) and the lines approaching all of these stations are at or reaching capacity.

**Given these demands and the constrained infrastructure, compromises are inevitable to balance the competing needs on the rail network. Economic growth is already being restricted by reducing services to manage existing infrastructure limitations, and further demand simply cannot be met by the existing assets – creating a genuine 'brake on growth'.**



## **SLOW INTER-CITY JOURNEYS**

The average train journey between Liverpool and Manchester takes 53 minutes for a distance of under 40 miles. There is a faster option, however only one train per hour can meet this speed due to the congested infrastructure. It takes 54 minutes to travel by train from Warrington to Manchester Airport, over double the typical car journey time. This is due to services having to take an indirect route via Manchester Piccadilly.

## **INFREQUENT SERVICES**

The network also lacks frequent services between key destinations. For example, as of December 2024 there are only 2 trains per hour (tph) from Liverpool to Leeds, and 1tph from Liverpool to Manchester Airport. Few stations receive more than 2tph, despite serving significant local populations; for instance, more than 18,000 people live within 2km of Flixton station, yet it is typically served by only 1tph.<sup>27</sup>

## **PERSISTENTLY UNRELIABLE SERVICES**

The lack of segregated infrastructure for different service types makes the rail network prone to delays. In 2023, 10% of services at Manchester Victoria were cancelled, the second highest figure in the UK. Manchester Oxford Road was in joint third-place at 9%.<sup>28</sup>

## **FRAGMENTED SERVICES**

Few rail services traverse the entire region, making it difficult for people to access the full range of opportunities in the LM Growth Zone. For instance, Greater Manchester's northern and eastern boroughs such as Bolton, Rochdale, Oldham, and Tameside lack direct rail connections to Liverpool. It can be confusing to know whether it is better to travel from Piccadilly or Victoria when going to Liverpool due to fragmented service patterns.

## **FREIGHT SERVICES ARE SQUEEZED OUT**

Due to the passenger pressures above, the number of freight paths is limited. This constrains growth in the freight sector and leads to unnecessary lorry trips that contribute to road congestion and pollution across the LM Growth Zone.





## More than just a line: a network transformed

Investment in a new Liverpool-Manchester Railway (LMR) can address the challenges above and remove this 'brake on growth.'

The LMR is not just about faster intercity links. Properly developed, this project has the opportunity to help unlock capacity constraints on our network to allow for more reliable and potentially higher frequency local passenger and freight services on the lines across the LM Growth Zone. This could enable integrated, door-to-door public transport journeys, ensuring the benefits of the investment are felt by all.

The right LMR scheme would transform our network from one where people and businesses have little faith in the rail network, to one where people simply turn up and go, safe in the knowledge that there is a resilient network of options to get them to where they need to go.







Preston

Blackburn

Rochdale

Calder Valley

Bury

Bolton

Middleton

Leeds

Wigan

**MANCHESTER  
PICCADILLY**

Bradford, Leeds  
& the North  
East via NPR

Salford  
Crescent

Ashton

Port  
Salford

Hadfield

Glossop

**WARRINGTON  
BANK QUAY**

Partington  
Altrincham

Marple

**MANCHESTER  
AIRPORT**

Sheffield &  
the East  
Midlands

Wilmslow

Stockport

Hazel  
Grove

Northwich

Macclesfield

Buxton

Stoke-on-Trent  
& London

**CREWE**

Birmingham &  
London

## The right Liverpool-Manchester Railway scheme could deliver...



**Regular, reliable and faster trains** between Liverpool, Warrington, Manchester Airport, Manchester City Centre, Crewe, Chester and beyond.



**Expanded capacity on existing lines for more frequent freight and local passenger services** across the LM Growth Zone.



**Transformational enhancements to city centre stations** and surrounding areas in Manchester, Liverpool, Crewe, Chester and Warrington Bank Quay.



**Improved integration with local public transport** and active travel networks that make it simpler and easier for people to travel by public transport

## What this opportunity could mean for people and businesses in the LM Growth Zone...

### A BETTER CONNECTED NETWORK

Faster inter-city services will connect our region to the North and Midlands, making rail a reliable and attractive option. Frequent and better-performing trains will better link communities, ensuring everyone can benefit from the opportunities across the LM Growth Zone, regardless of where they are.

### A NETWORK THAT SUPPORTS GROWTH

Capacity will be significantly increased, enabling more people and goods to move by rail and catalysing new and improved housing and employment across the region. Our stations will be upgraded, ensuring they can cater for increased demand arising from housing and employment growth, and unlocking opportunities for better placemaking and station-oriented development.

### A LOWER CARBON NETWORK

Additional capacity and connectivity will make it more attractive and viable for people and goods to shift from road to rail, helping to meet our decarbonisation targets.

### AN INTEGRATED MULTI-MODAL NETWORK

Our rail, Merseyrail, Metrolink, bus and active travel networks will be better integrated. With opportunities for improved service, and potential fare and payment integration, the network can offer more attractive and convenient door-to-door sustainable journeys.

### AN INTERNATIONALLY CONNECTED NETWORK

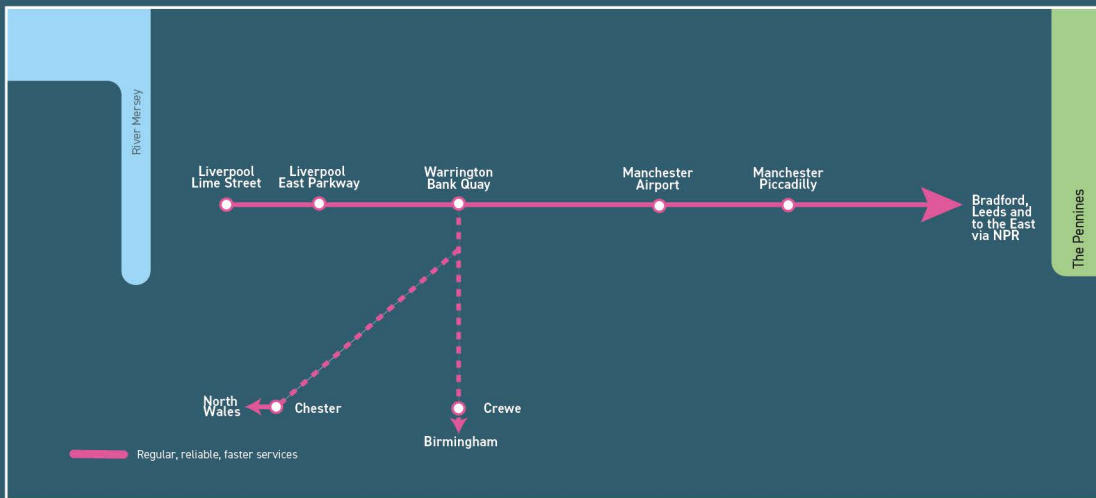
Our ports, airports and inland freight hubs will be better connected to the rest of the region, boosting the visitor economy and plugging our businesses in to global expertise and markets.

### A NETWORK FIT FOR THE FUTURE

This investment will support the delivery and maximise the benefits from the wider east-west and north-south rail connectivity improvement programmes including the Transpennine Route Upgrade (TRU) and HS2.

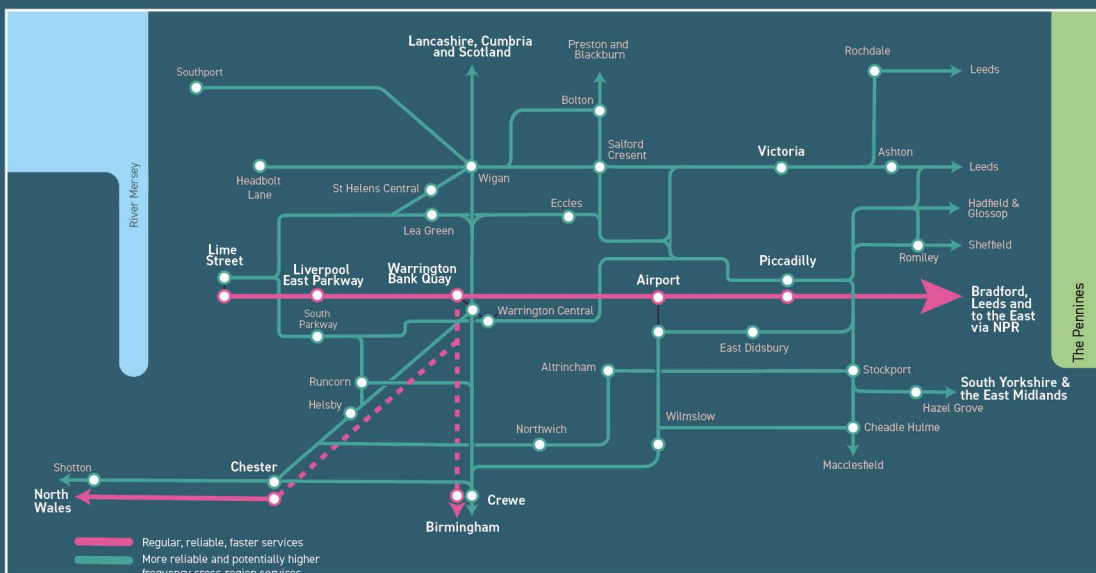


## How could a properly designed LMR improve journeys across the LM Growth Zone?



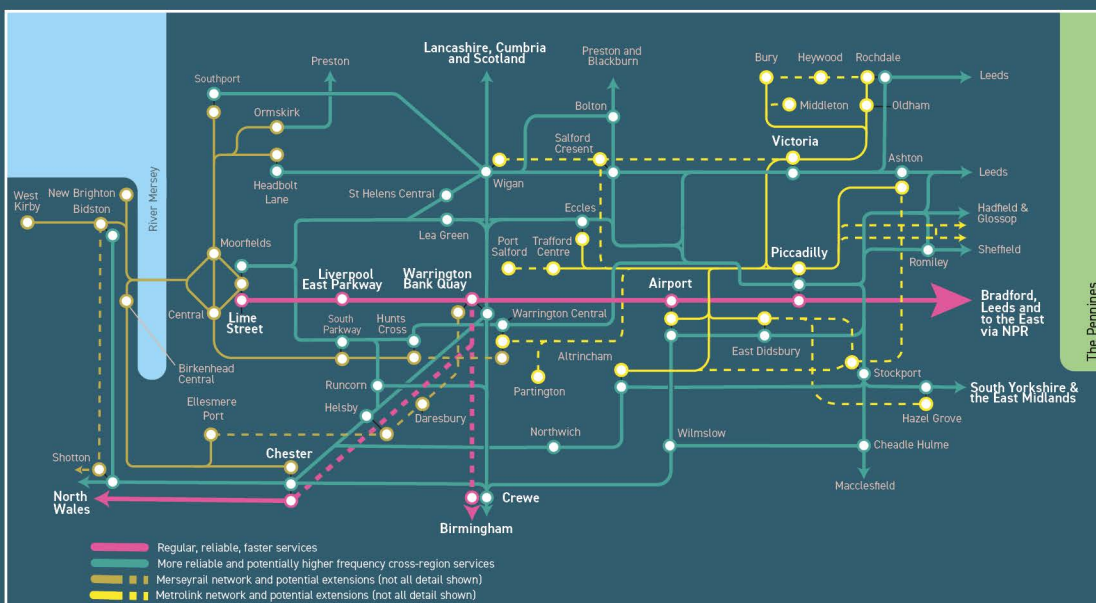
## Deliver

The LMR could provide **regular, reliable and faster services** between our cities, towns and airports – as well as to destinations across the North via NPR.



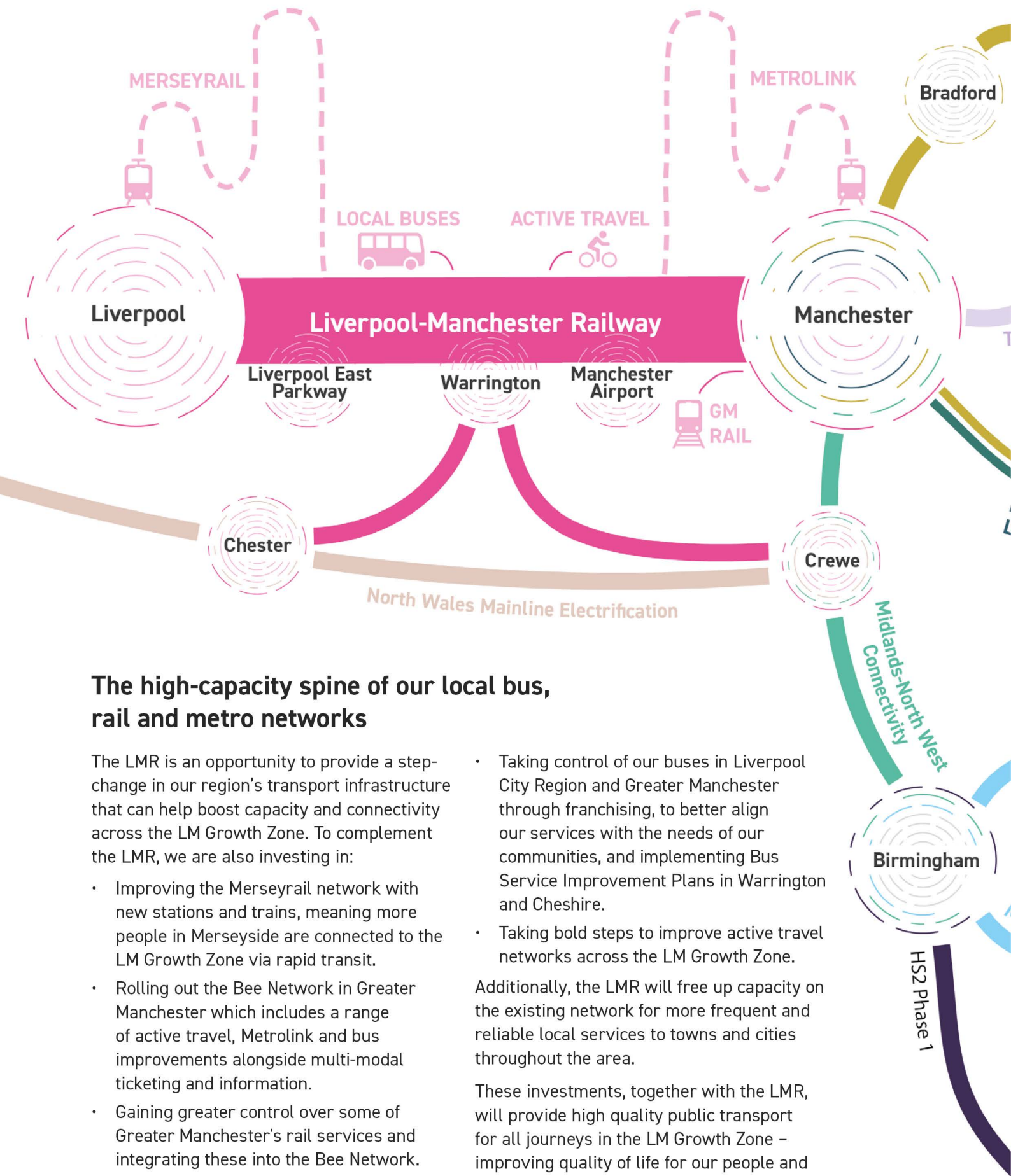
## Release

By providing sections of dedicated infrastructure, the LMR has the potential to release capacity on the existing network, improving reliability and opening up opportunities to run more freight and passenger services across the region.



## Integrate

The LMR could integrate with Merseyrail and Metrolink at new interchange stations, **offering door-to-door public transport**. Expanding these networks and utilising LMR's capacity would enhance connectivity, with local bus and active travel networks also playing a key role.



## The high-capacity spine of our local bus, rail and metro networks

The LMR is an opportunity to provide a step-change in our region's transport infrastructure that can help boost capacity and connectivity across the LM Growth Zone. To complement the LMR, we are also investing in:

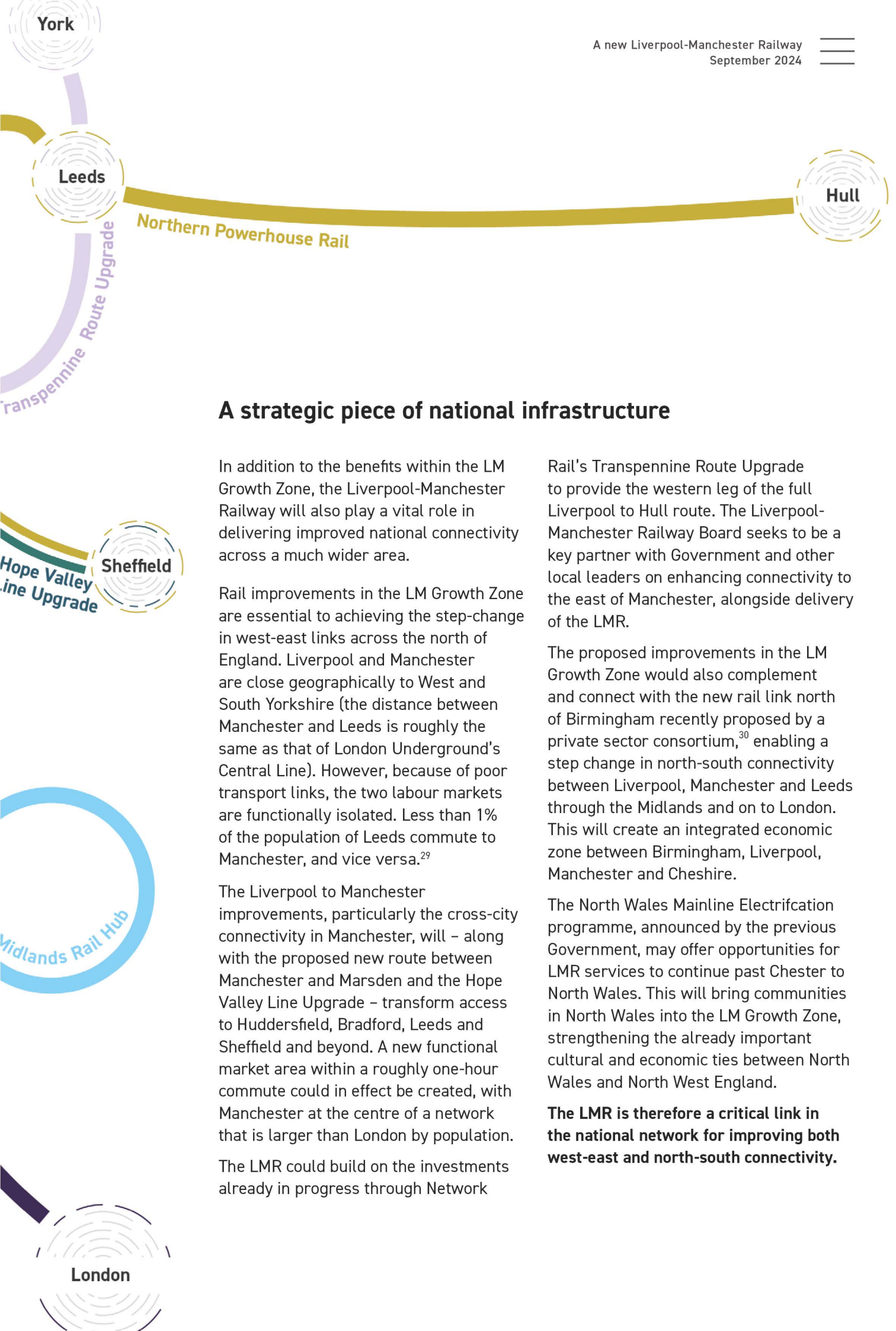
- Improving the Merseyrail network with new stations and trains, meaning more people in Merseyside are connected to the LM Growth Zone via rapid transit.
- Rolling out the Bee Network in Greater Manchester which includes a range of active travel, Metrolink and bus improvements alongside multi-modal ticketing and information.
- Gaining greater control over some of Greater Manchester's rail services and integrating these into the Bee Network.

- Taking control of our buses in Liverpool City Region and Greater Manchester through franchising, to better align our services with the needs of our communities, and implementing Bus Service Improvement Plans in Warrington and Cheshire.
- Taking bold steps to improve active travel networks across the LM Growth Zone.

Additionally, the LMR will free up capacity on the existing network for more frequent and reliable local services to towns and cities throughout the area.

These investments, together with the LMR, will provide high quality public transport for all journeys in the LM Growth Zone – improving quality of life for our people and places, and driving economic growth.





## A strategic piece of national infrastructure

In addition to the benefits within the LM Growth Zone, the Liverpool-Manchester Railway will also play a vital role in delivering improved national connectivity across a much wider area.

Rail improvements in the LM Growth Zone are essential to achieving the step-change in west-east links across the north of England. Liverpool and Manchester are close geographically to West and South Yorkshire (the distance between Manchester and Leeds is roughly the same as that of London Underground's Central Line). However, because of poor transport links, the two labour markets are functionally isolated. Less than 1% of the population of Leeds commute to Manchester, and vice versa.<sup>29</sup>

The Liverpool to Manchester improvements, particularly the cross-city connectivity in Manchester, will – along with the proposed new route between Manchester and Marsden and the Hope Valley Line Upgrade – transform access to Huddersfield, Bradford, Leeds and Sheffield and beyond. A new functional market area within a roughly one-hour commute could in effect be created, with Manchester at the centre of a network that is larger than London by population.

The LMR could build on the investments already in progress through Network

Rail's Transpennine Route Upgrade to provide the western leg of the full Liverpool to Hull route. The Liverpool-Manchester Railway Board seeks to be a key partner with Government and other local leaders on enhancing connectivity to the east of Manchester, alongside delivery of the LMR.

The proposed improvements in the LM Growth Zone would also complement and connect with the new rail link north of Birmingham recently proposed by a private sector consortium,<sup>30</sup> enabling a step change in north-south connectivity between Liverpool, Manchester and Leeds through the Midlands and on to London. This will create an integrated economic zone between Birmingham, Liverpool, Manchester and Cheshire.

The North Wales Mainline Electrification programme, announced by the previous Government, may offer opportunities for LMR services to continue past Chester to North Wales. This will bring communities in North Wales into the LM Growth Zone, strengthening the already important cultural and economic ties between North Wales and North West England.

**The LMR is therefore a critical link in the national network for improving both west-east and north-south connectivity.**

# Unlocking growth and benefits across the Liverpool-Manchester Growth Zone

The Liverpool-Manchester Growth Zone is of huge significance to UK plc. With a population of 5.4 million, 3 million jobs, annual economic output of c.£150bn (around 7.5% of the UK economy), and major economic assets, this is a region of national and global significance.

A step change in connectivity would:

- **Link-up major hubs for innovation, employment and economic growth**, boosting agglomeration, enabling people to reach jobs, and supporting the Government's mission to secure the highest sustained growth in the G7, with good jobs and productivity growth in every part of the country.
- **Support investment in clean energy, and unlock opportunities for freight**, helping the area transition from a carbon-intensive to a green economy, and move freight from road to rail, in line with the Government's mission to make Britain a clean energy superpower.
- **Be a catalyst for significant regeneration and housing growth**, enabling major mixed-use, sustainable regeneration projects in town and city centres as well as creating new homes and commercial space across the LM Growth Zone, through a joined-up approach to planning and investment in transport, housing and regeneration.

Each of these is explored in further detail on the following pages.





LIVERPOOL LIFE SCIENCES INVESTMENT ZONE



OLD MANCHESTER



WARRINGTON BANK QUAY REDEVELOPMENT





## Accelerating productivity and economic growth

### CONNECTING ECONOMIC ASSETS

The Liverpool-Manchester Growth Zone has significant economic assets: two dynamic city centres that are growing hubs for knowledge-intensive firms, two Investment Zones and several innovation districts and science parks, a Freeport, and major international gateways including Manchester Airport and the Port of Liverpool.

But these assets are not well connected, limiting the effective size of urban economies. Poor urban transport limits people's opportunities and effectively makes our largest cities much smaller than European competitors, impacting productivity and economic performance. Just 20% of Manchester's population, and 35% of Liverpool's population can reach their respective city centres in 30 minutes by public transport; compared to an average 67% of the population in large European cities.<sup>31</sup> Because of poor transport, Liverpool and Manchester have smaller economies, and as such are less prosperous relative to their size compared to many European cities.

A step-change in connectivity would link-up these major hubs for innovation, jobs and economic growth across the LM Growth Zone. It would make it easier for people to reach jobs, for employers to access wide pools of labour, and enable innovators, entrepreneurs and R&D intensive firms to collaborate better. It would enable higher densities of economic activity and employment in city and town centres and at other employment hubs.

### INNOVATION AND SCIENCE

This includes the area's collection of innovation districts and science parks. These are places with networks of knowledge-producing organisations such as universities, research bodies, teaching hospitals, cultural institutions, and knowledge-intensive businesses. They bring together innovators, entrepreneurs, researchers, creatives, knowledge workers and investors to work together, to collaborate, compare and compete, creating the

conditions for business growth. They are becoming the locations of choice for spin-out, start-up, and scale-up science and technology driven firms, as well as for larger businesses undertaking research and development.

Places such as Knowledge Quarter Liverpool, Oxford Road Corridor, Sci-tech Daresbury, Origin Ellesmere Port and Alderley Park are already world class innovation hubs in sectors such as advanced materials, health innovation and life sciences, computational science, and digital. Along with new locations for innovation and growth such as ID Manchester, MIX Manchester, and Atom Valley, there is the potential for around 30 million square feet of new commercial and research space for innovation-led growth.

Better transport would link up these places, enhancing the flows of knowledge and skilled workers, and strengthening the networks of universities, entrepreneurs, R&D intensive larger firms, investors of risk capital and government bodies that are so important for successful innovation economies. This is an opportunity of national significance to create a science superpower in the north, complementing the R&D "Golden Triangle" between London, Oxford and Cambridge.

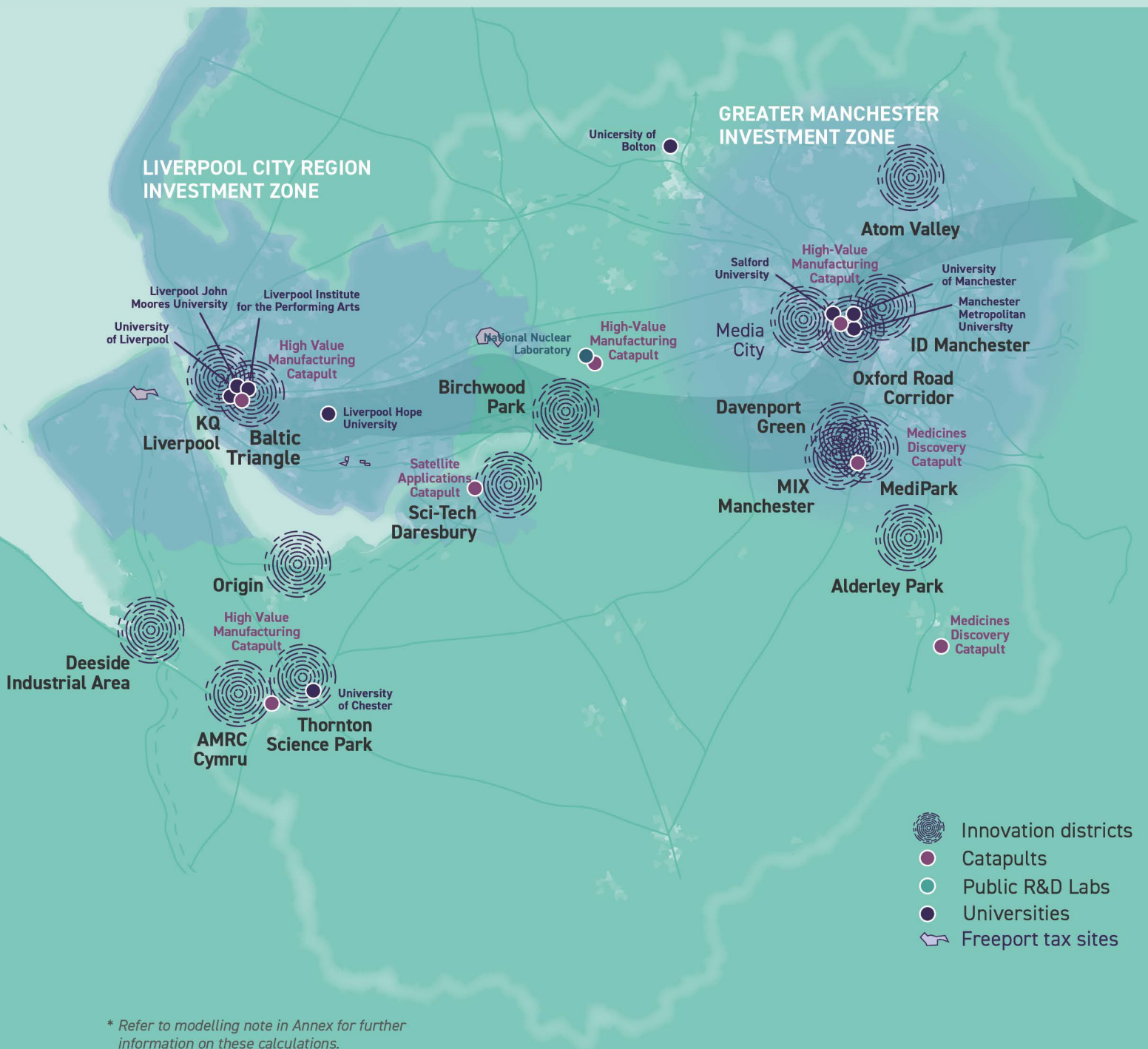
Better links to major airports and ports would improve access to international markets for exporters and for tourism. Millions of people travel to our region every year to access the unrivalled sporting, musical and other cultural attractions we offer. This generates significant economic activity and in Liverpool alone it is worth £6bn to the economy.

The proposed connectivity improvements would complement the Transpennine Route Upgrade and better connect Leeds and Bradford to Manchester, Manchester Airport and Liverpool. This would bring West Yorkshire's 2.4 million people and £60 billion annual economy within closer reach, creating benefits across the North.



# JOB SKILLS & INNOVATION

*The core LMR scheme and associated development could generate up to 42,000 jobs in the LM Growth Zone. Complementary and integrated improvements to the region's public transport could further enhance this jobs outcome, potentially more than doubling that figure by 2050.\**



## Supporting investment in clean energy and unlocking opportunities for freight

### CLEAN ENERGY AND INDUSTRIAL DECARBONISATION

Improved connectivity is needed to support innovation and investment in clean energy and decarbonisation of industry in the LM Growth Zone. The area includes the main investment opportunities for the North West Industrial Cluster, which has the greatest concentration of advanced manufacturing and chemical production in the UK. The cluster is home to three sites that are among the UK's 15 biggest emitters of greenhouse gases.<sup>32</sup> Across the North West, industry produces around 2.6 million tonnes of carbon dioxide a year.<sup>33</sup>

The LM Growth Zone is already driving rapid decarbonisation while delivering sustainable growth. Cheshire West and Chester achieved a 20% drop in GHG emissions between 2021 and 2022 – the highest of any local authority in the UK – while simultaneously growing their GVA by over 13%.<sup>34</sup>

Improved connectivity for both freight and passengers across the LM Growth Zone enables industry to more sustainably move raw and processed materials that are critical to national decarbonisation (e.g. Sustainable Aviation Fuels), as well as collaborate and attract business investment to innovate and further accelerate the Clean Energy transition.

### GROWING DEMAND FOR FREIGHT

Rail freight is crucial to the UK, contributing £2.45 billion annually. It's especially important to the Northern economy, with over 33% of goods entering through Northern ports and 25% of freight journeys starting and ending in the North.<sup>35</sup>

In Network Rail's North West and Central region, freight growth is expected to rise by up to 13% from 2021 to 2028/29, the second highest growth among Network Rail's regions. However,

by 2028/29, national demand for rail freight may be constrained by 4.5% to 16% due to network bottlenecks – Castlefield Junction is one of the eight most significant constraints in the nation.<sup>36</sup>

Improving connectivity between Liverpool and Manchester could support the Great British Railway Transition Team's goal of 75% rail freight growth by 2050.<sup>37</sup> The area is a strategically significant area for rail freight and home to several of the UK's busiest freight ports and terminals. This includes the Liverpool City Region Freeport, comprising (1) the Port of Liverpool, the UK's largest western facing port, handling 45% of the UK's trade with the United States; and (2) tax sites at Wirral Waters, 3MG (Widnes) and Parkside (St Helens). The Freeport has capacity for 6.7 million square feet of commercial development across 300 hectares, and the potential to create 14,000 jobs and generate £850 million annual GVA.<sup>38</sup>

However, significant bottlenecks along routes which connect key ports and terminals with the national transport network continue to make rail freight slow and unreliable, limiting the potential for the sector to expand in-line with the Government's ambitious growth targets.

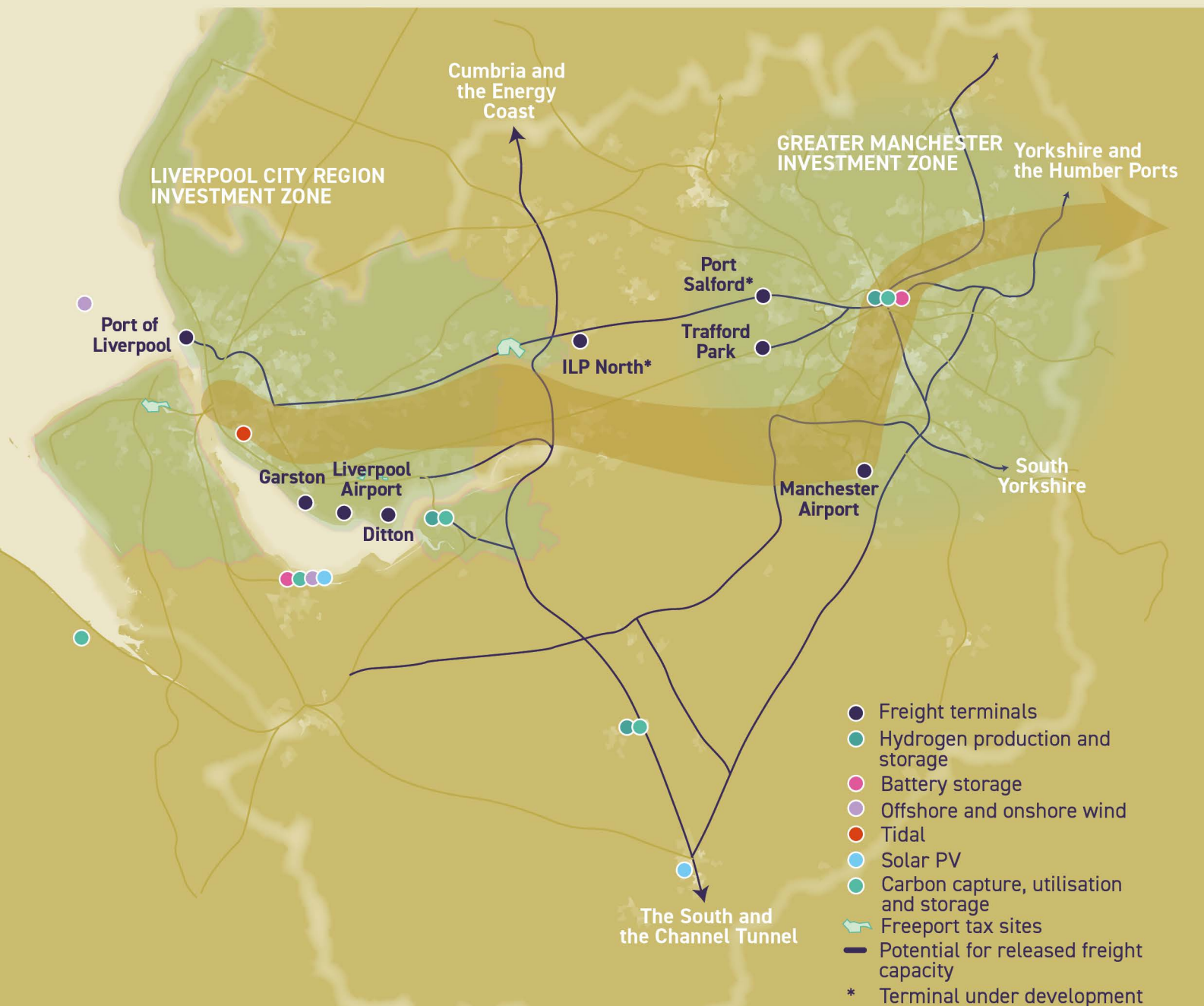
Improving connectivity across the area has the potential to support significant increases in rail freight flows. Releasing capacity on existing lines could allow additional freight trains to operate, improving cost efficiency by allowing for a more productive use of locomotives, crews and wagons. It will also support better access to key rail freight interchanges such as at ILP North and Port Salford by removing some conflicting passenger services and linking with strategically connected HGV logistics sites on the motorway network.

Greater use of rail for freight will also contribute to our region's decarbonisation ambitions. Analysis by Network Rail shows that each tonne of freight transported by rail produces 76% fewer carbon emissions compared with road.



# CLEAN ENERGY, FREIGHT & SUPPLY CHAINS

*Investment in the LMR, and the associated development impacts which flow directly from the railway, could add c.£7 billion in GVA per year in the LM Growth Zone – equivalent to a 4% uplift in the region's economy. This growth could be further bolstered through complementary improvements to the region's public transport network, potentially adding billions in additional GVA.\**



\* All figures are net regional impacts, in 2050, expressed in 2024 prices. Refer to modelling note in Annex for further information on these calculations.

## Accelerating regeneration and housing growth

### STATION-FOCUSED REGENERATION

Enhanced connectivity will support high density, sustainable mixed-use development around stations. The evidence nationally and globally is that the benefits of transformational transport investments are maximised when regeneration and land-use change are planned and invested in alongside transport as part of an integrated approach. In Manchester, Liverpool, Crewe, Chester and Warrington there are already ambitious station-focused regeneration plans in place (such as 75 hectares of land to be released for regeneration at Warrington Bank Quay). Further growth is planned at Manchester Airport and Timperley Wedge, linked to the new airport station.

Large scale transport-oriented regeneration has been achieved at places like London's King's Cross, where the Channel Tunnel Rail Link was planned with regeneration as an integral part of the scheme, contributing towards a doubling of firms in the area between 2010 and 2021.<sup>39</sup> In Lille, aligning plans for regeneration focused on the TGV Nord station created a new, high density business district, with Lille demonstrating a large increase in knowledge-intensive employment above the national average.<sup>40</sup>

### ACCELERATING HOUSING GROWTH

The Government has set out proposals to reform the planning system, including mandatory housing targets, to support delivery of 1.5 million more homes in the next five years – tackling the most acute housing crisis in living memory. The new minimum housing targets, based on the approach currently being consulted upon, are for the councils in the LM Growth Zone to deliver over 28,000 new homes per year.<sup>41</sup>

High density, city and town centre residential development near transport hubs will have a significant role to play. Because enhanced connectivity would boost the accessibility of development sites, and economic performance and investment more generally, the viability of housing schemes will improve. Insufficient transport infrastructure is already recognised as a constraint to growth through failure to connect enough workers with economic opportunities. From a supply-side perspective, long-term investment in infrastructure gives the private sector the certainty they need to deliver on the Government's housing and business growth ambitions by promoting investor confidence.

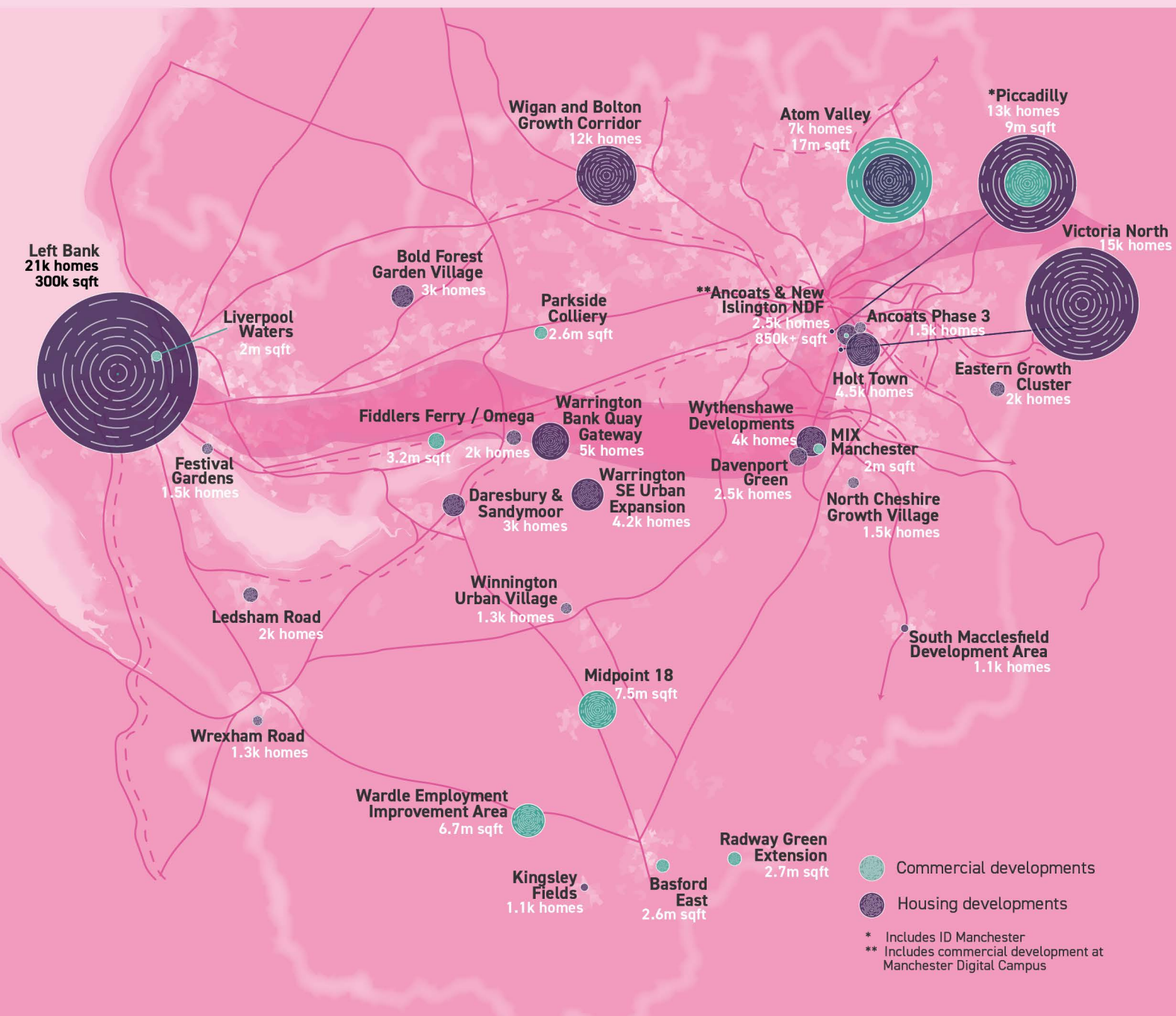
Local Planning Authorities will soon be updating Local Plans to account for the new housing targets and will be focusing on an integrated approach to transport and land use planning. Coordinated planning and investment will enable a step-change in residential density in the centre of Warrington, for example, and bring it in line with housing densities across the wider NPR corridor.

The map overleaf shows some of the transport-oriented housing and commercial developments already planned or underway in the LM Growth Zone. While not dependent on the proposed Liverpool to Manchester connectivity improvements, they demonstrate that planning and delivery of station-focused development is already underway, providing a platform for further growth and regeneration in the future.



# HOUSING & DEVELOPMENT

The LMR could play a pivotal role in supporting the delivery of at least **300,000 homes** over the next 20 years, and potentially accelerating as many as **500,000**, by improving connectivity and generating private sector confidence in investing in the LM Growth Zone.\*



\* Figures are based on a high-level analysis of current and potential future planning policy, as informed by the National Planning Policy Framework revisions under consultation as of September 2024; these are not based on land use-transport interaction modelling.



## A selection of key economic assets and opportunities in the Liverpool-Manchester Growth Zone

### ID MANCHESTER (IDM)



A £1.7bn innovation district delivering over 2m sq ft of commercial, innovation and retail space, over 1,500 new homes, 9 acres of public realm and over 10,000 new jobs, training and apprenticeship opportunities. IDM will be recognised internationally as one of the world's leading applied innovation districts.



### PORT OF LIVERPOOL

The Port of Liverpool is one of the world's leading ports. Significant investment in infrastructure and technology positions the port at the cutting edge of global logistics, including the development of Liverpool2, a £400m investment to create one of Europe's most advanced container terminals.

A key industrial hub with 1,300 businesses and 24,100 jobs, projected to grow to 1,463 businesses and 35,500 jobs by 2040 with £2bn investment. Four development zones have attracted £400 million from Jaguar Land Rover, DHL, Regatta, and Westland Horticulture.



### ORIGIN ELLESMERE PORT

A leading global media and tech hub, home to leading brands, three educational institutions, and over 250 creative and tech businesses. Ongoing investment includes plans for a design-led waterfront with around 3,000 new homes and nearly 1 million sq ft of additional commercial space.

### MEDIACITYUK



### BIRCHWOOD PARK



Identified as a premier location for advancing nuclear-based businesses, home to Jacobs, NNL, Nuvia, Rolls-Royce, and 161 other businesses. Diverse office and warehouse spaces, and its strategic location near Manchester and Liverpool means Birchwood Park uniquely situated to establish itself as the home of UK nuclear innovation.



### LIVERPOOL CITY REGION FREEPORT

The LCR Freeport spans 300 hectares, including the Port of Liverpool and three tax sites (such as Parkside in St Helens). It offers incentives to boost advanced manufacturing, biomanufacturing, logistics, and low carbon industries, and is expected to add £850m to the local economy by 2040.

Trafford Wharfside is located opposite Salford Quays, adjacent to Manchester United Football Club (MUFC) and Trafford Park-Europe's largest industrial park. The area offers the opportunity for up to 5,000 homes and additional employment / mixed use space, alongside MUFC's proposal to develop a new world-class stadium.

### TRAFFORD WHARFSIDE



A key regeneration priority with potential for 3,800 new riverside homes. Redeveloping Warrington Bank Quay station as a hub in this corridor will harness its central position to offer opportunities for increased employment space, housing and sustainable growth.

### WARRINGTON BANK QUAY





## ALDERLEY PARK

Home to the internationally recognised Mereside bioscience campus, offering more than 1m sq ft of high specification lab space, scientific services and an accelerator delivering business support for start-ups and scale-ups. Alderley Park has recently undergone a £247, expansion investment.



Manchester Airport is crucial to the North's economy, driving trade, investment, economic collaboration and tourism. With better surface connectivity, the airport's national contribution could almost treble from £6.6bn today to £18.9bn by 2050, including through MIX Manchester - the UK's first airport-based science and innovation campus.



## MANCHESTER AIRPORT & MIX MANCHESTER

## OXFORD ROAD CORRIDOR

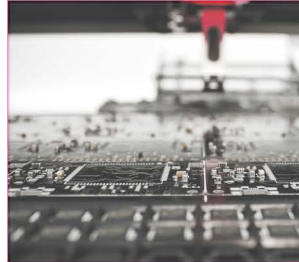
Manchester's Knowledge Quarter is home to two of the UK's leading universities, the UK's largest NHS foundation trust, and a cluster of digital, technology and life science businesses. The area accounts for 50% of Manchester's life science businesses and 50% of Greater Manchester's innovation assets.



This strategically positioned area offers one of the UK's largest development opportunities, potentially creating 40,000 jobs, 13,000 homes, 9m sq ft of commercial space, and a new transport hub aligned with major rail investments across the North.



## PICCADILLY



## ATOM VALLEY

A transformational Mayoral Development Zone which will create 1.6 million sq m of employment space and 20,000 high-quality jobs. Ongoing investment will position Atom Valley as a new hub for innovation in advanced materials, manufacturing and green technologies.

One of Europe's largest pharma clusters, this 10-year Investment Zone will attract up to £800m and create 8,000 jobs. The initial phase includes 21 projects to establish hi-tech facilities, support business and innovation, and train future talent, including expanding Sci-tech Daresbury and Knowledge Quarter Liverpool.

## LIVERPOOL LIFE SCIENCES INVESTMENT ZONE



## LIVERPOOL JOHN LENNON AIRPORT

A significant regional prosperity driver, generating £340m annually in GVA and supporting 5,200 jobs in Liverpool in 2019. The airport plans to grow, with £100m in planned investments. Forecasts estimate activity will rise to 7.8 million passengers by 2030.

The UK's leading industrial decarbonisation project, providing the infrastructure to produce, transport and store low carbon hydrogen across the North West and North Wales. It will directly provide 6,000 new permanent jobs in the North West, and support 75,000 jobs across the UK by 2035.

## HYNET NORTH WEST





# Working together to make change happen

## 4

### PLACE-BASED PARTNERING APPROACH

The previous Government committed to funding Northern Powerhouse Rail (pending business case approvals) as part of the Network North programme, of which £17 billion was earmarked for the Liverpool-Manchester section.

This follows more than a decade of Government promises to invest in transformative improvements to the North's rail network. Despite continuous commitments to rebalance regional transport funding, in 2023 transport spending per head in London was still nearly double that of the North West – a trend which has been sustained for many years. Simply bringing that figure to parity would require an additional £21 billion to be spent on transport in the North West over the next ten years.

It is imperative that the Government takes the opportunity to deliver on previous commitments and make the North's infrastructure a critical national priority, for the reasons set out in this report. But we are also conscious of the nation's fiscal position, and the heightened need to focus investment on projects that deliver the highest value for money and generate the greatest economic growth outcomes.

We believe strongly that we can help the Government (including DfT and MHCLG) strengthen the business case for this project. By co-creating the right scheme, we can maximise the social, economic, and financial value created by the project.

This value creation could be substantial. The evidence in Birmingham flowing from the HS2 investment has been unambiguous and striking. Six years on since HS2 Phase 1 gained royal assent, development activity is surging (66% increase in planning applications), and inward

investment is soaring (the West Midlands has attracted the most investment outside London and the South East) on the back of renewed private sector confidence in the city. Analysis suggests that HS2 and its associated development will deliver £10 billion in economic uplift across the West Midlands over the next ten years.<sup>42</sup>

A stronger and more prosperous LM Growth Zone will also deliver higher tax receipts to the Exchequer – higher incomes, higher capital gains, and higher-value transactions all equate to additional tax income flowing back to the Treasury, enabling a substantial long-term return on investment in the LMR.

Finding better ways of capturing or ringfencing a portion of this value, locally and nationally, could introduce a new model for funding infrastructure. Much of this will require going even further with the devolution of revenue-raising powers, as well as introducing new powers – it is clear that now is the time to seriously explore these creative solutions.

### PHASED DELIVERY

Delivery of the LMR – and the complementary infrastructure and operational improvements to the region's rail and public transport network – should follow a phased approach that is set out and agreed as part of a focused, long-term transport development plan. For instance, the LMR will build on initial investments and benefits already being delivered through Network Rail's Transpennine Route Upgrade, the Midlands Rail Hub and HS2 from London to Birmingham.

In addition to staging capital requirements incrementally, this approach will also provide badly-needed certainty and stability to the infrastructure supply chain, allowing contractors to invest in training and skills development, facilities,



and job creation (including apprenticeships). Evidence from nations such as Germany and France where long-term, stable and incremental rail investment strategies were followed suggests that such an approach can also play a dramatic role in lowering capital costs.

### **CHANGE IS NEEDED: A RENEWED PARTNERSHIP**

There are substantial opportunities to maximise benefits and accelerate the delivery of essential connectivity improvements in the LM Growth Zone. To seize these opportunities, collaboration and engagement is needed with those who know the area best — local communities, businesses, and leaders.

A joined-up strategy that has commitment from both local leaders and Government, and is sustained across political cycles, is the linchpin to delivering this effectively. We believe this is achievable through a sustained and genuine partnership between the Liverpool-Manchester Railway Board, central Government, and the private sector.

## **Co-development of the LMR by the Liverpool-Manchester Railway Board, Government, and the private sector will create a better project — and align with strategic Government priorities**

- **Deliver solutions at-pace:** Expedite the planning and phased delivery of connectivity investments, ensuring certainty and maximising local, regional, and national benefits.
- **Integrate national and local investments:** Align intercity rail investments with intracity connectivity and growth plans to ensure that both efforts complement and reinforce each other.
- **Invest in skills and innovation:** Support the development of skills and complementary elements needed to drive innovation, job creation, and productivity growth across the region.
- **Facilitate housing delivery:** Unlock transformative land use changes to drive regeneration and housing development in locations suited for density and well-served by public transport.
- **Coordinate freight capacity:** Ensure that increased freight capacity is integrated into a regional strategy that optimises the economic impact of new train paths, aligning with local freight hubs and their modernisation efforts.
- **Leverage global connectivity:** Capitalise on the economic opportunities at Manchester Airport and Port of Liverpool to better connect people and businesses with the global economy.
- **Focus on cost-effective solutions:** Ensure a cost-effective and phased approach to investments that meet the actual needs of our communities and businesses, supporting our growth ambitions.
- **Explore alternative funding:** Open new funding avenues by learning from international examples, leveraging the economic benefits generated by projects, and engaging investors.

## About the Liverpool-Manchester Railway Board

In May 2024, Greater Manchester Mayor, Andy Burnham, and Liverpool City Region Mayor, Steve Rotheram, announced the establishment of a new Liverpool-Manchester Railway Board to maximise the economic and social benefits of a new railway between the Liverpool City Region and Greater Manchester.

The Mayors launched the Board and set out their preferred options for improvements to rail infrastructure linking the North West's two largest city-regions. The plans include transformational investment in city centre stations in Liverpool and a modern, underground station at Manchester Piccadilly. The new rail line will run through new stations at Warrington Bank Quay and Manchester Airport, connecting the Investment Zones in Liverpool City Region and Greater Manchester via prime development sites.

The Liverpool-Manchester Railway Board will advance a place-based, bottom-up approach to deliver world-class connectivity and turbocharge the economy of the North West.

The Board will be tasked with working with the government and engaging with the private sector to help build the business case for the scheme to meet partner ambitions.

One of the key means of engaging with the private sector will be through the establishment of a Partnership Board. The Partnership Board will be tasked with bringing its collective experience, expertise and advice to support the Railway Board in the delivery of its aims and to assist in maximising the benefits and opportunities arising from the Liverpool – Manchester railway programme.

### CORE BOARD MEMBERS

- Liverpool City Region Mayor (Co-Chair)
- Greater Manchester Mayor (Co-Chair)
- Manchester City Council Leader (Joint Vice Chair)
- Liverpool City Council Leader (Joint Vice Chair)
- Warrington Council Leader
- Manchester Airport Managing Director
- Port of Liverpool CEO
- St Helens Borough Council Leader
- Trafford Council Leader
- Cheshire East Council Leader
- Cheshire West and Chester Council Leader
- HMG Rail Minister invited to be a member

### GUESTS BY INVITATION

- Department for Transport Director General
- Major Rail Projects Group
- Transport for the North CEO
- Network Rail
- HS2 Ltd
- National Highways
- Chair of the LMR Partnership Board

## Acknowledgments

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## Image credits

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**2**Page 3: Marcus Cramer; Manchester City Council

**3**Page 5: David Dixon

**4**Page 13: Giles Rocholl Photography

**5**Page 21: Origin Ellesmere Port, Liverpool City Region, IDManchester, Warrington Borough Council

**6**Page 28: IDManchester, Peel Ports Group, Origin Ellesmere Port, Dulhunk, Warrington Borough Council, Liverpool City Region, Trafford Council, Warrington&Co

**7**Page 29: Alderley Park, Louis Reed, MIX Manchester, Liverpool City Region, Oxford Road Corridor, Peter Gerloff, Manchester City Council, Font Comms

**8**Page 35: Manchester Airports Group

**9**Back Cover: Manchester City Council, Manchester Airports Group, Peel Ports Group



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## Annex: Land-Use and Transport Interaction Modelling Analysis

To help understand the potential growth opportunity, we have carried out preliminary modelling of the LMR concept to illustrate the scale of impacts that might result from the kind of initiatives being considered. This preliminary modelling has informed the jobs and GVA figures used in this report. This is an initial, high level analysis and further, more detailed work will be required as the programme is developed.

The type of modelling used focuses on economic and social variables across the region and beyond, in order to concentrate on these wider effects rather than on detail of time savings and development sites. It contributes to the continuing debate about growth in the North compared to other parts of England, and fits into the emerging view that against the backdrop of growth and balanced opportunity objectives, transport schemes should be appraised primarily for the economic impacts rather than just for faster travel.

This initial analysis has utilised existing models previously applied for the Greater Manchester Growth Strategy analysis and in other projects for TfN, DfT and National Highways. These remain the state of the art, and have been run by the specialists from SYSTRA and Allanfield Consulting who carried out those previous projects.

This modelling exercise was supplemented with off model analysis of agglomeration and other productivity effects (e.g. via private investment and labour supply responses) using the results of Spatial Computable General Equilibrium (S-CGE) modelling. This analysis has some similarities with the experimental analysis DfT undertook of the HS2 Phase 2 project in 2022.

A key characteristic of these models is that they forecast where development will take place, where firms and families will locate, and how factors of production (capital and labour) respond to changes in the transport system, new planning policies, and changes in the costs of doing business and in real wages. This focus on the bigger picture does mean that some more detailed effects are not considered. These will need to be addressed in future work.

The analysis considered three main tests:

1. **Impacts of the LMR:** The scale of the impacts from the opening of the railway reflect the assumptions we have made about service on the railway (including a number of through services and connections to other places) and about how planning policies would affect development.
2. **Additional development test** involved building sufficient office floorspace to accommodate the increase in office jobs resulting from the railway, sufficient housing to accommodate the workers in those jobs, and retail/service space to serve those workers and their dependents, all in locations well served by the railway. This is an illustrative of a possible package of additional development – it is not suggested that it is optimal, it has not been tested for feasibility. It is an example of the kind of development schemes that might be pursued once the railway is firmly committed and has become a material consideration in planning decisions. This package is not wholly additional in practice, because it displaces some development which would have happened through normal market processes.
3. **Improved local PT test** assumed an improvement in complementary public transport connectivity (bus and rail services) within Greater Manchester, within the Liverpool City Region and within each of the other authorities in the LM Growth Zone.

As stated above, the purpose of the initial modelling work and analysis is to provide a high level illustration of the potential growth opportunity the Liverpool-Manchester Railway may offer. It is expected that further detailed analysis will be required as the scheme is developed. Therefore, Transport for Greater Manchester and the organisations represented on the Liverpool-Manchester Railway Board take no responsibility and give no warranty for the accuracy of the information contained within the analysis. Any use of or reliance upon the analysis or the information therein for any use outside of its intended purpose is not authorised and shall be at the users own risk.





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