



The background of the cover features a stylized illustration of a cityscape. In the foreground, a man in a blue shirt and dark pants is riding a blue bicycle. Behind him, a woman in a green shirt and dark pants is walking with a cane. To the right, a red car is parked. In the middle ground, a blue double-decker bus is driving. A group of people, including a person in a wheelchair, are standing on a sidewalk. In the background, there are various buildings, including a prominent pink clock tower and a tall orange building. A large white sun is in the sky, and a small airplane is flying in the upper right corner.

GREATER MANCHESTER TRANSPORT STRATEGY 2040 DRAFT DELIVERY PLAN (2020–2025)

4 January 2019

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Introduction by the Greater Manchester Mayor



Transport is the lifeblood of every town and city. It's how people get to work, get to school, meet their friends and ultimately live engaged, productive and fulfilled lives. It's also closely linked to some of the top issues facing our city-region, including congestion, air quality, our health and the attractiveness of our streets and town centres.

That is why I have made transport one of my top priorities. It is absolutely vital we get this right so we can achieve our economic, social and environmental objectives. I am committed to pushing for continuous improvements to our transport networks so it can help make Greater Manchester one of the best places in the world to grow up, get on and grow old.

The reality is that our current transport system needs further investment and reform – including more devolution – so it can fully support Greater Manchester's huge potential.

Congestion continues to threaten the flow of commuters, goods and services. Poor air quality, primarily as a result of polluting vehicles and worsened by traffic congestion, damages the health of people across our city-region. And key public transport modes, particularly rail and bus, are under-performing, and together with Metrolink are not properly integrated into one unified network.

This is largely as result of historic under-investment by successive Governments, combined with an inadequate regulatory and legislative system which has fragmented transport decision-making, leaving the city-region without the ability to bring transport modes together into one integrated system.

Greater Manchester's initial devolution settlement has partly reversed this trend, which is to be welcomed. And in terms of new transport infrastructure, the past decade has been one of unprecedented local investment – for example our ever popular and growing Metrolink network, the ground-breaking Leigh-Salford-Manchester guided busway, the development of new interchanges, major new highways schemes such as the A6 Manchester Airport Relief Road, and the UK's most ambitious Cycling and Walking investment programme.

However, there's much more to do if we are to fulfil our agreed 2040 Transport Strategy and provide all our residents and businesses with the clean, integrated and reliable transport system they need. The Government promised us a Northern Powerhouse, and the case is now irrefutable that greater investment and devolution in the North, including in Greater Manchester, should be a national priority.

Our agreed 2040 Transport Strategy sets out what we are aiming for – world-class connections that support long-term, sustainable economic growth and access to opportunity for all.

Building on our past successes this Delivery Plan sets out the shorter term measures and schemes our city-region so desperately needs. As is the Greater Manchester way, it has been developed in close co-operation with TfGM, GMCA and the local authorities to ensure our transport investments support and are supported by the new housing and commercial development sites in our draft Greater Manchester Spatial Framework. It also outlines some of the key measures that we will need to develop and implement if we are to clean our air. By dealing with the key challenges on our transport network – poor air quality, congestion and improving public transport, cycling and walking – this joined-up plan sets a clear direction to achieving better, cleaner and more connected transport for all.

Aside from much needed capital investment, this Delivery Plan also sets out the importance of reform to key parts of the transport system itself. Devolution is starting to give Greater Manchester some of the powers, if not all the resources, it needs. I'm committed to using the powers available to improve and much better integrate all our transport modes, but there are further powers I want to see devolved to Greater Manchester and to the local authorities so we are genuinely able to provide the efficient transport network that businesses and residents need.

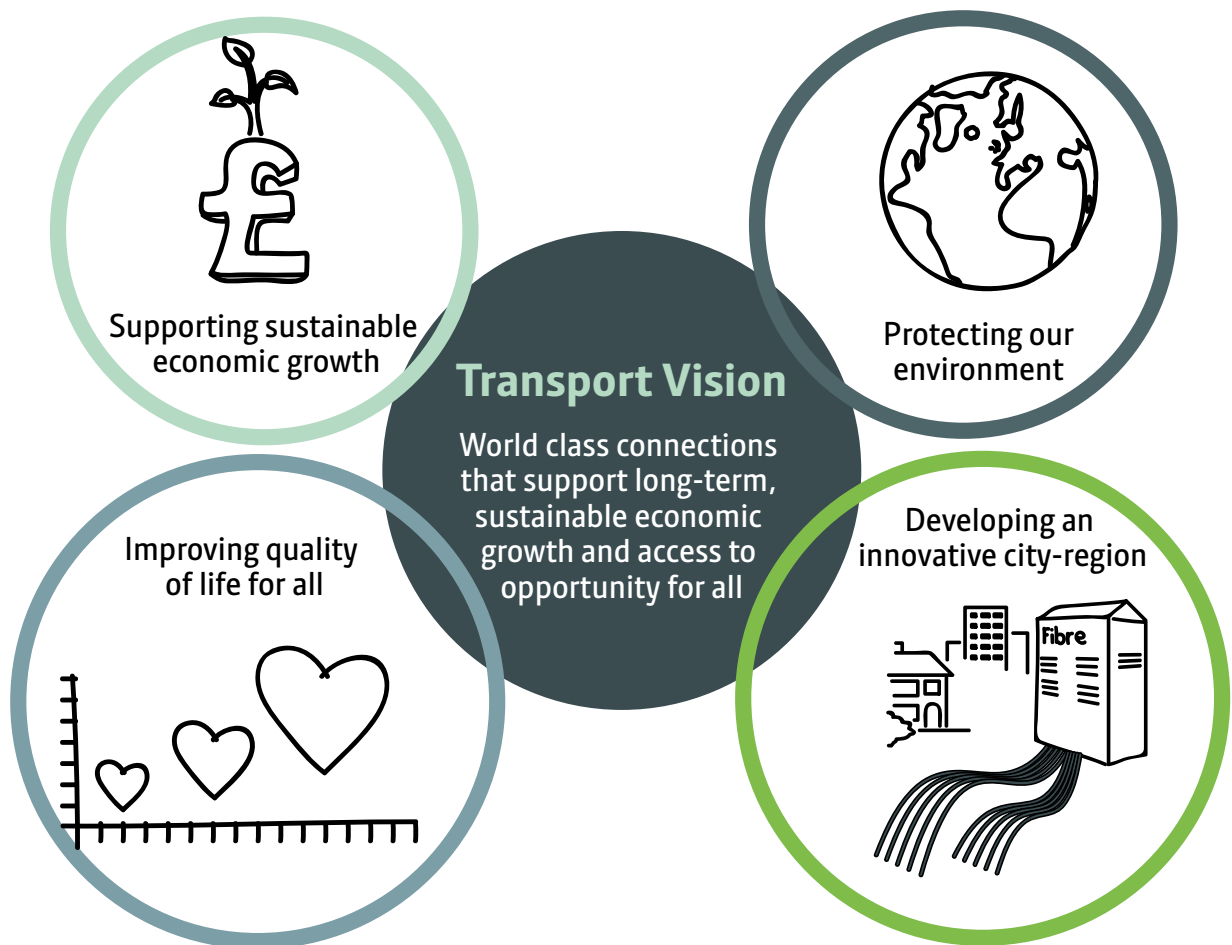
This Delivery Plan is by no means the last word on our transport ambitions, and I will be pushing for greater investment and reform, but it does represent a significant step on the way to a better connected, greener and cleaner Greater Manchester.

Andy Burnham
Mayor of Greater Manchester

Background – Challenges and Opportunities

1. The Greater Manchester Transport Strategy 2040 focusses on tackling the critical long-term challenges facing the city-region.
2. This is the second in a series of five-year Delivery Plans that ensure the long-term challenges outlined in the overarching 2040 Transport Strategy can adapt and respond to emerging trends and priorities.
3. The Mayor's and GMCA's priorities are set out in the refreshed **Greater Manchester Strategy** (launched in autumn 2017) with a vision 'to make Greater Manchester one of the best places in the world to grow up, get on and get old'¹. Key priorities are: tackling climate change, creating a thriving economy, and supporting 'world-class connectivity that keeps Greater Manchester moving'. The Greater Manchester Strategy is supported by this 2040 Transport Strategy Delivery Plan (2002-2025) which contains a strong commitment to providing a transport system which: supports sustainable economic growth and tackles congestion; improves the quality of life for all by being integrated, affordable and reliable; protects our environment and improves air quality, and capitalises on new technology and innovation.

Figure 1: Greater Manchester transport vision, 2040 Transport Strategy (2017)

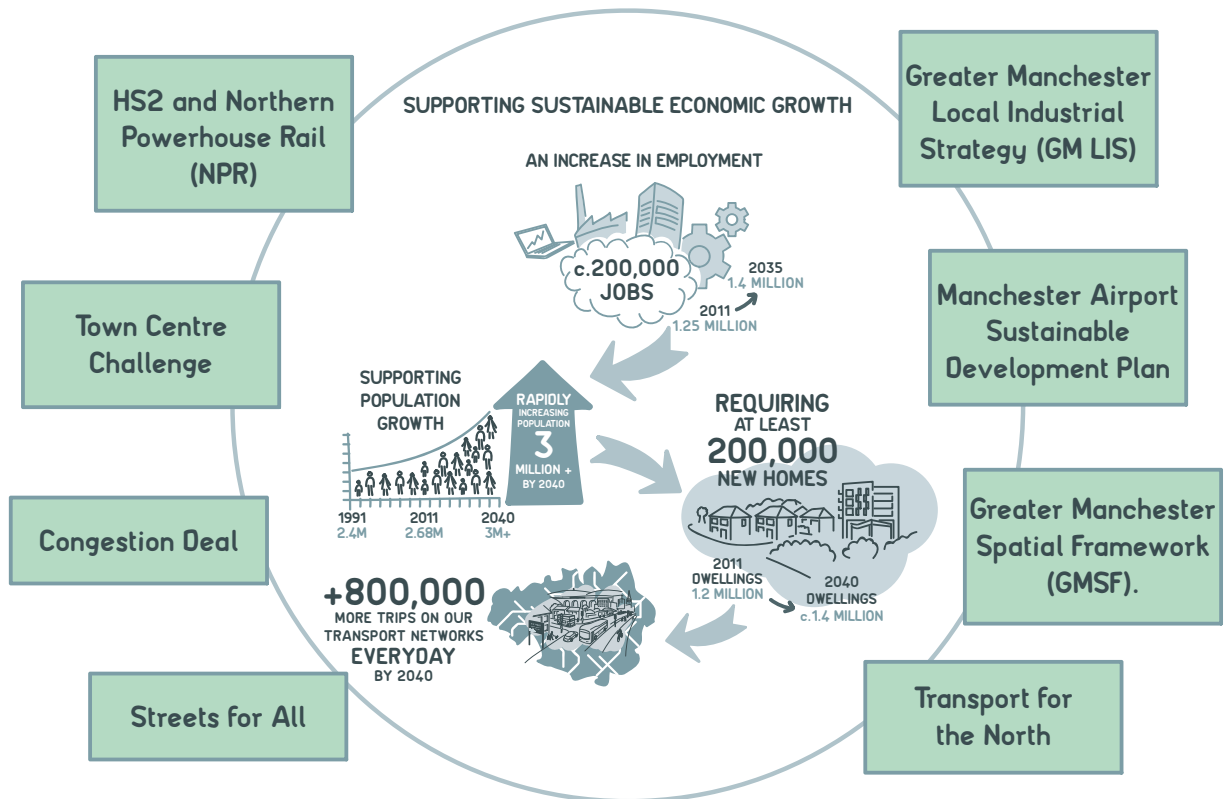


¹ <https://www.greatermanchester-ca.gov.uk/ourpeopleourplace>

4. The following sections describe the background issues and the context for this Delivery Plan. For each of the four 'pillars' of our vision we describe how our Delivery Plan must:
- Support the Greater Manchester Strategy, the Plan for Homes, Jobs and the Environment, and the forthcoming Local Industrial Strategy.
 - Develop an increasingly successful Northern Powerhouse economy, with Greater Manchester at its heart.
 - Tackle congestion and enable the efficient and effective movement of people and goods.
 - Ensure transport contributes to high-quality, liveable and healthy neighbourhoods, town and cities.
 - Create an inclusive and accessible transport network that enables access to opportunities.
 - Improve the connectivity, reliability and affordability of our networks for all.
 - Encourage and support greater levels of walking and cycling.
 - Reduce the impact of transport on the environment – particularly in terms of clean air and carbon reduction.
 - Increase the use of sustainable transport to reduce the negative impacts of car use.
 - Embrace and champion innovation in the transport sector.
 - Pilot new transport and travel technologies that support our 2040 priorities in line with the Greater Manchester Local Industrial Strategy.

Supporting Sustainable Economic Growth

Figure 2: Supporting Sustainable Economic Growth – key challenges and opportunities



Greater Manchester's growth plans

5. Greater Manchester is growing. A major increase in employment is supporting a rapidly expanding population. Local and national plans have been developed to ensure that this growth is sustainable and benefits everyone. We need to secure Greater Manchester's economic prosperity at the heart of a successful Northern Powerhouse, while ensuring that it remains a desirable place to live and work.
6. Sustainable economic growth is being supported by the **Draft Plan for Homes, Jobs and the Environment – The Greater Manchester Spatial Framework (GMSF)**. The Spatial Framework will ensure that Greater Manchester has enough land available in the right places to provide space for new jobs and homes. The majority of growth will be concentrated within the existing urban areas, on previously identified sites, although some new areas for growth will also be allocated. The areas of growth identified in the draft GMSF have helped to determine the transport interventions contained in this Delivery Plan.
7. To support the new GMSF, TfGM and the Greater Manchester local authorities have studied the implications of the planned growth on Greater Manchester's transport network, and the transport interventions that could be required to support it. These 'strategic' transport interventions are included in this new Delivery Plan. It should be noted that the need for 'local' interventions to promote sustainable transport options and mitigate transport impacts is a requirement set out in the GMSF site specific policies. The final details will have to be determined on a site-by-site basis taking account of cumulative impact in the area.
8. This Delivery Plan is being published alongside the revised Draft GMSF for public consultation.

9. Further proposals to boost growth, productivity and create good jobs across the City Region will be set out in the **Greater Manchester Local Industrial Strategy (Greater Manchester LIS)**. When published, the Greater Manchester LIS will contain interventions that deliver the aims and key challenges set out in the UK's Industrial Strategy and the Greater Manchester Strategy. It will provide a framework for aligning local and national decision-making and investment – including the UK Shared Prosperity Fund, Industrial Strategy Challenge Funding, Greater Manchester Investment Funds, and Sector Deals – to create a more inclusive economy where all residents can contribute to, and benefit from, growth.
10. The Greater Manchester LIS will be our joint plan for creating exciting, well-paid jobs in new industries, raising productivity, and upskilling and increasing competitiveness in our high employment sectors. It will set out how we will build on our unique strengths and opportunities, and capitalise on the creativity of our people, to create a digitally-enabled, green city-region. This will include an assessment of how pioneering future mobility initiatives can support enhanced growth and productivity. An evidence review to support the Greater Manchester LIS is currently underway, and it is expected that the final LIS will be developed for agreement with Government in March 2019.
11. Transport investment in and around our town centres has a crucial role to play in town centre renewal. The Mayor has also made a commitment to support the regeneration of Greater Manchester's town centres through the **Town Centre Challenge**. This initiative aims to breathe new life into our towns and create more attractive places to live.
12. The Greater Manchester local authorities are therefore working on new plans to improve access to, and within, priority town centres. This Delivery Plan includes a number of projects and studies that will support town centre regeneration through new sustainable transport connections, new interchanges, and improvements to existing interchanges. TfGM also has proposals to test working in partnership with rail operators and other industry stakeholders at many rail stations, which would enable Greater Manchester to undertake station improvement and community developments; strategic development and regeneration; targeted inclusivity and accessibility improvements; and improved station operations and multi-modal staffing.

Tackling congestion

13. Greater Manchester residents and businesses have shaped our views on how transport can foster sustainable economic growth. In 2017, the Greater Manchester Mayor's Congestion Conversation identified the significant negative impacts of congestion on people's time, access to employment, education and opportunities, and health and wellbeing.
14. This highly participative engagement resulted in the publication of a Greater Manchester **Congestion Deal** in 2018, which identified initiatives that could be brought forward over the next three years to help to tackle congestion². The short-term actions to tackle congestion identified in the Congestion Deal have been incorporated into this new Delivery Plan.
15. Building on this, we will also start to implement **Streets for All** over the next few years. **Streets for All** is Greater Manchester's new way of thinking about the role of our street network, with a focus on the needs of people and places, rather than considering the movement of vehicles alone. It will enable Greater Manchester to work in an integrated way to create sustainable, healthy and resilient places; tackling issues such as congestion, air pollution, bus service reliability; improving interchange between modes; creating walking and cycling improvements; and delivering local centre enhancements. We are already working on a number of major corridor studies using a Streets for All approach, and the recommendations from these studies will be incorporated into future versions of this Delivery Plan.

² <https://www.tfgm.com/congestion>

Continuing the expansion of our rapid transit network

16. To support the growth of our city-region, we need to keep **expanding our rapid transit network** at pace, building on the success of our recent Metrolink expansion programme. Through the Transforming Cities Fund, we're already investing £72m in 27 new trams, which will increase Metrolink capacity by 15%. More and more, however, we are starting to stretch the capacity of our existing rapid transit network. On the busiest Metrolink lines, overcrowding is a daily occurrence.
17. In the future, we will therefore need to make much better use of our existing rail lines, for example by using **tram-train technology** – which would enable adapted Metrolink vehicles to run on the same lines as trains. Tram-train technology is common in European countries, but has only recently been tried in the UK. The first UK tram-train, between Sheffield and Rotherham, started operations in October 2018. We are working with Network Rail to test this technology in Greater Manchester as quickly as possible.

Summer 2018 rail timetable crisis and subsequent reviews

18. Greater Manchester rail customers bore the brunt of the **rail timetable crisis** in the summer of 2018 and we are working hard with the rail industry to ensure these problems do not happen again. We will be contributing evidence and expertise to the various reviews taking place, including the Government's report (Williams) into whether rail franchising is the best model for delivery of services. What is clear is that more local decision making and accountability is needed and we will be working with Transport for the North to make sure customer expectations and industry commitments are delivered as promised.

Greater Manchester and the Northern Powerhouse

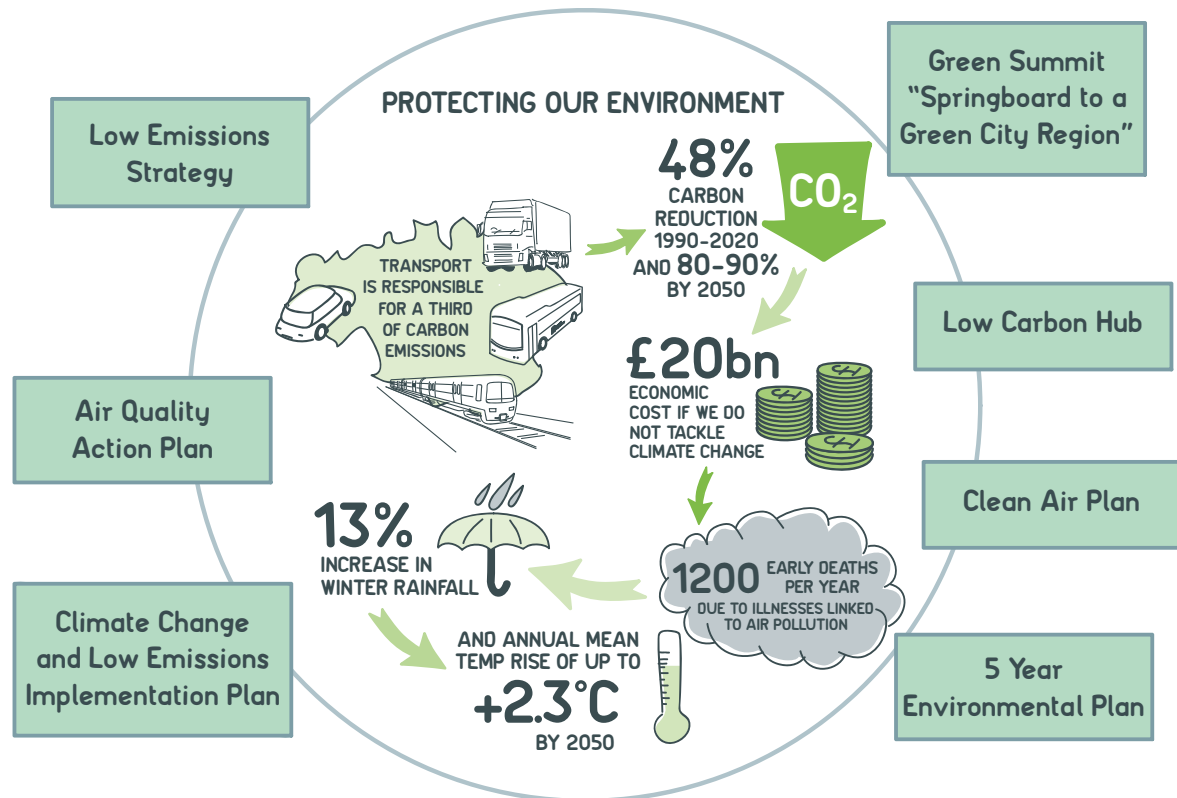
19. Transport for the North (TfN) became England's first statutory sub-national transport body in April 2018. Prior to this, in January, TfN published its draft **Strategic Transport Plan** setting out proposals for the pan-Northern transport network through to 2050. Following a major consultation exercise, TfN is now developing the final version of the Strategic Transport Plan prior to its adoption as a statutory document. We are also working with TfN to ensure that the final published version of the Strategic Transport Plan is aligned with Greater Manchester priorities.
20. Highways England, TfN and TfGM are jointly developing potential solutions for improving strategic and regional connectivity around the North West section of the M60 Motorway. The **Manchester North West Quadrant Strategic Study** is a DfT-funded study that considers potential improvements both on the motorway (led by Highways England); as well as multi-modal elements of the Greater Manchester transport system to improve journey times, connectivity and safety (led by TfN and TfGM). The next stage of this work will involve identifying the options which will deliver best value for money while mitigating adverse impacts on the environment. Highways England is also developing plans for other parts of Greater Manchester's motorway network, including the delivery of multiple Smart Motorways schemes.
21. In March 2018, we launched our growth strategy for high-speed rail ('The stops are just the start'³) which details how **HS2 and Northern Powerhouse Rail (NPR)** can support new jobs, new homes and new opportunities for Greater Manchester. TfN has also set out its vision for the Northern Powerhouse Rail network in the draft Strategic Transport Plan for the North.

³ <https://www.tfgm.com/press-release/hs2-npr-growth-strategy>

22. The delivery of high-speed rail and associated growth strategies at Manchester Piccadilly, Manchester Airport, Stockport and Wigan remains crucial to the successful delivery of our 2040 Transport Strategy. We are working collaboratively with Government to refine the plans for high-speed rail and ensure they are funded in a way that is sustainable, equitable, and aligned with both local and national policy.
23. Finally, the continued success of Manchester Airport is critical to the economic growth of Greater Manchester, the North and the UK as a whole. **Manchester Airport's Sustainable Development Plan** (2016) aims to consolidate Manchester's position as the pre-eminent airport outside London by: making best use of existing capacity; managing and containing environmental impacts; improving public transport accessibility and supporting the economic growth of the region more broadly, including by providing international connectivity to support increased trade and investment in the North's cities and towns.

Protecting our Environment

Figure 3: Protecting our Environment – key challenges and opportunities



Air Quality

24. Improving air quality is a key priority for Greater Manchester. The city-region is one of 37 areas across the UK where mean nitrogen dioxide (NO₂) concentrations exceed statutory limits. Road transport is responsible for 80% of NO₂ pollution at the roadside, where it is most damaging to health. Greater Manchester's air also contains high levels of particulates (PM₁₀ and PM_{2.5}), which are mainly caused by road traffic and burning fuel. As the youngest, the oldest, those living in areas of deprivation, and those living with existing respiratory or cardiovascular disease are most likely to be affected by exposure to air pollution, tackling poor air quality is a major social equity issue. Poor health resulting from air pollution can lead to absence from employment and education and government estimates that in 2012, £2.7bn was lost in England through ill-health and deaths related to air pollution⁴.
25. Government has set out a strictly defined process with extremely challenging deadlines for such areas to reduce NO₂ levels to safe limits. Accordingly, the Greater Manchester local authorities, alongside GMCA and TfGM are now developing a **Clean Air Plan** that can meet nationally-specified standards in the shortest time possible. The Clean Air Plan will build on the commitments in our existing **Low Emission Strategy** and **Air Quality Action Plan (2016-21)**, and also support Greater Manchester's wider public policy and transport objectives. The agreed measures set out in the emerging Clean Air Plan will be embedded into future iterations of the Delivery Plan.

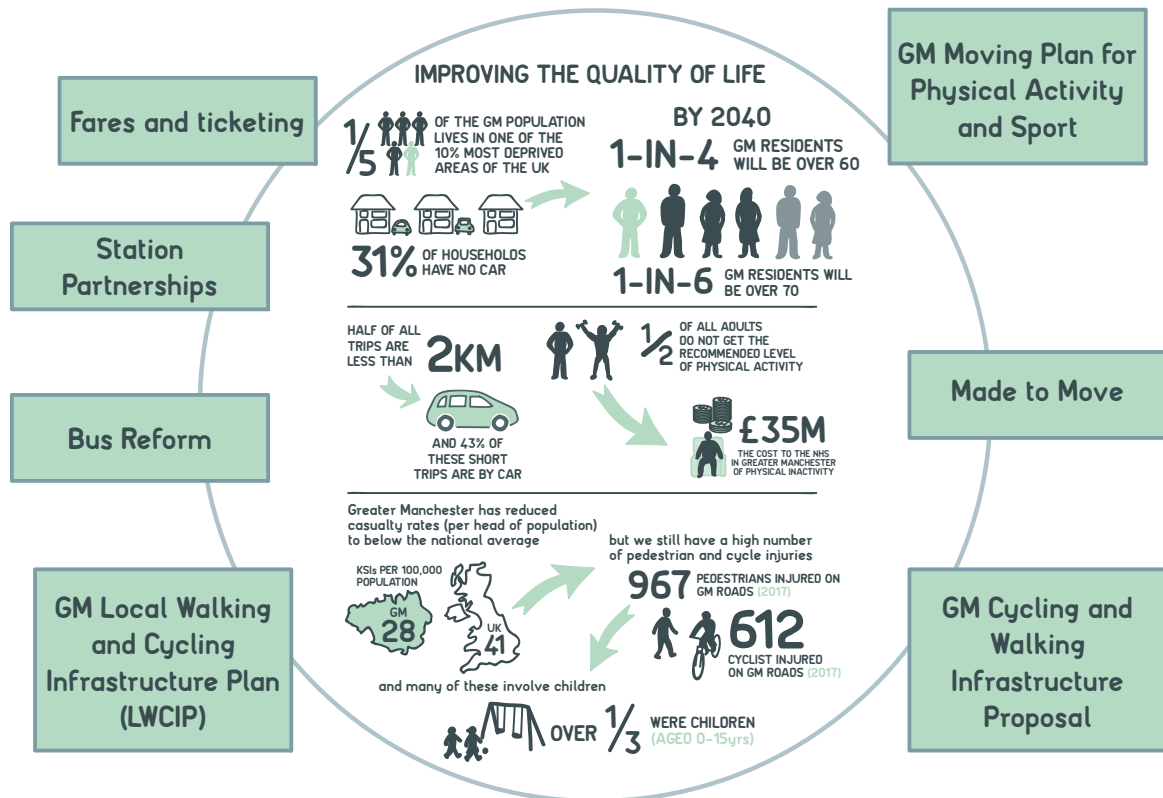
⁴ https://uk-air.defra.gov.uk/library/reports?report_id=832

Low Carbon Future

26. Alongside cleaning the air that we breathe, reducing greenhouse gas emissions including carbon dioxide is crucial to delivering the international **Paris Agreement** of containing rising global temperatures to well below 2°C. Greater Manchester has also set **targets for CO₂ emission reduction** that exceed national ambitions – a reduction of 48% by 2020 (based upon 1990 levels). Greater Manchester road transport accounts for 31% of carbon dioxide emissions in the city-region. Greater Manchester’s authorities have also committed to eliminating fossil fuels by 2050 in a **100% clean energy pledge**.
27. The vision in the Greater Manchester Strategy states that Greater Manchester should be a place at the forefront of action on climate change. For Greater Manchester to make its ‘fair’ contribution to international commitments on climate change, research by the Tyndall Centre for Climate Research concluded that we need to take prompt action to put Greater Manchester on a path to carbon neutrality by 2038. The vision for a carbon neutral city region by 2038 was set out at the Mayor’s landmark **Green Summit** in March 2018 and in the “**Springboard to a Green City Region**”, published in July. This vision, alongside a 5 Year Plan to deliver it, will be developed further for agreement at the second Green Summit in March 2019. The 5 Year Plan for the environment is being developed in conjunction with this Delivery Plan to ensure that both documents have a consistent approach.
28. The 5 Year Plan, along with the commitments made at the Green Summit and in the Springboard report, will build on the existing work and priorities set out in The **Greater Manchester Climate Change and Low Emissions Implementation Plan (2016-2020)**. The work has been a key focus for Greater Manchester **Low Carbon Hub** which is a forum where public, private, voluntary, university and government representatives are working together on carbon reduction and low carbon growth. Areas for action include: increasing electric vehicle use, expanding the electric vehicle charging network, establishing ‘zero emissions’ public transport fleets (including investment in future tram-train vehicles) and increasing public transport use and active travel. The increased electricity demand created by electric buses and cars will need to be met through low carbon and renewable energy generation.

Improving Quality of Life

Figure 4: Improving Quality of Life – key challenges and opportunities



An inclusive, affordable and integrated transport system

30. Ensuring that Greater Manchester's transport network facilitates social and economic inclusion is a top priority for the Mayor and the ten local authority leaders. The desire to create an accessible transport network which enables access to new economic opportunities to all parts of Greater Manchester is embedded in the interventions contained in this Delivery Plan. This includes giving young people much easier access to skills, and jobs, and making public transport a more affordable alternative for all residents.
31. To support the creation of a more affordable and inclusive transport system, TfGM continue to work with the Mayor and the GMCA to deliver his manifesto commitments to provide cheaper travel for young people in Greater Manchester, in order to help them to access work, training and education (young people are currently eligible for half-price travel on buses, on trains and on Metrolink at off-peak times and at weekends). A new travel pass is also entitling women affected by state pension changes to free off-peak travel on public transport.
32. There are plans to extend the rapid transit network to more areas of Greater Manchester, particularly to town centres; develop the GMSF in a way that ensures that people's homes and workplaces are better connected; make better use of technology to increase public transport accessibility; introduce Metrolink fare zones to enable people to enjoy more journeys at the same price; and consider the options to reform the bus market to improve bus availability, reliability and affordability.
33. Integration is at the heart of the 2040 Transport Strategy, and the same is true for the Delivery Plan 2020-2025. The 2040 Transport Strategy set out our ambition to enable people to move seamlessly between services on a single, easy-to-use network. Many of the interventions in this Delivery Plan will move Greater Manchester closer to this ambition, such as potential reform of the bus market and greater partnership working at rail stations.

Walking and Cycling

34. Walking and cycling are the most efficient forms of transport for urban areas. They are also the only forms of transport that can simultaneously help to tackle congestion, pollution, poor health and social inequality, which is why they are a top priority for the Greater Manchester Mayor and ten local authorities.
35. The **Greater Manchester Moving Plan for Physical Activity and Sport 2017-2021**⁵ has been developed by the Mayor, Greater Manchester Health and Social Care Partnership, Sport England and the GMCA to enable improvements to the health, wealth and wellbeing of people who live in the city-region.
36. In December 2017, the Greater Manchester Cycling and Walking Commissioner, Chris Boardman, published his **Made to Move** report⁶, which aims to further increase levels of active travel. A key priority was to develop and deliver a new **Greater Manchester Cycling and Walking Network**, encouraging the two thirds of people who currently use their car as their main mode of transport to walk and cycle more often. This led to the publication of the **Greater Manchester Cycling and Walking Infrastructure Proposal** in summer 2018.
37. Initial versions of the Cycling and Walking Infrastructure Proposal plans have now been published online. TfGM and the ten Greater Manchester local authorities are continuing to develop and refine these proposals, working together with local residents; with an updated plan being published in early 2019. Early interventions identified from this process are embedded into this Delivery Plan, and more interventions will be added in future iterations of the plan.

Bus Reform

38. The Transport Act 2000 (as amended by the Bus Services Act 2017) provides the GMCA with new powers to reform the bus market. The options available include different types of partnerships and franchising, which is the system used in London and other cities globally. These new powers have the potential to bring significant benefits, such as improved routes, frequencies, timetables, fares, ticketing, network integration and quality standards.
39. On behalf of the GMCA, TfGM is currently preparing an assessment of a proposed bus franchising scheme, which also includes consideration of other realistic options to reform the bus market. Following the completion of this assessment, and subject to the GMCA deciding to undertake an independent audit of the assessment, the GMCA will decide whether to proceed with a consultation on any proposed franchising scheme. Following the consultation, the Mayor will be able to use the powers provided by the Transport Act 2000 to make a decision on whether to introduce any proposed franchising scheme or not.

Station Partnerships

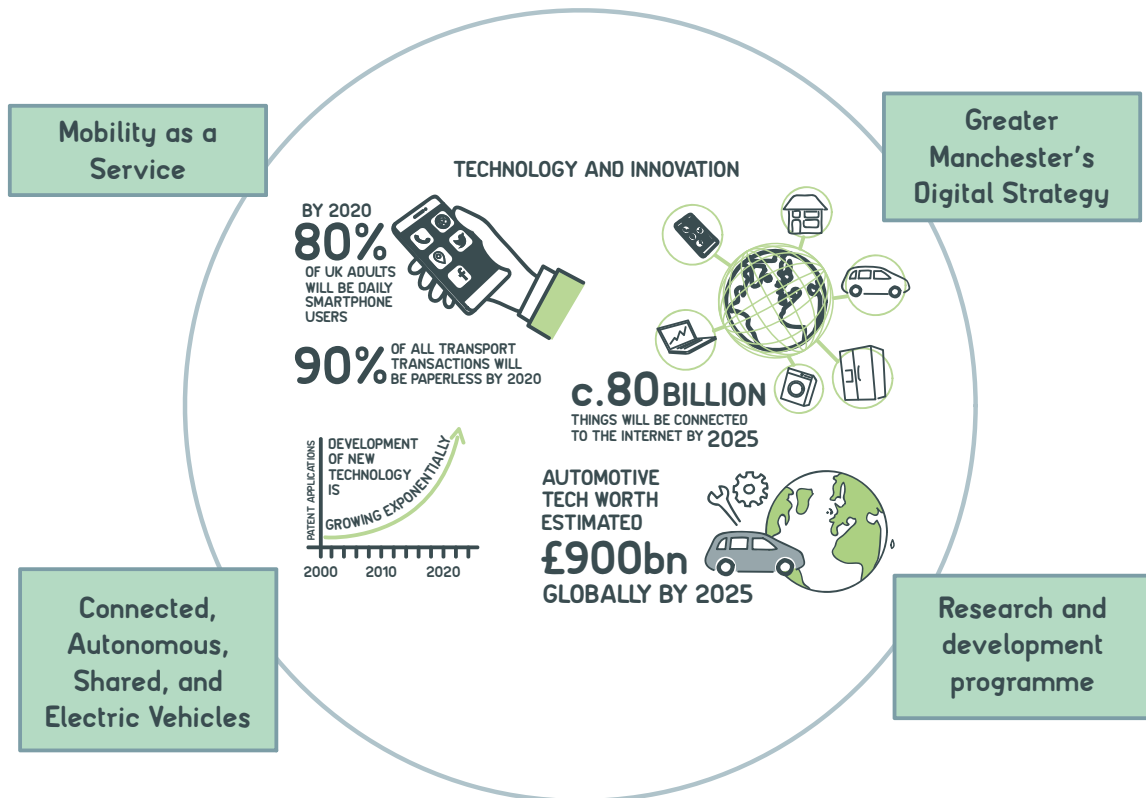
40. TfGM is developing proposals to test working in partnership with operators and other industry stakeholders at a number of Greater Manchester rail stations. Key potential benefits include the ability to undertake: station improvement and community developments; strategic development and regeneration; targeted inclusivity and accessibility improvements; and improved station operations and multi-modal staffing. Please refer to the Rail section (page 43) for further details.

⁵ <https://www.greatersport.co.uk/get-active/23gmmoving-the-plan-for-physical-activity-and-sport-2017-21>

⁶ <https://www.tfgm.com/future-travel/cycling-and-walking>

Developing an Innovative City-region

Figure 5: Developing an Innovative City-region – key challenges and opportunities



A world leader in transport innovation

42. The world is changing, and although we cannot say how quickly new technologies will be developed and adopted, we intend to be on the front foot in responding to change, by identifying and piloting innovations that support our 2040 priorities.
43. Greater Manchester continues to be at the forefront of new developments in **future mobility**. Greater Manchester has a well-established research and development programme that is currently testing emerging innovations, including Connected, Autonomous, Shared and Electric Vehicles, Mobility as a Service platforms and the deployment of sensors that collect data and will better inform, and respond to, people's transport needs.
44. For example, Greater Manchester is already delivering multiple Connected and Autonomous Vehicles (CAVs) pilot projects, including a project to test CAVs between Stockport and Manchester Airport along the recently opened A6 to Manchester Airport Relief Road, and a Salford University Campus CAV Shuttle.

Future mobility

We are on the cusp of a profound change in how we move people, goods and services around, driven by extraordinary innovation in engineering, technology and business. The Department for Transport has identified seven key trends which could shape the future of transport in the UK⁷:

- *Cleaner transport* – driven by falling battery prices, improvements in electric vehicle technology and the development of alternative fuels.
- *Automation* – the government has already said it expects to see fully self-driving cars on UK roads by 2021.
- *Data and connectivity* – internet connected vehicles can not only link with each other, but also to traffic lights and motorway signs.
- *New modes* – including an increasingly blurred line between taxis and buses in urban areas, with more ‘on-demand’ transport.
- *Shared mobility* – including commercial ride sharing, car rental services where users rent from one another and shared use bikes.
- *Changing consumer attitudes* – more users expect to be able to plan, book and pay for transport through their phones.
- *New business models* – including Mobility as a Service (MaaS), which can make payment easier, provide better real-time information and allow passengers to book multiple modes of transport with just one click.

46. The potential market for **shared mobility solutions** is expected to grow, particularly among younger people, as car ownership declines. TfGM is currently reviewing business models for bike hire, car clubs, peer-to-peer car sharing, on-demand shuttle buses and other innovative shared mobility solutions.
47. If harnessed correctly, new technologies will have a positive impact on future mobility. There is some uncertainty, however, around the likely future impact of automated vehicles on the resilience and performance of the existing road network; electric vehicle charging infrastructure required to meet increased and new types of demand; and the potential for new door-to-door transport services to result in less walking and cycling at either end of journeys.
48. TfGM will work, in collaboration with its partners, to understand these challenges and mitigate these risks throughout the Delivery Plan period. For example, if connected and autonomous vehicles become a realistic option for consumers and achieve widespread uptake, there may be a need for a strategic assessment of road space re-allocation.
49. **Greater Manchester’s Digital Strategy** (2018-2020) outlines the steps the city-region needs to take to become one of the best places in the world for developing and harnessing digital technology⁸. Digital technology is re-shaping every aspect of our lives in ways which were inconceivable a generation ago: how we work, travel, shop, access services, meet people, communicate and are entertained. High-speed internet, digital skills and access to technology can influence how, and how much, people travel, and are therefore important for the future efficient development of our transport system and giving people access to a range of services without needing to travel.

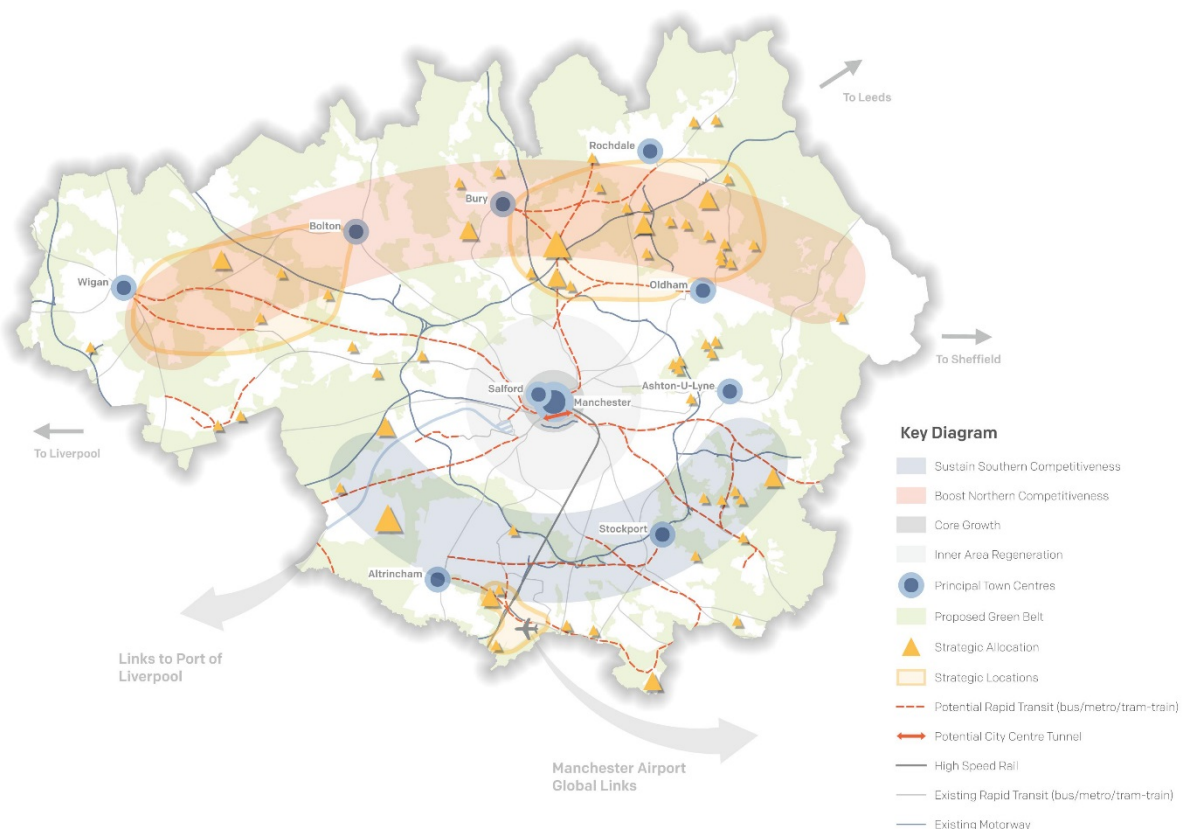
⁷ <https://www.gov.uk/government/news/government-kick-starts-work-on-future-of-mobility-grand-challenge>

⁸ <https://www.greatermanchester-ca.gov.uk/downloads/file/742/greater-manchester-digital-strategy-2018-2020>

Greater Manchester's Plan for Homes, Jobs and the Environment

50. Greater Manchester is already growing rapidly, and this growth is set to continue over the next twenty years. Greater Manchester's ambition is to deliver that growth in a sustainable and inclusive way so that everyone benefits and the quality of our environment is improved.
51. Greater Manchester's Plan for Homes, Jobs and the Environment – The Greater Manchester Spatial Framework (GMSF) – will provide the blueprint for the scale and distribution of housing and employment development over the next two decades. The majority of housing and employment growth is proposed within the core of the conurbation (Manchester, Salford and Trafford core areas), combined with housing and employment development to boost competitiveness in northern areas of Greater Manchester. There will be continued development around Manchester Airport, as the global gateway to Greater Manchester, and within a few key new allocations to sustain southern competitiveness. The southern part of Greater Manchester will see lower levels of housing growth than the northern area, with a redistribution of housing growth mainly to the core.
52. The diagram below illustrates how the GMSF aims to create a settlement structure that can be serviced by public transport. This settlement structure aligns with the aspirations of the 2040 Transport Strategy, and our vision (set out in the next section of this Delivery Plan) of accommodating growth with no net increase in motor-vehicle traffic by 2040.

Figure 6: Spatial Framework Key Diagram

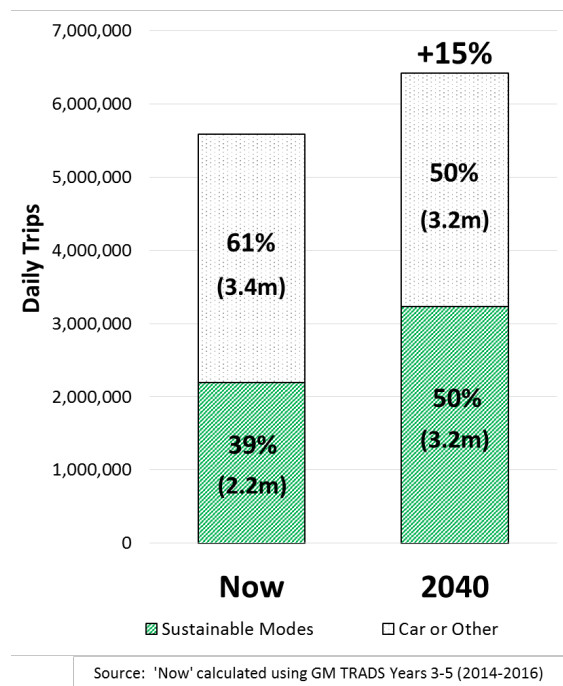


53. Connectivity to public transport is a key factor in the selection process that underpins the new allocations within the GMSF. Among other considerations, sites have been specifically identified for development where they meet the following criteria:
- Land which is well served by public transport.
 - Land which capitalises on the benefits from planned major strategic public transport investment which will result in the site being well served by public transport – namely HS2 Airport, Piccadilly and Wigan Stations, and the Airport Metrolink Western Leg extension.
 - Land within 800m of a main town centre boundary or 800m from the other town centres' mid-points.
 - Land where transport investment (by the developer) and the creation of significant new demand (through appropriate development densities), would support the delivery of long-term viable sustainable travel options and deliver significant wider community benefits.
54. To support the scale of housing and employment growth envisaged by the GMSF, TfGM and the Greater Manchester local authorities have examined the implications of the planned growth on the wider transport network. This work has been used to help identify the portfolio of strategic transport interventions that need to be investigated further to support the proposed housing and employment growth. The resultant interventions are included in this Delivery Plan.
55. The GMSF will also be supported by a Greater Manchester Infrastructure Framework. The Infrastructure Framework provides a blueprint for the future of Greater Manchester's wider infrastructure networks, and is aligned with this Delivery Plan for transport. For example, the Infrastructure Framework will help ensure that Greater Manchester has the electricity needed to power electric vehicles.
56. In addition, there will also be the need for a range of more local interventions which will enable access to, or will mitigate the impact of, specific new GMSF allocations. These local interventions are not included in this Delivery Plan unless they have strategic significance. Local authorities and developers will work together through the planning applications process to deliver appropriate local interventions for specific sites.
57. There will also be further work with neighbouring authorities to understand the implications of their growth agendas on Greater Manchester's transport network.

Our Vision for 2040

58. Our vision is to improve our transport system to support a reduction in car use to no more than 50% of daily trips, with the remaining 50% made by public transport, walking and cycling. This will mean a million more trips each day using sustainable transport modes in Greater Manchester by 2040. Our analysis suggests that achieving this vision will enable us to deliver our economic growth ambitions without increasing overall motor-vehicle traffic in Greater Manchester⁹.
59. Since publishing our 2040 Transport Strategy, we have undertaken more analysis to quantify what our ambition would require in terms of future travel patterns and transport interventions. Based on 2016 Office for National Statistics (ONS) population forecasts, we estimate that Greater Manchester's growth could result in an extra 800,000 trips each day on our transport networks by 2040.
60. Currently, around 60% of all trips in Greater Manchester are made by car, and of these a large number are short trips under 2km¹⁰. If we continue to grow on the basis of this level of car use, we would see significant increases in traffic levels, which would lead to more greenhouse gases, congestion, air pollution, and road accidents. It could also require significant increases in highway capacity across the city-region, which is often not physically possible or desirable; would generate more traffic in the long run; and would divert funding away from more sustainable investments, such as public transport, walking and cycling.
61. Below, we set out our future transport mode share ambitions for 2040¹¹.

Figure 7: Our mode share ambitions for 2040



62. These ambitions have been derived from a series of carefully considered targets relating to future land use, travel patterns and transport provision, taking into account ONS population growth forecasts. They are expected to deliver Greater Manchester's planned growth without an

⁹ Measured by average daily motor-vehicle kilometres travelled.

¹⁰ 50% of all trips are under 2km, with 41% of these being made by car. Source: GM TRADS Years 3-5 (2014-2016)

¹¹ The mode share figures shown in this graph are based on analysis of trips made by Greater Manchester residents that start and/or finish in Greater Manchester. This is slightly different from all trips in Greater Manchester, since some non-Greater Manchester residents also travel into or through Greater Manchester.

overall increase in total private road-vehicle traffic¹², which would be an extremely positive outcome for the city-region, and will need partnership working across the ten Greater Manchester local authorities and the Mayor.

63. We will track progress against these targets on an annual basis to allow us to adjust course as required over the lifetime of the 2040 Transport Strategy.

What needs to happen to achieve this vision by 2040

64. In order to achieve this vision by 2040 we will need to work together to achieve a future where:
- Walking and cycling are the natural choice for short journeys.
 - New development and regeneration is designed to support sustainable transport.
 - Our town centres are pleasant, thriving, well connected places, where walking and cycling predominate, public transport hubs act as a focal point for development, and the impact of traffic is minimised.
 - Our Regional Centre has radically transformed public transport capacity, as well as walking and cycling opportunities within high quality public spaces, which will benefit the whole of Greater Manchester.
 - People have genuine alternatives to the car for movements across the wider city-region, with good orbital connections between town centres.
 - The efficiency and reliability of our existing transport networks has been maximised.
 - Greater Manchester lies at the heart of the Northern Powerhouse through HS2 and Northern Powerhouse Rail, and national infrastructure fully integrated with local networks and stations.
 - Manchester Airport and the Airport Enterprise Zone continue to grow as the North's international gateway and employment centre, supported by world-class surface access.
 - Freight is moved in the most sustainable and efficient manner.
 - Future technology, innovations, and digital connectivity are effectively harnessed to achieve our vision.
65. Alongside the work we need to do ourselves to achieve this vision, we will also need to work collaboratively with Transport for the North, Network Rail, Highways England and neighbouring authorities to influence journeys coming into Greater Manchester, for example, by encouraging more inter-urban commuters to take the train. This is particularly important as Greater Manchester is a net 'importer' of commuters, with over 150,000 people commuting into Greater Manchester every day compared to an 'out-flow' of under 130,000.

What outcomes we will aim for by 2025

66. Against an overall 15% increase in trips driven by a growing population (according to ONS forecasts), our vision for 2040 set out in this section has a bold ambition to increase the mode share for sustainable transport from 39% to 50%. Achieving this will enable us to deliver Greater Manchester's planned growth without an overall increase in private road-vehicle traffic. However, the actual amount and nature of that travel will depend upon a range of factors such as:
- The quality of the transport offer to customers, including better integration between modes.
 - Trends in travel behaviour such as fewer young people choosing to get driving licences or more people travelling outside peak hours.

¹² The targeted zero increase in private motor-vehicle traffic includes trips by Greater Manchester residents, as well as trips by non-residents and goods vehicles. These will also be influenced by our transport and land-use interventions - but to a lesser extent. We expect zero growth in motor-vehicle traffic to be achieved by a net reduction in residents' traffic (the great majority of motor vehicle-km in Greater Manchester); an increase in light goods vehicle movements; and – potentially – some net increase in car-trips by non-residents.

- The spatial distribution of (economic) activity, with more concentrated development that is easier to serve by sustainable modes.
 - Trends in society such as increased teleworking and online shopping.
67. The interventions within this five-year Delivery Plan will influence the first two of these factors: developing the quality of the transport offer and influencing travel behaviour. Public policy such as spatial planning and where we locate public sector services, such as health facilities, will have some effect on the third factor, but we are unlikely to be able to control or predict the fourth factor, wider changes in society.
68. We see successful implementation of the interventions set out in this Delivery Plan having the following transport outcomes by 2025:
- To end the decline of bus use and stabilise patronage at approx. 190m journeys per year.
 - To continue the growth in Metrolink through the new Trafford Park line and additional tram capacity, and reach more than 50m passengers travelling on the network per year.
 - To support the continued growth in rail use at about 3% per year so that annual local trips will grow from about 40m to about 50m.
 - To move significantly towards the Cycling and Walking Commissioner's 10-year goal to double and then double again cycling in Greater Manchester.
 - Traffic levels (in terms of total vehicle kilometres) remaining constant on the local road network, as has been the trend in Greater Manchester since the mid-1990s.

Purpose of this Delivery Plan

- 69. This new Delivery Plan (2020–2025) refers to what we – the elected Mayor, GMCA, local authorities, and TfGM – collectively want to achieve in the next five years as the first steps towards delivering our vision for Greater Manchester. It has been prepared to respond to the transport opportunities and challenges facing Greater Manchester, as discussed in the first section of this document.
- 70. It sets out the practical actions planned to deliver the Greater Manchester Transport Strategy 2040 (published in 2017), achieve mayoral ambitions, and provide a coordinated approach to transport investment.
- 71. This Delivery Plan has been prepared in parallel with the Greater Manchester Spatial Framework (GMSF) and is being published alongside the GMSF consultation. Together these documents demonstrate an integrated approach to transport and land use planning by identifying the strategic transport interventions required to deliver growth.
- 72. It is recommended that this Delivery Plan is read alongside the 2040 Transport Strategy, as it provides more detail on the strategic context outlined earlier.
- 73. We are committed to reviewing and reporting progress on a regular basis to ensure we deliver our 2040 vision. In addition to this Delivery Plan, the Greater Manchester Transport Strategy 2040 Progress Report (2017-2018) has also been published on the TfGM website. The Progress Report sets out the progress made in developing and delivering schemes identified in the Greater Manchester Transport Strategy Delivery Plan 1 (2016-2022), and provides an update on progress against its performance indicators.
- 74. The Delivery Plan (2020-2025) is currently being published as a draft. We are seeking your views on this Draft Delivery Plan, and will use these to create a final version of the Delivery Plan in 2019. Please refer the final section of the document for details on how to submit your views.
- 75. A Glossary of the key terms in this Delivery Plan is included on page 87.

Delivery

76. Over the next five years we need to focus on improving air quality and helping to deliver expected housing and employment growth. Our focus will therefore be on investing in walking and cycling; boosting capacity on the public transport network; alleviating congestion; better integrating our existing transport system; and developing major schemes for delivery in the medium and long term.

Our Customer Focus

77. As we deliver these improvements to Greater Manchester's transport network, we need to ensure that this Delivery Plan aligns with the Network Principles we defined in our 2040 Transport Strategy. These network principles will be applied to all transport interventions to ensure that the transport system meets the needs of our residents, businesses and visitors. They are set out in the diagram below.

Figure 8: Our Network Principles



Developing future transport interventions

78. Our delivery programme, set out in the next sections, includes transport interventions that are at various stages of development. Transport schemes take time to develop and deliver, so it is crucial that we start work on our long-term delivery programme now.
79. Generally, transport interventions will emerge from one of our transport studies, before work is undertaken to develop a detailed business case (or 'investment case') for them. A business case sets out the strategic, economic, financial, commercial, and management justification for the intervention – in short, whether the intervention is the right thing to do and delivers good value for money. In most circumstances, a successful business case will be a condition for the award of capital funding. In all cases, there needs to be a strong rationale and justification for each intervention before it can proceed.
80. There will also be a process of prioritisation that we need to follow to align the available funding with the highest priority interventions. Future iterations of the Delivery Plan will refine the programme of interventions – some may become priorities for delivery while others may prove to be unfeasible and won't be progressed. This is discussed in more detail in the Cost, Funding and Delivery section of this Delivery Plan.

Our focus for the next five years

81. If our vision for Greater Manchester is to be realised, a long-term investment plan is needed to support growth across the city-region.
82. A range of large transport investments in Greater Manchester are already underway or are in advanced stages of development. However, we recognise that there is still much to do, and we have identified studies and early concepts that need to be developed further in order to achieve our vision for transport.
83. To prepare for growth, we need a robust programme of work over the next five years to examine options, develop proposals and design significant long-term interventions. There are some interventions in our programme that are so significant that we need to start development work in the next few years in order to be able to start delivery before 2040, e.g. a city-centre tunnel, HS2 stations and Northern Powerhouse Rail.

Supporting the GMSF

84. This Delivery Plan fully aligns with the new GMSF. In particular, it demonstrates a clear plan for delivering strategic transport interventions for the first five years of the GMSF plan period. This Delivery Plan also lays the foundations in order to achieve the needs of the remainder of the GMSF plan period.

Structure of the Delivery sections

85. The following sections of this document present the delivery programme to support our long-term vision.
86. The sections are grouped under thematic headings: Public Transport, Streets for All, and Integration. However, the programme has been developed in an integrated way in order to address all key issues.

Figure 9: Structure of the Delivery sections



87. Each section includes some explanatory text on the theme and then outlines:

- **The interventions that are committed for delivery in the next five years**

These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed. They also include some interventions with a degree of commitment in Network Rail or Highways England industry processes.

- **The interventions for which we aim to complete the business case in the next five years**

These interventions are those with potential to be delivered by 2025 subject to prioritisation, funding and approval of a business case which demonstrates value for money.

- **The interventions we will develop options for in the next five years**

These are the interventions which need further investigation or development in order to identify future options and determine feasibility. This work may identify interventions that could be delivered by 2025, and we will aim to achieve that wherever possible, but most are longer term projects that could be delivered in later years.

Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may be unfeasible and won't be progressed.

- **And the interventions due to be investigated beyond this five year Delivery Plan...**

We recognise that there are a number of studies and schemes that we would like to investigate, but which are unlikely to commence in this Delivery Plan period. These studies may eventually be needed to achieve our long-term vision for transport, but there are currently no plans to commence investigation work before 2025.

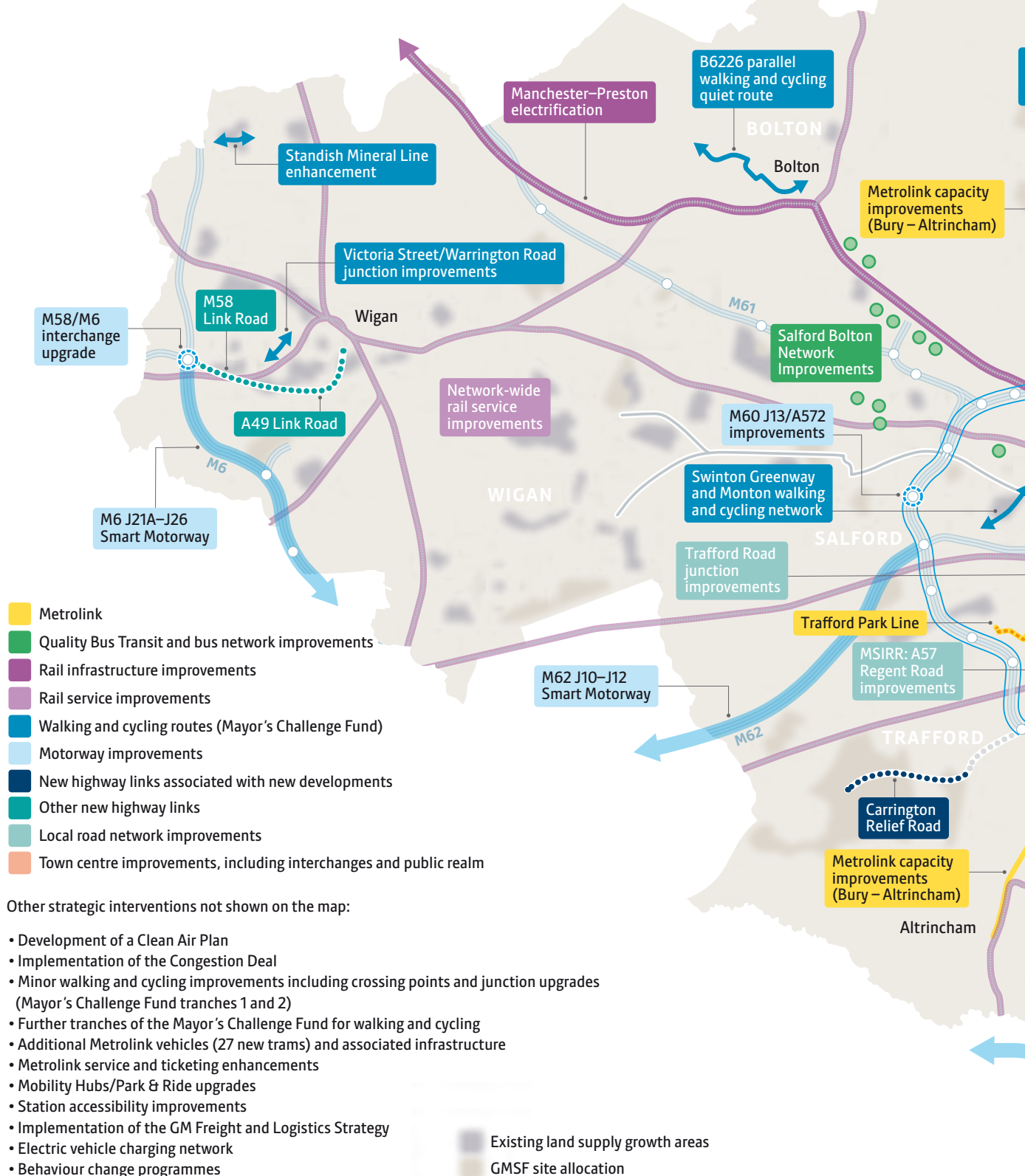
88. The three maps on the following pages illustrate our delivery programme.

MAP 1

In the next five years, we are committed to delivering...

These interventions have significant funding allocated and the case for change has been demonstrated, although final business case approval may still be needed.

Subject to business case approval



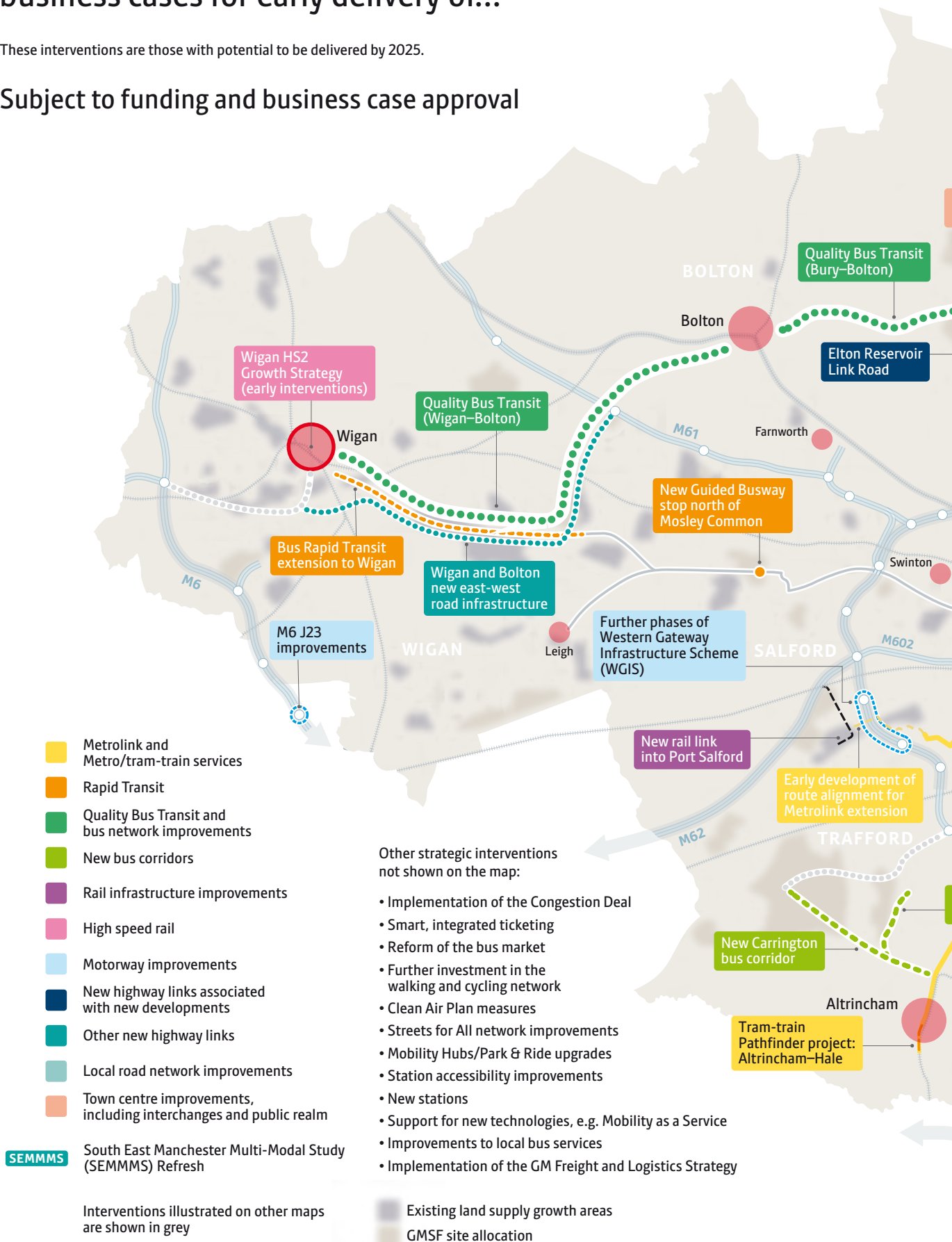


MAP 2

In the next five years, we aim to complete business cases for early delivery of...

These interventions are those with potential to be delivered by 2025.

Subject to funding and business case approval



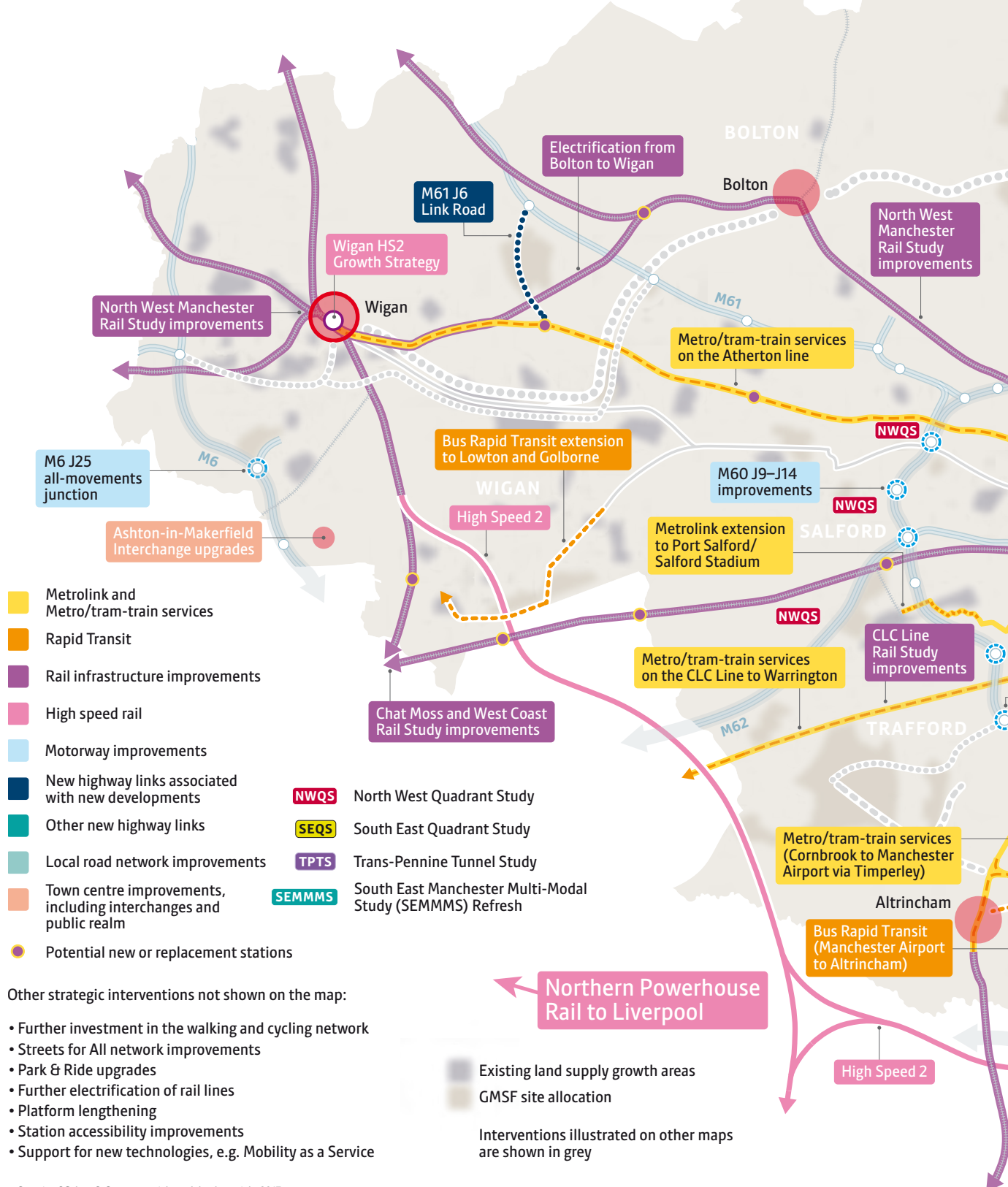


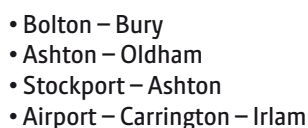
MAP 3

In the next five years, we will develop options for...

These are the interventions which need further investigation or development in order to identify future options and determine feasibility. This work may identify interventions that could be delivered by 2025, and we will aim to achieve that wherever possible, but most are longer term projects that would be delivered in later years.

Subject to funding and business case approval





Public Transport: Bus

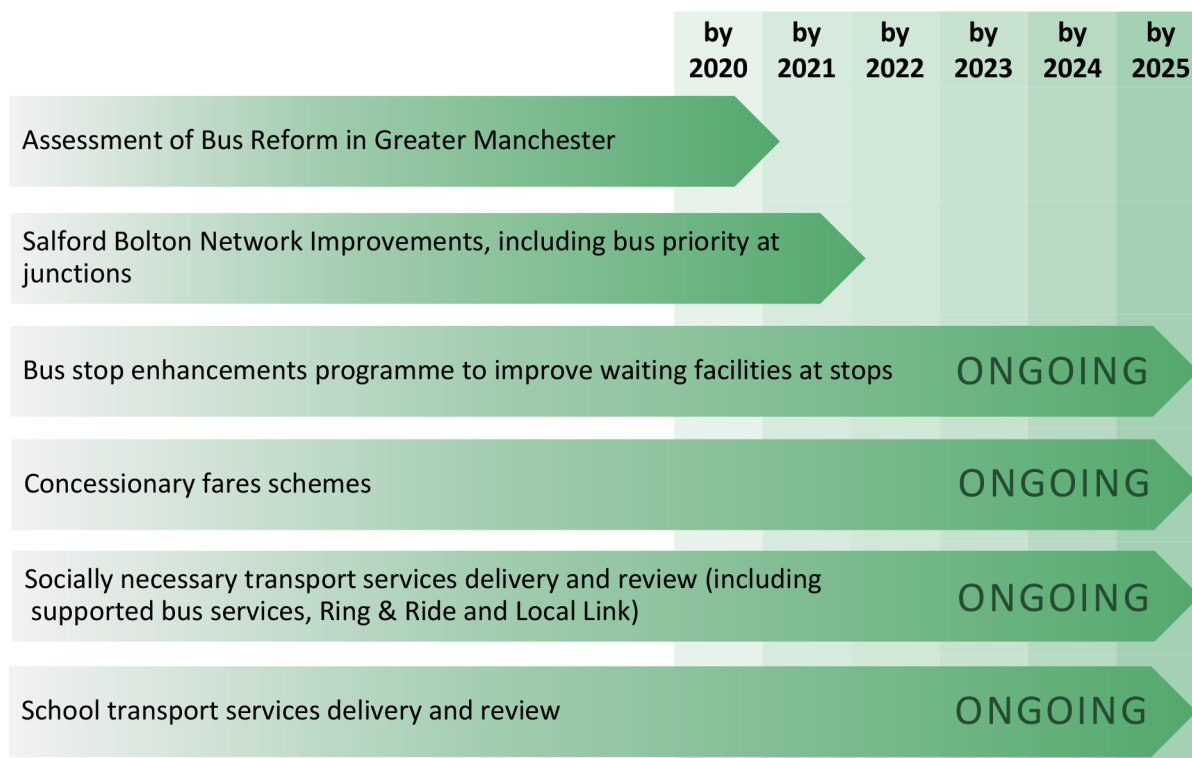
89. More than three quarters of all public transport journeys in Greater Manchester are made by bus. All are run by private companies, and the majority of their services are run commercially. The operators are therefore free to decide routes, timetables and set fares.
90. The bus network plays a vital role in tackling congestion and providing access to work, leisure and other destinations. Our aim is to work with private operators to deliver a regular, reliable and attractive bus network which provides Greater Manchester's residents with high-quality public transport access. The 2040 Transport Strategy noted, however, that bus is not currently playing its optimal role in an integrated transport system, and that there are a series of issues with the bus network in Greater Manchester that we need to address.
91. Patronage on the bus network in Greater Manchester has been in decline, with a c. 10% reduction noted since 2010. This continued decline has a knock-on effect on mileage, profitability and private sector investment. Commercial and subsidised mileage have reduced by 21% and 33% respectively since 2010 – meaning the network, in mileage terms, is only about three quarters of the size it was in 2010. There have been service cuts, frequency reductions, fare rises and the average age of buses has increased. If the status quo is maintained these trends are likely to continue, resulting in further service cuts, fare rises, consolidation among operators and/or the exit of operators from the market and further degradation of standards and quality.
92. Greater Manchester has invested heavily in its bus network in recent years, as demonstrated by the recent success of the Leigh-Salford-Manchester guided busway and the Cross City Bus Package. Building on this, TfGM has already committed significant funding to a number of interventions to help improve bus travel, including the Salford Bolton Network Improvements, the development of new interchanges (including in Stockport and Ashton-under-Lyne), and programmes to retrofit buses with cleaner engines and upgrade bus stops.
93. **Bus Reform:** In its Vision for Bus, the 2040 Transport Strategy sets out some key areas for improvement. These are:
 - One network: to achieve network integration in terms of routes, timing and interchange between services and with other modes such as rail and Metrolink.
 - A simple fares and ticketing offer: to deliver for passengers a simplified and integrated fares system, including transparency and operation across modes and the roll-out of smart, integrated ticketing.
 - Customer first: to offer a positive customer experience, making the network easily navigable to passengers and potential passengers alike.
 - Value for money: to achieve value for money, enabling investment to improve services.
94. The GMCA, the Greater Manchester local authorities and TfGM remain committed to achieving this vision for Greater Manchester's bus network.
95. Following the Bus Services Act (2017), the GMCA asked TfGM to carry out an assessment of a bus franchising scheme. This includes consideration of other realistic options for reforming the bus market in Greater Manchester, in particular partnerships. The Vision for Bus has been developed into more detailed objectives and, as well as developing a model of franchising, has seen engagement with bus operators in Greater Manchester on what might be achieved through a partnership approach.
96. Following the completion of this assessment, and subject to the GMCA deciding to undertake an independent audit of the assessment, the GMCA will decide whether to proceed with a consultation on any proposed franchising scheme. Following the consultation, the Mayor will be

- able to use the powers provided by the Transport Act 2000 to make a decision on whether to introduce any proposed franchising scheme or not.
97. **Quality Bus Transit corridors:** We are undertaking an ambitious study of potential Quality Bus Transit corridors. Quality Bus Transit corridors are whole-route upgrades of key bus corridors, with a strong focus on quality and reliability. These will be focused mainly on short-distance trips of less than 6km, and will incorporate comprehensive bus priority packages. Quality Bus Transit will be particularly important to support the regeneration of our town centres and for travel across the wider city-region.
 98. **Air Quality Measures:** TfGM is working with private operators to develop a roadmap to achieving an emissions-free bus fleet. TfGM will continue to maximise the use of external funding to help reduce harmful emissions from the region's bus fleet and to explore opportunities to invest in new Ultra-Low Emission Buses (ULEBs).
 99. Reforming the bus market through franchising or a partnership model would play a significant role in ensuring compliance with our future air quality ambitions. It may be possible to change the composition of the fleet through specifying the use of ULEBs or other changes. This would require further funding, regardless of how the network is run.
 100. **Concessionary support:** TfGM, on behalf of the GMCA, will continue to fund concessionary fares for children, elderly and disabled people. It is also funding concessionary fares for some women affected by changes in the state pension age and provides half-price public transport tickets for 16-18-year olds. Please see the Fares and Ticketing section (page 70) for more information.
 101. **Supported services:** The majority of Greater Manchester bus services are run by operators on a commercial basis. TfGM, on behalf of the GMCA, will continue to provide funding for parts of the bus network that operators consider insufficiently profitable but which are essential to connect people with work and local services such as education, healthcare, shopping and leisure. This includes supporting some journeys in the evenings or on Sundays, which are operated commercially at other times.
 102. In order to maximise the benefit to passengers obtained from limited funds, there will be a continued process of refining the criteria used to decide which services to support. TfGM will also review the number of night-time buses, for example to the Airport, and work with operators to ensure bus services meet the needs of Airport employees and passengers.
 103. **Accessible Transport:** TfGM, on behalf of the GMCA, funds and manages the delivery of the Ring and Ride service, which provides door-to-door, demand responsive transport to Greater Manchester residents who find it difficult to use conventional public transport due to disability or limited mobility. TfGM will ensure key service performance standards are maintained in order to ensure the service's social inclusion objectives.
 104. TfGM also funds flexible transport services under the Local Link brand for local journeys in areas where fixed route public transport services are limited. TfGM is currently reviewing Accessible Transport across the region to ensure that it is delivered in the most cost effective manner. The review includes exploring the introduction of new flexible bus services serving rail and Metrolink stations.
 105. **School Travel:** TfGM, on behalf of the GMCA, currently provides dedicated school services to 117 education establishments: three primary schools, 109 secondary schools and five further education colleges. The provision of these services is undertaken through around 300 contracts which provide nearly 600 daily school journeys and carry approximately 30,000 passengers per day. TfGM owns a fleet of 87 Yellow School Buses. These services promote modal shift and help to reduce congestion by providing dedicated transport to schools. TfGM is currently reviewing

School Services across the city-region to maximise their potential to reduce congestion and to ensure they deliver benefits to students and schools as cost effectively as possible.

106. **Draft GMSF new allocations:** The new draft GMSF includes a number of large new growth allocations that have the potential to support new or improved bus services – for example, Carrington and the M62 North-East Corridor. Further studies will be required to test the detailed feasibility, potential routing, and operating costs of new or improved bus services to these locations.
107. **Bus Rapid Transit:** We are exploring options for new bus rapid transit links for longer distance journeys, following the success of the Leigh-Salford Manchester guided busway. Please note that Bus Rapid Transit interventions are shown in the next section (Metrolink and Bus Rapid Transit).

In the next five years, we are committed to delivering...



108. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- Quality Bus Transit on key bus corridors, which may include:
 - Wigan-Bolton
 - Bury-Bolton (including better public transport access from East Bolton)
 - Bury-Rochdale
 - Rochdale-Oldham
 - Oldham-Ashton
 - Ashton-Stockport
 - MediaCityUK-Salford Crescent
- The Quays: connectivity improvements
- Package of minor bus priority interventions
- City Centre Transport Strategy: bus routing, services, and interchange improvements

- Strategic bus interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - M62 North-East Corridor (Northern Gateway) express bus corridor between Manchester and Heywood/Langley
 - New bus services connecting M62 North-East Corridor (Northern Gateway) development to its local area
 - New bus services to support the New Carrington and Sale West allocations
 - Manchester Northern Gateway bus corridorThese interventions will be subject to appropriate planning approvals and developer contributions.

109. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

In the next five years, we will develop options for...

- Further viable bus improvements to support the transport requirements of growth areas and GMSF allocations, identified through the planning process (subject to appropriate planning approvals and developer contributions).
- Using new technologies to introduce, where feasible, new flexible bus services connecting to rail stations and Metrolink stops

110. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.

111. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Public Transport: Metrolink and Bus Rapid Transit

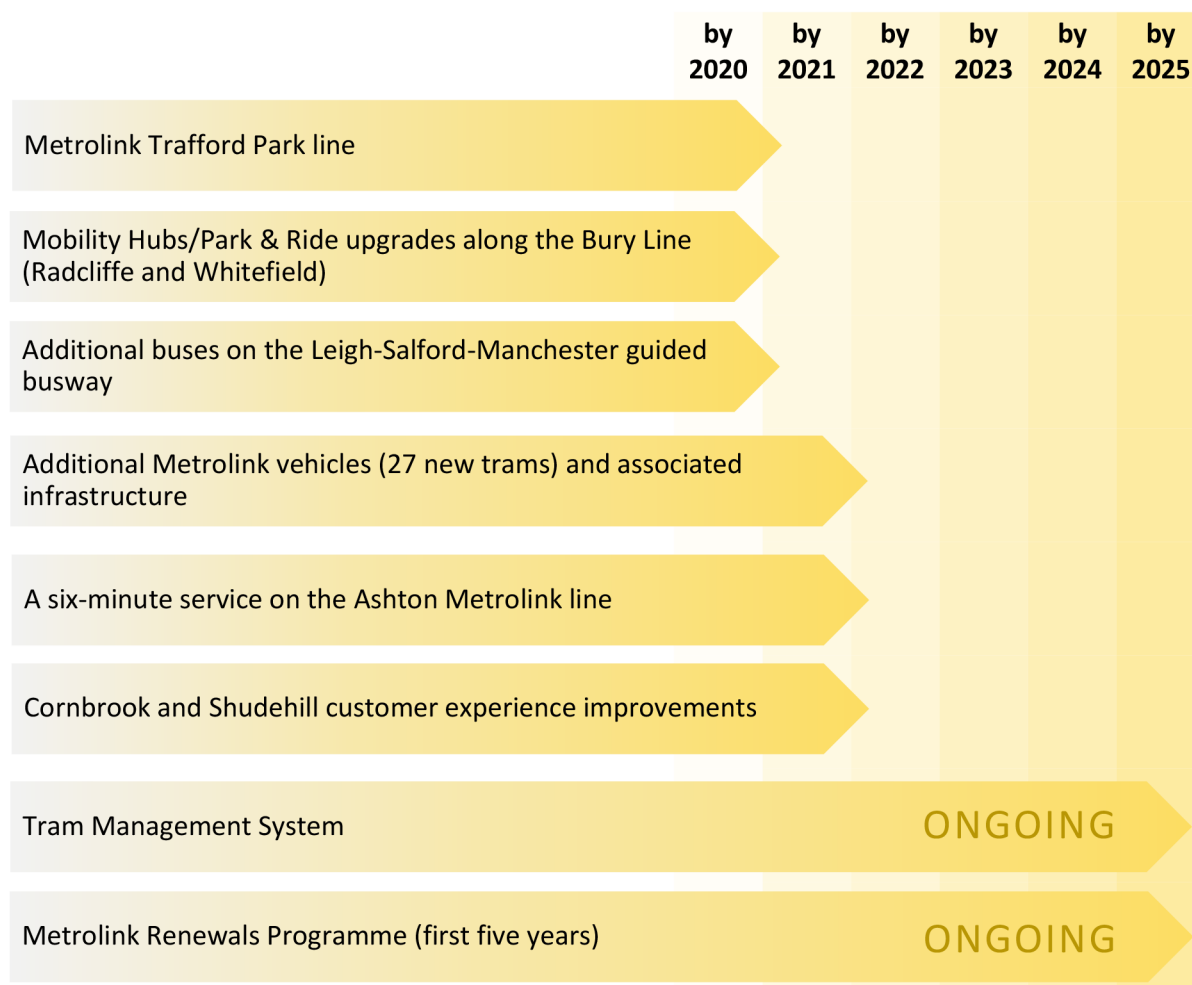
112. Rapid transit is the term used to describe any public transport service that offers significantly faster journeys than a normal stopping bus service with a focus on middle-distance trips of at least 6km in length. In Greater Manchester to date, our Metrolink network and the new Leigh-Salford-Manchester guided busway are both excellent examples of Rapid Transit. Also included within the definition of “rapid transit” is the suburban rail network. In future, many more of our suburban rail lines could support a higher frequency rapid transit service, through innovations such as tram-train technology.
113. Ongoing investment in our rapid transit network will be needed to accommodate the expected increase in demand due to population, housing and employment growth. Increasing the reach, reliability and capacity of our rapid transit network will also help us to reduce congestion, air pollution and greenhouse gas emissions by providing a fast and reliable alternative to the car for a range of journey types. The interventions in this section (Metrolink and Bus Rapid Transit) will primarily support middle-distance trips between 6km and 25km in length, and will contribute to achieving our vision of 50% of all trips being made by sustainable modes by 2040.
114. TfGM, the Greater Manchester local authorities and the GMCA are currently preparing a new Greater Manchester Rapid Transit Strategy, which will be a sub-strategy of the 2040 Transport Strategy. It contains four network ambitions for rapid transit in Greater Manchester:
 - Making best use of existing rapid transit infrastructure.
 - Capacity and connectivity improvements to the rapid transit network.
 - A locally controlled and accountable rapid transit network.
 - Supporting integration between rapid transit and other modes.
115. Each of these network ambitions gives rise to a series of evidence-based strategic principles that address specific challenges and opportunities. The proposed interventions outlined below (and also the proposed rail interventions listed later in this report) have been checked for consistency with the draft principles of the Rapid Transit Strategy.
116. **Building on Metrolink’s success:** Following a decade of expansion and associated patronage growth, the Metrolink operation is now focused on improving reliability, capacity and the customer experience of the existing network in order to further grow ridership and revenue. The renewals programme, funded from Metrolink net fares revenues, will invest in timely asset renewal. The Tram Management System project will be completed, which provides capacity improvements through the city centre and real time passenger information. Other interventions will be implemented to improve customer experience, such as improvements at Cornbrook and Shudehill, and the interventions listed in the Fares and Ticketing section (page 70).
117. **More trams:** The Metrolink network will also benefit from the 27 additional trams and associated infrastructure to be delivered through the Transforming Cities Fund during 2020 and 2021. These will be used to increase the number of double units between Bury and Altrincham, and Shaw and East Didsbury. Service frequency will also increase on services to Ashton-under-Lyne.
118. **New Metrolink connections:** The Metrolink network is set for further expansion through the completion of the new £350m Trafford Park Line by 2020. A bid was submitted to Government in December 2017 to extend Metrolink to Terminal 2 at Manchester Airport, as the first phase of a Western Leg extension towards the proposed HS2 airport station and Wythenshawe hospital.
119. There is also an intention to provide increased Metrolink capacity and frequency between Piccadilly and Victoria stations. In the HS2 and NPR Growth Strategy¹³, we set out a plan to

¹³ <https://www.tfgm.com/press-release/hs2-npr-growth-strategy>

reposition Metrolink in a new integrated Piccadilly Station which will allow for significant future growth – this will enable additional Metro/tram-train service development and further the GMCA’s intention to provide direct services from Rochdale and Oldham into Piccadilly.

120. **Metro/tram-train services:** We are currently studying the feasibility of testing tram-train technology in Greater Manchester, enabling adapted Metrolink vehicles to run on the same rail lines as trains. Tram-train technology and operations will initially be tested through pilot ‘pathfinder’ projects in selected locations. If successful, this could pave the way for a further expansion of our rapid transit network making much better use of our existing extensive network of rail lines, by the 2020s and 2030s.
121. While it is a potentially transformational solution to increase the reach of our rapid transit network, there are significant hurdles to be overcome before tram-train technology can be implemented. Among other issues, we will need to consider integration with long-distance rail services, the impact on existing rail franchises, and financial and operational management of the new services. As such, we are working closely with Network Rail to progress this and embed the concept into the existing network. If tram-train solutions turn out to be unviable on certain corridors, capacity improvements to the existing rail network could be delivered in the short-to-medium term instead (see the Rail section below).
122. **City Centre metro tunnel:** Demand growth on the rapid transit network will in the long term need to be accommodated by a major increase in rapid transit capacity in the city centre. A city centre metro tunnel would also facilitate improved rapid transit services between locations throughout Greater Manchester and improved services on shorter-distance suburban rail lines by conversion to metro/tram-train operation. It should however be noted that a city centre metro tunnel could take a long time to develop and multiple years to deliver from the start of construction.
123. **Bus Rapid Transit:** We are exploring options for new bus rapid transit links for longer distance journeys, following the success of the Leigh-Salford Manchester guided busway, including potential services from the Airport (to the east towards southern areas of the borough of Stockport and to the west from the Airport HS2 station towards Altrincham and Carrington) and also new links to the M62 North- East Corridor (Northern Gateway) development area. There could be potential to extend the Leigh-Salford Manchester guided busway further west, for example towards Wigan, particularly if Wigan and Bolton Councils are successful in securing funding for new road infrastructure from the Government’s Housing Infrastructure Fund. Further studies will be required to test the detailed feasibility, potential routing, and operating costs of new Bus Rapid Transit links to these locations.
124. **Mobility Hubs/Park & Ride upgrades:** We will continue to improve access to Metrolink and Bus Rapid Transit stops (as well as rail stations), giving more people easy access to our rapid transit network. Increasingly, we will look for our rapid transit stops to become Mobility Hubs, with not just improved parking facilities, but also better cycle parking and cycle access, electric vehicle charging points, better pick-up/drop-off provision, and better links with flexible on-demand transport.

In the next five years, we are committed to delivering...



125. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- Strengthening of our Metrolink system:
 - Extension of the Airport Metrolink line to Terminal 2
 - Improved Metrolink capacity between Piccadilly and Victoria stations, to address the GMCA's intention to provide direct services from Rochdale and Oldham into Piccadilly
- Mobility Hubs/Park & Ride upgrades including:
 - East Didsbury
 - Rochdale
- Bus Rapid Transit extension: Atherton-Hindley-Ince-Wigan (in associated with the Wigan-Bolton new east-west road)
- Tram-train 'Pathfinder' trial project options:
 - Altrincham to Hale
 - Rochdale to Heywood
 - Manchester Airport to Wilmslow

- Strategic Metrolink and Bus Rapid Transit interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - Extension of the Airport Metrolink line from Roundthorn to Davenport Green (Western Leg Phase 2)
 - New Metrolink stops serving new developments:
 - Cop Road Metrolink stop
 - Elton Reservoir Metrolink stop
 - Bus Rapid Transit network to connect Manchester Airport to housing developments to the east
 - New Guided Busway stop to serve North of Mosley Common
- These interventions will be subject to appropriate planning approvals and developer contributions.

126. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

In the next five years, we will develop options for...

- Strengthening our existing Metrolink system, including:
 - Metrolink Service Improvement Package
 - Next generation of longer Metrolink vehicles
 - Interventions to improve Metrolink reliability
- Metrolink further potential expansion:
 - Metrolink extension to Middleton
 - Metrolink extension to Stalybridge
 - Metrolink connection from MediaCityUK to Salford Crescent
- Metro/tram-train corridors (subject to success of 'pathfinder' projects) to:
 - Glossop
 - Marple
 - Wigan via Atherton
 - Warrington (CLC Line)
 - Stockport/Hazel Grove
 - Stockport town centre to Manchester Airport
 - Cornbrook to Manchester Airport via Timperley
 - Bury-Heywood-Rochdale
- City centre metro tunnel
- Park & Ride/Mobility Hub proposals for Metrolink and Bus Rapid Transit
- Strategic Metrolink and Bus Rapid Transit interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - Sandhills Metrolink stop to serve the Manchester Northern Gateway growth area
 - Completion of the Manchester Airport Metrolink Western Leg
 - Metrolink extension to Port Salford/Salford Stadium
 - Bus Rapid Transit extension (to Lowton and Golborne, via Leigh or A580)
 - Bus Rapid Transit corridor (Manchester Airport / HS2 to Altrincham)
 - Bus Rapid Transit corridor linking the M62 North-East Corridor (Northern Gateway) and surrounding towns to the Regional Centre

These interventions will be subject to appropriate planning approvals and developer contributions.

127. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.
128. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Beyond this five year Delivery Plan...

129. We recognise that there are a number of studies and schemes that we would like to investigate, but which are unlikely to commence in this Delivery Plan period. These studies may eventually be needed to achieve our long-term vision for transport, but there are currently no plans to commence investigation work before 2025:
 - Further Metrolink improvements and extensions, including:
 - Further new Metrolink connections between Salford Quays, Inner Salford and the City Centre, beyond those listed above
 - Irk Valley junction Metrolink Improvements
 - Further expansion of the rapid transit network, including:
 - Rapid transit corridor (Radcliffe-Bolton)
 - Rapid transit corridor (Stockport-Ashton)
 - Rapid transit corridor (Ashton-Oldham)
 - Rapid transit options to better serve movements across the west of the city-region, such as Bolton/Wigan to the Airport
 - Strategic Metrolink and Bus Rapid Transit interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - Rapid transit corridor (Airport-Carrington-Irlam)

This intervention will be subject to appropriate planning approvals and developer contributions.

Public Transport: Rail

130. Over the next five years, we will work with the rail industry to ensure delivery of crucial capacity and reliability improvements on the existing rail network. In the long term, we want to improve commuter links by exploring options which could significantly increase capacity and/or frequency. It is anticipated that rail will have a significant contribution to achieving our vision of 50% of trips being made by sustainable modes by 2040.
131. **Rail Capacity:** The new Northern and TransPennine Express rail franchises are contracted to deliver an additional 40,000 seats on services every day across the North by December 2019 on their routes¹⁴. The management of these franchises rests with the Rail North Partnership, with the GMCA holding a position on the governing board. Greater Manchester will continue to hold the Government, Rail North Partnership and Transport for the North to account to ensure these improvements are delivered for the benefit of Greater Manchester, and will provide support to them in developing reliable timetables that meet demand.
132. The current TransPennine and Northern franchises will be up for renewal from 2023 and 2025 respectively, with the process starting in the early 2020s. We will continue to gather evidence of current and future rail demand to provide convincing cases for major improvements in both service and capacity in Greater Manchester. Importantly, we will also support TfN as it explores opportunities for further devolution of powers from central Government, which would enable the North of England to shape future franchises around its specific requirements and take firmer control over the management of franchise service delivery.
133. The other four passenger rail franchises¹⁵ which operate services in Greater Manchester are going through the re-franchising programme, which will see new franchises commence within the timescales of this Delivery Plan. We will work with the franchising teams, the bidders and the appointed operators to seek improvements in capacity, quality, connectivity and frequency, where possible.
134. **Rail Infrastructure:** The electrification of the Bolton Line is nearing completion, which will allow the introduction of electric trains on more Greater Manchester services from 2019. Beyond the completion of the electrification, TfGM will continue to work with the rail industry to develop options for further improvements to address capacity and crowding issues.
135. Further electrification would assist in reducing the carbon footprint and air quality impact of rail operations, but until the rail industry is better able to contain the costs involved, any future expansion will be limited. Greater Manchester will continue to press the case for cost effective electrification, and identify routes which would offer the greatest benefits for the city-region. We will also continue to work with Network Rail and operators to develop plans for upgrading Salford Central station and, with the majority of funding secured, we are aiming to deliver this within the next three years.
136. Network Rail is also close to completing its upgrades to the Calder Valley Line, including track, stations, structures and signalling improvements, creating a more resilient railway for passengers in the north of England.
137. The upgrade of the Trans-Pennine route to Leeds is a national priority, with up to £3bn of investment earmarked by the Secretary of State for medium-term delivery in advance of Northern Powerhouse Rail. Electrification from Manchester to Stalybridge could potentially be delivered as part of this programme, or could be delivered separately.

¹⁴ <https://www.gov.uk/government/news/massive-boost-to-rail-services-brings-northern-powerhouse-to-life>

¹⁵ The four passenger rail franchises are; West Coast Partnership (formerly Intercity West Coast); East Midlands; and Cross Country, which are managed by the DfT; and Wales and Borders, which is devolved to the Welsh Government.

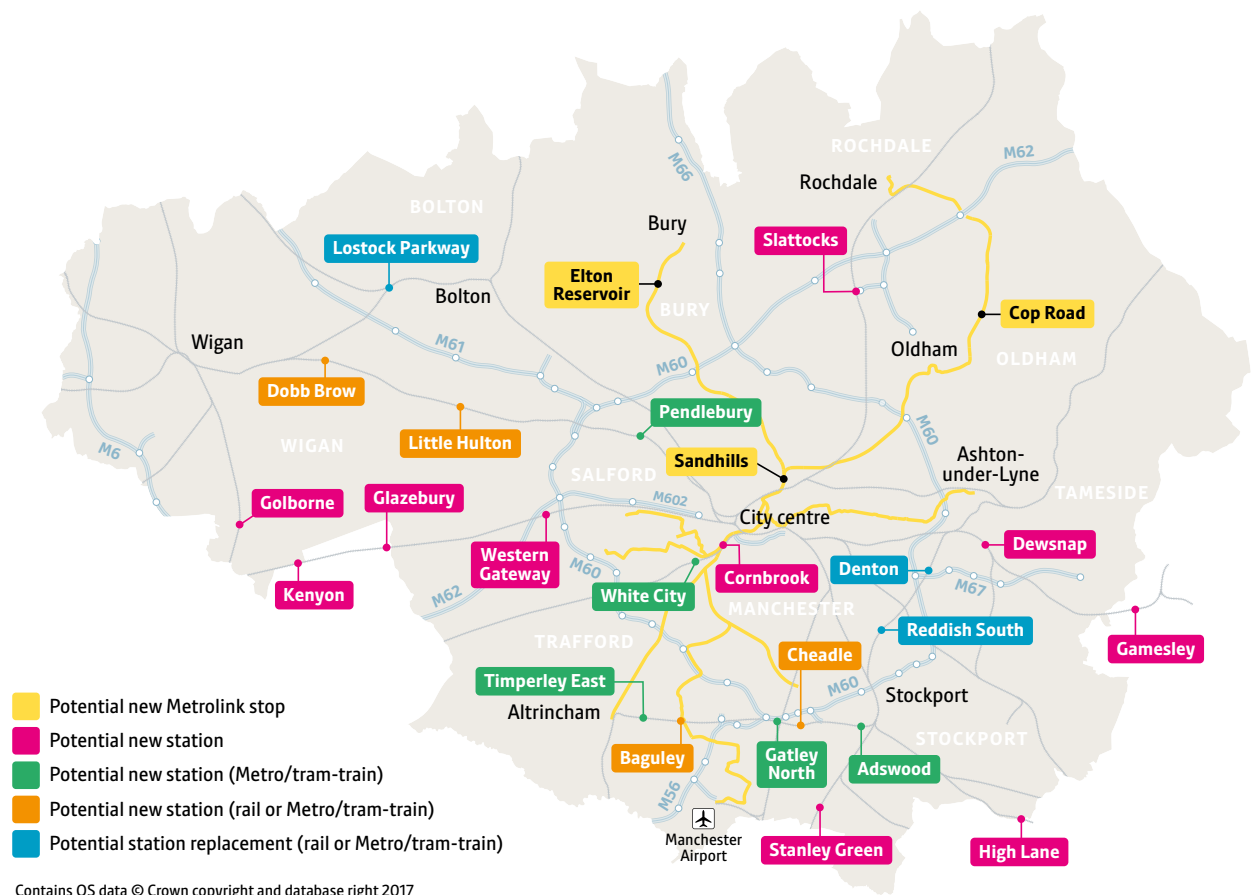
138. The rail network is extremely congested around central Manchester, and there is overwhelming evidence that a number of infrastructure improvements are required to address performance issues and provide greater reliability. The case has already been made and we will continue to work with Government to make the case for expanding/rebuilding Manchester Piccadilly so that it is fit for purpose for generations to come. We must also find a solution to the Castlefield Corridor (the line between Manchester Piccadilly, Oxford Road and Deansgate) ensuring it can carry the number of trains we need to operate in the future.
139. A Transport and Works Act Order for new platforms 15 and 16 at Piccadilly was submitted for consideration by the Secretary of State in 2015. We are yet to hear a conclusion from this process, pending further options analysis by Network Rail at the request of the Secretary of State.
140. Separately, improvements on the Hope Valley Line have recently been given Transport & Works Act approval, and will enable additional fast services between Manchester and Sheffield.
141. **Rail Capacity Studies:** We are looking at the capacity of our rail network in Greater Manchester and are conducting a number of studies to understand where improvements are needed and where we can work with Network Rail and train operators to provide more seats and more journeys. These include routes in Greater Manchester but also look at how we better connect with our neighbours in Lancashire, Cheshire, Yorkshire and across the North. These studies are crucial and will help make the case for the right rail investment for the future.
142. **Stations Partnership:** TfGM has developed alternative proposals to test working in partnership with operators and other industry stakeholders at many Greater Manchester rail stations. The key benefits set out in the GMCA Case for Change for these proposals include the ability to undertake: station improvement and community developments; strategic development and regeneration; targeted inclusivity and accessibility improvements; and improved station operations and multi-modal staffing. In parallel, TfGM is exploring the option of gaining a station licence at Horwich Parkway. This will develop our station management capabilities, create efficiencies and enable more multi-modal working.
143. **Operations and Performance:** TfGM will continue to deliver and improve our capability to provide a real-time response to incidents on the rail network. TfGM will actively support incident learning reviews, representing Greater Manchester within the rail industry, and will help to identify and support infrastructure interventions that are required to improve performance and resilience.
144. **HS2 & Northern Powerhouse Rail:** Development work is underway to ensure that the phased arrival of HS2 from 2026 to 2033 brings the maximum possible benefits to Greater Manchester. This includes the preparation of Growth Strategies to capitalise on the benefits of HS2 at Manchester Piccadilly, Manchester Airport, Wigan and Stockport, and working with Transport for the North to develop a compelling case for investment in east-west rail connections through Northern Powerhouse Rail (NPR). Greater Manchester's aspirations for high-speed rail are summarised in our recent HS2 and NPR Growth Strategy. The Greater Manchester authorities support HS2 and NPR, and want to ensure that the proposals have no detrimental impact on local services. TfN are also investigating the potential for a Manchester Airport Western link; this would likely serve a strategic role beyond Greater Manchester and we would look to TfN to act as the promoter for any future proposals.
145. **New stations:** TfGM is currently leading a study to evaluate the feasibility of potential new rail stations and Metrolink stops in Greater Manchester, with a view to developing more detailed plans for a small number of stations that are likely to deliver the greatest value for money. The figure below shows the stations and stops that are emerging as priorities for further investigation. It should be noted that only a small number of these could feasibly be delivered

between now and 2040 due to operational constraints, including the need to maintain a reliable and workable timetable.

146. The stations are grouped to illustrate:

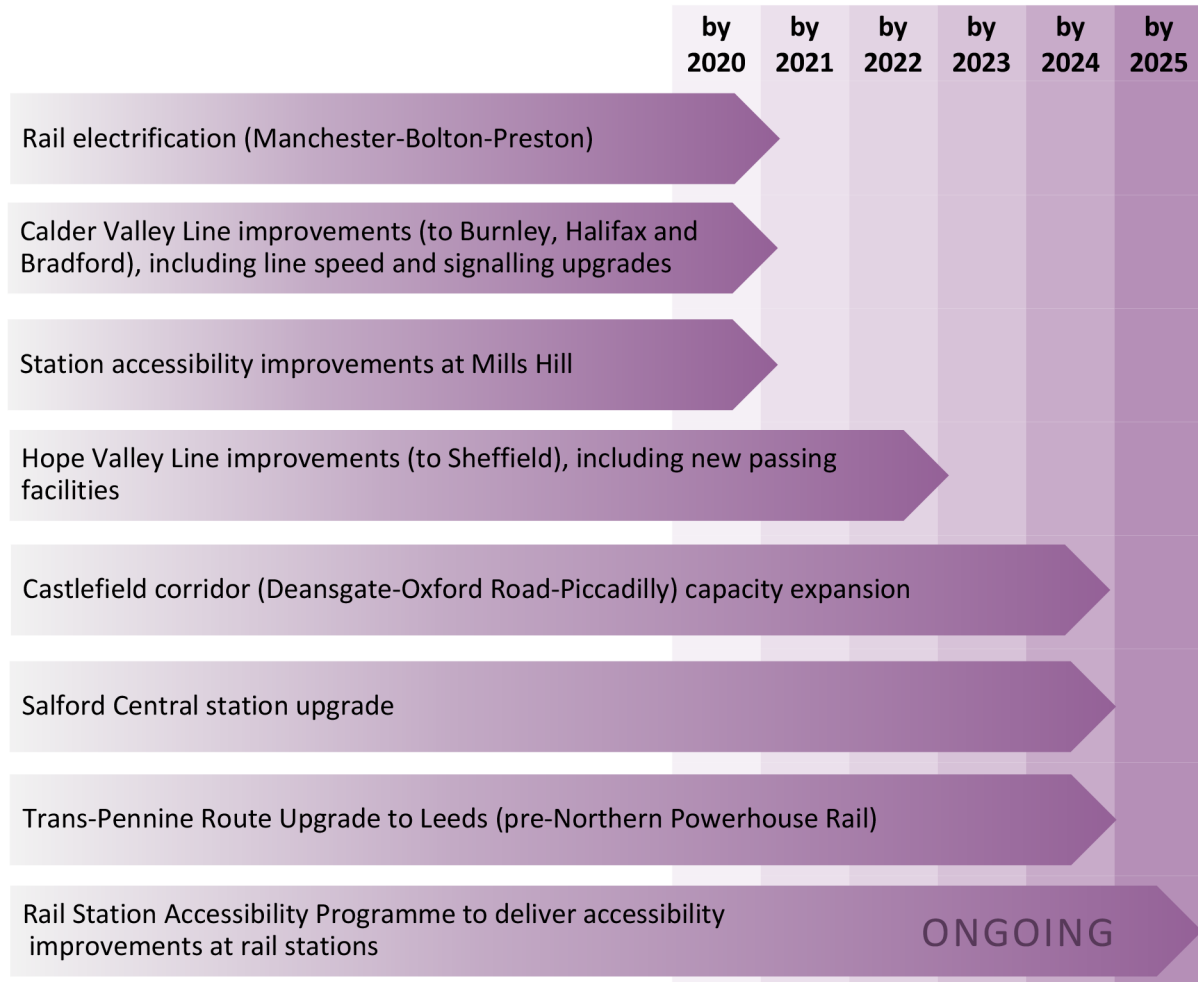
- Potential new Metrolink stops (subject to appropriate planning approvals and developer contributions)
- Potential new stations on rail lines where there is scope for existing services to call at the station
- Potential new stations which would be dependent on future introduction of metro/tram-train services
- Potential new stations that could be introduced if either a higher frequency rail or metro/tram-train services were to be introduced
- Potential station replacements where the introduction of either new rail or tram-train services would require the replacement or major reconfiguration of existing stations to bring them up to standard

Figure 10: Potential new rail stations and Metrolink stops for investigation



147. Please note that some interventions included in the 'Metrolink and Bus Rapid Transit' section above could also impact on the rail network, such as the introduction of tram-train services on existing rail lines. Please refer to the 'Metrolink and Bus Rapid Transit' section for more detail on these interventions.

In the next five years, the following committed schemes are due to be delivered...



148. This group of interventions has significant funding allocated and the case for change has already been demonstrated.
149. In addition to the these committed interventions, we also view the delivery of High Speed 2 – including to Manchester Piccadilly, Manchester Airport, Stockport and Wigan – as a committed intervention. High Speed 2 will be delivered beyond the timescales of this Delivery Plan, with Phase 1 due to be complete by 2026/27, and Phase 2 complete by 2033. HS2 is illustrated on Map 3.

In the next five years, we aim to work with the rail industry to complete business cases for early delivery of...

- Continued programme of rail station accessibility and customer facilities improvements
 - Partnership options for management and improvement of local rail stations
 - New stations (tranche 1) to be prioritised through the new stations study
 - Stockport area rail infrastructure improvements to permit rail franchise service commitments, HS2, and potential metro/tram-train services (e.g. Greek Street bridge)
150. These interventions are those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

In the next five years, we will work with the rail industry to develop options for...

- The arrival of High Speed 2 and Northern Powerhouse Rail in Greater Manchester, as part of a fully integrated travel system, including the core components of HS2 and NPR Growth Strategies. These Growth Strategies will include rail, rapid transit and road investments, station capacity, local connectivity and wider masterplanning, for:
 - Piccadilly
 - Manchester Airport
 - Stockport
 - Wigan
- Northern Powerhouse Rail – to link Greater Manchester to the North, support the growth of Manchester Airport and fully exploit opportunities to integrate with HS2
- Rail capacity improvements on key commuting corridors, to be determined through our on-going Rail Capacity Studies for:
 - CLC Line (to Warrington Central)
 - South Manchester (including HS2 readiness)
 - South East Manchester
 - Chat Moss and West Coast
 - North West Manchester
 - North East Manchester
- Platform lengthening and increases in passenger capacity at stations, including through franchise commitments
- Electrification between Bolton and Wigan
- Electrification between Manchester and Stalybridge (subject to final scope of Trans-Pennine Route Upgrade)
- Park & Ride/Mobility Hub proposals (Rail)
- New stations (tranche 2) to be prioritised through the new stations study
- Strategic rail interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - Port Salford rail freight link
 - Godley Green and Hattersley pedestrian/cycle bridge connection (potentially including Hattersley station south-facing access)
 - New stations related to development sites – as assessed through the new stations study

These interventions will be subject to appropriate planning approvals and developer contributions.

151. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.
152. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Beyond this five year Delivery Plan...

153. We recognise that there are a number of studies and schemes that we would like to investigate, but which are unlikely to commence in this Delivery Plan period. These studies may eventually be needed to achieve our long-term vision for transport, but there are currently no plans to commence investigation work before 2025:

- Further electrification of rail lines to reduce emissions and increase capacity
- Explore the feasibility and business case for improved connections from the Airport to the South
- Explore options for further increased rail network capacity in the Regional Centre

Streets for All: Local Highways

Introduction to Streets for All

154. The highway network plays a crucial role in moving people and goods across Greater Manchester. However, there are a number of issues we need to address in relation to our highways, in particular around congestion, air quality and noise pollution, safety and impacts on communities that they pass through. Congestion impacts on all road users for example, as it is a major cause of bus delays. We are therefore developing a more holistic approach to the design and management of our streets that aims to tackle all of these issues.
155. Streets for All is Greater Manchester's new way of thinking about the role of streets in creating sustainable, healthy and resilient places. It focuses on balancing the movement of people and goods alongside the creation of more people-friendly and less polluted streets and places. We have now started our programme of Streets for All corridor studies, focused on key parts of our Key Route Network of highways¹⁶. These studies will identify a preferred strategy for each corridor and consider a range of interventions – including junction improvements, bus priority and bus stop upgrades, and safe and attractive facilities for people walking and travelling by bike – depending on the specific needs of the locality. A Streets for All Strategy and Design Guide is also being prepared.

Our delivery priorities for the next five years

156. **Congestion Deal:** Journey times on our highway network are variable due to congestion. The Mayor's Congestion Deal (2018) identified five clear causes of congestion: too many people travelling at the same time; too many short journeys by car; roadworks; poorly timed traffic signals; and people having no alternative to driving.
157. The actions identified in the Congestion Deal embedded in this Delivery Plan will be implemented over the next few years, including further investment in smart traffic signals, improvements to sustainable alternatives to cars and road freight, and working with businesses and communities to support people to make changes to when, how and where they travel so that they are less affected by congestion.
158. In achieving our ambition of Streets for All, we need to tackle the dangers that result in road collisions with the consequential loss of lives, serious injuries and the perception of these dangers that discourages cycling and walking. The 2040 Transport Strategy has set out our ambition to reduce deaths on our roads as close as possible to zero. Please refer to the Safety and Security section (page 74) for further details.
159. **Network Management:** There are instances where congestion represents a significant barrier to economic growth, or blights surrounding communities. We need to increase the reliability of our existing network to ensure future growth is not constrained, with a particular focus on encouraging more sustainable and space-efficient modes of travel. The 10 local authorities, TfGM and Highways England will work together to create a more integrated approach to the management of the highways network to minimise the impact of congestion on local communities, including corridor management, a 24/7 control centre, and better management of roadworks.
160. **Moving traffic offences:** We will work to secure the powers from Government for Local Highway Authorities to enforce moving traffic offences that contribute to congestion, such as blocking yellow box junctions. This will help to make the highway network operate as efficiently as possible.

¹⁶ For a definition of the Key Route Network see the Glossary.

161. **City Centre Transport Strategy:** We are currently developing a new City Centre Transport Strategy, which will set out a transport masterplan to provide the city centre with a world-class transport system and make it a better place to live, work, invest and relax. The new City Centre Transport Strategy will be closely linked with the Clean Air Plan for Greater Manchester, as the City Centre has some of the worst air quality in the region; in the recent public conversation on the City Centre Transport Strategy, 90% of respondents felt that it was very important or important to improve air quality in the city centre.
162. Salford and Manchester City Councils are also looking to secure funding from the Government's Housing Infrastructure Fund to fund a programme of infrastructure works to help achieve large-scale growth.
163. **New roads:** The A6 to Manchester Airport Relief Road (A6MARR) has recently opened between Manchester Airport and Hazel Grove. Proposed new routes include new east-west connections in Wigan and Bolton associated with housing growth areas (also subject to a Housing Infrastructure Fund bid); Carrington Relief Road to enable the development of the Carrington growth area; and further phases of the Western Gateway Infrastructure Scheme (WGIS) to facilitate developments at Trafford Waters and Port Salford.
164. Where new highways provision is required to remove traffic from heavily congested local communities, schemes will incorporate measures to 'lock in' the benefits by reallocating road space to sustainable modes on the alleviated roads, thereby applying Streets for All design principles to provide more people-friendly places. Many of the highways schemes programmed for delivery in this plan benefitted from Growth Deal funding from Government, and are linked to specific growth areas within Greater Manchester or to specific congestion bottlenecks.
165. **Major Road Network:** The Government has signalled its intention to establish a Major Road Network (MRN) for England. This will consist of the busiest and most economically important local authority roads across the country. The MRN will be supported by dedicated funding provided through the National Roads Fund, which come into existence in 2020 and will utilise money raised through Vehicle Excise Duty. We will work with Government to ensure that the definition of the MRN in Greater Manchester meets the requirements of our economy and residents, and to identify potential interventions that may be progressed through the new funding.
166. **Airport growth:** Significant surface access improvements will be required to facilitate the future growth of Manchester Airport. In addition to the implementation of Smart Motorway on the M56 between Junctions 6 and 8 (see Motorways and Trunk Roads section on page 57), Manchester Airport have obligations to upgrade the road network serving the Airport from the west via Junction 6 of the M56. The timing of these works is dependent on passenger growth at the Airport and anticipated to be required by the mid-2020s. However, their design and implementation will need to be coordinated with the highway access for the proposed HS2 station. It is likely that in the longer term, an increase in motorway capacity will also be required to accommodate the growth of the Airport (please refer to the Motorways and Trunk Roads section for further detail).

In the next five years, we are committed to delivering...

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
M60 J13/A572 improvement to support the RHS Bridgewater growth site						
Manchester and Salford Inner Relief Route: A57 Regent Road improvements						
A49 Link Road						
Manchester and Salford Inner Relief Route: Great Ancoats Street improvements inc. walking and cycling improvements						
Mancunian Way junction with Princess Parkway – capacity, traffic management and walking and cycling improvements						
A57 Hyde Road localised widening						
A560 Cheadle Corridor resilience and reliability package						
M58 Link Road						
Key components of the Mayor's Congestion Deal						
South Heywood M62 J19 Link Road						
Trafford Road junction improvements						
Carrington Relief Road						
Traffic control enhancements, including continued roll-out of smart signalling technology at traffic signals					ONGOING	
Network management improvements, including corridor management, a 24/7 control centre, and better management of roadworks					ONGOING	
Better management of transport arrangements for major events, such as mid-week football match nights					ONGOING	

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
Minor works programme						ONGOING

167. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- Wigan and Bolton new east-west road and bus rapid transit extension
- Streets for All corridor improvements for Greater Manchester's Key Route Network
- Key components of the City Centre Transport Strategy
- Highways improvements and green infrastructure to support accelerated housing growth in the city centre
- Bredbury Industrial Estate access improvements
- Highways interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - Elton Reservoir Link Road (to support development and relieve Bury town centre congestion)
 - M62 North-East Corridor (Northern Gateway) Distributor Road
 These interventions will be subject to appropriate planning approvals and developer contributions.

168. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

In the next five years, we will develop options for...

- Manchester Airport expansion highway improvements – to be coordinated with longer term highway improvements required to support HS2 and NPR Growth Strategy at Manchester Airport
- South East Manchester Multi-Modal Study (SEMMMS) Refresh: implementation of recommendations, including ongoing review of the business case for the A6 to M60 Relief Road and the A34 corridor package
- Bredbury-Woodley Area Highway Improvement Package
- The Quays connectivity improvements
- Programme of noise reduction measures in identified hotspots
- Improvements to the Major Road Network
- Highways interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - M61 J6 Link Road for West of Wingates
 This intervention will be subject to appropriate planning approvals and developer contributions.

169. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.
170. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

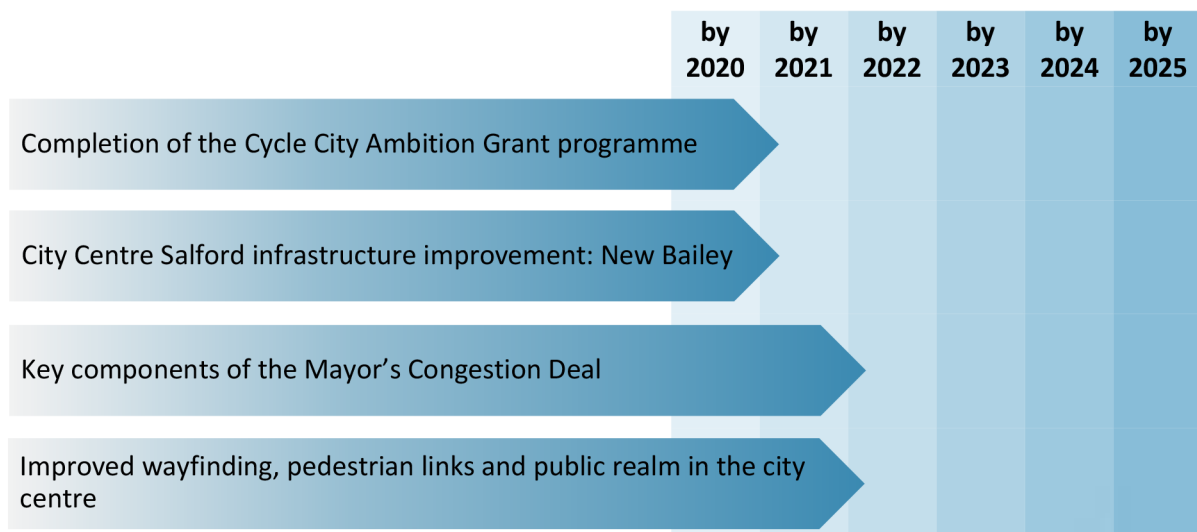
Beyond this five year Delivery Plan...

171. We recognise that there are a number of studies and schemes that we would like to investigate, but which are unlikely to commence in this Delivery Plan period. These studies may eventually be needed to achieve our long-term vision for transport, but there are currently no plans to commence investigation work before 2025:
 - M62 – Carrington – M60 link

Streets for All: Walking and Cycling

172. The provision of world-class walking and cycling infrastructure, supported by strong community engagement, will enable walking and cycling to become the natural choice for short journeys and, in turn, will make Greater Manchester a healthier, cleaner and safer place to live. The interventions in this section will primarily target shorter distance journeys of 5km or less, and will contribute to achieving our vision of 50% of trips to be undertaken by walking, cycling or public transport by 2040.
173. **Mayor's Challenge Fund for Cycling and Walking:** The Cycling and Walking Commissioner's infrastructure proposal¹⁷ has identified 1,000 miles of walking and cycling routes which are mostly on local highways. These routes will be regularly reviewed and updated in close consultation with local communities and businesses. The cycling and walking infrastructure map¹⁷ sets the strategic ambition against which local authorities will develop and deliver schemes via the Mayor's Challenge Fund for Cycling and Walking. At present there is £160m in the fund available over the next four years.
174. **Long-term Cycling and Walking Infrastructure Plan:** Our longer term proposition for cycling and walking is being developed through a Local Cycling and Walking Infrastructure Plan for Greater Manchester, which builds on the recommendations of the Cycling and Walking Commissioner in his 2017 Made to Move report. More detailed interventions emerging from the long-term Local Cycling and Walking Infrastructure Plan will be included in the next Delivery Plan.
175. **Designated Funds for improved motorway crossings:** There is also potential to securing additional funding from Highways England's 'Designated Funds' for walking and cycling improvements that cross the motorway network. Please refer to the 'Motorways and Trunk Roads' section for further details.
176. **Public realm improvements:** To encourage more people to walk and cycle, we also need to improve the quality of the streetscape, and make sure that the urban environment is sufficiently attractive and safe to pass through on foot and by bike. This is why we are actively embedding good active travel design into the City Centre Transport Strategy, other town centre strategies and into our Streets for All approach.

In the next five years, we are committed to delivering...



¹⁷ <https://www.tfgm.com/made-to-move/beelines>

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
<p>Mayor's Challenge Fund for walking and cycling Tranche 1, including:</p> <ul style="list-style-type: none"> • B6226 Chorley New Road • New and Upgraded Crossing Points and Junctions, Bury • Metrolink Bury Line - Cycle Parking • Manchester to Chorlton • King Street foot/cycle bridge refurbishment, Oldham • Union Street West foot/cycle Bridge, completion of refurbishment, Oldham • Castleton Local Centre Corridor • Swinton and Walkden • A6 Broad Street/B6186 Frederick Road • Chapel Street East Phase 1 Demonstrator Project • Gillbent Road - Crossing Upgrade, Stockport • Welkin Road - Town Centre Severance Package, Stockport • Tameside Active Neighbourhoods • A5014 Talbot Road • Victoria Street/Warrington Road Junction Improvements, Wigan 						
<p>Mayor's Challenge Fund for walking and cycling Tranche 2, including:</p> <ul style="list-style-type: none"> • Monton • Swinton Greenway • Trinity Way/Springfield Lane Junction Upgrade • Hazel Grove Phase 1 Package • Talbot Road Junction Upgrades • Standish Mineral Line Enhancements 						
Further tranches of the Mayor's Challenge Fund					ONGOING	
Improve wayfinding in line with the Cycling and Walking Commissioner's infrastructure proposals					ONGOING	

177. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

178. It should be noted that the walking and cycling interventions funded through the Mayor's Challenge Fund are still emerging. The list above presents the specific schemes that are already committed at this point in time. A range of other specific walking and cycling interventions will be identified, funded and delivered throughout the life of this Delivery Plan.

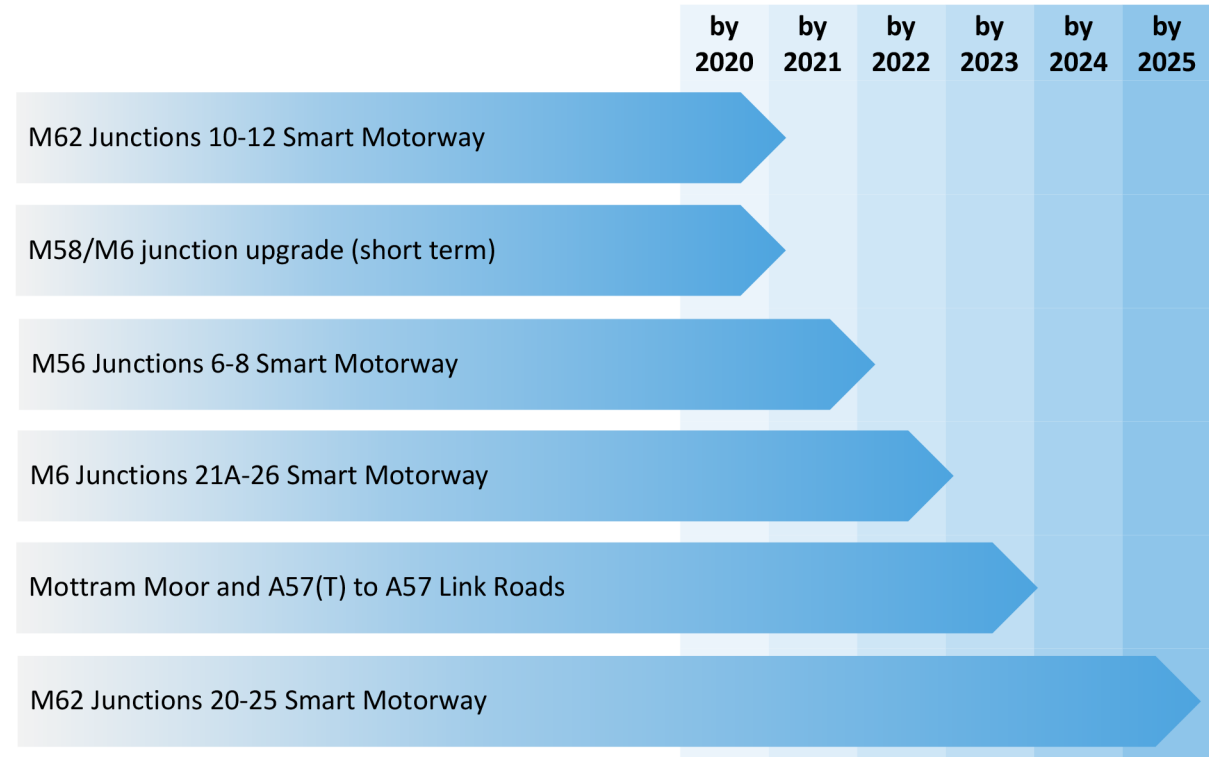
In the next five years, we aim to complete business cases for early delivery of...

- A long-term Local Cycling and Walking Infrastructure Plan (LCWIP) for Greater Manchester
 - City Centre Transport Strategy: review and publication of active travel network
 - Programme of improved motorway crossing points for pedestrians and cyclists
 - Safe and secure cycle storage, develop long-term programme
 - Prepare a walking and cycling design guide, audit tool and associated training
 - Support for a public bike hire scheme and other ways of increasing access to bikes
179. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

Streets for All: Motorways and Trunk Roads

180. Greater Manchester's network of motorways and trunk roads (known as the Strategic Road Network) is managed by Highways England. Over the next five years, we will continue to work with Highways England to tackle congestion and deliver improvements to the network, particularly where such improvements can help directly to unlock new development.
181. **Smart Motorways:** The Smart Motorway between M60 Junction 8 and M62 Junction 20 has now been opened. Highways England is planning to convert further stretches of motorway to Smart Motorway in Greater Manchester, including on the M62, M6 and M56. Smart motorways mean increased road capacity faster and at less cost than traditional road widening schemes. They remain within current motorway boundaries, minimising the environmental footprint of the scheme. However, they are unlikely to fully address our congestion issues, which is why we need a much wider series of interventions across all modes as set out in this Delivery Plan.
182. **M60 North West Quadrant:** The next five years will see the completion of the M60 North West Quadrant Strategic Study and the potential delivery of some of the emerging early interventions, such as improvements to junction(s) on the M60 and improvements to the surrounding local transport network.
183. **Trans-Pennine Road Connections:** Highways England will shortly be delivering the Mottram Moor and A57(T) to A57 Link Roads, as part of a package to improve Trans-Pennine road connectivity between Greater Manchester and South Yorkshire. Options for the longer term are currently being considered as part of the Trans-Pennine Tunnel Strategic Study.
184. **Supporting the growth of Manchester Airport:** In the longer term, there may also be a need to increase the capacity of the motorway network to accommodate the growth of the Airport; particularly the M56 junctions and the M56-M60 links. The development of these improvements will need to be carefully coordinated with the design of the highway access for the proposed Airport HS2 station.
185. **Designated Funds:** DfT has allocated some £900m to Highways England over the 6-year period from 2015 to 2021 to support a set of national 'Designated Funds'. These cover air quality; cycling, safety and integration; environment; innovation; and growth and housing. Greater Manchester has already benefited from these funds, especially with regard to reducing the severance impacts of the motorway network for pedestrians and cyclists. Confirmation is awaited of the form and scale of funds available post-2021, but it is anticipated that an equivalent level of funding will be available to cover the period to 2025.

In the next five years, the following committed schemes are due to be delivered...



18. ...and's project processes.

187. In addition to planned investments on Strategic Road Network itself, the following primarily local interventions (see page 51) are also connected to the Strategic Road Network:

- M60 J13/A572 improvement to support the RHS Bridgewater growth site
- M58 Link Road
- South Heywood M62 J19 Link Road

In the next five years, we aim to work with Highways England to complete business cases for early delivery of...

- A663 Broadway/M60 J21 junction upgrade
- Capacity increases to M56 J5 and J6 and M56-M60 links (to facilitate Airport growth and HS2)
- Simister Island improvements
- Denton Island improvements
- M60 J24-4 Smart Motorway (or equivalent measures to address congestion)
- M6 J23 improvement
- Strategic interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - Further phases of the Western Gateway Infrastructure Scheme (WGIS)
This intervention will be subject to appropriate planning approvals and developer contributions.

188. This group of interventions includes those with potential to be delivered by 2025 subject to funding and/or a business case which demonstrates value for money.

In the next five years, we will work with Highways England to develop options for...

- M60 J9-14 improvements
 - M60 J21-24 Smart Motorway
 - M66 capacity improvements (potentially including Smart Motorway, J2-3 improvements, collector-distributor road and/or bus priority)
 - Further interventions to tackle congestion issues in Tintwistle and Hollingworth
 - Two-way movements at M6 J25
 - Further improvements to the motorway network, to be delivered through Highways England's second Road Investment Strategy (RIS2)
 - Strategic road improvements between Manchester and Sheffield, to be determined through TfN and Highways England's Trans-Pennine Tunnel Study
 - Further interventions to tackle congestion on the M60 North West Quadrant and M60 South East Quadrant
 - Strategic interventions to support specific new growth allocations identified in the Draft GMSF, including:
 - New motorway junction near Birch and supporting infrastructure for M62 North-East Corridor (Northern Gateway)
 - M60 Junction 8 improvements to enable ongoing development in the Carrington areaThese interventions will be subject to appropriate planning approvals and developer contributions.
189. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years through Highways England's future Road Investment Strategy (RIS) programmes.
190. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Streets for All: Freight and logistics

191. Balancing the needs of freight and passenger demand on our transport network will be increasingly important as freight activity continues to grow. In particular, a key challenge over the next five years will be how to deal with the growing demand for deliveries into the city centre as it expands, which will require a long-term strategy.
192. Influencing the movement of heavy and light goods vehicles on our roads will be a key focus of the Delivery Plan in order to maximise the benefit to the economy and manage the negative impacts of freight on our local road networks and communities. In particular, enabling freight deliveries to be made more efficiently in urban areas could help us achieve major air quality benefits (see the Clean Air and Carbon section on page 64).
193. **Working with partners:** Giving practical assistance to developers and other organisations to minimise, re-mode or re-time freight movements, or use more environmentally friendly and safer vehicles, will continue to be an important work area over the next few years. For example, we will work with retailers to reduce the number of delivery vehicles serving premises at peak times. Given the levels of growth in housing and jobs planned over the coming years, it will also be important to work with developers to carefully manage the impact of major construction sites on our roads and local communities, through the implementation of construction logistics plans.
194. **Consolidation:** TfGM and the 10 local authorities will also work with the freight and logistics industry and large public sector organisations to introduce sustainable distribution where possible, including the consolidation of freight movements in urban areas and for public sector organisations, and potentially using greener vehicles for 'last mile' delivery.
195. **Rail freight:** The movement of freight is a national and international issue, and the growth of the sector will have implications across Greater Manchester boundaries. There is scope to work with other bodies, such as TfN, to adopt a pan-Northern approach to freight and to explore opportunities to move more freight by rail. The opportunity to introduce rail freight into Port Salford will be key to facilitate the delivery of Port Salford as a tri-modal logistics hub. This is included in the Rail section.

In the next five years, we are committed to delivering...

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
Delivery and Servicing Plans for large organisations and retailers						ONGOING
Freight accreditation schemes, e.g. Construction Logistics and Community Safety (CLOCS) and Fleet Operator Recognition Scheme (FORS)						ONGOING
Construction Logistics Plans for large developments						ONGOING

196. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- Optimised traffic signals for freight traffic using smart signalling technology where appropriate

197. This intervention has the potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

In the next five years, we will develop options for...

- The creation of urban consolidation centres
- Measures to reduce impact of goods vehicles in centres
- Key enhancements to regional rail to support freight growth in Greater Manchester
- Demonstrating the potential of alternative fuel transport, aiming to achieve regionally and nationally competitive solutions
- Supporting joint procurement frameworks to reduce freight deliveries

198. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.

199. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Streets for All: Asset Management

200. TfGM is directly responsible for the maintenance and renewal of a range of transport assets, including: the Metrolink fleet and stops, bus stations, interchanges, offices, commercial estates, cycle hubs and car parks. TfGM continues to develop a strategic approach to maintaining and renewing all our assets. This will ensure that we are making the best use of capital investment, and operating budgets are efficiently applied to extend asset life and sustain long-term performance.
201. Each of the ten local authorities, in their capacity as Highways Authorities, also has a statutory duty to maintain their highway, with TfGM coordinating strategic asset management of the Key Route Network (for a definition of the Key Route Network see the Glossary on page 87).
202. An indicative five year maintenance investment programme to 2022/23 has been developed for the main assets on the Key Route Network. Asset management investments for the maintenance of the key route network will focus on increasing preventative and planned maintenance, while reducing long-term reactive maintenance. A common scheme prioritisation framework will help determine future priorities, including a shared approach to bridge maintenance.
203. TfGM also act, on behalf of the GMCA, as owners and maintainers of electronic traffic equipment across the region. TfGM has deployed an Electronic Traffic Equipment Asset Management Strategy for 2018, to further embed integrated management for the long-term maintenance of these assets. Lifecycle plans and renewal strategies will now be developed through scheduled asset condition surveys to ensure we undertake the right treatment/renewal at the right time.

In the next five years, we are committed to delivering...

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
Stockport Town Centre Structure Enhancements						
Review of all non-essential roadworks to explore ways of working to minimise disruption						
Enhanced roadworks permit scheme for greater coordination and control to limit disruption						
Enhanced maintenance programme through successful bids to Pothole Fund and other initiatives						
Committed long-term highway maintenance programme for Key Route Network Assets, to be delivered by the local authorities						ONGOING
Public transport asset maintenance programme						ONGOING

204. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- Sustained and enhanced long-term highway maintenance programme
205. This programme includes interventions with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

Integration: Clean Air and Carbon

206. **Clean Air:** Poor air quality is the largest environmental risk to public health in the UK. The evidence suggests that long-term exposure to air pollution probably contributes small but significant amounts to the deaths of a large number of people. The health impacts of air pollution impair residents' quality of life, reduce productivity and increase demand on public services. Cleaning up Greater Manchester's air is therefore a major priority for the Mayor, the local authorities and TfGM.
207. The Greater Manchester **Air Quality Action Plan (AQAP)** 2016-2021 was approved by the GMCA in 2016 and set out measures to help reduce air pollution while supporting the sustainable economic growth of the region. The actions in the AQAP are categorised into seven main areas: Development management and planning regulation; Freight and HGVs; Buses; Cycling; Travel Choices; Cars; and Information and resources. These actions have been embedded into this Delivery Plan and will be implemented by the local authorities and TfGM.
208. Building on from the AQAP, Greater Manchester is also currently developing a **Clean Air Plan** to tackle roadside nitrogen dioxide (NO₂) concentrations and bring them down to legal levels, as required by Government's national air quality plan for reducing roadside nitrogen dioxide. In October 2018 TfGM, on behalf of the Greater Manchester local authorities, submitted a report to the GMCA to present the local modelling of predicted roadside NO₂ exceedances beyond 2020. In total, the local modelling has identified 152 stretches of road where concentrations of NO₂ are forecast to exceed the legal limit value (40 µg/m³) beyond 2020. Once agreed by Government, these exceedances will constitute the problem that the options for reducing NO₂ contained in the Greater Manchester Clean Air Plan must address.
209. Having prepared a Strategic Outline Case for a Clean Air Plan (submitted to Government in March 2018) which identified the potential shortlisted measures, a full Outline Business Case (OBC) will be submitted to the GMCA for consideration in 2019. The OBC will identify the package of interventions that are reasonably expected to reduce NO₂ concentrations in the 'shortest possible time', as required by Government.
210. The following table identifies the shortlist of measures identified in the Strategic Outline Case.

Table 1: Shortlisted measures for a future Clean Air Plan

Shortlisted measure	Details
Clean Air Zone – Class B, C or D	Different classifications/time restriction and geographical areas to be modelled for their impact on NO ₂ and timescale of any impact.
Differential parking charges	E.g. different charges for times of day, vehicle type, car-sharers and could include a workplace parking levy.
Retrofit/upgrade public transport fleet	Retrofit or upgrade vehicles to a higher Euro standard.
Retrofit/upgrade local authority fleets	Retrofit or upgrade to a higher Euro standard (procurement).
Increase public transport capacity	Identify specific routes where most impact will be made.
Switch Bus/HGV/LGV/GM fleet to Gas-to-Liquid	Using cleaner alternative fuels, e.g. Gas-to-Liquid (GtL).

Shortlisted measure	Details
Electric vehicle (EV) incentivisation	Increase EV uptake through expanding the charging network or financial incentives.
Congestion Deal – increase capacity	Review existing junction improvement plans – assess impact and identify opportunities to accelerate.
Congestion Deal – encouraging alternatives	Encouraging alternative travel choices through road space reallocation.
Congestion Deal – network management	Changing traffic signal timing to optimise flows, reducing congestion.
Private hire and taxi alternative fuels	Incentivise change to EV/Ultra-Low-Emission vehicles, increase EV infrastructure for taxis, retrofitting and increasing LPG refuelling infrastructure for taxis.
Communications campaigns	Increase awareness of health and cost benefits for public and of different modes of transport or around particular communities/schools.
Sustainable travel engagement	Work with employers and individuals to encourage sustainable travel choices.
Active travel programme – infrastructure	Expand and improve cycling and walking infrastructure.

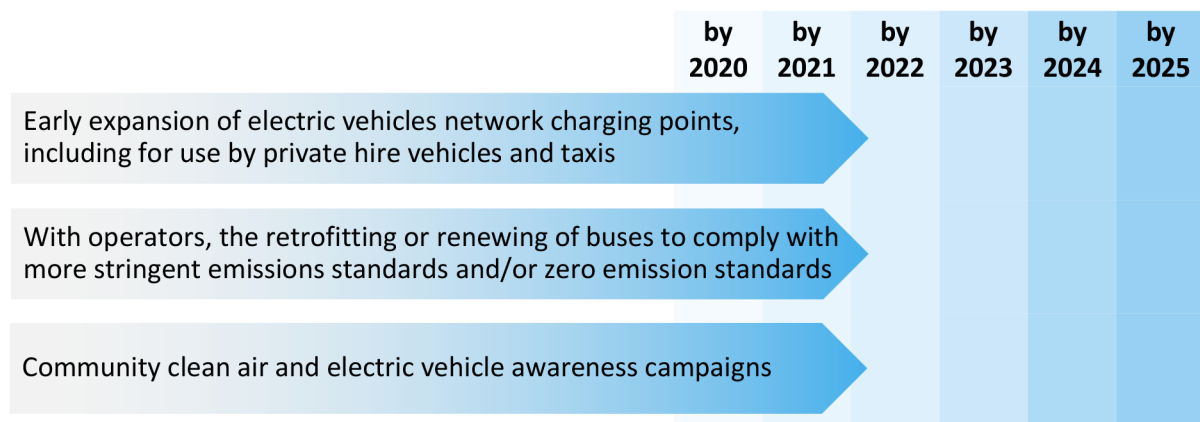
211. The Strategic Outline Case recognised that as locations of exceedances cover areas across Greater Manchester, no single measure was likely to deliver legal compliance on its own. As such, a number of options are still being considered for further investigation.
212. Following consideration by the GMCA and each individual local authority in 2019, the OBC will be submitted to Government. At this point the OBC will either be approved or rejected and a ‘public conversation’ will begin. For the most up-to-date information on the Greater Manchester Clean Air Plan visit www.CleanAirGM.com.
213. A large proportion of the interventions contained in this Delivery Plan have air quality benefits, so this Plan will play an important role in delivering clean air. The Clean Air Plan still has a number of stages to pass through before it is finalised, including the ‘public conversation’. At the time of publication, the options that will form Greater Manchester’s Clean Air Plan have not been formally adopted. As such, only a small number of specific air quality interventions are listed below. Once finalised and formally adopted, the measures set out in Greater Manchester’s Clean Air Plan will be incorporated fully into future updates of this Delivery Plan.
214. **Carbon reduction:** Alongside cleaning the air that we breathe, reducing greenhouse gas emissions including carbon dioxide is crucial to delivering the international Paris Agreement, adopted in December 2015, of containing rising global temperatures to well below 2°C. Many interventions in other parts of this Delivery Plan contribute towards achieving Greater Manchester’s vision of creating a carbon efficient, climate resilient city-region with a thriving natural environment, and therefore contribute to Greater Manchester’s target to cut carbon emissions and to Greater Manchester’s Low Carbon Plan.

215. In summary these include:

- **Investment in and expansion of the electric vehicle charging network:** While the majority of electricity is still produced by fossil fuels, the grid is rapidly decarbonising and electric engines are more efficient than combustion engines (see intervention list below)
- **Assessing and developing a roadmap to deliver a zero emission bus fleet by 2025:** As with all other road vehicles electrification will deliver significant emissions savings. Public transport is also far more carbon efficient (see intervention list below)
- **Transformation of cycling and walking infrastructure:** Encouraging walking and cycling could significantly reduce fossil fuel use for short local journeys (see interventions in the Walking and Cycling section on page 54)
- **Reducing freight emissions:** Assessing and developing a roadmap to reduce freight emissions through modal shift, increased efficiency and alternative fuels for heavy vehicles: Heavy goods vehicles are currently essential but have few zero emission alternatives. Low emission fuels and changes to logistics infrastructure could significantly reduce emissions output (see interventions in the Freight and Logistics section on page 60)

216. It should be noted that the Greater Manchester local authorities have been directed to identify measures for reducing NO₂ concentrations within the 'shortest possible time'. Therefore, although the interventions below are included in this five-year Delivery Plan, the 'shortest possible time' is likely to be well before 2025 and the interventions below are likely to be delivered much earlier than this.

In the next five years, we are committed to delivering...



217. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- A set of measures that will be identified within the Greater Manchester Clean Air Plan
- Continued expansion of electric vehicles network charging points, including for use by private hire vehicles and taxis
- Retrofitting or upgrading buses to comply with more stringent emissions standards (continuation programme)

218. The interventions in the Clean Air Plan will be designed to be delivered as early as possible. Subject to funding and approval of a business case which demonstrates the effectiveness of the plan, these are anticipated to start delivery by 2021.

In the next five years, we will develop options for...

- Retrofitting or upgrading local authority vehicle fleet
 - Private hire and taxi alternative fuels
219. These interventions need further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.
220. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Integration: Future Mobility and Innovation

221. Greater Manchester is a UK leader in trialling and assessing new transport technologies, with a focus on how they can help to achieve the ambitions of the 2040 Transport Strategy. Key aspects of the future of mobility can be summarised as CASE (Connected, Autonomous, Shared, and Electric). This sector is also attracting significant private investment funding with innovators seeking globally deployable mobility solutions. For a more in-depth definition of future mobility, please see the Developing an Innovative City Region section on page 16.
222. Understanding and planning for future mobility is crucial in addressing the long-term challenges we are facing in Greater Manchester. It is vital that we embrace new innovation while also working together to develop and mainstream new integrated solutions that allow us to move people around the city-region in the most efficient, inclusive and sustainable way.
223. **Transport technology trials:** Greater Manchester has established an extensive network of collaborating partners at national and international level to undertake a range of technology trials. For example, we are exploring the benefits and risks of connected and autonomous vehicles (CAVs); flexible on-demand transport; and the concept of Mobility as a Service (MaaS). MaaS integrates various forms of transport services (e.g. taxi, public transport and cycle hire) into a single customer experience, which is accessible on demand and uses a single payment application.
224. Ongoing trial projects are also exploring how transport infrastructure, including smart bus stops, smart lighting and smart air quality monitoring, can be connected to the 'Internet of Things'. We are also developing new tools and modelling techniques to assess the optimal transport mix to support the future needs of the city-region. Understanding how this mix is shaped, including individual, shared and collective transport, will enable us to manage our infrastructure and network more efficiently and to capitalise on new transport solutions for the benefit of the city-region.
225. **Roll-out and mainstreaming of future mobility technologies:** Greater Manchester is also planning a next generation bike hire scheme, expanding the electric vehicle rapid charging network, supporting the development of car club schemes, exploring the future of urban freight transport and investigating the potential impacts of connected and autonomous vehicles.
226. **Taxi and private hire standards:** Taxis and private hire vehicles (PHVs) provide invaluable transport services at times and to places where public transport is not an option, and they can be especially valuable for people with restricted mobility. However, changes to taxi and PHV regulation, new technology and business models, and an outmoded legislative framework have all contributed to the current situation where the taxi and PHV trade is becoming increasingly difficult to regulate.
227. In response, Greater Manchester's licensing authorities have agreed to collectively develop and adopt a common set of minimum standards for taxi and PHV licensing. This work is currently ongoing.
228. However, while Greater Manchester's minimum standards and their enforcement will apply to all locally licensed drivers, taxis and PHVs and operators, this approach is unable to prevent less rigorously regulated PHVs that are licensed outside Greater Manchester operating in the city-region. TfGM, along with TfL, Local Government Association, Urban Transport Group, and other local authorities have therefore been urging DfT to consider regulatory reform that reinstates the principle of effective local licensing.

229. TfGM has also been encouraging DfT to work closely with Greater Manchester as it begins to consider the case for much more fundamental regulatory reform in relation to Taxi, PHVs and new shared models of mobility.
230. Digital connectivity is a fundamental enabler of behaviour change and future new mobility services. As part of the Mayor's Digital Strategy, we are further developing a clear strategic vision on 5G and Fibre, looking at the commercial opportunities to maximise their value to Greater Manchester.

In the next five years, we are committed to delivering...

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
Mobility as a Service (MaaS) projects, including the delivery of MaaS trials in Greater Manchester, working with national and international partners to develop MaaS standards, and using MaaS to improve customer services						ONGOING
Connected and Autonomous Vehicles (CAVs) projects, including a pilot project to test CAVs between Stockport and Manchester Airport, and a Salford University Campus CAV Shuttle						ONGOING
A smart wayfinding programme to improve wayfinding in the city centre and others areas, supporting the Cycling and Walking Commissioner's infrastructure proposal						ONGOING
A series of collaborative projects with UK and international cities to ensure Greater Manchester remains at the forefront of transport innovation						ONGOING

231. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

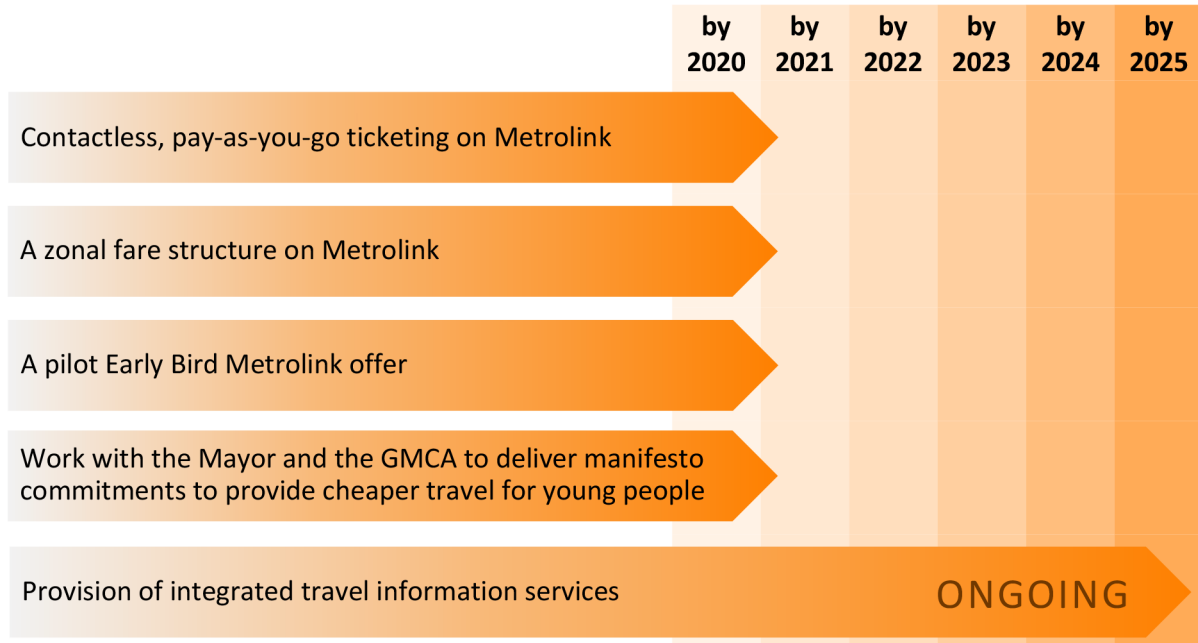
- Further Mobility as a Service (MaaS) and Connected and Autonomous Vehicles (CAVs) projects, as the market for these technologies matures
 - Further collaborative projects with UK and international cities to ensure Greater Manchester remains at the forefront of transport innovation
 - The roll-out of integrated private hire standards across Greater Manchester
232. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

Integration: Fares and Ticketing

233. In the 2040 Transport Strategy, we committed to five-customer focused objectives for Fares and Ticketing. These are: simplicity, convenience, value for money, transparency and trustworthiness, and inclusivity.
234. **Inclusivity of public transport:** Public transport should be inclusive to people from all walks of life, living across Greater Manchester. On behalf of the Mayor and the ten local authorities, TfGM provides funding for young, old and disabled people to travel at reduced fares or for free. Recently launched initiatives include:
- The Women's Concessionary Travel Pass: Launched by TfGM in 2018, the pass entitles thousands of women affected by the change in the state pension age to free off-peak travel on bus, train and tram.
 - Cheaper travel for young people: TfGM already supports 16 to 18 year olds by providing half-price travel on buses, trains and Metrolink to travel to school or college. TfGM continue to work with the Mayor and the GMCA to deliver his manifesto commitments to provide cheaper travel for young people.
 - Access to Apprenticeships: TfGM are supporting apprentices across the region with a free 28-day travel pass valid on bus and tram services.
235. **Introduction of smart ticketing:** In 2017, TfGM launched the *get me there* smartcard, which complements the *get me there* Metrolink app launched in 2016. The *get me there* smartcard enables passengers to make integrated journeys, as they can purchase multi-operator and multi-modal products and load them on to the *get me there* smartcard. This means that customers don't have to pay twice if they transfer from a bus to the tram. The *get me there* smartcard and app are also simple and convenient to use, as customers can avoid queues at ticket machines and don't have to worry about having the correct change.
236. **A simplified zonal fare structure:** In July 2018, the GMCA approved a new zonal fare structure for the Metrolink network. The current Metrolink fare structure uses point-to-point fares that are calculated based on 18 underlying fare bands. Introducing a zonal structure will reduce the number of fares available per product from 8,556 to just 10. This will simplify the offer to customers, and will also help to achieve the full benefits of contactless pay-as-you-go ticketing by replacing return tickets with zonal daily capping. The zonal fare structure will be introduced on Metrolink in early 2019.
237. **Contactless pay-as-you-go:** In 2019, we will introduce contactless pay-as-you-go on Metrolink. It will provide a convenient and simple way to travel, enabling customers to simply 'touch in' and 'touch out' with their debit/credit cards on Metrolink. The daily price is capped, like in London, and customers won't need to carry a separate card or ticket.
238. **Pan-Northern integrated and smart travel:** Over the next few years, we will be working with TfN to deliver its Integrated and Smart Travel programme, which is designed to transform public transport by making it easier for passengers to make multi-mode, multi-operator, price-capped journeys across the North. The Integrated and Smart Travel programme is due to be rolled out in three phases, creating a new era of connected, convenient public transport travel across the North.
239. **Further phases of Greater Manchester's smart ticketing initiative:** In parallel with TfN's Integrated and Smart Travel programme, TfGM will also undertake further work to explore wider smart ticketing opportunities within Greater Manchester. In particular, in line with the principles of the 2040 Transport Strategy, there may be a strong strategic case for integrating contactless, pay-as-you-go on Metrolink (to be delivered in 2019) with other modes of transport. At present,

the powers of the Mayor and the GMCA to introduce such a system are limited, and may depend on the preferred option for the potential reform of Greater Manchester's bus market (see the Bus section on page 34). With that in mind, TfGM will continue to develop new opportunities for modern payment methods which travelling customers will increasingly want and expect.

In the next five years, we are committed to delivering...



240. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- Further phases of Greater Manchester's smart ticketing initiative
- Pan-Northern integrated and smart ticketing, working with TfN
- Piloting of other targeted ticket offers to promote the use of public transport

241. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

Integration: Behaviour change

242. The 2040 Transport Strategy emphasises the integral role of measures to raise awareness, encourage and incentivise the use of more sustainable travel modes, particularly where this results in a reduction in the use of single occupancy vehicles on our most congested roads.
243. Behaviour change is about helping people to be able to make informed decisions about the way they travel and encouraging them to make sustainable journeys on less congested parts of the network outside of peak times. This will ensure we can make the most efficient use of Greater Manchester's available transport capacity.
244. Behaviour change measures will be targeted in the areas where they will have the biggest impact in reducing congestion, reducing roadside air pollution and increasing levels of physical activity. Dependent on the circumstances, techniques will focus on providing support and advice to encourage more sustainable ways of travelling or to reduce the number of trips (for example by homeworking); travel at different times, such as adopting flexible working hours to avoid travel in peak periods; or choosing a less busy or less polluted route.
245. Best practice and behavioural change theory have informed our priorities and helped define the most appropriate audiences, locations and times for attention.
246. These include:
 - People commuting to work or travelling on business using our most congested roads.
 - People who are undertaking a lifestyle change, such as changing job location, starting a new school, or moving house.
 - People who live or work close to new sustainable transport infrastructure or services (e.g. where we have built new cycle infrastructure or improved Metrolink services).
247. TfGM has established a Sustainable Journeys Team which will oversee the delivery of these interventions, working closely with local authorities and other key partners.
248. **Business and community engagement:** TfGM's business travel advice service, which is free to the user, encourages and supports organisations that promote walking, cycling, public transport, flexible working and car sharing to employees. Benefits for organisations include sustainable travel grants (e.g. to pay for facilities or equipment), Personal Travel Planning for employees, and public transport ticket offers.
249. **Embedding behaviour change:** In addition to the specific behaviour change interventions shown above, we will also embed behaviour change and road safety elements into the delivery of other programmes (shown in other sections), such as:
 - Major town centre improvement packages, such as in Stockport and Oldham.
 - Implementation of a Clean Air Plan.
 - Delivery of new public transport and walking and cycling infrastructure.
 - Delivery of the Mayor's Town Centre Challenge.
 - Cycle parking provision at public transport interchanges.
 - Further phases of Greater Manchester's smart ticketing initiative.

In the next five years, we are committed to delivering...

	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
Business and community engagement programme, including: <ul style="list-style-type: none">• An established business travel network of over 500 employers• Engagement with primary schools• Supporting jobseekers and apprentices to access employment• Campaigns, events and training to support the above						ONGOING
Travel information and travel planning support programme						ONGOING
Development of behaviour change support packages for major infrastructure schemes						ONGOING

250. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

Integration: Safety and security

251. **Road Safety:** The 2040 Transport Strategy sets out our ambition to reduce deaths on our roads as close as possible to zero. Safety is a fundamental requirement of any successful transport system, particularly for vulnerable road users, and we are committed to working hard to achieve this ambition. TfGM is seeking to develop proposals for a new framework to eliminate road deaths and serious injuries as far as we can. This new framework would fit with our wider Streets for All agenda, walking and cycling infrastructure and our plans to improve the bus offer and clean up the city-region's air.
252. TfGM is already supporting Safer Roads Greater Manchester (SRGM) by working with Greater Manchester partners to improve road safety. We continue to work in partnership with the local authorities, Greater Manchester Police and other road safety stakeholders to deliver road safety campaigns and physical measures to improve the safety of the Greater Manchester's road network. Examples of recent areas of work include pedestrian safety campaigns for 10 to 14-year-olds, Heads Up, which used channels such videos on Instagram, YouTube and Facebook to reach its audience.
253. In Greater Manchester those at the highest risk of a Killed or Seriously Injured (KSI) accident relative to proportion of trips are, in order: motorcyclists, cyclists, pedestrians, and younger drivers and passengers. The Safer Roads Greater Manchester approach emphasises a more shared responsibility towards road safety by focusing on road danger reduction through tackling danger at source; managing speed and traffic; and increasing the prevalence of cycling and walking.
254. **TravelSafe:** TfGM will continue to work with bus operators, KeolisAmey Metrolink (the Metrolink operator), Greater Manchester Police and other partners within the TravelSafe Partnership to address crime and anti-social behaviour on the city-region's transport networks. In addition to recent initiatives – such as 24-hour control centre operation and additional security support on the Metrolink network – TfGM has applied for the necessary powers to issue civil injunctions against persistent trouble makers. This measure has gained the support of the Home Secretary and subject to parliamentary approval, will be implemented in the next five years.
255. TfGM is also working with KeolisAmey Metrolink to respond to the industry recommendations from the Rail Accident Investigation Board, following the overturning of a tram in Croydon.

In the next five years, we are committed to delivering...

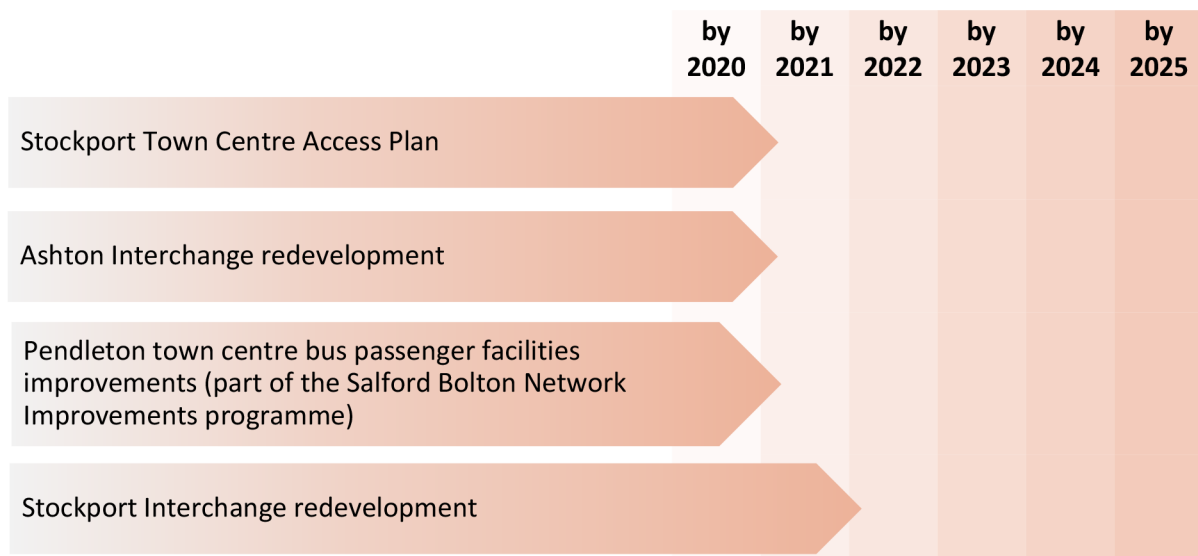
	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
TravelSafe Partnership, including on-going security initiatives and the introduction of civil injunctions against persistent trouble makers						ONGOING
Partnership working through Safer Roads Greater Manchester (SRGM) – dealing with speed reduction and road safety measures						ONGOING
Partnership working through Safer Roads Greater Manchester (SRGM) – support for the Greater Manchester Safety Camera Operation and SRGM publicity campaign calendar						ONGOING

256. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

Integration: Town Centres and Interchanges

257. A renewed focus on town centre vitality and regeneration will result in more people living in and around our town centres, which in turn will help to support local shopping, health and leisure facilities and will enable more short trips to be made on foot and by bike. As a result, the regeneration initiatives need to be underpinned by strong walking, cycling, and public transport networks and improved public realm to minimise the impact of traffic (see the various interventions identified in previous sections). There are specific regeneration and masterplanning proposals underway across a number of town centres, which aim to enhance the public realm and improve our public transport interchanges.
258. **Town Centre and City Centre Investment:** Significant investment in town centre access and public realm improvements is expected in the short term, with well-advanced proposals already identified in many town centres (including delivery of a range of walking and cycling infrastructure proposals as part of the Mayor's Challenge Fund). Work is also underway to develop a new transport strategy for the city centre.
259. Interchange improvements are already underway in Ashton and in development for Stockport, and further interventions to support the Mayor's Town Centre Challenge towns will be developed alongside regeneration proposals (including Farnworth, Prestwich, Swinton, Stockport, Stalybridge, Stretford, Rochdale, Leigh and Royton).
260. **Land Use and Regeneration:** Local authorities and TfGM are working together across Greater Manchester to make the best use of land in the most accessible locations. The GMSF contains policies which support higher density development near transport hubs and, where possible, TfGM will contribute to this regeneration by using its surplus and operational land for development, or by enabling public realm or greenspace improvements, to create high-quality places that encourage walking, cycling and public transport use.
261. **Mobility Hubs/Park & Ride upgrades:** We will continue to improve access to Metrolink and Bus Rapid Transit stops (as well as rail stations), giving more people easy access to our rapid transit network. Increasingly, we will look for our rapid transit stops to become Mobility Hubs, with not just improved parking facilities, but also better cycle parking and cycle access, electric vehicle charging points, better pick-up/drop-off provision, and better links with flexible on-demand transport.

In the next five years, we are committed to delivering...



	by 2020	by 2021	by 2022	by 2023	by 2024	by 2025
Oldham Town Centre Regeneration and Connectivity Package (Part 1)						
Mobility Hubs/Park & Ride upgrades						ONGOING
Other minor works programmes (e.g. from the Greater Manchester Growth Deal) that support town centre regeneration						ONGOING

262. These interventions have significant funding allocated and the case for change has already been demonstrated, although final funding arrangements and approval of the business case may still be needed.

In the next five years, we aim to complete business cases for early delivery of...

- City Centre Transport Strategy: improved wayfinding, public realm, pedestrian links and park and ride access
- Oldham Town Centre Regeneration and Connectivity Package (Part 2)
- Implementation of the Stockport Station Masterplan
- Bury Interchange redevelopment

263. This group of interventions includes those with potential to be delivered by 2025 subject to funding and approval of a business case which demonstrates value for money.

In the next five years, we will develop options for...

- Public realm enhancements in key town centres and district centres
- Ashton-in-Makerfield bus interchange upgrades
- Oldham Mumps Interchange redevelopment
- Improved link between Eccles Metrolink stop and rail station

264. This group of interventions needs further investigation or development in order to identify future options and determine feasibility. The options work may identify interventions that could be delivered by 2025, but most are longer term projects that would be delivered in later years.

265. Future iterations of this Delivery Plan will demonstrate the evolution of these interventions – some may become priorities for delivery while others may prove to be unfeasible and will not be progressed.

Cost, Funding and Delivery

266. This section sets out how Greater Manchester is developing its future transport programmes in terms of strategic planning, funding and delivery.

Current funding

267. Delivery of Greater Manchester's aspirations set out in this plan will require long-term funding. This funding will need to be made up of:

- Revenue funding to carry on planning, running, maintaining and subsidising transport services.
- Long-term capital funding to invest in new transport infrastructure and make improvements to our current networks.

Revenue Funding

268. Greater Manchester's revenue funding for transport comes from a number of sources, including:

- From the ten Greater Manchester local authorities in the form of a Transport Levy and a precept that the Greater Manchester Mayor sets for undertaking statutory transport planning duties on their behalf.
- Net revenues from transport operations owned by TfGM, after allowing for operating costs from Metrolink and some bus services.
- Revenue grants from Government as part of the Earn Back arrangement, and grants for work on the rail network and for specific projects like HS2 development.
- From GMCA reserves for specific initiatives.

269. This funding is agreed on an annual basis with GMCA and set against specific priorities. These priorities include:

- Concessionary travel schemes for the young, the disabled and the elderly.
- Provision of socially necessary bus services in the form of the tendered network, Accessible Transport and schools services.
- Operational costs of providing the services we deliver, covering staff costs; operating and maintaining infrastructure; safety and security; the traffic signal network; and passenger information.
- Financing costs related to the loans GMCA has taken out to fund improvements, e.g. Metrolink.
- Work to develop the next set of ideas and interventions for improving the transport network and on devolution related activities.

270. Further information on the TfGM's budget for 2018/19 is given on the GMCA website¹⁸.

271. GMCA, and hence TfGM budgets, are, as is standard practice for Greater Manchester's public sector, agreed on a year-by-year basis and so future budgets have yet to be set.

272. TfGM and partners are continuing to incur significant revenue costs funded from GMCA reserves to support scheme development and feasibility work on known GMCA priorities, including the development of potential transport solutions that will support the city-region's growth agenda and the development of a future second Greater Manchester Transport Fund.

¹⁸ https://www.greatermanchester-ca.gov.uk/info/20001/transport/127/council_tax_-_transport_funding

Capital Funding

273. Transport improvements for Greater Manchester's local networks are funded via the GMCA capital programme, which is in turn funded by a combination of grants and borrowings. This capital programme excludes improvements on the national rail and motorway networks, which are funded by Network Rail and Highways England respectively.
274. The current GMCA capital programme is made up of a series of different funding sources, some local, some national, the spending of which has been prioritised locally. Table 2 below shows the current capital programme through to March 2021. The Greater Manchester capital programme up to 2020/21 is funded by:
- The Greater Manchester Transport Fund 1, including Earn Back¹⁹, which has funded the A6 to Manchester Airport Relief Road and Trafford Park Metrolink line.
 - The Growth Deal, which is delivering c. £400m of improvements through schemes such as Stockport Town Centre Accessibility Improvements, Salford Bolton Network Improvements and Tameside interchange.
 - Transforming Cities Fund and Cycle City Ambition Grant, which are together delivering £200m of major walking and cycling improvements across Greater Manchester.
 - Transforming Cities Fund is also funding £83m towards 27 new Metrolink trams and supporting infrastructure, which will come into service between 2020 and 2021.
 - The Government's Clean Air Early Measures Fund, from which Greater Manchester has secured c. £3m to deliver additional electric vehicle charging points.
 - In February 2018, Greater Manchester, was awarded £3m from the national Clean Bus Technology Fund to help reduce harmful emissions from the region's bus fleet.
 - Highways Maintenance capital improvements, with the ten local authorities spending approximately £90m between them over the next three years²⁰.
 - The Greater Manchester Housing Package included commitment from Government to progress key Housing Infrastructure Fund (HIF) bids through to co-development stage. Initial funding is being used to develop transport infrastructure schemes that will aid the delivery of housing in Wigan/Bolton, Salford/Manchester, and Stockport/Cheshire East.
 - In March 2018 GMCA successfully secured £23.8m from the Department for Digital, Culture, Media and Sport (DCMS) to deliver full fibre broadband to 1,500 public sector sites across Greater Manchester.

¹⁹ The Greater Manchester Transport Fund 1 allowed Greater Manchester to 'earn back' a portion of additional tax revenue from GVA increases resulting from local investment in infrastructure. Earn Back provides an incentive for Greater Manchester to prioritise local government spending to maximise GVA growth.

²⁰ This figure refers to the Highways Maintenance element of the GMCA's capital programme, which is funded through the GMCA's Devolved Transport Grant and distributed among the ten local authorities. In addition to this, individual local authorities may also fund highways maintenance from their own funding sources, such as council tax.

275. **Table 2** below shows the work that is left to do on delivering these programmes.

Table 2: GMCA Transport Capital Programme (forecasts as of October 2018)²¹

	Forecast 2018/19 £'000	Forecast 2019/20 £'000	Forecast 2020/21 £'000
Greater Manchester Transport Fund Capital Programme	16,575	50,483	56,517
Road Schemes:			
A6 MARR/SEMMMS	25,315	4,130	8,810
Stockport Town Centre Access Plan (DfT retained scheme)	14,119	8,725	3,355
Other Metrolink Schemes:			
Trafford Park Line	74,455	67,738	35,406
Sub-total	130,464	131,076	104,088
Other Committed Capital Schemes:			
Transforming Cities	28,778	96,901	75,425
Cycle Safety	120	1,200	222
Early Measures Fund	468	2,516	
Cycle City Ambition Grant 2	8,839	4,536	2,998
Other	3,148	451	
Sub-total	41,353	105,604	78,645
Minor Works Funding (Integrated Transport Block and Growth Deal 1& 2)	12,492	13,662	6,291
Growth Deal Major Schemes & Growth Deal 3	37,162	75,176	108,038
Traffic Signals (Externally Funded)	2,500	2,500	2,500
Highways Maintenance	34,577	27,200	27,200
Sub-total	86,731	118,538	141,529
Total Capital – Transport	258,548	355,218	324,262

276. In addition to the above capital programme up to 2021:

- Greater Manchester has been awarded an additional £69.5m from the Transforming Cities Fund through to 2023 in the 2018 Budget.
- The Government also announced the draft Road Investment Strategy 2 (RIS2) for the period between 2020 and 2025, which will fund further improvements on motorways and trunk roads in Greater Manchester (£25.3bn nationally). Alongside new funding for the Major Road Network which will be prioritised through Transport for the North (£3.5bn nationally).
- The Budget also included additional local roads maintenance funding (£420m nationally in 2018-19), small road improvement project funding (£150m nationally) and a new Future High Street Fund (£675m nationally). Greater Manchester will seek to secure a share of this additional funding as more details become available.
- Successful development of schemes under the Government's Housing Infrastructure Fund will also release future funding for the delivery of in Wigan/Bolton, Salford/Manchester, and Stockport/Cheshire East.

²¹ This table shows the transport capital programme, which includes schemes for which TfGM has project or programme responsibility. This transport capital programme forms part of the GMCA's overall capital programme, which can be found on the GMCA's website.

Future Scheme Prioritisation and Delivery

277. This new Delivery Plan includes a range of potential transport investments; from projects already being delivered and submitted to Government, through to initial ideas and concepts that still need further study. A large amount of work is required to develop, appraise and prioritise the transport interventions in this Delivery Plan – in other words, to make tough choices about where the limited funds available can make the biggest difference. This work will be overseen by senior transport leaders in the region, including the GMCA, the TfGM Committee and the TfGM Board.
278. The further work to develop the emerging investment programme will be guided, at the highest level, by Greater Manchester's 2040 Transport Strategy. Although the 2040 Transport Strategy provides the guiding principles to help Greater Manchester develop, appraise and prioritise transport investment, it is necessarily high-level. More detailed sub-strategies are therefore being prepared by TfGM, the Greater Manchester local authorities and other key stakeholders for specific modes or geographical areas. For example, the Airport and Piccadilly HS2 Growth Strategy has recently been published. Other sub-strategies, such as the City Centre Transport Strategy and Rapid Transit Strategy, continue to be developed. Each sub-strategy will identify specific ambitions that support the delivery of the 2040 Transport Strategy.
279. It will also be important to ensure that the development, appraisal and prioritisation process for the investment programme runs in parallel with the planning processes and ongoing studies of Greater Manchester's partners, including Highways England's Road Investment Strategy (RIS) periods, Network Rail's rail improvements pipeline, and the Strategic Development Corridor (SDC) studies currently being led by Transport for the North.

Future Capital Funding

280. In 2009, the AGMA Executive agreed to establish a Greater Manchester Transport Fund (GMTF1), incorporating prioritised schemes based on delivering the maximum economic benefit to Greater Manchester. This programme drew funding from a combination of Department for Transport capital grants, some third party contributions and local borrowings undertaken by GMCA. GMCA are now repaying the borrowings through to 2045, in part through the use of Metrolink net revenues and in part by the application of the annual ring-fenced levy contributions.
281. By pooling funding into an overall programme, and by raising these significant sums locally, GMTF1 has allowed Greater Manchester to deliver a much wider programme, in a much shorter time, than would ever have been the case if projects had been prioritised, funded and delivered separately. The total investment has been of the order of £3bn. However, the peak of this spending has now passed. Unless a new transport fund is established, Greater Manchester risks losing this local funding mechanism which will hinder future delivery just at the time that our need and ambition is growing.
282. Gaining greater long-term certainty over transport funding in Greater Manchester will be vital to successfully delivering our vision for a world-class future transport system. Current fiscal arrangements in the UK mean that the majority of funding for transport continues to be determined by central Government, and our long-term future capital programme will therefore continue to rely heavily on Government funding sources.
283. In the 2017 Autumn Budget, the Chancellor of the Exchequer noted that alongside the short-term £243m allocation from the Transforming Cities Fund, the Government will continue to work with TfGM to explore options for future funding. The Government will undertake a full multi-year Spending Review in 2019, and Greater Manchester will look to Government to use this opportunity to gain clarity over long-term transport capital funding for the region. In the interim,

the Chancellor announced in his 2018 Budget that Greater Manchester has been awarded an additional £69.5m from the Transforming Cities Fund for the year 2022-23.

284. The National Infrastructure Assessment (NIA) completed by the National Infrastructure Commission in July 2018²² set out a clear and compelling approach to the transformation in infrastructure and funding which we need. The NIA proposes a strong focus of transport investment in cities, focussed on "fast, frequent public transport systems" to support "well connected and affordable housing" which align with Greater Manchester's priorities. Importantly, given the number of cities identified, it recommends that:

"Government should allocate significant long term funding for major capacity upgrades in selected cities, in line with the funding profile set out by the Commission. Cities benefitting from major projects should make commitments on housing delivery and provide at least 25 per cent of funding. Priority cities should be identified by mid-2019, with long term investment commitments agreed by 2026".
NIA, p.80.

285. Greater Manchester is now looking to work closely with the National Infrastructure Commission and Government to fulfil the Assessment's recommendations. In particular Greater Manchester wants Government to empower the GMCA to develop and implement long-term integrated strategies for transport, employment and housing that will support inclusive growth, including the additional devolved powers required to deliver on these priorities. In this way, Greater Manchester aims to work with Government towards establishing fully devolved, long-term infrastructure budgets for Mayoral Combined Authorities such as Greater Manchester which have determined their urban transport priorities.
286. In response to the National Infrastructure Assessment, Greater Manchester is working on establishing a **second Greater Manchester Transport Fund (GMTF2)**, building on GMTF1 described above. If Greater Manchester is to deliver its intended multi-billion pound investment programme over the next 20 years, then a new funding deal will be needed with an agreed national-local funding split, to deliver **a programme that aims to be twice the level of investment achieved under GMTF1, sustained for twice as long**. As part of this, Greater Manchester is committed to reviewing potential new local sources of revenue funding which could cover areas such as land value capture, as well as creating greater certainty over services delivery and asset management.

Further Transport Devolution

287. Further devolution of transport functions from central Government is required, to equip Greater Manchester with the ability to create and efficiently manage a cleaner, more efficient and integrated transport network.
288. The first Greater Manchester devolution deal in 2014 provided the city-region with a more robust governance system and an initial set of devolved transport powers and funding mechanisms. Greater Manchester is now making full use of these powers in terms of:
- Assessing the case for reform of the bus market under the Bus Services Act.
 - Closer joint working with Highways England, the ten Greater Manchester highways authorities and TfGM.
 - Access to Earn Back funding to construct the Trafford Park Metrolink line, which is currently under construction, and the A6 Manchester Airport Relief Road, which is now operational.

²² <https://www.nic.org.uk/publications/national-infrastructure-assessment-2018/>

- Government also committed to providing Greater Manchester with a “devolved and consolidated transport budget, with a multi-year settlement to be agreed at the next Spending Review” (see above).
289. Our 2040 Transport Strategy sets out a comprehensive, co-ordinated and agreed approach to improving Greater Manchester’s transport networks, and our Delivery Plan 2020-2025 sets out an agreed set of scheme investments and service reforms.
290. What is now evident is that Greater Manchester needs further powers and resources to deliver this plan, to meet new Government obligations and to deal effectively with the pressing challenges of congestion, air quality, accommodating new housing and improving public transport.
291. So our ask of Government is for a Greater Manchester Transport Devolution Deal 2, which can equip Greater Manchester with the powers and resources it needs to deliver against both national and local objectives. This comprises two broad elements: funding and powers.

Greater Manchester’s funding asks

292. Our funding asks of Government are as follows:
- **A Greater Manchester Transport Fund 2**, funded on the basis set out by the National Infrastructure Commission, to deliver the programme of transport schemes in this 2040 Transport Strategy Delivery Plan 2020-2025.
 - **High Speed 2 and Northern Powerhouse Rail**: Government to affirm commitment to delivery of HS2 and NPR.
 - **Air Quality package of funding**: Government to radically expand and re-instate the Early Measures Fund for recently mandated cities. This should include funding for those unavoidable measures in any Greater Manchester Clean Air Plan, such as local scrappage schemes (including a targeted scrappage fund to support low income households shift to less polluting transport); a Greater Manchester bus fund to upgrade the Greater Manchester bus fleet; and a Greater Manchester taxi fund to support uptake of cleaner vehicles.

Greater Manchester's powers and functions asks

293. Our powers and functions asks of Government are as follows:

- **Highways management:** Grant Greater Manchester's highways authorities the ability to enforce Moving Traffic Offences, helping to make the highway network operate as efficiently as possible.
- **Lane rental:** Following recent publication of DfT guidance, TfGM will be submitting a bid on behalf of Greater Manchester's highway authorities to secure powers to charge for lane rental, incentivising highways work to take place outside peak hours. Greater Manchester calls for swift DfT review and decision once our application is made.
- **Greater influence over Highways England:** Motorways are an intrinsic part of Greater Manchester's highway network; problems on one impact the other immediately. The strong partnership between Highways England, Greater Manchester's highways authorities and TfGM is beginning to work well, but there is a need for Highways England to go further. In terms of operational performance, Highways England should be accountable to the GMCA as a key transport service provider, explaining how it will adopt a much broader view of its remit than just the managing flows on its highways, for example by utilising and sharing its resources with local highway authorities. Greater Manchester's voice also needs to be clearly heard within Highways England planning processes, such as the Road Investment Strategy.
- **Cycling and walking:** Greater flexibility from DfT in authorising and permitting Greater Manchester scope to define appropriate highway markings for crossings to support a safer walking and cycling network.
- **Electric vehicle charging infrastructure:** Government to encourage Electricity Northwest to sign a Memorandum of Understanding with TfGM to support a rapid rollout of an efficient EV charging infrastructure.
- **Taxi and Private Hire Vehicles:** National reform to provide greater local authority control over taxi and private hire licensing, and to secure controls against out-of-area operation.
- **Rail franchises and infrastructure improvements:** Greater ability through Transport for the North to oversee and manage the Northern and TransPennine Express franchises, deliver coordinated infrastructure improvements through better scrutiny of Network Rail project delivery and to secure high speed rail and future capacity improvements for Greater Manchester and the North.
- **Rail Station devolution:** Greater devolution of the responsibility for local rail stations, building on the proposals TfGM has already developed in the Case for Change to test working in partnership with operators and other industry stakeholders.

Measuring Success

294. As we make this Delivery Plan a reality, we will need to assess whether the measures and policies we develop are ultimately helping to deliver our 2040 Transport Strategy. In order to do this, we are measuring performance through a series of key performance indicators (KPIs). These represent progress towards ‘desired outcomes’ and our adherence to the seven network principles outlined in the 2040 Transport Strategy.
295. The following table shows the KPIs we defined in the 2040 Transport Strategy. We are aiming for a year-on-year improvement in each of these KPIs.

Table 3: Key Performance Indicators defined in the 2040 Transport Strategy

Desired Outcome	Key Performance Indicator (KPI)
Reduced congestion	<i>Annual Vehicle Km on the Key Route Network, and on other A and B roads</i>
	<i>Reliability of key strategic highways</i>
	<i>Public transport capacity</i>
More reliable journey times	<i>Reliability of key strategic highways</i>
Resilient and well maintained network	<i>Maintenance of major roads</i>
People see Greater Manchester as a good place to visit & invest	<i>Customer satisfaction</i>
Better access to services	<i>Access to public transport services</i> <i>DDA compliant vehicles and infrastructure</i>
More people travelling actively	<i>Short trips made by walking and cycling</i>
	<i>Number of cycling and walking trips</i>
	<i>School journeys by walking and cycling</i>
	<i>Km of cycle infrastructure</i>
Improved safety and personal security	<i>People killed or seriously injured (KSI) on roads</i>
	<i>Casualty rates per 100,000 head of population</i>
	<i>Personal security on public transport</i>
More people travelling by non-car modes	<i>Number of trips and mode of travel to Manchester city centre</i>
	<i>Number of trips and mode of travel to key town centres</i>
	<i>Number of trips and mode of travel to Manchester Airport</i>
	<i>Use of sustainable modes for travel to work</i>
	<i>Public transport patronage</i>
	<i>Traffic levels on A and B roads</i>
Reduced emissions of CO ₂	<i>CO₂ emissions from vehicles</i>
Reduced emissions of NO ₂	<i>NO₂ emissions from vehicles</i>

296. We will continue to refine these KPIs and develop additional measures in a number of areas where this would improve our understanding of performance.

297. Transport indicators also feature in the Greater Manchester Strategy. For example, the following three KPIs from the 2040 Transport Strategy are also KPIs for the wider Greater Manchester Strategy:
- Reliability of key strategic highways;
 - Use of sustainable modes for travel to work;
 - NO₂ emissions from vehicles.
298. We must therefore ensure that our monitoring programme for the 2040 Transport Strategy and this new Delivery Plan is integrated with the monitoring of those wider strategies. All KPIs will be kept under review to ensure their continuing relevance, and we will exploit technological opportunities for new forms of data collection to provide insights and evidence of progress not previously available.

Next steps

- 299. This Delivery Plan shows how, over the next five years, we will make real progress towards the vision we set out in our 2040 Transport Strategy.
- 300. In October 2018, the Greater Manchester Mayor launched the 'Take Control of our Transport' campaign, to mobilise public support for greater local power and funding for Greater Manchester's transport system. The campaign makes a series of specific, direct calls to Government. The first of these is *"£3bn funding for a massive investment programme in our transport infrastructure between now and 2025"*.
- 301. This Delivery Plan has now set out concrete proposals for this large investment programme, which the Mayor's campaign is seeking to secure. It shows in detail the investment Greater Manchester needs to achieve better, cleaner and more connected transport for all.
- 302. The investment programme set out in this Delivery Plan will also directly support the Greater Manchester Spatial Framework and our Clean Air Plan.
- 303. TfGM, the GMCA and the ten local authorities are therefore united in their call to Government to take action, and agree a new funding and devolution deal for Greater Manchester to make this Delivery Plan a reality.
- 304. The support of the Greater Manchester public is vital to this. That is why, as well as asking the public to sign up to the Mayor's 'Take Control of Our Transport' campaign (<https://www.takingcontrolofourtransport.co.uk/>), we are also seeking your views on this Delivery Plan.
- 305. If you would like to give us your views on this Delivery Plan, please email us at 2040@tfgm.com or submit your comments as part of the consultation on the Draft Plan for Homes, Jobs and the Environment – The Greater Manchester Spatial Framework (GMSF).

Glossary

Term	Definition
2040 Transport Strategy	See Greater Manchester Transport Strategy 2040.
Bus Rapid Transit	Turn-up-and-go bus-based rapid transit providing excellent access to the rapid transit hubs that it serves. The Leigh-Salford-Manchester guided busway is an example of Bus Rapid Transit in Greater Manchester to date.
City Centre	The economic core of the city-region, which includes the area within the Manchester and Salford Inner Relief Route (MSIRR), the Oxford Road Corridor and the University of Salford area. The City Centre forms part of the Regional Centre, which is a larger area (see map below this table).
Cycle City Ambition Grant (CCAG) programme	A £262m national investment programme to make cycling easier and safer and give more people the confidence to take up cycling. Greater Manchester secured £42m of CCAG funding, which has delivered improvements such as the new-look Oxford Road corridor.
Greater Manchester Combined Authority (GMCA)	Greater Manchester's regional political authority, made up of the ten Greater Manchester local authorities and Mayor. The GMCA is run jointly by the leaders of the ten authorities and the Mayor of Greater Manchester.
Greater Manchester Spatial Framework (GMSF)	The joint spatial development plan for Greater Manchester, which will set out the spatial strategy for providing the land for jobs and homes across the city-region.
Greater Manchester Strategy (GMS)	The new plan for Greater Manchester, written by all ten local authorities, the Mayor, the NHS, transport, the police, and the fire service. It covers health, wellbeing, work and jobs, housing, transport, skills, training and economic growth.
Greater Manchester Transport Strategy 2040	Greater Manchester's long-term transport strategy, developed by TfGM on behalf of the Greater Manchester Combined Authority. Its vision for Greater Manchester is to have 'world-class connections that support long-term, sustainable economic growth and access to opportunity for all'.
High Speed 2 (HS2)	The planned new high-speed railway line which will connect London to the North of England. Phase 2, which will connect London and the West Midlands to the north, has been split into: <ul style="list-style-type: none"> • Phase 2a: (West Midlands to Crewe): to be completed by 2027 • Phase 2b (full network to Manchester and Leeds): to be completed by 2033
Key town centres	Greater Manchester's principal urban centres outside the Regional Centre. The eight key town centres are Altrincham, Ashton-under-Lyne, Bolton, Bury, Oldham, Rochdale, Stockport and Wigan.
Key Route Network (KRN)	Greater Manchester's local authorities have defined a Key Route Network making up nearly 400 miles of Greater Manchester's busiest roads. While this is just seven per cent of the total length of the highways network, it carries some two-thirds of peak-time traffic. TfGM have strategic oversight and management responsibility for the Key Route Network, which includes monitoring and reporting on performance, and developing policies that will keep traffic moving. For a plan of the current network see Figure 11.

Term	Definition
Manchester North West Quadrant (NWQ)	The stretch of the M60 between Junctions 8 to 18, which experiences high levels of congestion at present. A strategic study to develop solutions for the North West Quadrant, sponsored by the Department for Transport, is currently being undertaken by Highways England, Transport for the North and TfGM.
Metro	Turn-up-and-go rail-based rapid transit providing excellent access to the rapid transit hubs that it serves.
Mobility as a Service (MaaS)	The integration of various forms of transport services into a single mobility service, accessible on demand. To meet a customer's request, a MaaS operator offers a range of transport options, such as public transport, ride-, car- or bike-sharing, taxi or car rental/lease, or a combination thereof. The MaaS user is offered a single application with a single payment channel to access these mobility services.
Manchester and Salford Inner Relief Route (MSIRR)	The inner relief route around the City Centre, comprising the A57(M) Mancunian Way, A6042 Trinity Way, A665 Great Ancoats Street and A635 Ring Road.
Major Road Network (MRN)	The middle tier of England's busiest and most economically important local authority 'A' roads. The Department for Transport has dedicated a specific funding stream to improvements on MRN roads as part of the National Roads Fund.
Northern Powerhouse Rail (NPR)	A major strategic rail programme being developed by Transport for the North, designed to transform connectivity between the key economic centres of the North. NPR will include a combination of new routes with upgrades of existing infrastructure, over and above short and medium-term proposals for network upgrades.
Quality Bus Transit	Whole-route upgrades of key bus corridors, with a strong focus on quality and reliability.
Rapid transit	Any public transport service that offers significantly faster journeys than a stopping bus service for middle-distance trips. Examples in Greater Manchester to date include the Metrolink network and the Leigh-Salford-Manchester guided busway.
Regional Centre	Greater Manchester's primary economic centre. It includes the City Centre, The Quays to the west and the Etihad Campus / Central Park area to the east (see Figure 12).
Road Investment Strategy (RIS)	A long-term approach to improve the Strategic Road Network. The first RIS (RIS1) covers the period 2015-2020. Highways England is currently carrying out studies to prepare for the second RIS (RIS2), which will cover the period post 2020.
Strategic Road Network (SRN)	The national network of motorways and trunk roads managed by Highways England.
Streets for All	Streets for All is Greater Manchester's new way of thinking about the role of streets in creating sustainable, healthy and resilient places. It begins with a focus on the needs of people and place, rather than considering the movement of vehicles alone. The approach provides a much more strategic and integrated approach to addressing a range of priority issues which are linked to our streets, such as revitalising local town centres, tackling congestion and air pollution, increasing levels of walking and cycling, improving local bus services and enabling housing growth, while also helping to address the needs of general traffic, including freight.

Term	Definition
Town Centre Challenge	The Town Centre Challenge is a brand new proactive approach to urban development, with the Mayor pledging to bring together public and private landowners, developers, investors, housing providers, community groups and other key stakeholders.
Tram-train	A form of rapid transit where trams share sections of track with conventional trains. Tram-train technology is common in countries such as Germany, but is relatively novel in the UK; the first tram-train in the UK, between Sheffield and Rotherham, started operations in October 2018.
Transport for the North (TfN)	England's first Sub-National Transport Body, formed to transform the transport system across the North of England. TfN brings together the North's nineteen local transport authorities – one of these is Greater Manchester.

Figure 11: Motorway, Trunk Road and Key Route Network

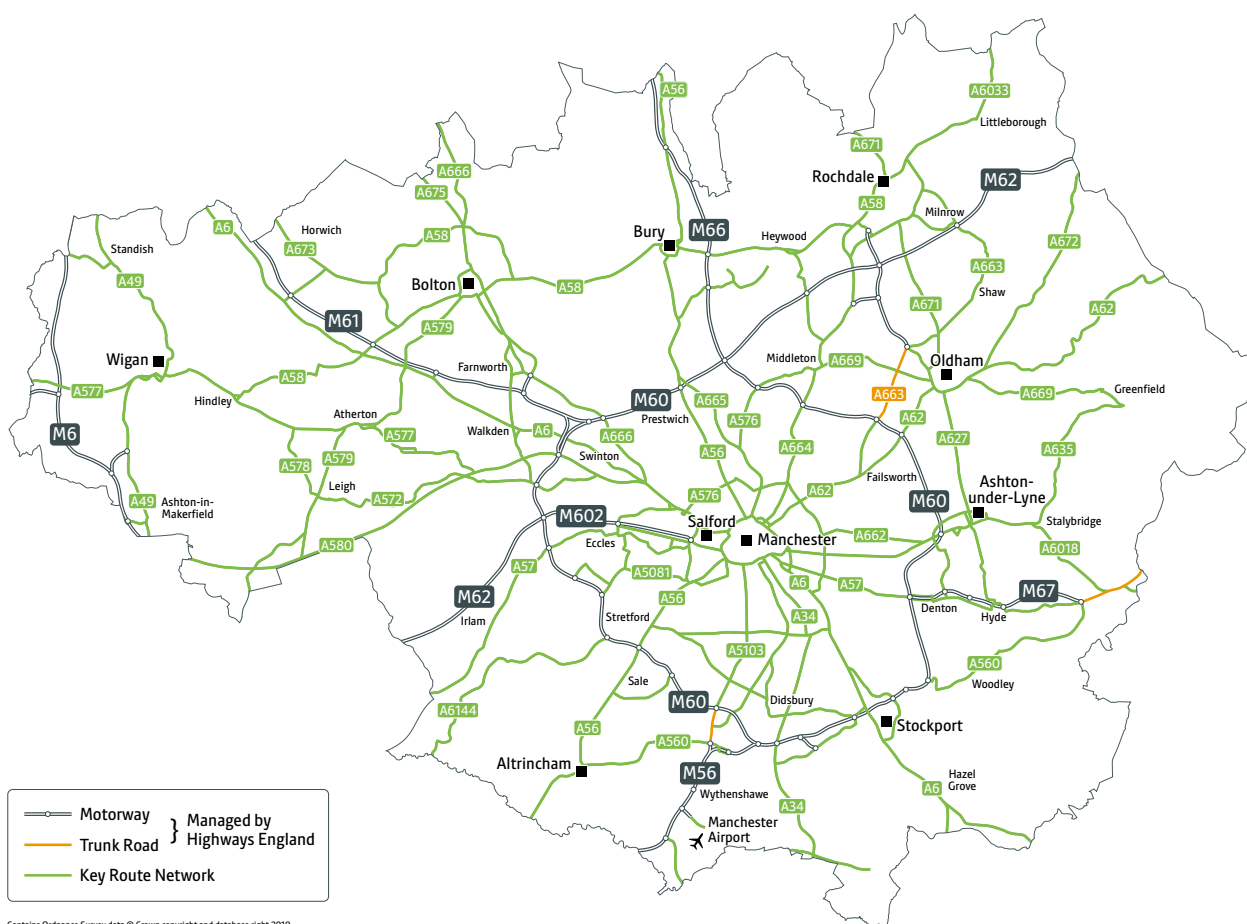
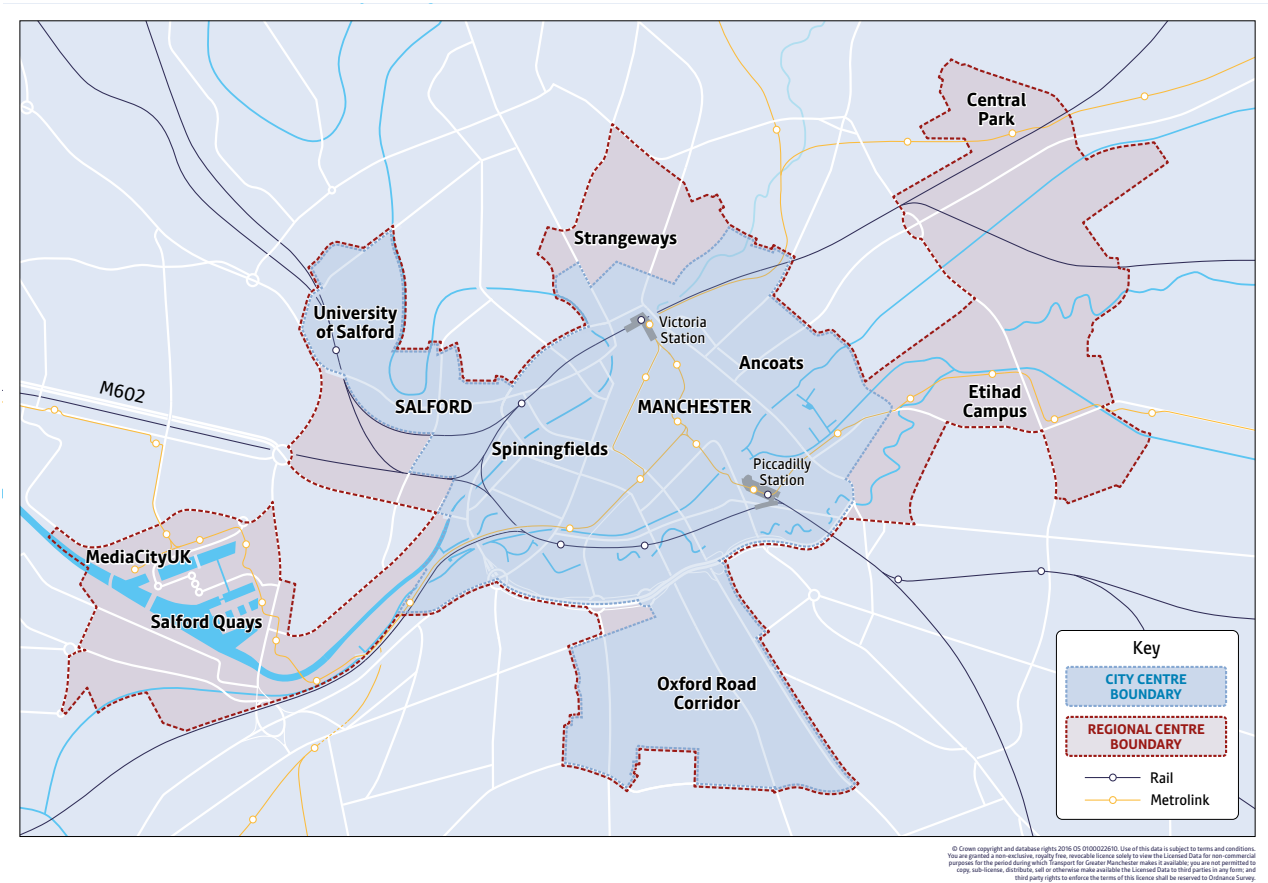


Figure 12: Definition of the City Centre and the Regional Centre



APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Public Transport: Bus			
Assessment of Bus Reform in Greater Manchester	To consider realistic options for reforming the bus market in Greater Manchester, as a potential mechanism to help achieve the 2040 Transport Strategy's 'Vision for Bus'.	L	GM.03.01
Salford Bolton Network improvements, including bus priority at junctions	To create shorter, more reliable journey times for all road users and deliver better access to employment and local facilities for bus passengers.	M	W.02.01
Bus stop enhancements programme to improve waiting facilities at stops	Improve accessibility to encourage mode shift by increasing the attractiveness of bus networks.	L	N.02.01
Concessionary fares schemes	To provide free or reduced cost travel for specific groups including the elderly, young and disabled people. This will also encourage mode shift in Greater Manchester	M	GM.10.01
Socially necessary transport services delivery and review (including supported bus services, Ring & Ride and Local Link)	To provide socially necessary public transport services which are not commercially viable.	M	GM.10.02
School transport services delivery and review	To deliver opportunities for more efficient school transport across Greater Manchester.	L	GM.05.06
Public Transport: Metrolink and Bus Rapid Transit			
Metrolink Trafford Park Line	To provide transformational rapid transit connectivity to this part of Greater Manchester, and support regeneration and economic growth in the area.	H	W.05.01
Mobility Hubs/Park & Ride upgrades along the Bury Line (Radcliffe and Whitefield)	To provide better access to public transport through Mobility Hub/Park & Ride facilities. This in turn will encourage a modal shift in Greater Manchester.	L	N.01.07
Additional buses on the Leigh-Salford-Manchester guided busway	To accommodate growing demand and offer more frequent services into the city centre and beyond.	L	W.08.38

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Additional Metrolink vehicles (27 new trams) and associated infrastructure - enabling the use of more double unit vehicles between Bury and Altrincham, and Shaw and East Didsbury.	To increase Metrolink capacity into and through the Regional Centre, in order to facilitate continuing economic growth and access to services and encourage mode shift.	M	RC.03.01
A six-minute service on the Ashton Metrolink line	To accommodate growing demand and offer more frequent services into the city centre and beyond.	L	RC.03.01
Cornbrook and Shudehill customer experience improvements	To improve the customer experience in order to further grow ridership and revenue.	L	RC.03.02
Tram Management System	To provide capacity improvements through the city centre and real time passenger information.	L	RC.03.03
Metrolink Renewals Programme (first five years)	To intelligently invest in timely asset replacement.	L	RC.03.04
Public Transport: Rail			
Rail electrification (Manchester-Bolton-Preston)	To provide additional capacity on this key commuter corridor.	H	W.13.01
Calder Valley Line improvements (to Burnley, Halifax and Bradford), including line speed and signalling upgrades	To address existing capacity and reliability issues on the Calder Valley Line and to improve connectivity to Lancashire and West Yorkshire.	H	W.13.05
Station accessibility improvements at Mills Hill	To maximise existing rail assets to provide better facilities, particularly for passengers with limited mobility.	L	N.01.02
Hope Valley Line improvements (to Sheffield), including new passing facilities	To improve journey times and reliability between Manchester and Sheffield.	H	W.13.04
Castlefield corridor (Deansgate-Oxford Road-Piccadilly) capacity expansion	To address the critical capacity constraints on the rail network in the Regional Centre, which will need to grow further to accommodate the forecast levels of employment growth.	H	C.02.01
Salford Central station upgrade	To provide additional capacity by re-opening disused platforms and accommodate longer trains.	M	RC.01.01

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Trans-Pennine Route Upgrade to Leeds (pre-Northern Powerhouse Rail)	To address medium-term capacity constraints and speed up journeys between Manchester and Leeds, delivering wider economic benefits in both conurbations.	H	C.02.02
Rail Station Accessibility Programme to deliver accessibility improvements at rail stations	To maximise existing rail assets to provide better facilities, improve transport integration and deliver community benefits.	M	N.01.01
Delivery of High Speed 2, including to Manchester Piccadilly, Manchester Airport, Stockport and Wigan (Note: Committed to be delivered but beyond 2025)	To deliver transformational change to Greater Manchester's city-to-city rail offer, resulting in wider benefits for the city-region as a result of the improved connectivity.	H	C.11.01
Streets for All: Local Highways			
M60 J13/A572 improvement to support the RHS Bridgewater growth site	To support the RHS Bridgewater growth site and improve the operation of this congested junction.	L	C.07.01
Manchester and Salford Inner Relief Route: A57 Regent Road improvements	To improve one of the most congested sections of the Manchester Salford Inner Relief Route and approaching junctions to support the continued growth of the Regional Centre.	M	RC.02.01
A49 Link Road	To provide better east-west connectivity between the M6, Wigan town centre and growth areas further east.	M	C.01.02
Manchester and Salford Inner Relief Route: Great Ancoats Street improvements	To minimise the severance impacts of the MSIRR for pedestrians and cyclists, and enable the expansion of the Regional Centre outside of the MSIRR.	M	RC.02.02
Mancunian Way junction with Princess Parkway – capacity, traffic management and walking and cycling improvements	To increase capacity, improve management of traffic flows, and create a safe environment for vulnerable users (pedestrians and cyclists).	L	RC.02.04
A57 Hyde Road localised widening	To address a highways “pinchpoint” on Hyde Road.	L	
A560 Cheadle Corridor resilience and reliability package	To address capacity and resilience issues on the A560 corridor through Cheadle.	L	W.06.03
M58 Link Road	To provide better east-west connectivity between the M6, Wigan town centre and growth areas further east.	M	C.01.01

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Key components of the Mayor's Congestion Deal	To support local authorities, businesses and individuals tackle congestion across Greater Manchester.	L	W.12.01
South Heywood M62 J19 Link Road	To relieve congestion and support long-term development proposals in Heywood, including 1,000 new homes off Pilsworth Road.	M	W.01.01
Trafford Road junction improvements	To support the continued growth of Salford Quays by improving traffic flow through junctions and enhancing walking and cycling facilities on Trafford Road.	M	RC.02.03
Carrington Relief Road	To support growth in the Carrington area by improving accessibility to new developments.	M	W.09.13
Traffic control enhancements, including continued roll-out of smart signalling technology at traffic signals	To reduce delays and minimise congestion at junctions, and improve reliability, thereby supporting economic growth and reducing impacts of traffic on communities through, for example, emissions.	M	W.12.01
Network management improvements, including corridor management, a 24/7 control centre, and better management of roadworks	To reduce delays and minimise congestion at junctions, and improve reliability, thereby supporting economic growth and reducing impacts of traffic on communities through, for example, emissions.	L	W.12.02
Better management of transport arrangements for major events, such as mid-week football match nights	To develop proposals for better management of the system to reduce delays.	L	GM.05.11
Minor Works programme	To improve town centre connectivity, local access to public transport, access to development sites and active travel schemes through small-scale interventions.	L	W.12.04

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Streets for All: Walking and Cycling			
Completion of the Cycle City Ambition Grant programme	To increase the number and proportion of short journeys (less than five miles) made by bicycle, thereby reducing the impact of traffic on local roads. This in turn will encourage a modal shift in Greater Manchester.	L	W.07.01
City Centre Salford infrastructure improvement: New Bailey	To support the redevelopment and growth of Central Salford by delivering public realm and environmental improvements, alongside enhancements to public transport access and improvements to bus reliability.	L	RC.10.04
Key components of the Mayor's Congestion Deal	To support local authorities, businesses and individuals tackle congestion across Greater Manchester.	L	W.12.01
Improved wayfinding, pedestrian links and public realm in the City Centre	To provide the City Centre with a world class transport system. This in turn will encourage a modal shift in Greater Manchester.	L	RC.10.02
Mayor's Challenge Fund for walking and cycling Tranche 1: B6226 Chorley New Road	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.02
Mayor's Challenge Fund for walking and cycling Tranche 1: New and Upgraded Crossing Points and Junctions, Bury	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.03
Mayor's Challenge Fund for walking and cycling Tranche 1: Metrolink Bury Link – Cycle Parking	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.04
Mayor's Challenge Fund for walking and cycling Tranche 1: Manchester to Chorlton	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	M	W.07.05
Mayor's Challenge Fund for walking and cycling Tranche 1: King Street foot/cycle bridge, Oldham	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.06

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Mayor's Challenge Fund for walking and cycling Tranche 1: Union Street West foot/cycle Bridge, completion of refurbishment, Oldham	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.07
Mayor's Challenge Fund for walking and cycling Tranche 1: Castleton Local Centre Corridor	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.08
Mayor's Challenge Fund for walking and cycling Tranche 1: Swinton and Walkden	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.09
Mayor's Challenge Fund for walking and cycling Tranche 1: A6 Broad Street/B6186 Frederick Road	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.10
Mayor's Challenge Fund for walking and cycling Tranche 1: Chapel Street East Phase 1 Demonstrator Project	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.11
Mayor's Challenge Fund for walking and cycling Tranche 1: Gillbent Road – Crossing Upgrade, Stockport	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.12
Mayor's Challenge Fund for walking and cycling Tranche 1: Welkin Road – Town Centre Severance Package, Stockport	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.13
Mayor's Challenge Fund for walking and cycling Tranche 1: Tameside Active Neighbourhoods	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.14
Mayor's Challenge Fund for walking and cycling Tranche 1: A5014 Talbot Road	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.15
Mayor's Challenge Fund for walking and cycling Tranche 1: Victoria Street/Warrington Road Junction Improvements, Wigan	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.16

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Mayor's Challenge Fund for walking and cycling Tranche 2: Monton	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.17
Mayor's Challenge Fund for walking and cycling Tranche 2: Swinton Greenway	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.18
Mayor's Challenge Fund for walking and cycling Tranche 2: Trinity Way/Springfield Lane Junction Upgrade	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.19
Mayor's Challenge Fund for walking and cycling Tranche 2: Hazel Grove Phase 1 Package	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.20
Mayor's Challenge Fund for walking and cycling Tranche 2: Talbot Road Junction Upgrades	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.21
Mayor's Challenge Fund for walking and cycling Tranche 2: Standish Mineral Line Enhancements	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.22
Further tranches of the Mayor's Challenge Fund	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	H	W.07.23
Improve wayfinding in line with the Cycling and Walking Commissioner's infrastructure proposals	To encourage greater use of cycling and walking to key destinations.	L	N.03.02
Streets for All: Motorways and Trunk Roads			
M62 Junctions 10-12 Smart Motorway	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	H	C.05.02
M58/M6 junction upgrade (short term)	To increase the capacity of the M58/M6 interchange, providing better connectivity into Wigan and to the Port of Liverpool.	L	C.01.03
M56 Junctions 6-8 Smart Motorway	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	M	C.05.04

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
M6 Junctions 21A-26 Smart Motorway	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	H	C.05.01
Mottram Moor and A57(T) to A57 Link Roads	To reduce journey times between Manchester and Sheffield, provide more reliable journey times and improve safety.	H	C.03.01
M62 Junctions 20-25 Smart Motorway	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	H	C.05.03
Streets for All: Freight and logistics			
Delivery and Servicing Plans for large organisations and retailers	To minimise the need for road freight deliveries, thereby reducing congestion and improving air quality.	L	GM.08.01
Freight accreditation schemes, e.g. Construction Logistics and Community Safety (CLOCS) and Fleet Operator Recognition Scheme (FORS)	To reduce the social and environmental impacts of freight traffic.	L	GM.08.04
Construction Logistics Plans for large developments	To minimise the need to for road freight deliveries, thereby reducing congestion and improving air quality.	L	GM.08.02
Streets for All: Asset Management			
Stockport Town Centre Structure Enhancements	To tackle congestion in and around Stockport town centre and remove barriers to movement for all modes.	L	W.04.02
Review of all non-essential roadworks to explore ways of working to minimise disruption	To complete works as quickly as possible and make travel as easy as possible for affected commuters.	L	GM.05.10
Enhanced roadworks permit scheme for greater coordination and control to limit disruption	To support the economic performance, resilience and liveability of the city-region by maintaining the current network in good condition.	L	GM.05.09
Enhanced maintenance programme through successful bids to Pothole Fund and other initiatives	To support the economic performance, resilience and liveability of the city-region by maintaining the current network in good condition.	M	W.11.02

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Committed long-term highway maintenance programme for Key Route Network Assets, to be delivered by the local authorities	To support the economic performance, resilience and liveability of the city-region by maintaining the current network in good condition.	M	W.11.01
Public transport asset maintenance programme	To support the economic performance, resilience and liveability of the city-region by maintaining the current network in good condition.	H	W.11.03
Integration: Clean Air and Carbon			
Early expansion of electric vehicles network charging points, including for use by private hire vehicles and taxis	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	L	GM.07.05
Retrofitting or renewing buses to comply with more stringent emissions standards and/or zero emission standards	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	L	GM.07.03
Community clean air and electric vehicle awareness campaigns	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	L	GM.07.09
Integration: Future Mobility and Innovation			
Mobility as a Service (MaaS) projects, including the delivery of MaaS trials in Greater Manchester	To support the integration of various forms of transport services (e.g. taxi, public transport and cycle hire) into a single customer experience, which is accessible on demand and uses a single payment application.	L	GM.06.10
Connected and Autonomous Vehicles (CAVs) projects, including pilot projects	To support the development of new technologies to support improvement of the transport network in Greater Manchester.	L	GM.06.13
A smart wayfinding programme to improve wayfinding in the city centre and others areas, supporting the Cycling and Walking Commissioner's infrastructure proposal	To support the development of new technologies to support improvement of the transport network in Greater Manchester.	L	GM.06.24

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
A series of collaborative projects with UK and international cities to ensure Greater Manchester remains at the forefront of transport innovation	To support the development of a transport network that is at the forefront of technological advances and innovative thinking.	L	GM.06.04
Integration: Fares & Ticketing			
Contactless, pay-as-you-go ticketing on Metrolink	To make it easier for customers to plan, make and pay for their journeys using different modes, thereby making the overall Greater Manchester public transport offer more attractive. This in turn will encourage a modal shift in Greater Manchester.	L	GM.04.01
A zonal fare structure on Metrolink	To make it easier for customers to plan, make and pay for their journeys using different modes, thereby making the overall Greater Manchester public transport offer more attractive. This in turn will encourage a modal shift in Greater Manchester.	L	GM.04.02
A pilot 'Early Bird' Metrolink offer for those travelling before the morning peak	To increase passenger numbers without adding to overcrowding during rush hour.	L	GM.04.05
Work with the Mayor and the GMCA to deliver manifesto commitments to provide cheaper travel for young people	To create a more inclusive public transport network by improving access for young people.	L	GM.04.04
Provision of integrated travel information services	To provide integrated travel information to the travelling public. This in turn will encourage a modal shift in Greater Manchester.	L	GM.10.03

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Integration: Behaviour Change			
Business and community engagement programme	To reduce, re-mode, re-time or re-route journeys away from peak-hour congestion where possible, and to improve health.	L	GM.05.03
Travel information and travel planning support programme	To reduce, re-mode, re-time or re-route journeys away from peak-hour congestion where possible, and to improve health.	L	GM.05.04
Development of behaviour change support packages for major infrastructure schemes	To reduce, re-mode, re-time or re-route journeys away from peak-hour congestion where possible, and to improve health.	L	GM.05.05
Integration: Safety and security			
TravelSafe Partnership, including on-going security initiatives and the introduction of civil injunctions	To improve safety and security for the travelling public, and tackle crime and anti-social behaviour.	L	GM.05.01
Partnership working through Safer Roads Greater Manchester (SRGM) – dealing with speed reduction and road safety measures	To work towards our ambition to reduce deaths on our roads as close as possible to zero.	L	GM.05.02
Partnership working through Safer Roads Greater Manchester (SRGM) – support for the Greater Manchester Safety Camera Operation and SRGM publicity campaign calendar	To work towards our ambition to reduce deaths on our roads as close as possible to zero.	L	GM.05.08
Integration: Town Centres & Interchanges			
Stockport Town Centre Access Plan	To tackle congestion in and around Stockport town centre and remove barriers to movement for all modes.	M	W.04.01
Ashton Interchange redevelopment	To increase the accessibility of Metrolink, bus and rail from nearby destinations, and increase the attractiveness of the Interchange as the focal point for intra-urban growth in Ashton town centre.	M	W.03.01

APPENDIX: List of interventions

In the next five years, we are committed to delivering...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Pendleton town centre bus passenger facilities improvements (part of the Salford Bolton Network Improvements programme)	To make bus travel earlier and more attractive for local resident in the Pendleton area.	L	W.02.01
Stockport Interchange redevelopment	To increase the accessibility of bus and rail from nearby destinations, and increase the attractiveness of the Interchange as the focal point for intra-urban growth in Stockport town centre.	M	W.03.02
Oldham Town Centre Regeneration and Connectivity Package (Part 1)	To facilitate development and regeneration in Oldham Town Centre and to improve the attractiveness of Oldham Town Centre for pedestrians, cyclists and public transport users, and maintain the integrity of the highway network within and around Oldham Town Centre.	M	W.15.01
Mobility Hubs/Park & Ride upgrades	To provide better access to public transport.	M	N.01.17
Other minor works programmes (e.g. from the Greater Manchester Growth Deal) that support town centre regeneration	To support future facilitation of development and regeneration in town centres in Greater Manchester and improve the attractiveness of town centres for pedestrians, cyclists and public transport users.	L	W.12.04

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Public Transport: Bus			
Quality Bus Transit on key bus corridors: Wigan-Bolton	To provide a more attractive alternative to the car for orbital journeys between Wigan and Bolton.	M	W.08.18
Quality Bus Transit on key bus corridors: Bury-Bolton (including better public transport access from East Bolton)	To provide a more attractive alternative to the car for orbital journeys between Bury and Bolton.	M	W.08.07

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Quality Bus Transit on key bus corridors: Bury-Rochdale	To provide a more attractive alternative to the car for orbital journeys between Bury and Rochdale.	M	W.08.08
Quality Bus Transit on key bus corridors: Rochdale-Oldham	To provide a more attractive alternative to the car for orbital journeys between Rochdale and Oldham.	M	W.08.12
Quality Bus Transit on key bus corridors: Oldham-Ashton	To provide a more attractive alternative to the car for orbital journeys between Oldham and Ashton.	M	W.08.13
Quality Bus Transit on key bus corridors: Ashton-Stockport	To provide a more attractive alternative to the car for orbital journeys between Ashton and Stockport.	M	W.08.14
Quality Bus Transit on key bus corridors: MediaCityUK-Salford Crescent	A substantially higher non-car mode share is needed to sustain the growth of Salford Quays/MediaCityUK. There is potential for a QBT priority alignment, which could then be transformed into a Metrolink connection in the longer term.	M	RC.03.07
City Centre Transport Strategy: bus routing, services, and interchange improvements	To ensure the city centre has the right balance between terminating and through bus services, minimise the negative impacts of bus movements on pedestrian and cycle movements, and better integrate the bus network with the Metrolink and rail network.	M	RC.05.01
The Quays: connectivity improvements	To improve public transport accessibility to The Quays from local communities to the north, thereby reducing car dependency.	M	RC.05.02
Package of minor bus priority interventions	To encourage greater use of bus on key corridors across the city-region where demand is high, ensuring available road space is used efficiently.	L	GM.01.01
Interventions subject to appropriate planning approvals and developer contributions...			
M62 North-East Corridor (Northern Gateway) express bus corridor between Manchester and Heywood/Langley	To support the M62 North-East Corridor (Northern Gateway) allocation by providing good public transport access, as well as improving	L	W.09.18

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	wider public transport connectivity in the north of Greater Manchester.		
New bus services connecting M62 North-East Corridor (Northern Gateway) to its local area	To support the M62 North-East Corridor (Northern Gateway) allocation by providing good public transport access, as well as improving wider public transport connectivity in the north of Greater Manchester.	L	W.09.19
New bus services to support the New Carrington and Sale West allocations	To serve new development at Carrington with improved public transport links, particularly to and from the Regional Centre	L	W.09.02
Manchester Northern Gateway bus corridor	To provide a high-quality public transport corridor connecting the Manchester Northern Gateway development to the Regional Centre.	M	W.09.01
Public Transport: Metrolink and Bus Rapid Transit			
Extension of the Airport Metrolink line to Terminal 2	To facilitate continued growth at the Airport by connecting passengers and staff more effectively to the Metrolink network, and help to increase the effective population catchment area of the Airport.	M	G.03.02
Improved Metrolink capacity between Piccadilly and Victoria stations, including to address the GMCA's intention to provide direct services from Rochdale and Oldham into Piccadilly	To provide a key link from the north of Greater Manchester (Oldham and Rochdale) to Piccadilly Station.	M	RC.08.03
Mobility Hubs/Park & Ride upgrade: East Didsbury	To provide better access to public transport through Mobility Hub/Park & Ride facilities	L	N.01.04
Mobility Hubs/Park & Ride upgrade: Rochdale	To provide better access to public transport through Mobility Hub/Park & Ride facilities	L	N.01.05
Bus Rapid Transit extension: Atherton-Hindley-Ince-Wigan (in association with the Wigan-Bolton new east-west road)	To link major growth areas with Regional Centre and Wigan Town Centre, including the HS2 station and associated developments.	M	W.08.28

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Tram-train 'Pathfinder' options: Altrincham to Hale	To maximise existing Metrolink capacity in order to accommodate rapid transit demand growth. Will also facilitate testing of the tram-train concept for wider application in Greater Manchester.	M	W.08.19
Tram-train 'Pathfinder' options: Rochdale to Heywood	To maximise existing Metrolink capacity in order to accommodate rapid transit demand growth. Will also facilitate testing of the tram-train concept for wider application in Greater Manchester.	M	W.08.20
Tram-train 'Pathfinder' options: Manchester Airport to Wilmslow	To maximise existing Metrolink capacity in order to accommodate rapid transit demand growth. Will also facilitate testing of the tram-train concept for wider application in Greater Manchester.	M	W.08.21
Interventions will be subject to appropriate planning approvals and developer contributions...			
Extension of the Airport Metrolink line from Roundthorn to Davenport Green (Western Leg Phase 2)	To provide a rapid transit option into the Regional Centre, and to facilitate an increase in frequency on the Airport Metrolink line by enabling services to split at Roundthorn and turn around.	H	W.08.22
Cop Road Metrolink stop	To support the Beal Valley and Broadbent Moss allocations, providing a fast and frequent rapid transit option into the Regional Centre.	L	W.09.04
Elton Reservoir Metrolink stop	To support the Elton Reservoir allocation, providing a fast and frequent rapid transit option into the Regional Centre.	L	W.09.05
Bus Rapid Transit network to connect Manchester Airport to housing developments to the east	To provide better public transport access to proposed GMSF developments and existing residential areas, and to help achieve the step-change in non-car mode share needed to support the growth of the Airport area.	M	W.08.04
New Guided Busway stop to serve North of Mosley Common	To support the North of Mosley Common allocation, providing	L	W.09.29

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	dedicated access to the Guided Busway.		
Public Transport: Rail			
Continued programme of rail station accessibility and customer facilities improvements	To maximise existing rail assets to provide better facilities, improve transport integration and deliver community benefits.	L	N.01.03
Partnership options for management and improvement of local rail stations	To maximise existing rail assets to provide better facilities, improve transport integration and deliver community benefit.	M	N.01.04
New stations (tranche 1) to be prioritised through the new stations study	To provide a new public transport option, contributing to modal shift and reducing pressure on the highway network where this can be shown to be viable.	M	W.13.15
Stockport area rail infrastructure improvements to permit rail franchise service commitments, HS2, and potential metro/tram-train services (e.g. Greek Street Bridge)	To undertake essential maintenance, and use the opportunity to upgrade the rail corridor for National Rail/HS2/potential Metro/tram-train services	H	W.13.06
Streets for All: Local Highways			
Wigan and Bolton new east-west road infrastructure	To improve east-to-west connections around Wigan and Bolton, which are priorities of the boroughs' transport strategies.	H	C.01.04
Streets for All corridor improvements for Greater Manchester's Key Route Network	To support the delivery of better streets to create sustainable, healthy and resilient places, tackling issues such as congestion, air pollution, bus service reliability, improve interchange between modes as well as walking and cycling improvements.	M	W.12.06
Key components of the City Centre Transport Strategy	To support the development of a transport masterplan to provide the City Centre with a world class transport system.	M	RC.10.02
Highways improvements and green infrastructure to support accelerated housing growth in the city centre	To support a number of up-front infrastructure requirements at key locations across the city centre,	L	RC.12.03

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	helping to bring new land forward for housing development.		
Bredbury Industrial Estate access improvements (including addressing height restrictions)	Bredbury Industrial Estate access improvements (including addressing height restrictions)		W.09.26
Interventions subject to appropriate planning approvals and developer contributions...			
Elton Reservoir Link Road (to support development and relieve town centre congestion)	To support the Elton Reservoir allocation, providing an additional crossing of the River Irwell and significantly improving network resilience in Bury.	M	W.09.12
M62 North-East Corridor (Northern Gateway) Distributor Road (enabling highway access for the Northern Gateway site)	To support the M62 North-East Corridor (Northern Gateway) allocation, facilitating access into and through the development from the M62 and M66.	M	W.09.17
Streets for All: Walking and Cycling			
A long-term Local Cycling and Walking Infrastructure Plan (LCWIP) for Greater Manchester	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	H	W.07.24
City Centre Transport Strategy: review and publication of active travel network	To support the development of a transport masterplan to provide the city centre with a world-class transport system.	M	RC.10.01
Programme of improved motorway crossing points for pedestrians and cyclists	To reduce the severance caused by Greater Manchester's motorway network, which acts as a barrier to both local and medium-distance cycle movements.	M	W.07.25
Safe and secure cycle storage, develop long-term programme	To encourage more people to use sustainable modes rather than drive, and by increasing the 'reach' of stations and local facilities to those that live outside walking distance, but within cycling distance.	L	N.03.01
Prepare a walking and cycling design guide, audit tool and associated training	To facilitate the consistent implementation of cycling and walking design standards across Greater Manchester.	L	W.07.28

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Support for a public bike hire scheme and other ways of increasing access to bikes	To increase the number and proportion of short journeys (less than 5km) made by bicycle, thereby reducing the impact of traffic on local roads.	L	W.07.29
Streets for All: Motorways and Trunk Roads			
A663 Broadway/M60 J21 junction upgrade	To reduce congestion and improve safety on the Strategic Route Network.	L	C.07.07
Capacity increases to M56 J5 and J6 and M56-M60 links (to facilitate Airport growth)	To improve the reliability of journey times to the Airport, enhancing its function as the primary global gateway for the North of England.	M	G.04.02
Simister Island improvements	To address existing congestion issues on the SRN, and provide the capacity for future growth.	M	C.07.05
Denton Island improvements	To address congestion and resilience issues on this key part of the SRN, which is likely to witness increased demand.	M	C.07.02
M60 Junction 24-4 Smart Motorway (or equivalent measures to address congestion)	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	H	C.05.05
M6 J23 improvement	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	M	C.07.16
Intervention subject to appropriate planning approvals and developer contributions...			
Further phases of the Western Gateway Infrastructure Scheme (WGIS)	To facilitate the growth of Port Salford, delivering improved global connectivity to Greater Manchester through deep sea and rail freight supply chains.	M	G.04.01
Streets for All: Freight and logistics			
Optimised traffic signals for freight traffic using smart signalling technology where appropriate	To reduce the social and environmental impacts of freight traffic.	L	GM.08.06

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Streets for All: Asset Management			
Sustained and enhanced long-term highway maintenance programme	To support the economic performance, resilience and liveability of the city-region by maintaining the current network in good condition.	H	W.11.01
Integration: Clean Air and Carbon			
Measures that will be identified within the Greater Manchester Clean Air Plan	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	M	GM.07.01
Continued expansion of electric vehicles network charging points, including for use by private hire vehicles and taxis	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	M	GM.07.06
Retrofitting or upgrading buses to comply with more stringent emissions standards (continuation programme)	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	L	GM.07.04
Integration: Future Mobility and Innovation			
Further Mobility as a Service (MaaS) and Connected and Autonomous Vehicles (CAVs) projects, as the market for these technologies matures	To further develop the integration of various forms of transport services into a single customer experience, which is accessible on demand and uses a single payment application.	M	GM.06.10
Further collaborative projects with UK and international cities to ensure Greater Manchester remains at the forefront of transport innovation	To further support the development of a transport network that is at the forefront of technological advances and innovative thinking.	L	GM.06.04
The roll-out of integrated private hire standards across Greater Manchester	To respond effectively to recent technological advances in the private hire sector to ensure consistency of standards for Greater Manchester customers.	L	GM.09.01
Integration: Fares & Ticketing			
Further phases of Greater Manchester's smart ticketing initiative	To make it easier for customers to plan, make and pay for their journeys using different modes, thereby making the overall Greater Manchester public transport offer more attractive. This in turn will encourage a modal shift in Greater Manchester.	M	GM.04.03

APPENDIX: List of interventions

In the next five years, we aim to complete business cases for early delivery of...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Pan-Northern integrated and smart ticketing, working with TfN	To make it easier for customers to plan, make and pay for their journeys using different modes, thereby making the overall Greater Manchester public transport offer more attractive. This in turn will encourage a modal shift in Greater Manchester.	M	C.08.01
Piloting of other targeted ticket offers to promote the use of public transport	To encourage people to travel at quieter times and to increase the accessibility of the public transport network to specific groups of travellers.	L	GM.04.07
Integration: Town Centres & Interchanges			
City Centre Transport Strategy: improved wayfinding, public realm, pedestrian links and park and ride access	To provide the city centre with a world-class transport system.	M	RC.10.02
Oldham Town Centre Regeneration and Connectivity Package (Part 2)	To facilitate development and regeneration in Oldham Town Centre and to improve the attractiveness of Oldham Town Centre for pedestrians, cyclists and public transport users, and maintain the integrity of the highway network within and around Oldham Town Centre.	M	W.15.02
Implementation of the Stockport Station Masterplan	To improve passenger facilities at Stockport station and reduce severance.	M	C.06.01
Bury Interchange redevelopment	To increase the attractiveness and efficiency of the Interchange as the focal point for urban growth in Bury town centre.	M	W.03.03

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Public Transport: Bus			
Using new technologies to introduce, where feasible, new	To provide an alternative to the car for journeys into the Regional Centre and town centres where current public	L	GM.01.02

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
flexible bus services into rail stations and Metrolink stops	transport options are either non-existent or lacking in quality and frequency.		
Intervention subject to appropriate planning approvals and developer contributions...			
Further viable bus improvements to support the transport requirements of growth areas and GMSF allocations, identified through the planning process	To support future growth in Greater Manchester as set out in the new draft of the GMSF.	M	W.09.32
Public Transport: Metrolink and Bus Rapid Transit			
Metrolink Service Improvement Package	To support improvement of the Metrolink network.	M	RC.03.13
Next generation of longer Metrolink vehicles	To exploit the remaining near-term opportunities for increasing Metrolink capacity into and through the Regional Centre, in order to facilitate the continuing growth of employment, leisure and residential development.	H	RC.03.05
Interventions to improve Metrolink reliability	To increase resilience for Metrolink for the whole of Greater Manchester.	M	RC.08.01
Metrolink connection to Middleton	To provide communities in and around Middleton with an alternative rapid transit option into the Regional Centre, thereby reducing pressure on local roads.	H	W.08.24
Metrolink extension to Stalybridge	To provide communities east of Ashton with an alternative rapid transit option into the Regional Centre, thereby reducing pressure on the A635 and other roads.	H	W.08.23
Metrolink connection from MediaCityUK to Salford Crescent	A substantially higher non-car mode share is needed to sustain the growth of Salford Quays/MediaCityUK, which will require faster links to key interchange nodes in the existing rapid transit network in and around the Regional Centre.	H	RC.03.08
Metro/tram-train to Glossop	To provide much greater capacity and frequency on the Glossop corridor, both to address existing crowding issues and to facilitate further growth.	H	W.08.29
Metro/tram-train to Marple	To provide much greater capacity and frequency on the Marple corridor, both	H	W.08.30

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	to address existing crowding issues and to facilitate further growth.		
Metro/tram-train to Wigan via Atherton	To provide much greater capacity and frequency on the Atherton corridor, both to address existing crowding issues and to facilitate further growth.	H	W.08.31
Metro/tram-train to Warrington (CLC)	To provide much greater capacity and frequency on the Warrington corridor, both to address existing crowding issues and to facilitate further growth.	H	W.08.32
Metro/tram-train to Stockport/Hazel Grove	To provide much greater capacity and frequency for rapid transit to and from Stockport and/or Hazel Grove, both to address existing crowding issues and to facilitate further growth.	H	W.08.33
Metro/tram-train from Stockport town centre to Manchester Airport	To facilitate the growth of Manchester Airport area, which requires a step-change in non-car mode share.	H	W.08.09
Metro/tram-train from Cornbrook to Manchester Airport via Timperley	To improve access to Manchester Airport and relieve crowding on the Altrincham line, especially if tram-train Pathfinder does not prove a viable approach to delivering a five-minute headway service.	H	G.08.02
Metro/tram-train from Bury to Rochdale via Heywood	To complete the connection between Heywood and Bury following successful implementation of the early pathfinder between Rochdale and Heywood.	H	W.08.10
City Centre metro tunnel	To deliver a step-change in rapid transit capacity to and through the Regional Centre in order to: <ul style="list-style-type: none"> • accommodate increasing demand on existing Metrolink lines • release capacity in the city centre to accommodate increased service frequencies, e.g. on the Bury line and to MediaCity via the Trafford Park line • facilitate conversion of shorter-distance-focused suburban rail lines to metro/tram-train operation, radically improving services on those corridors and releasing capacity on the National Rail network in the Regional 	H	RC.08.04

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	<p>Centre, so that it can reliably accommodate 2040 demand</p> <ul style="list-style-type: none"> provide the capacity to enable the rapid transit network to serve a wider range of middle-distance trips in Greater Manchester and to maximise the benefits of integrated fares. 		
Park & Ride/Mobility Hub proposals for Metrolink and Bus Rapid Transit	To provide better access to public transport through Mobility Hub/Park & Ride facilities. This in turn will encourage a modal shift in Greater Manchester.	M	N.01.17
Interventions subject to appropriate planning approvals and developer contributions...			
Sandhills Metrolink stop to serve the Manchester Northern Gateway growth area	To support the Manchester Northern Gateway growth location, providing a fast and frequent rapid transit option into the Regional Centre.	L	W.09.06
Completion of the Manchester Airport Metrolink Western Leg	To provide rapid transit connections to new development areas to the north-west of Manchester Airport, which will help achieve the step-change in non-car mode share required to support the growth of the Airport area.	H	G.08.01
Metrolink extension to Port Salford/Salford Stadium	To effectively serve the major developments of Trafford Waters, Salford Stadium and potentially Port Salford which are currently not connected to rapid transit.	H	W.05.02
Bus Rapid Transit extension (to Lowton and Golborne, via Leigh or A580)	To provide a more attractive alternative to the car along the corridor, particularly for the associated new developments.	M	W.08.27
Bus Rapid Transit corridor (Manchester Airport / HS2 to Altrincham)	To provide a more attractive alternative to the car for orbital journeys between Altrincham and the Airport, and to support the Timperley Wedge allocation.	M	W.08.02
Bus Rapid Transit corridor linking M62 North-East Corridor (Northern Gateway) and surrounding towns to the Regional Centre	To effectively serve the major M62 North-East Corridor (Northern Gateway) development with rapid public transport links, particularly to and from the Regional Centre, as well as nearby key centres.	M	W.80.01

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Public Transport: Rail			
Manchester Piccadilly HS2 and NPR Growth Strategy	To deliver transformational change to Greater Manchester's city-to-city rail offer at Manchester Piccadilly Station, and to ensure good onward public transport connections from across Greater Manchester to deliver wider benefits for the city-region as a result of the improved connectivity.	H	RC.07.01
Manchester Airport HS2 and NPR Growth Strategy	To deliver transformational change to Greater Manchester's global rail offer from this new high-speed rail hub, and to ensure good onward public transport connections from across Greater Manchester to deliver wider benefits for the city-region as a result of the improved connectivity.	H	G.01.02
Stockport HS2 Growth Strategy	To address medium-term capacity constraints on the West Coast Main Line and at Stockport station, which will become more pressing between 2026 and 2033, when HS2 trains will start to arrive, but the new tunnel to Piccadilly (HS2 Phase 2b) will not yet be complete.	H	C.06.02
Wigan HS2 Growth Strategy	To better integrate Wigan Wallgate and North Western and therefore make the rail offer more attractive, creating a secondary long-distance rail hub for the city-region as an alternative to Manchester Piccadilly, particularly in the context of HS2.	H	C.06.03
Northern Powerhouse Rail	To link Greater Manchester to the other economic centres of the North, support the growth of Manchester Airport and fully exploit opportunities to integrate with HS2.	H	C.11.05
Rail capacity improvements on key commuting corridors: CLC Line	To provide increased frequency and capacity for journeys into the Regional Centre, facilitating new developments along the line and contributing to modal shift.	H	W.13.08
Rail capacity improvements on key commuting corridors:	To provide increased frequency and capacity for journeys into the Regional Centre, facilitating new developments	H	W.13.09

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
South Manchester (including HS2 readiness)	and contributing to modal shift, and prepare for the arrival of HS2.		
Rail capacity improvements on key commuting corridors: South East Manchester	To provide increased frequency and capacity for journeys into the Regional Centre, facilitating new developments and contributing to modal shift.	H	W.13.10
Rail capacity improvements on key commuting corridors: Chat Moss and West Coast	To provide increased frequency and capacity for journeys into the Regional Centre, facilitating new developments and contributing to modal shift.	H	W.13.11
Rail capacity improvements on key commuting corridors: North West Manchester	To provide increased frequency and capacity for journeys into the Regional Centre, facilitating new developments and contributing to modal shift.	H	W.13.12
Rail capacity improvements on key commuting corridors: North East Manchester (including Rawtenstall – Manchester)	To provide increased frequency and capacity for journeys into the Regional Centre, facilitating new developments and contributing to modal shift. This could potentially include improvements between Rawtenstall and Manchester.	H	W.13.07
Platform lengthening and increases in passenger capacity at stations, including through franchise commitments	To maximise existing heavy rail network capacity in order to accommodate rapid transit demand growth to and through the Regional Centre.	H	RC.09.01
Electrification between Bolton and Wigan	To provide additional capacity on this key commuter corridor.	H	W.13.02
Electrification between Manchester and Stalybridge (intervention subject to final scope of Trans-Pennine Route Upgrade)	To provide additional capacity on this key commuter corridor.	H	W.13.03
Park & Ride/Mobility Hub proposals (Rail)	To provide better access to public transport through Mobility Hub/Park & Ride facilities	L	N.01.17
New stations (tranche 2) to be prioritised through the new stations study	To provide a new public transport option, contributing to modal shift and reducing pressure on the highway network where this can be shown to be viable.	M	W.13.15
Interventions will be subject to appropriate planning approvals and developer contributions...			
Port Salford rail freight link	To facilitate the delivery of Port Salford as a tri-modal logistics hub, reducing the impact of freight movement on the	M	G.06.01

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	city-region's congested motorway network.		
Godley Green and Hattersley pedestrian/cycle bridge connection (potentially including Hattersley station south-facing access)	To support the development of the Godley Green GMSF allocation.	L	W.09.03
New stations related to development sites – as assessed through the new stations study	To support future growth in Greater Manchester as set out in the new draft of the GMSF.	M	W.13.15
Streets for All: Local Highways			
Manchester Airport expansion highway improvements	To improve the reliability of journey times to the Airport, enhancing its function as the primary global gateway for the North of England. To be coordinated with longer term highway improvements required to support HS2 and NPR Growth Strategy at Manchester Airport.	M	G.04.04
South East Manchester Multi-Modal Study (SEMMMS) Refresh: implementation of recommendations, including ongoing review of the business case for the A6 to M60 Relief Road and the A34 corridor package	To increase the resilience of the transport network in the south of Greater Manchester and improve access to the Airport.	H	W.06.01
Bredbury-Woodley Area Highway Improvement Package	To address the impact of employment sites and new housing proposed in Tameside in conjunction with potential A6 to M60 Relief Road.	M	W.06.04
The Quays connectivity improvements	To improve public transport accessibility to The Quays from the north and west by exploiting opportunities for interchange at existing hubs including Eccles and Salford Crescent, thereby reducing car dependency.	M	RC.11.01
Programme of noise reduction measures in identified 'hotspot' areas	To reduce noise levels and improve environmental quality and quality of life in these areas.	L	N.06.01
Improvements to the Major Road Network	To improve the reliability of Greater Manchester's most economically	M	C.07.18

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	important roads and reduce congestion.		
Intervention subject to appropriate planning approvals and developer contributions...			
M61 J6 Link Road for West of Wingates	To support the M61 Junction 6 West of Wingates allocation.	M	W.09.30
Streets for All: Motorways and Trunk Roads			
M60 J9-14 junction improvements	To address congestion on this key part of the national motorway network and facilitate growth, balancing the needs of local commuter traffic and long-distance strategic traffic (e.g. to and from Port Salford).	M	C.07.06
M60 Junctions 21-24 Smart Motorway	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	M	C.07.08
M66 capacity improvements (potentially including Smart Motorway, J2-3 improvements, collector-distributor road and/or bus priority)	To address existing congestion issues on the SRN, and provide the capacity for the scale of growth both within the city-region and in neighbouring authorities.	M	C.07.13
Further interventions to tackle congestion issues in Tintwistle and Hollingworth	To address congestion issues on the strategic A628 corridor, and improve journey times and journey time reliability to South Yorkshire.	M	C.03.02
Two-way movements on M6 J25	To address congestion issues on this part of the Strategic Road Network and adjacent Key Route Network, and increase access to the M6 Corridor.	M	C.04.01
Further improvements to the motorway network, to be delivered through Highways England's second Road Investment Strategy (RIS2)	To support major growth in Greater Manchester and across the North of England. Details to be determined through Highways England's planning processes.	H	C.07.17
Strategic road improvements between Manchester and Sheffield, to be determined through TfN and Highways England's Trans-Pennine Tunnel Study	To transform city-to-city highway connectivity across the North of England, in line with TfN's vision for an efficient highway network that effectively connects the labour markets of the North's major cities.	H	C.09.01
Further interventions to tackle congestion on the M60 North West Quadrant and M60 South East Quadrant	To address existing congestion issues on the SRN, and provide the capacity for growth both within the city-region and in neighbouring authorities.	H	C.07.10

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Interventions subject to appropriate planning approvals and developer contributions...			
New motorway junction near Birch and supporting infrastructure for M62 North-East Corridor (Northern Gateway)	To support the M62 North-East Corridor (Northern Gateway) allocation, facilitating access into and through the development from the M62 and M66.	M	W.09.20
M60 Junction 8 improvements	To support growth in the Carrington area by improving accessibility to new developments.	M	W.09.16
Streets for All: Freight and logistics			
The creation of urban consolidation centres	To minimise the need to for road freight deliveries, thereby reducing congestion and improving air quality.	L	GM.08.05
Measures to reduce impact of goods vehicles in centres	To reduce the social and environmental impacts of freight traffic.	L	W.16.01
Key enhancements to regional rail to support freight growth in Greater Manchester	To reduce the social and environmental impacts of freight traffic.	M	GM.08.08
Demonstrating the potential of alternative fuel transport, aiming to achieve regionally and nationally competitive solutions	To reduce the social and environmental impacts of freight traffic.	L	GM.08.11
Support joint procurement frameworks to reduce freight deliveries	To minimise the need to for road freight deliveries, thereby reducing congestion and improving air quality.	L	G.08.07
Integration: Clean Air and Carbon			
Retrofitting or upgrading Local Authority fleet	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	L	GM.07.07
Private hire and taxi alternative fuels	To improve air quality in the Regional Centre and other areas, and improve the health of Greater Manchester residents and visitors.	L	GM.07.08
Integration: Town Centres & Interchanges			
Public realm enhancements in key town centres and district centres	To encourage greater use of, and therefore increase the attractiveness of, key town and district centres as vibrant and easily accessible places, and to improve safety and personal security.	L	W.15.04
Ashton-in-Makerfield bus interchange upgrades	To increase the accessibility of Ashton-in-Makerfield by public transport, and	L	W.03.06

APPENDIX: List of interventions

In the next five years, we will develop options for...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
	increase the attractiveness of bus services for local residents.		
Oldham Mumps Interchange redevelopment	To increase the accessibility of Metrolink and bus from nearby destinations, and increase the attractiveness of the Interchange as the focal point for intra-urban growth in Oldham town centre.	M	W.03.04
Improved link between Eccles Metrolink stop and rail station	To increase the accessibility between Eccles Metrolink and heavy rail stations to ensure it becomes a more significant transport hub.	L	W.03.05

Beyond this five year Delivery Plan, we will investigate...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Public Transport: Metrolink and Bus Rapid Transit			
Further new Metrolink connections between Salford Quays, Inner Salford and the City Centre	A substantially higher non-car mode share is needed to sustain the growth of Salford Quays/MediaCityUK, which will require faster links to key interchange nodes in the existing rapid transit network in and around the Regional Centre.	H	RC.03.09
Irk Valley junction Metrolink Improvements	To support maintenance of a reliable Metrolink network, and enable more frequent services on the Bury and Oldham/Rochdale lines.	M	RC.03.10
Rapid transit corridor (Radcliffe-Bolton)	To provide a more attractive alternative to the car for orbital journeys between these three key town centres, thereby reducing pressure on the A58 and M62/M60.	H	W.08.05
Rapid transit corridor (Stockport-Ashton)	To provide a more attractive alternative to the car for orbital journeys between these key centres, thereby reducing pressure on the M60, A6017 and other local roads.	H	W.08.10
Rapid transit corridor (Ashton-Oldham)	To provide a more attractive alternative to the car for orbital journeys between these key centres, thereby reducing pressure on the M60, A627 and other local roads.	H	W.08.11

APPENDIX: List of interventions

Beyond this five year Delivery Plan, we will investigate...

Intervention	Rationale	Cost (Low/ Medium/ High)	2040 Ref.
Rapid transit options to better serve movements across the west of the city-region, such as Bolton/Wigan to the Airport	To provide a more attractive alternative to the car for orbital journeys in this part of the conurbation.	H	W.08.36
Intervention subject to appropriate planning approvals and developer contributions...			
Rapid transit corridor (Airport-Carrington-Irlam)	To provide a more attractive alternative to the car for orbital journeys, to provide a rapid transit option for the large New Carrington allocation, and to reduce the severance caused by the Manchester Ship Canal.	H	W.08.03
Public Transport: Rail			
Further electrification of rail lines to reduce emissions and increase capacity	To reduce carbon emissions and increase capacity.	H	W.13.53
Explore the feasibility and business case for improved connections from the Airport to the South	To provide a public transport option to passengers from Cheshire as an alternative to the A34, which is likely to see increased levels of demand because of population growth in both Cheshire East and Stockport.	L	G.02.01
Explore options for further increased rail network capacity in the Regional Centre	To transform city-to-city and suburban rail connectivity from Preston, Wigan and Liverpool to Manchester, addressing key constraints to capacity into the Regional Centre.	H	C.10.02
Streets for All: Local Highways			
M62 – Carrington – M60 link	To support growth in the Carrington area and improve network resilience	H	C.01.06

