Liverpool City Region Combined Authority

Local Transport Plan

"PEOPLE, PLACES, MOVEMENT"

Doing Things Differently: 2025 – 2040

Draft Local Transport Plan

August 2024

Transport Cabinet Board

Liverpool City Region Combined Authority
Local Transport Plan

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CONTENTS

> THE LTP's DELIVERY PLAN IS IN DEVELOPMENT AND IS NOT SUBJECT TO THIS ROUND OF CONSULTATION

1. INTRODUCTION TO THE LOCAL TRANSPORT PLAN

1.1   This is the Liverpool City Region's (LCR's) draft Local Transport Plan (LTP).   The LCR is made up of the local authorities of Halton, Knowsley, Liverpool, St Helens, Sefton and Wirral.

1.2   As we explain in later stages, the LTP also looks further afield. This is because the movement of people and goods extend beyond the limits of the city region's boundaries, into Lancashire, Cheshire, North East Wales, Greater Manchester and across the North Of England. We are also an internationally important city region for people and for goods.

Liverpool City Region in context
Source: LCRCA Draft Spatial Development Strategy

1.3   The LTP's purpose is to set out plans for transport services and investment to 2040. This LTP will help to inform and shape decisions for the future of travel in the Liverpool City Region. It helps us speak with one voice on transport. It explains how transport supports our other priorities as a city region. It will be important in drawing down and allocating the different funds needed to help deliver transport from Government, delivery bodies and third parties. It is consistent with Government guidance and is informed and shaped by a range of wider Liverpool City Region Combined Authority (LCRCA) policies and strategies.

1.4   When we talk about transport, we mean all forms of transport – walking, wheeling, cycling, e-scooting, e-biking, buses, coaches, trains, ferries, boats, ships, taxis, cars, vans and heavy goods vehicles. This LTP, therefore, is about the connectivity of not just people, but of the goods and materials that sustain people's needs and, literally, powers our economy and impacts on our everyday lives.

1.5   This LTP subsumes the following transport plans and strategies and updates them with this single, integrated plan:

- The Halton Local Transport Plan, 2011
- The Merseyside Local Transport Plan, 2011
- LCR Long Term Rail Strategy, 2018
- LCR Local Journeys Strategy, 2018
- The Combined Authority Transport Plan, 2019

1.6   In line with Government advice and best practice, the following supporting documents will remain extant as supporting plans and strategies. They will be reviewed periodically in line with any new requirements and against the vision, goals, principles and policies set out in this LTP:

- LCR Bus Services Improvement Plan, 2022 (BSIP)
- LCR Local Cycling and Walking Implementation Plan, 2019 (LCWIP)
- LCR Rights of Way Strategy, 2018 (RoWIP)
- LCR Road Safety Strategy 2021

1.7 The development of this LTP has followed a logical process:

- Understanding challenges, problems and opportunities affecting transport and movement. We set these out in a Vision and Goals document in spring 2022.
- Talking to people about the Vision and Goals document to understand their thoughts
- Understanding what transport and travel might look like in 2040 if we took no direct action and the challenges that arise from this
- Understanding the actions to progress in response to these challenges
- and now, consulting with people once again on these actions and policies

1.8 The process we have followed has made clear that transport supports bigger ambitions around jobs, growth, the environment and our people. We start with a clear vision. Importantly, this vision is shared across other plans and strategies that influence and affect transport so that our approach is collaborative, and efforts are aligned. To keep this LTP concise, a series of supporting appendices outline and summarise these earlier stages:-

- LTP Vision and Goals document, 2022
- LTP Vision and Goals Consultation Report, 2022
- LTP Evidence and Research document, 2023

1.9 An Independent Integrated Assessment of the plan has been carried out, in line with statutory requirements for developing an LTP, but moreover, to ensure that the plan supports our clean commitments in this space as a city region. Ensuring that the transport plan helps to achieve a fully accessible and inclusive transport network is our starting point, and the independent assessment is important to inform, test and validate our approach. This Assessment has the following components:

- Sustainability Appraisal (SA)
- Strategic Environmental Assessment (SEA)
- Equalities Impact Assessment (EqIA)
- Health Impact Assessment (HIA) and
- Habitats Regulations Assessment (HRA).

1.10 This draft Integrated Impact Assessment is available to view and comment upon as a technical supporting document to this LTP. The assessment was undertaken as the LTP was being drafted as part of an ongoing process. The conclusions and recommendations from this Assessment have shaped the LTP's policies and confirms that they perform well against the various criteria used in the Assessment. It should be noted, moreover, that the Equalities Impact Assessment is aligned with the Combined Authority's additional protected characteristic through a "socio-economic status" test.

1.11 As well as setting out guiding policies for transport, the finalised LTP will inform a Delivery Plan which will set out where our interventions will be focused over the life of the Plan over three main timeframes:

- Short term – from 2022 until 2027 (the duration of the CRSTS funding programme)
- Medium term – between 2027 – 2032 (the duration of the anticipated second CRSTS programme)
- Longer term – from 2032-2040 (unfunded, or else where funding sources are yet to be identified.

NOTE – FOR LTP CONSULTATION PURPOSES THE FOCUS IS ON POLICY CONTENT NOT EMERGING SCHEMES – THE DELIVERY PLAN WILL BE ADDED AT A LATER DATE

1.12   The LTP will be kept under review to ensure policies remain relevant. Should legislation, further devolution or wider policy changes affect the relevance of the plan, will review and update it in line with the flexibilities that exist in current legislation

2. OUR VISION FOR TRANSPORT

Understanding the bigger picture

2.1 The process that we have set out has involved building our LTP from an understanding of the challenges and opportunities that exist, both across the LCR and further afield. We also understand the main changes and the main policies that influence transport at movement at the national, sub-national and local level.

2.2 For example, Transport for the North's Strategic Transport Plan provides a vision and a framework which this LTP aligns with. We know that there are significant uncertainties surrounding the future of transport; people's attitudes and habits change constantly; technology is advancing faster than ever, it seems, and we live in increasingly uncertain and volatile times.

2.3 This context is summarised in our 2022 Vision and Goals document. Challenges and opportunities identified don't just focus on the need to decarbonise, but also the need to support economic growth in a fair and inclusive way. The impact of transport on health, wellbeing and quality of life are also recognised as is the changing nature of our city region. The LTP vision and five overriding goals have been drafted in response. Some of the national, sub national and local level have been drawn out and reflected upon in this document.

New political priorities

2.4 The re-election of Steve Rotheram as Metro Mayor in May 2024 has further focused the city region's priorities. This LTP directly supports the Mayor's manifesto commitment to develop a modern, successful region supported by a corresponding public transport network with a London-style network that makes travel quicker, cheaper and more reliable.

2.5 We are clear as a Combined Authority on what we need to achieve. We recognise the significant contribution that transport makes to the delivery of our corporate objectives and indeed, how transport affects every facet of life.   The Combined Authority's Corporate Plan (2024-2028), and its predecessor, both of which are wider in scope than transport, have informed the development of this LTP. The new Corporate Plan's vision is simple:

"…for the Liverpool City Region to be the best place to grow up, grow a family, and grow a business – where no-one is left behind"

2.6 The Corporate Plan recognises that the city region has seen improvements in its transport network. It commits to continued innovation to deliver improved mobility through a modern, integrated and publicly controlled public transport system. It recognises the strategic need to increase connection and promote mobility across the region for our communities and businesses and the social, economic and climate benefits that a future low carbon transport system brings. This LTP is wholly supportive of this.

2.7 July 2024's General Election resulted in a change of Government, and with five clear missions for the country:

1. ***Kickstart economic growth***
   to secure the highest sustained growth in the G7 – with good jobs and productivity growth in every part of the country making everyone, not just a few, better off.

2. **Make Britain a clean energy superpower**
   to cut bills, create jobs and deliver security with cheaper, zero-carbon electricity by 2030, accelerating to net zero.

3. **Take back our streets**
   by halving serious violent crime and raising confidence in the police and criminal justice system to its highest levels.

4. **Break down barriers to opportunity**
   by reforming our childcare and education systems, to make sure there is no class ceiling on the ambitions of young people in Britain.

5. **Build an NHS fit for the future**
   that is there when people need it; with fewer lives lost to the biggest killers; in a fairer Britain, where everyone lives well for longer.

2.8   The Government has identified five strategic transport priorities to put transport at the heart of mission-driven government. They include:

- improving performance on the railways and driving forward rail reform
- improving bus services and growing usage across the country
- transforming infrastructure to work for the whole country, promoting social mobility and tackling regional inequality
- delivering greener transport
- better integrating transport networks

2.9   The two tables in Appendix One and Appendix Two to the LTP show how the Government's missions and priorities for transport align seamlessly with the Goals and ensuing principles and policies in the LTP.

2.10   The Combined Authority has also been tasked by the new government to prepare statutory Local Growth Plans and the LTP will inform the transport components of the Growth Plan.

2.11   At a local level, our Corporate Plan commits to accelerate the city region's net zero target to 2035. This is five years ahead of the 2040 target that framed initial work on the LTP. The scale of the change needed is clear from the graph below. This is addressed in more depth under *Principle 5: Prioritise clean, healthy travel in all we do* in section 4 of the LTP.

LCR CO2e Emission Future Pathways
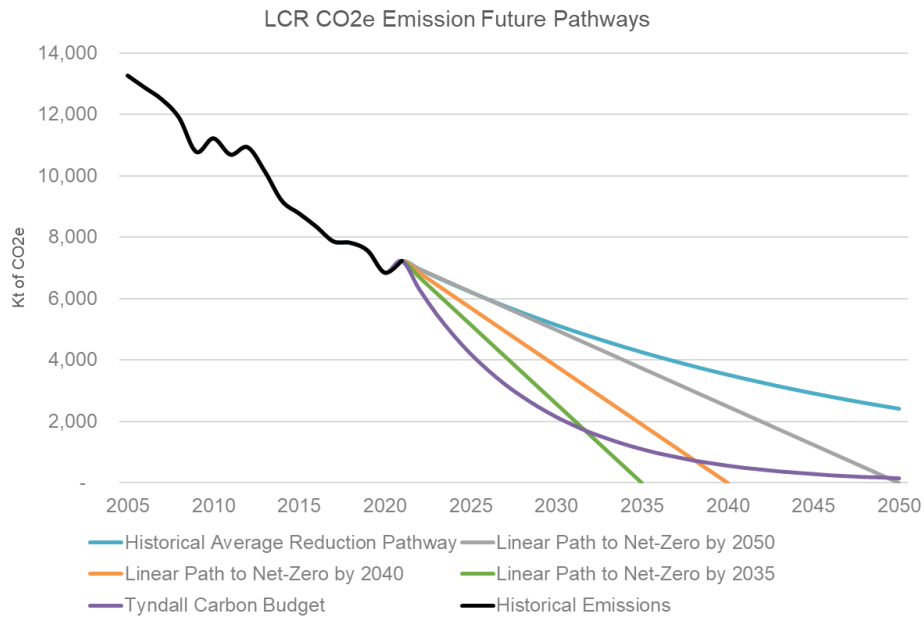
LCR carbon reduction pathway to 2035 and 2040
Source: LCRCA

Building on public support for our vision

2.12   Positively, and as we set out more detail in the *LTP Vision and Goals Consultation Report, 2022*, the consultation we carried out in 2022 showed that many people relate to, and support our draft vision. This is important to acknowledge, as people want to see change. People also recognise that is not always straightforward to deliver a cleaner, fairer transport system especially. Issues of cost, quality, and availability of transport have been raised as concerns.

2.13   The responses to this consultation exercise have informed and confirmed the following Vision and Goals for the LTP.

THE VISION
Clean, safe and accessible transport for moving people and goods

GOAL 1	Support good, clean job growth and opportunity for all
GOAL 2	Achieve net-zero carbon and an improved environment
GOAL 3	Improve health and quality of life
GOAL 4	Transport that's well maintained and tough
GOAL 5	Plan and respond to uncertainty and change and be innovative

3   TRANSPORT SCENARIOS FOR THE FUTURE OF THE CITY REGION

3.1   Since we developed the Vision and Goals document in 2022, we have looked at what the future might look like in by 2040 if we let changes outside of our control determine the future. We developed four scenarios to understand what the 2040 might look like from wider social, environmental, economic and technological change. **2040 forms the end date of the plan, but we must reduce carbon emissions to net zero by 2035 - five years sooner.**

What might 2040 look like?

3.2   The use of scenarios applied a pioneering approach by Transport for the North (TfN) in the development of its Strategic Transport Plan. In turn, a scenario-planning approach has been promoted by the Government Office for Science's "Futures Toolkit" as:

"....an approach to identifying the long term issues and challenges shaping the future development of a policy area and to exploring their implications for policy development. It provides a set of research and modelling tools that policy makers can use to support development of policy that is resilient to a range of possible outcomes…"

3.3   Our scenarios are consistent with those developed by TfN but have been nuanced to reflect the circumstances of the LCR.

Aspects that have informed future transport scenarios
*Source: Transport for the North Strategic Transport Plan*

3.4   The scenarios are narratives about what the future might look like – they are not preferred scenarios or necessarily desirable. They act as a "do minimum", as they do not assume any significant transport interventions or policy change, beyond social and economic changes included in their description.

3.5   Our four scenarios are summarised below:

Name of future travel scenario	Narrative in summary
Just About Managing	A business-as-usual model where population and economic growth is weak. Travel use remains car-based, public transport demand is weak and climate change effects start to be felt.
Prioritised Places	Economic growth is moderate and homeworking rates grow. People increasingly move to more rural and coastal areas and work/life balance is important. Electric vehicle take up is relatively high and people adopt shared forms of travel
Digitally Distributed	Green growth has boomed and electric vehicles and new forms of mobility are growing, making the movement of people and goods much more efficient. More people work from home and live in cities and towns.
Urban Zero Carbon	The LCR is part of a thriving green economy and people choose to live in towns and cities where public transport use is high as are levels of walking and cycling. Technology makes it easy for people to mix and match how they travel, and transport is much more efficient.

What "doing minimum" looks like in 2040

3.6   Using our strategic transport model, we have analysed the four scenarios to understand what their impact might be in transport and movement terms by 2040 – and they are challenging. They predict increases in number of trips, including light vans and cars overall, with shares of sustainable modes typically falling, especially under the "just about managing" scenario.
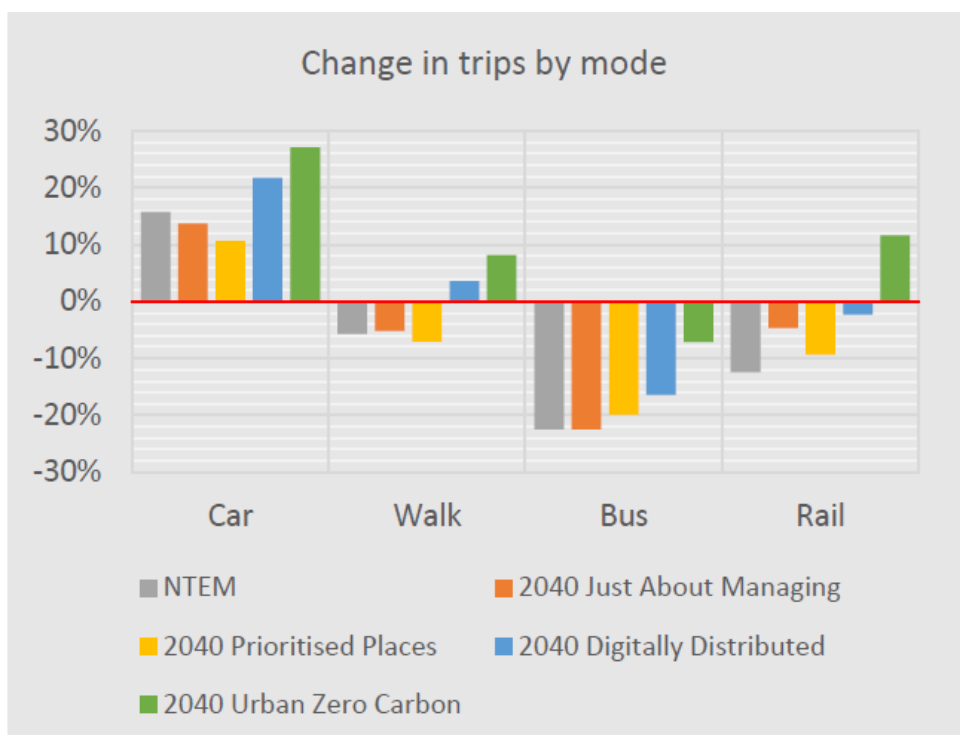
Changes predicted by 2040 under the four future travel demand scenarios
Source: Mott MacDonald for LCRCA
(NTEM = National Trip End Model (DfT) v7)

3.7   This suggests that by 2040, without intervention, we will create a city region where the use of the car is more dominant on our streets and in our communities, where people have less choice because of lower levels of public transport, walking and cycling, with poorer journey times as a result of growing congestion. Although traffic will transition from being powered by petrol and diesel to cleaner sources, such as electricity and clean hydrogen, we run every ri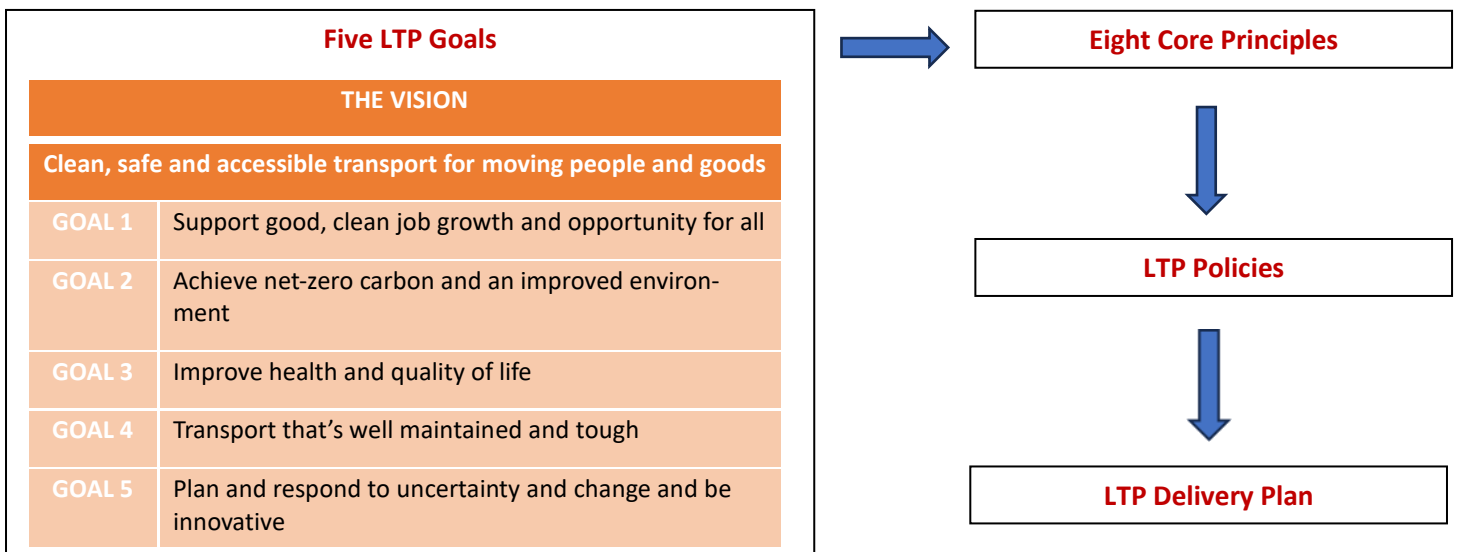sk of creating a city region that is characterised by "cleaner congestion" rather than being a city region that is attractive, vibrant, fair and easy to navigate by all. The idea that car ownership is essentially forced onto people is also at odds with our Corporate Plan vision around fairness, especially if more of our residents and workers need to own and run a car out of necessity.

3.8   We have also looked at what these scenarios might mean in carbon reduction terms as the "do minimum", recognising the clear mandate that exists nationally and locally to decarbonise all our activities. Again, the carbon analysis of the four future transport scenarios paints a challenging picture. Put simply, "do minimum" will not support the complete decarbonisation of transport by 2040, let alone the revised city region target of achieving net zero 2035. The closest we expect to achieve net zero by 2040 is a 90% reduction under the Digitally Distributed scenario. This is the scenario in which green growth has boomed and electric vehicles and new forms of mobility are growing, making the movement of people and goods much more efficient and where more people work from home and live in cities and towns.

Change in road transport emissions, 2017-2040

Just About Managing	Prioritised Places	Digitally Distributed	Urban Zero Carbon
-70%	-71%	-90%	-65%
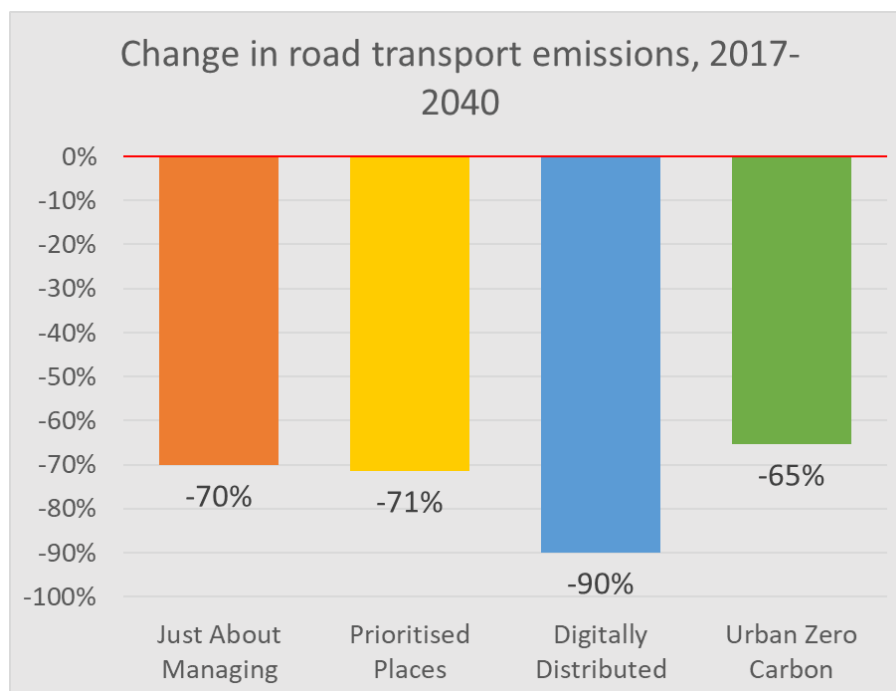
3.9   **Under this "do minimum" future, our vision and goals will not be realised**. Accordingly, this Plan sets out the measures to deliver the change needed.

4. TAKING FORWARD OUR VISION AND GOALS: EIGHT CORE PRINCIPLES

4.1 The **five goals above are high level outcomes** for what we want to achieve through this LTP and for the city region as a whole – or put another way, our promises for the city region. Our analysis in the preceding section shows that if we don't act, we won't realise these goals. Action is needed through this LTP to address this.

4.2 Accordingly, **a series of principles have been developed** that support the goals and the delivery of more detailed **policies and interventions** that follow in section (5) on Delivering the LTP.

Five LTP Goals	
THE VISION	
Clean, safe and accessible transport for moving people and goods	
GOAL 1	Support good, clean job growth and opportunity for all
GOAL 2	Achieve net-zero carbon and an improved environment
GOAL 3	Improve health and quality of life
GOAL 4	Transport that's well maintained and tough
GOAL 5	Plan and respond to uncertainty and change and be innovative

Eight Core Principles

↓

LTP Policies

↓

LTP Delivery Plan

Eight Core Principles

Principle 1:   **A vision led approach**
Principle 2:   **We will apply the five goals equally**
Principle 3:   **Transport decisions based on clear need and evidence**
Principle 4:   **Transport must support placemaking**
Principle 5:   **Prioritise clean, healthy travel in all we do**
Principle 6:   **Guided by our commitment to inclusivity, accessibility and social value**
Principle 7:   **Work with others to promote and deliver the LTP**
Principle 8:   **A rolling programme of innovative transport investment**

4.3 The eight core principles are explained in more detail over the page.

Principle 1: A vision-led approach

4.4   This addresses the need to move from a "predict and provide" approach to transport planning to a "vision and validate" model. Transport-related plans, proposals or business cases to address an evidenced problem must be based on a "vision and validate" approach. This will be linked to delivering the vision and outcomes in this LTP around *clean, safe and accessible transport for moving people and goods.*

4.5   "Predict and provide" is an approach that has shaped transport schemes over many years where the forecasted demand and growth in population, vehicle numbers and private and goods traffic trips are accommodated in the design of a scheme. The result is typically the creation of new road capacity, improvements to traffic flows or the creation of additional car parking. This approach, not unexpectedly, facilitates traffic growth and many of the issues that this LTP has identified as challenges and concerns. Worse, the new highway capacity created is quickly used up by additional vehicles that were previously deterred, and the journey time and congestion benefits are then lost. This leads to a vicious cycle, whereby further solutions are sought to deal with the congestion, delay, inconvenience and dangers created. This is often detrimental to bus and rail users and people walking, cycling and wheeling, as their needs are unlikely to have been considered in the traffic growth assumptions made.

4.6   The "vision and validate" approach begins with a vision as to how and area should look, feel or function. This then allows measures that manage demand for private vehicle trips to be tested and planned and for the alternatives to private transport to be facilitated. This seeks to break the vicious cycle of "predict and provide". It recognises that land, natural resources and funds are finite, and that private vehicle dependency must be reduced. Put simply, it accepts that we cannot continue to build our way out of the problems that we have created.
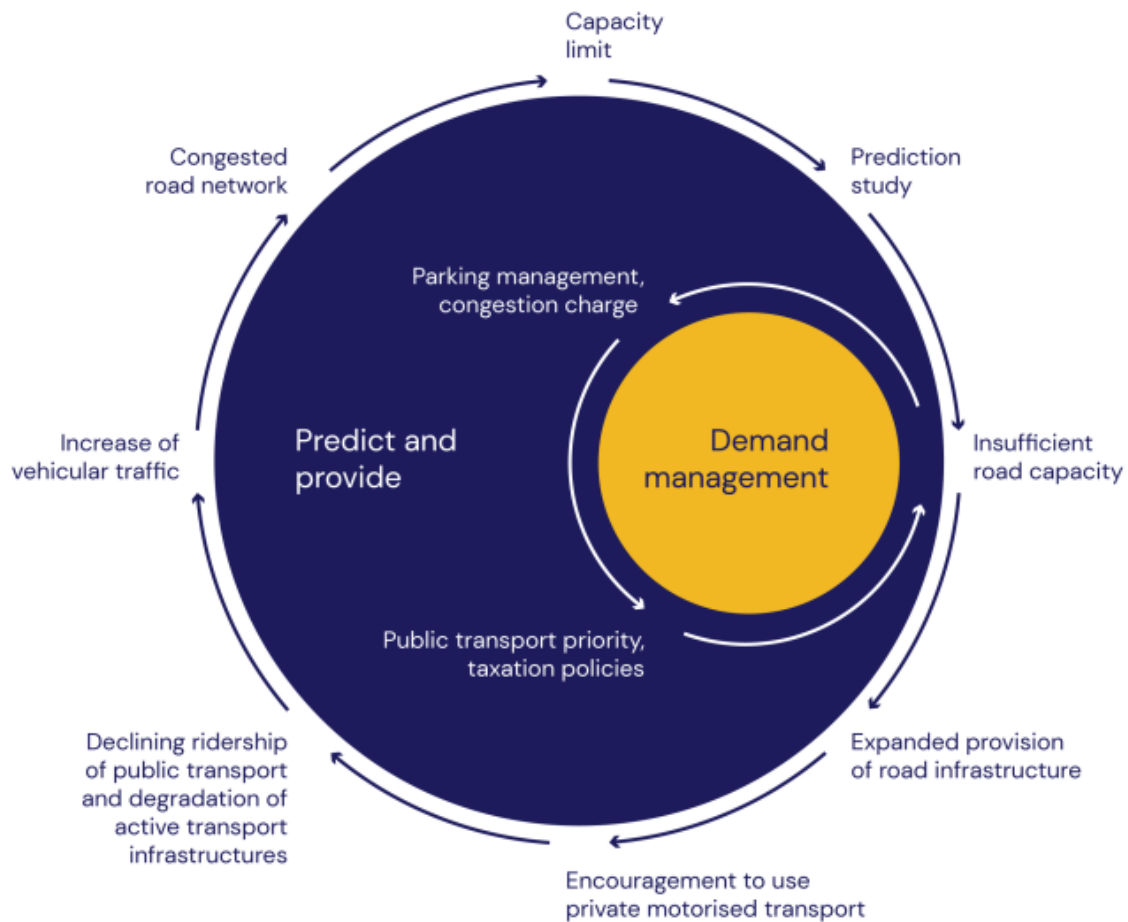
The Vicious Cycle of Predict and Provide

Capacity limit

Prediction study

Congested road network

Parking management, congestion charge

Insufficient road capacity

Increase of vehicular traffic

Predict and provide

Demand management

Declining ridership of public transport and degradation of active transport infrastructures

Public transport priority, taxation policies

Expanded provision of road infrastructure

Encouragement to use private motorised transport

Illustration based on: Broadus et al (2009, p16). Transportation Demand Management – Training Document, GIZ. https://www.sutp.org/files/contents/docu-ments/resources/H_Training-Material/GIZ_SUTP_TM_Transportation-Demand-Management_EN.pdf (accessed: 20.09.2018) and Kodukula (2011, p.2). SUTP Case Study #6 – Reviving the Soul in Seoul, GIZ. https://www.sutp.org/files/contents/documents/resources/C_Ca-se-Studies/GIZ_SUTP_CS_Reviving-the-Soul-in-Seoul_EN.pdf (accessed: 20.09.2018)

tumi @TUMInitiative transformative-mobility.org

Source: St Helens MBC and
TUMI - The-vicious-cycle-of-Predict-and-Provide_light-bg.pdf (transformative-mobility.org)

4.7   The "vision and validate" approach is gathering weight and stature, and is being embedded into a range of national, sub national and local policy frameworks. For example, Government guidance to National Highways advocates moving away from transport planning based on predicting future demand to provide capacity, to a vision-led approach. This is to deliver outcomes communities want to achieve, and to provide the transport solutions to deliver these outcomes.

4.8   Similarly, Transport for the North's Strategic Transport Plan embeds a complementary "decide and provide" approach, to achieve the vision and outcomes sought. The plan notes that future transport investment programmes must support rapid decarbonisation of our transport system and enhance social inclusion and health, whilst also strengthening economic performance. An integrated transport network that's fit for the future is required, to prepare for significant increase in public transport and rail needed to enable growth.

4.9   Most recently, the Government's proposed reforms to the [National Planning Policy Framework](#) (NPPF) advocates a 'vision-led' approach to transport planning. This acknowledges that transport infrastructure plays a vital role in creating sustainable communities and supporting economic growth. It notes that planning for travel too often follows a simplistic 'predict and provide' pattern, with insufficient regard for the quality of places being created or whether the transport infrastructure which is planned is fully justified. Challenging the default assumption of automatic traffic growth, where places are designed for a 'worst case' peak hour scenario, can drive better outcomes for residents and the environment.

4.10   This LTP is wholly supportive of, and is consistent with, these new approaches to a "vision and validate" model in place of the traditional "predict and provide" approach. This principle must guide all that we do in delivering the plan and its interventions.

Principle 2: We will apply the five goals equally

4.10   The LTP's goals are deliberately at a high level – they set out the broad outcomes that we want to achieve. The policies that are associated with each of the Goals will be turned into specific commitments. In turn, these will guide us in drawing down or allocating funds and in delivering the right interventions and schemes.

4.11   This principle is about making explicit that *all* the LTP's goals are of equal importance and support one another.   *All* five goals must be addressed and supported to deliver the vision and outcomes set out within it. It is no longer a case of seeking to balance economic growth against environmental consequences, or to view growth and environmental protection or greater level or fairness as opposites - they are not.

4.11   This approach to clean, healthy, inclusive growth is the approach is set out in the LCR's Plan for Prosperity. We must deliver good connectivity, support inclusive, high-value growth and prosperity, social inclusion, affordability, safety, access, health and deliver well-maintained transport that's fit for purpose in a city region seeing the effects of climate change. We can do this by planning for transport in different ways than in the past. This is by shifting the balance from private motorised transport to zero carbon transport that is accessible to all, regardless of age, income or place of residence and create a better place to live, invest in, work and visit.

Principle 3: Transport decisions must be based on clear need and evidence

4.12   The starting point in this LTP is ensuring that we deliver transport schemes, services and measures that support wider city region priorities, rather than starting with specific solutions in mind. We will ensure that transport enhancements and interventions are targeted around clear need and the LTP's priorities. This includes, by association, the related needs and priorities of the LCRCA's suite of policies such as the [Plan for Prosperity](#), the [Innovation](#)

Prospectus, Spatial Development Strategy, the Investment Strategy and the Climate Action Plan and in any related, successor documents that have common aims developed over the lifetime of this plan.

4.13   Options will be considered from the basis of problem-based analysis, rather than from the point of view of a defined project, solution or scheme. The use of data will be critical to understand the problems that exists, and the ability of solutions to tackle these. Where data is weak or non-existent, evaluated trials and pilots may be acceptable. *Policy G5-2: Piloting options, trials and new technologies in a climate of uncertainty and change builds on* this principle.

4.14   Transport solutions and proposals must be proportionate to the problem that exist. This means that all options must be considered. This includes consideration of a mix of capital and revenue interventions in the round and as a package. For example, a ticketing, bus-based or behavioural measure may be more appropriate than the delivery of a capital scheme to improve access to an area. Making best use of what we have now will often deliver lower cost, and less carbon intensive results than building new. This recognises that we benefit from an extensive, established transport network (the highway network especially) as a starting point.

4.15   Proposals must also be tested against future uncertainty as part of the risk management process, especially against the four future travel scenarios that have informed the development of this plan. Schemes or interventions that stack up against uncertainty and a range of futures will typically have the additional assurance of demonstrating that they are robust and future-proof.

4.16   The collection of new or improved data in response to a transport intervention will be critically important. This is to both evaluate impact, but also to improve the evidence base to shape future interventions. For example, the delivery of innovative smart ticketing and smart traffic sensors not only provide significant benefits to the travelling public but allow valuable real-time data on movement and travel patterns to be collected and analysed.

4.17   Linked to Goal 5 on the need to *plan and respond to uncertainty, change and innovation*, we must also be bold in how we use data to not only understand problems and understand impacts, but to shape and deliver solutions. Artificial Intelligence (AI) will increasingly grow in importance over the lifetime of this LTP and has the ability to support us through more efficient movement of passenger and goods traffic, in helping to reduce harm and risk from travel, or in providing the right information about the choices that are available to people.
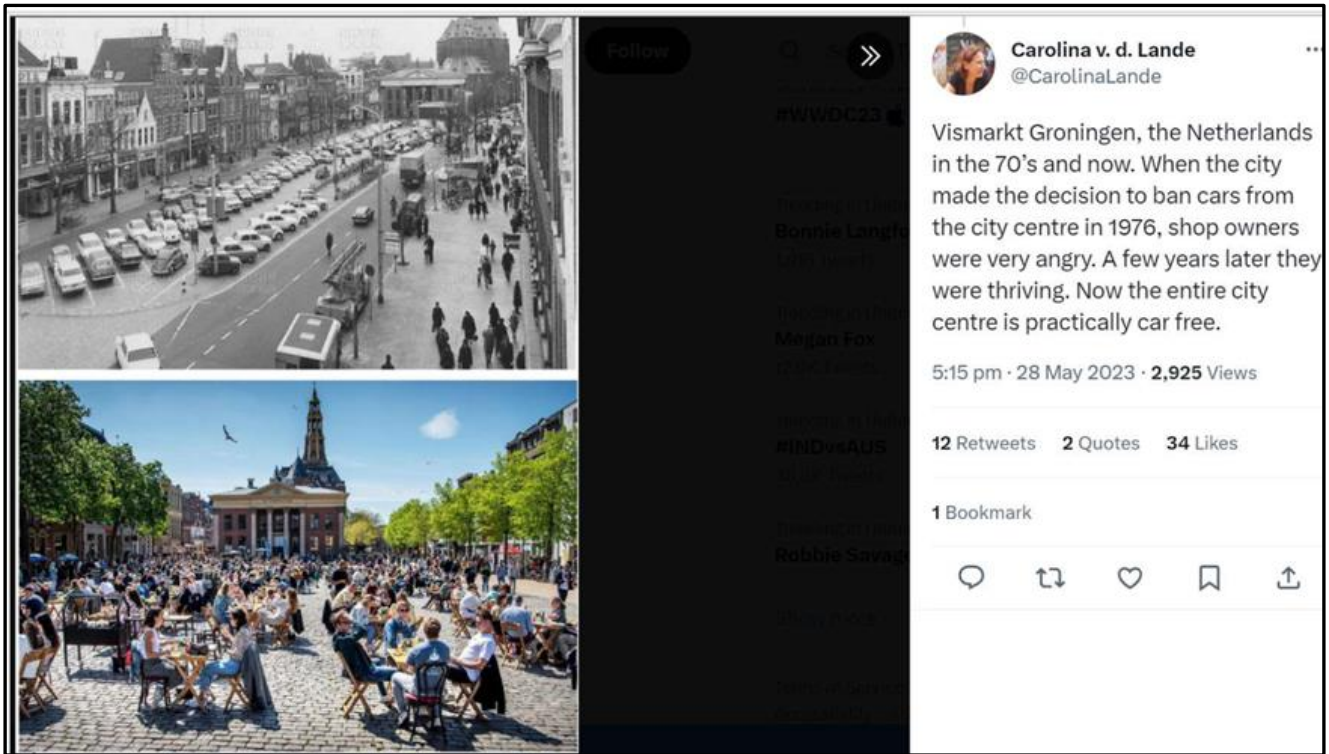

Principle 4: Transport must support placemaking

4.18 A core aim of this LTP is to ensure that transport movement and investment supports the principle of placemaking. This is about creating new developments, regeneration schemes, streets and places that are designed well and prioritised for safe use by people to enjoy spaces and places prioritised for walking, cycling and wheeling and not general traffic. This will support the conditions for new and better jobs, homes and places that are vibrant, attractive and interesting for everyone.
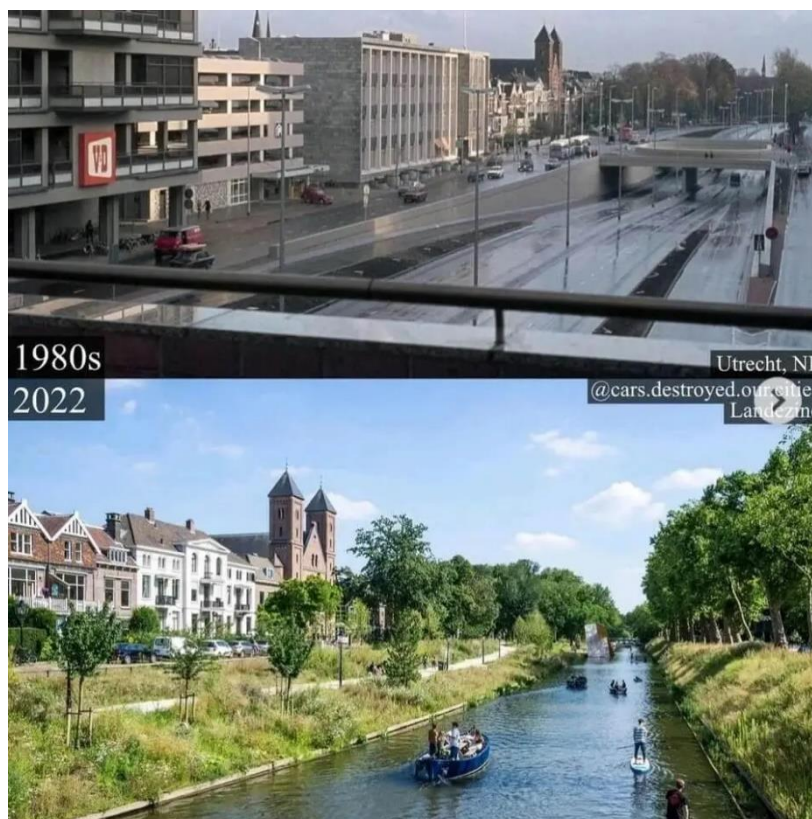
Source: LCRCA

4.19 The Authority's non-statutory Local Journeys Strategy is superseded by this LTP. Its strong messages, however, around creating a sense of place in all transport and regeneration schemes and support a shift to active travel are reaffirmed through this principle and throughout this plan.

4.20 For too long, planning for growth in car, van and lorry trips has meant that our city, towns, and workplaces are often dominated by roads and traffic. This in turn leads to expanses of tarmac and concrete, car parking, road signs, subways, flyovers, overbridges, guardrails and general street clutter. This is also often to the detriment of open space, green spaces, historic buildings and trees and vegetation. Similarly, helping general traffic to travel from A to B in the shortest possible time and as easily as possible has created streets dominated by fast traffic, becoming dangerous, off-putting and uninviting. Other forms of more sustainable transport are often, therefore, made slow, unviable, or inaccessible or even dangerous as a result. As our evidence shows, car ownership and use has grown and cars and vans are used for the majority of trips - including very short trips - and levels of bus, rail, walking, cycling and wheeling are low.

4.21 If we allow the "do minimum" in section 3 to prevail, we will need to dedicate more space to general traffic use and create additional space on- and off-road for the parking of vehicles. This is not desirable as it is incompatible with our vision and goals. We need to do the opposite and repurpose our urban areas as many other European towns and cities have successfully done:

Carolina v. d. Lande
@CarolinaLande

Vismarkt Groningen, the Netherlands in the 70's and now. When the city made the decision to ban cars from the city centre in 1976, shop owners were very angry. A few years later they were thriving. Now the entire city centre is practically car free.

5:15 pm · 28 May 2023 · **2,925** Views

12 Retweets   **2** Quotes   **34** Likes

1 Bookmark

Source: @CarolinaLande, X/Twitter

The transformation of Utrecht, Netherlands
Source: https://www.thecooldown.com/green-business/utrecht-netherlands-highway-transformation/

4.22   The Netherlands in particular has demonstrated what is possible when people and placemaking are put at the heart of policy making. Following the end of World War II, incomes in Amsterdam rose which led to a huge uptake in car ownership. Plans were drawn up to create a much more car centric city, and some were implemented. These, however, were met with resistance from certain quarters, and slowly change began. From the turn of this century the city really began to alter its movement hierarchy. Modern-day Amsterdam may be synonymous with active travel, but not so long ago it was filled with traffic. It didn't happen overnight, but equally the following images show an area transformed in a relatively short period of time.

Haarlemmerdijk Street in Amsterdam, 1971 (left) v 2020 (right) via Pintrest

4.23   Similarly, Dusseldorf in Germany also provides an example of how a car dominated area can be transformed into pedestrianised landscape. As shown below, polluting concrete highways have given way to active travel corridors, complemented by enhanced greenery, creating a more pleasant and welcoming environment.

Düsseldorf, Alemanha 1990

2019

Source: *Yahoo! News*
Viral before-and-after photos show how a historic city replaced highways with pedestrian areas: 'A fixable mistake'

4.23   Changing how development is planned and accessed emphasises the close links between the LCRCA's draft Spatial Development Strategy (SDS) and this LTP. The SDS, the CA's statutory plan, provides a framework for how we will develop land across the city region. It will inform the local plans in each of the six local authorities, to guide where and how future housing, commercial, retail and commercial development should be accommodated. It will also apply in the consideration of planning applications. The SDS emphasises that new development is

fully accessible without the need to use cars for essential trips is central to making sure that development both accessible for all and not dominated by private vehicles.

4.24 Good planning policies and decisions on new developments, designed around the needs of good connectivity by sustainable, low carbon forms of travel, form vital and complementary approaches promoted by this LTP. The Transport Hierarchy outlined in this document also underpins the Spatial Development Strategy. Notably, *Objective 4* of the draft SDS is important in supporting sustainable placemaking. This acknowledges the need to reduce reliance on the private car to do this:

Placemaking, Communities and Housing

Objective 4: The creation of sustainable places and communities with the homes the city region needs will be achieved by:

A. Delivering high-quality homes that meet our range of needs, creating new, regenerated, revitalised and resilient communities;

B. Expecting high quality design standards to produce buildings and places that are attractive, future ready, inclusive, safe, energy efficient and enable healthier and happier lives;

C. Positively shaping development so that it responds to and respects the city region's distinct character, creating places where people want to live, work, visit and meet;

D. Enhancing and preserving our valued built heritage and cultural assets, and utilising them for the benefit of current and future generations.

E. Making sure people can access a range of facilities and services to meet their everyday needs both conveniently and safely, reducing reliance on the private car.

4.25 This LTP's delivery plan will focus on the principle of placemaking in the identification and design of its capital projects and schemes and in how transport is managed and maintained. This is about making our city region attractive and vibrant, and more importantly, designed around the needs of people – people of all ages, all backgrounds, and of all abilities.

4.26 Closely associated with the principle of placemaking is having a good mix of services and facilities available locally. This is so that long trips, and car-based trips especially, are not needed to reach everyday facilities. Having a good mix of everyday services and facilities within a short walk or wheeled journey, plus easy and safe access to longer distance bus and rail services helps also results in the creation of attractive and interesting places to live, work, and visit. Securing strong synergies between this LTP, the SDS and the planning policies of our six local authorities is important in support of this.

Principle 5: Prioritise clean, healthy travel in all we do

4.26 To be a net zero carbon-emitting city region, our evidence shows that measures to achieve significant growth in bus, rail and active travel and a big reduction in vehicle trips must form a core part of the LTP's approach. We call this "modal shift". This delivers not only our net zero carbon objectives but also the goal of a clean, liveable, safe and healthy transport system by the plan's end date of 2040 that's not characterised by "cleaner congestion". This

is closely related to the "placemaking" principle of this Plan – a liveable city region that's not dominated by roads and traffic.

4.27   We know that no congestion is clean or risk-free, as emissions from brake and tyre dust are still dangerous to health, even if vehicle engines are emission free. And even if congestion could be emission-free, it has negative impacts on peoples' lives and the economy, being expensive and wasteful, unattractive, and stressful.
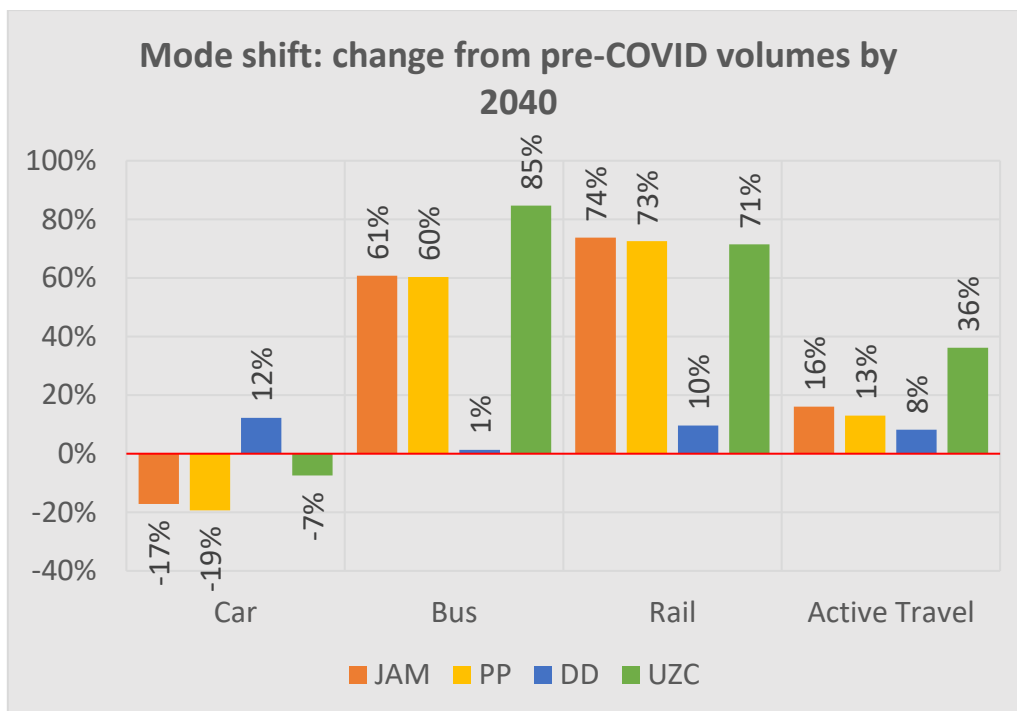
4.28   The estimated scale of modal shift needed across the LCR and **over the life of the LTP to 2040** is as follows:
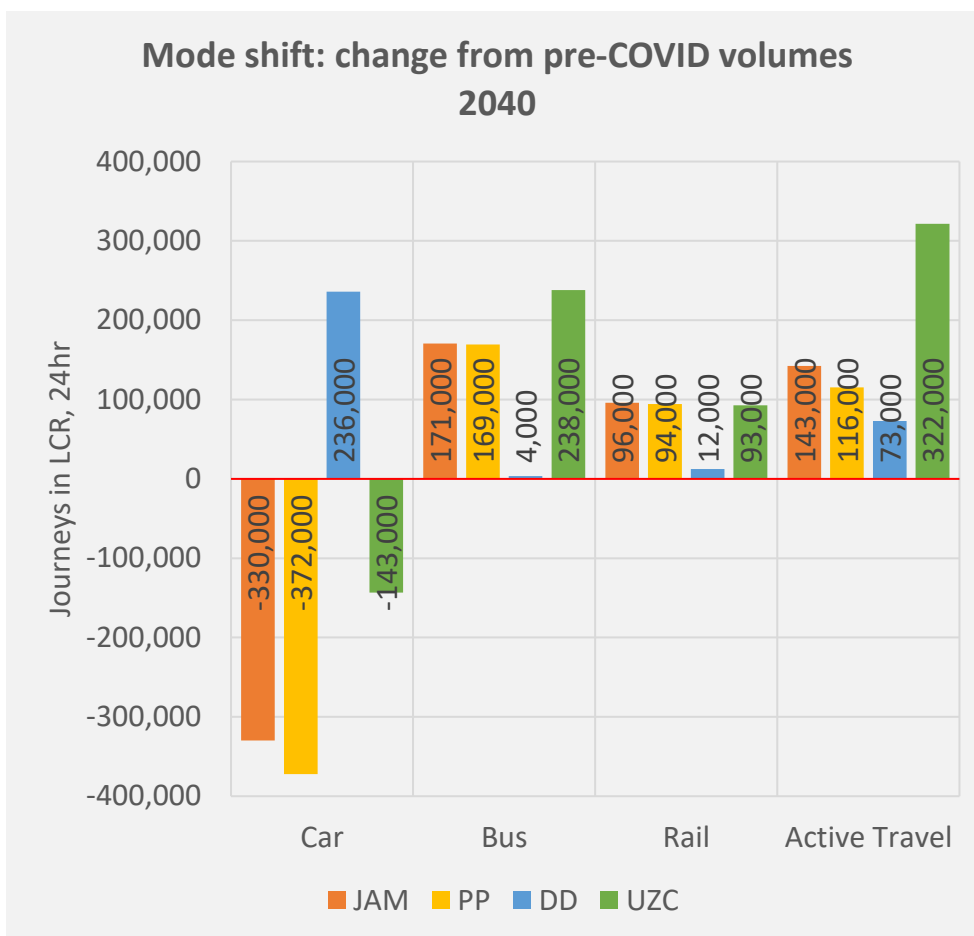
> *(A)* ***To achieve net zero by*** *2040* ***locally***
>
> - *Current projections estimate that only 63%-75% of the car fleet will be zero emission vehicles and this must change, through increased uptake and/or mode shift*
> - *Levels of car trips will likely need to have reduced by between 7% and 19% relative to pre-COVID levels of demand*
> - *This is equivalent to taking between 143,000 and 372,000 daily car trips off the road*
>
> *If an average person takes 433 individual car trips a year (including non-car users), this will need to be reduced to between 361-385 trips*
>
> - *Bus trips will likely need to increase by 60%-85%*
> - *Rail trips will likely need to increase by between 71%-74%*
> - *Cycling and walking trips will need to increase by between 8%-36%*

Mode shift: change from pre-COVID volumes by 2040

Mode shift: change from pre-COVID volumes 2040

Journeys in LCR, 24hr

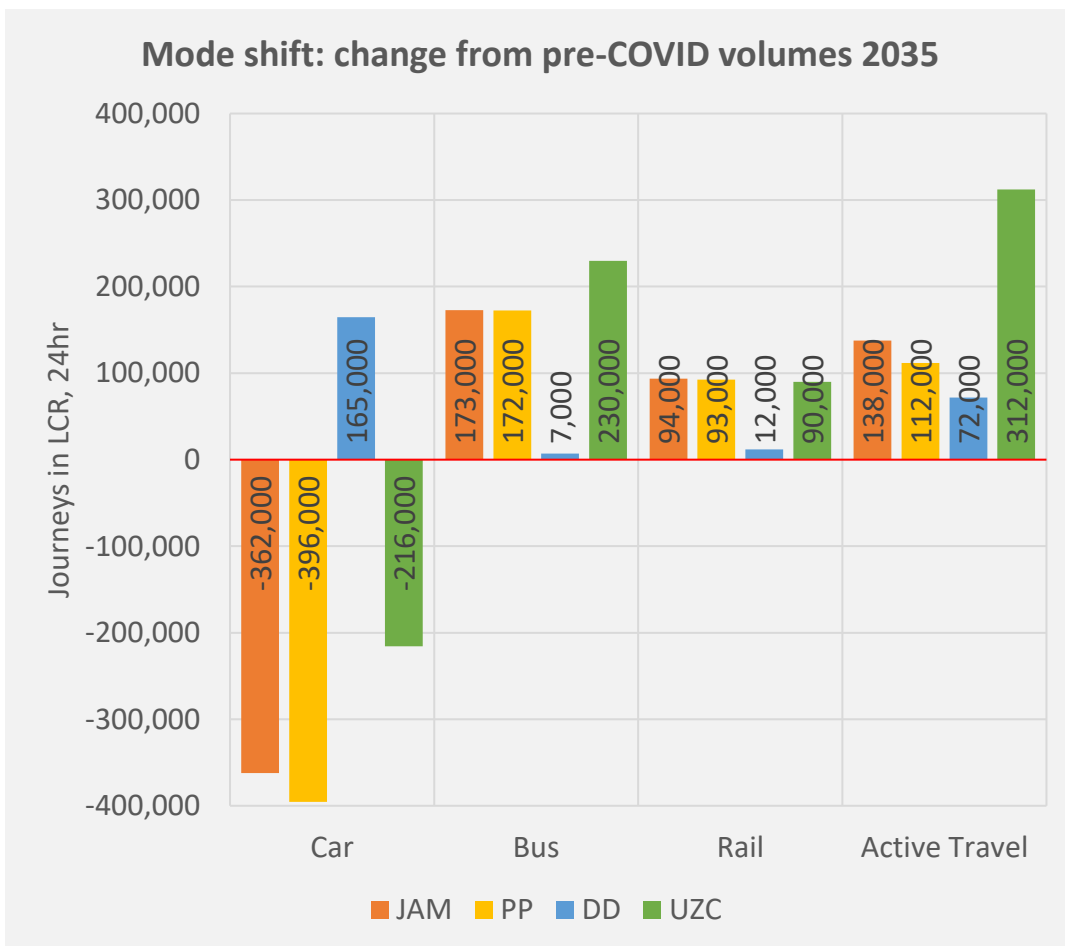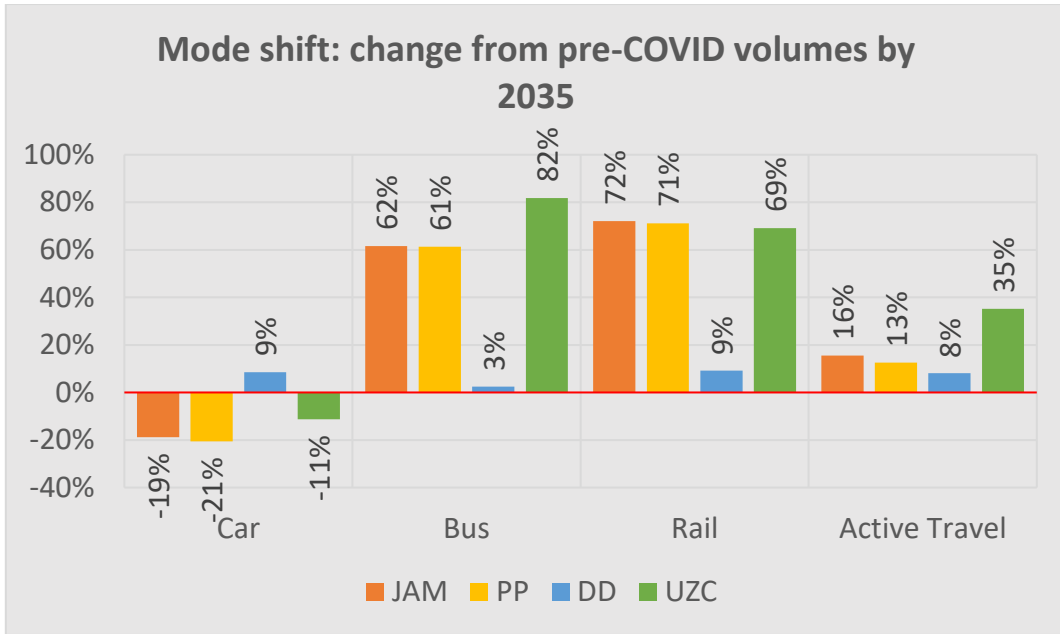| Mode	JAM	PP	DD	UZC
Car	-330,000	-372,000	236,000	-143,000
Bus	171,000	169,000	4,000	238,000
Rail	96,000	94,000	12,000	93,000
Active Travel	143,000	116,000	73,000	322,000

4.28 The estimated scale of modal shift needed across the LCR **to achieve the revised decarbonisation target by 2035** is as follows:

> *(B) To achieve net zero by 2035 locally*
>
> - *Based on an estimate that only 63%-75% of the car fleet will be zero emission vehicles by 2035 this must change, through increased uptake and/or mode shift*
> - *Levels of car trips will likely need to have reduced by between 11% and 21% relative to pre-COVID levels of demand*
> - *This is equivalent to taking between 216,000 and 395,000 daily car trips off the road*
>
> *If an average person takes 433 individual car trips a year (including non-car users), this will need to be reduced to between 346-372 trips*
>
> - *Bus trips will likely need to increase by between 61% and 82%*
> - *Rail trips will likely need to increase by between 69% and 72%*
> - *Cycling and walking trips will need to increase by between 8% and 35%*

Mode shift: change from pre-COVID volumes by 2035

Mode shift: change from pre-COVID volumes 2035

4.29 Looking at the difference between the change needed by 2035 compared to 2040 shows little difference between, in simple terms., though there are some variances in the modelled figures as the same degree of population and economic change will not have occurred by 2035. However, there now is a much sharper difference in what needs to be achieved by 2030, given the much steeper rate of reduction in carbon from transport that now needs to be tackled.

1. Impact on trips per person over a whole year				
	With **2040** as a deadline			
	JAM	PP	DD	UZC
Car Trips per year 2017	432.6	432.6	432.6	432.6
Car Trips per year 2040	481.7	469.3	513.9	513.3
After mode shift, 2030	415.0	404.3	499.7	442.3
After mode shift, 2040	361.3	352.0	488.2	385.0

1. Impact on trips per person over a whole year				
	With **2035** as a deadline			
	JAM	PP	DD	UZC
Car Trips per year	432.6	432.6	432.6	432.6
Car Trips per year 2035	471.1	461.4	496.3	496.5
After mode shift, 2030	376.6	368.9	476.4	397.0
After mode shift, 2035	353.3	346.0	471.5	372.4

4.30 Achieving this big reduction in car and van trips means that we need to improve the alternative transport choices and their uptake. We don't want to minimise or curtail the right travel choices and reducing the need to travel is not our starting point. Restrictions during COVID-19 from 2020 highlighted the big challenges socially and economically of not being able to move freely or leave our homes. There is no reason to restrict clean, healthy low carbon travel choices and every reason to make them more attractive, more safe and more convenient. This is consistent with advice in the National Infrastructure Commission's 2022 report - "Getting Cities Moving":

"Enabling more people to make more trips in cities is a good thing – trips support economic growth and quality of life – and this is what urban transport networks need to aim to do…"

"…The aim of urban transport policy should not be, as sometimes is suggested, to get people to travel less….the aim should be to shift demand from cars to forms of transport that can move people around urban areas more efficiently. By shifting, not reducing, demand, cities can keep the productivity benefits that flow from employment density without increasing congestion…"

4.30 An important principle to deliver this degree of shift and the wider vision and goals will be ensuring that we prioritise clean, healthy travel in all we do. We will do this through a hierarchy of travel approach – the weight that we give different forms of travel and in how we allocate and prioritise road space in response. This approach is intended to widen people's choices in how they travel. It also forms the starting point in planning and designing the solutions needed in response to transport problems.
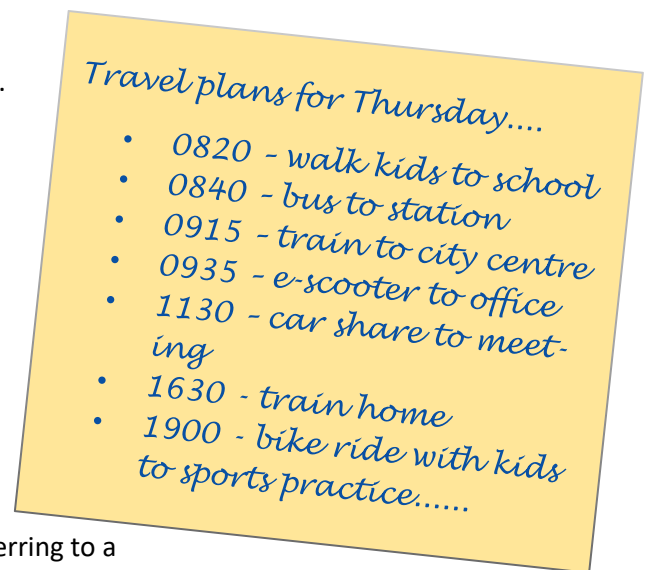
Sustainable Transport Hierarchy

HIGH PRIORITY

🚶 🚲 ♿	Walking and Wheeling
⚡🚋🚌🛴🚐❗	ZEV Public Transport
🚋🚌🚢	ICE Public Transport
⚡🚕	ZEV Taxis
🚕	ICE Taxis
⚡🚚	ZEV Commercial Vehicles
🚚	ICE Commercial Vehicles
⚡🚗🏍	ZEV Private Vehicles
🚗	ICE Private Vehicles

LOW PRIORITY

ZEV - Zero Emission Vehicle
ICE - Internal Combustion Engine
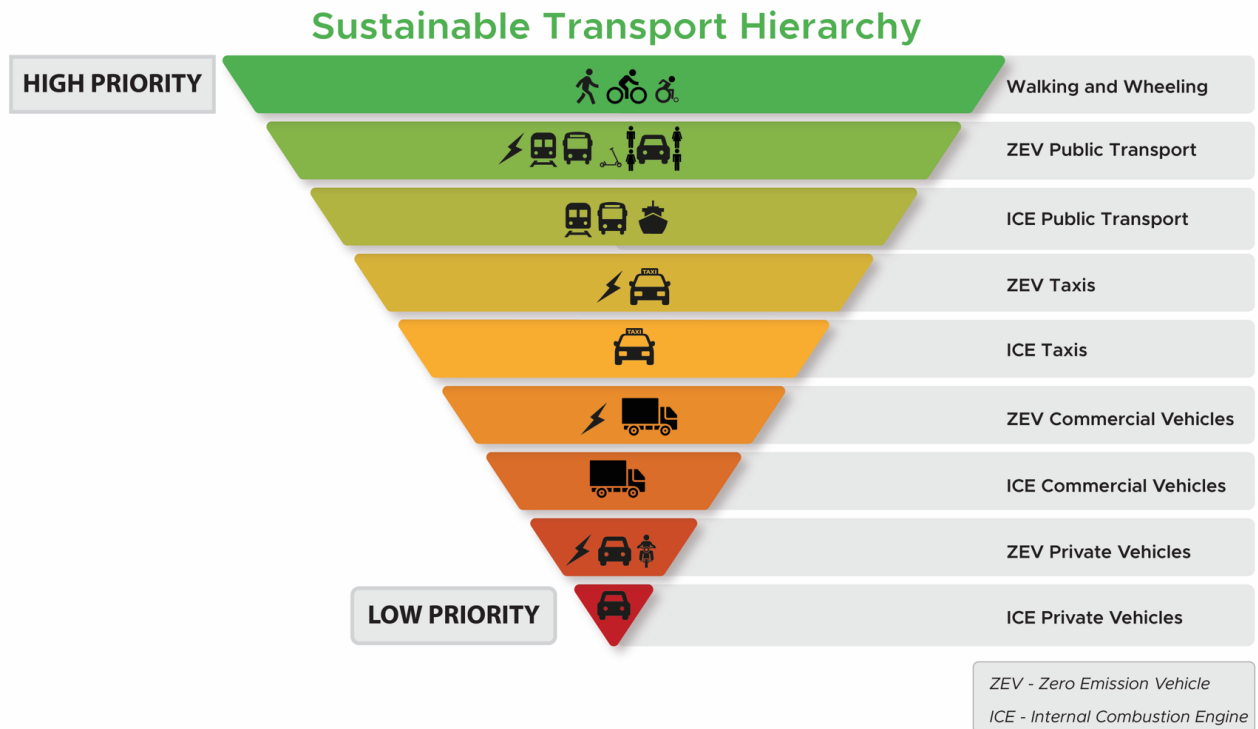
4.31 This movement hierarchy approach also recognises differences in engines and emissions, whereby movement by a zero-emission vehicle is preferable to movement by a conventional petrol- or diesel-powered vehicle. The hierarchy applies not only to the movement of people, but equally to the movement of freight as set out in more depth in *Policy G2-4*. Put simply, the movement of freight by train or boat is better than by truck, just as a cargo bike is better than a van where possible and measures that enable this to occur should be prioritised.

4.32 Walking, cycling or wheeling are at the top of the hierarchy as the default for short trips especially, with a focus on 'last mile' links to connect local areas, places where buses and trains meet, and plug missing links to the high standards required in guidance such as Local Transport Note 1/20. We deliberately use the term "walking and wheeling" as a more inclusive term than "walking and cycling". Wheeling includes people using walking aids, wheelchairs, walking aids, legal e-scooters, scooters, buggies and prams.

4.34 The LTP movement hierarchy complements our approach to land use planning, through the Sustainable Movement Hierarchy advocated in the draft SDS. Together, they will ensure a consistent approach to new development proposals and the prioritisation and management of movement in ways that support our challenges and priorities as a city region.

4.35 Put simply, we must make sure that walking, wheeling and using the bus and rail networks are not only the most important considerations in how we plan movement and new schemes, but that these are also made the most convenient and attractive options, in how they are designed and prioritised.   This will equally benefit people who need to drive vehicle, van of HGV for a specific journey whether, as the approach seek to reduce overall levels of congestion and delay.

4.36   The principle of a hierarchy is not new; hierarchies in previous LTPs have classified roads across the city region by type – freight, public transport and local traffic especially. This approach is considered crude and no longer relevant. The reality is that routes, irrespective of their definition, have different characteristics, demands and priorities in different areas. For example, a bus route may start as a wholly segregated bus station within the city centre. It may then extend through busy local communities, shopping streets, schools, colleges or industrial areas. The route may then follow sections of busy urban dual carriageways or motorway junctions. The needs and priorities will be different at these different stages, and the movement hierarchy will guide how we plan works, schemes and maintenance in response to local circumstances, rather than by a broad typology of an end-to-end route.

4.37   We also know that every mode of transport has strengths and weaknesses, depending on the type or length of the trip being made. There are some areas of the LCR where connectivity is weaker, limiting access to opportunities and making mode shift unattractive. We must address this - including in cases where the offer at evenings and weekends is poor. This is about improving levels of active travel and public transport connectivity, including perceptions and myths about public transport and active travel. Poor levels of connectivity – poor levels of service or poor service frequencies to and from specific areas – hinder the ability to realise the change that we need to see. This often means that there is no choice other than to use a car or take a taxi. As we set out in more detail under Goal 1, people become isolated or excluded and miss out on new opportunities and life – in other words, they experience unacceptable transport-related social exclusion.

4.38   But when we implement the hierarchy, we need to be careful not to artificially compartmentalise different forms of travel. The reality is that people don't fall into simple categories as "cyclists", "car or van drivers", "bus users", "lorry drivers", "ferry users" or "rail users", for example. People use different forms of travel depending on their circumstances and may be a driver, pedestrian, and a bus user all on the same day. Our priority must be to make it easy for people to mix and match the best forms of clean, zero carbon transport at the upper end of hierarchy especially, to make their journey. A journey may begin on foot or by being wheeled, before transferring to a bus. The next leg may be made by train and then by legal e-scooter or bike. Our aim will be to plan transport and investment in a way that facilitates this, and makes this combination of journeys quicker, easier and more convenient than using a private vehicle or other modes at the lower end of the hierarchy for the entire trip. Thinking about travel choices in the round is vital, so that networks feed and support one another, integrate more, and duplicate less.

Travel plans for Thursday….
- 0820 – walk kids to school
- 0840 – bus to station
- 0915 – train to city centre
- 0935 – e-scooter to office
- 1130 – car share to meeting
- 1630 – train home
- 1900 – bike ride with kids to sports practice……

4.39   Importantly, the principles in the movement hierarchy mean that we accept that journey times by car or by private vehicle will not be the overriding priority that they once were. Indeed, journey times may become slower, less direct or less convenient that they may have been previously. But, this can help switch more people onto clean forms of travel if the right alternatives are there, meaning that levels of congestion will fall. This will also benefit road

users making essential trips, whether through need or circumstance that can only be made by car, van or HGV as their journeys will be more efficient, less congested and be subject to fewer delays. This is a different approach than in the past, where we have tried to minimise inconvenience for general road users, or else have built in more road capacity to maintain journey times for general traffic. As with so many compromises, this has helped to encourage growth in car ownership and numbers of car trips. It has created many of the challenges identified in this plan – emissions, congestion, danger and lack of fairness and opportunity for all. This new approach will be fairer and benefit everyone, however they choose to make a particular trip, or leg of a trip, by reducing the dominance of traffic.

4.40   Finally, we must think beyond traditional forms of travel in the hierarchy (e.g. cars, buses, trains, push bikes, HGVs, ferries, ships). We must reflect the role of new mobility in filling gaps in the transport network and providing viable alternatives to private car use. Technology is changing quickly; car clubs, e-scooters, drones, autonomous vehicles, e-bikes, ride sharing apps and payment systems that increase affordability and equality of access are important parts of the mix. New modes of travel and new technologies can also replace unnecessary trips, or trips made by private car, as well as addressing gaps in the "first and last mile" of a longer trip. This mix of options must include the availability of high-speed broadband and 5G connectivity as an essential utility, providing that we address digital exclusion for people who feel isolated from new technology.

Source: www.enterprise.co.uk

> ### *Principle 6: Guided by our commitment to inclusivity, accessibility and social value*

4.40   Ensuring that the Liverpool City Region's transport offer and associated infrastructure is fair, accessible and inclusive is central to the delivery of the LTP.

4.41   We will be guided by the commitments outlined in the LCRCA [Equality Strategy](#) and [Social Value Framework](#) to embed equality, diversity and inclusion and maximising the creation of social value within design and delivery of the LTP.

4.42   The LCRCA Equality Strategy outlines how we will meet the requirements of the Equality Act 2010 by eliminating discrimination, harassment and victimisation, advancing equality of opportunity and fostering good relations.

4.43   In addressing gaps and solutions to the transport network, we will be guided by the use of Equality Impact Assessments (EqIA) to understand impact on people with protected characteristics under the Equality Act 2010. We will undertake EqIAs routinely, keeping them under regular review and updating based on user engagement and data updates. EqIAs will identify how projects and proposal positively promote equality of opportunity and foster good relations as well identify potential discrimination or adverse impacts.

4.44   The LCRCA's definition of protected characteristics also extends to socio-economic disadvantage and tackling transport related social exclusion is a high priority. Transport for the North define social exclusion as being unable to access opportunities, key services, and community life and facing major obstacles in everyday life through the wider impacts of having to travel to access key destinations.

4.45   These wider impacts include the cost and time entailed in using the transport system, and the impacts of stress and anxiety linked with using the transport system. Together, these impacts can contribute to a vicious cycle of poverty, isolation, and poor access to basic services. Key causes arise from a fragmented, unreliable and high-cost public transport system, along with poor walking and wheeling infrastructure leading to a car dominated society with high levels of transport related social exclusion. Feeling safe across both public transport and active travel is also a crucial aspect.

4.46   This has a disproportionate impact on those people with disabilities (both physical and hidden) and long-term health conditions, those with caring responsibilities, those from low-income households/in insecure work and those from lower socioeconomic backgrounds. We estimate that 8.7% of the LCR's population (130,000 people) is at high risk of transport related social exclusion.
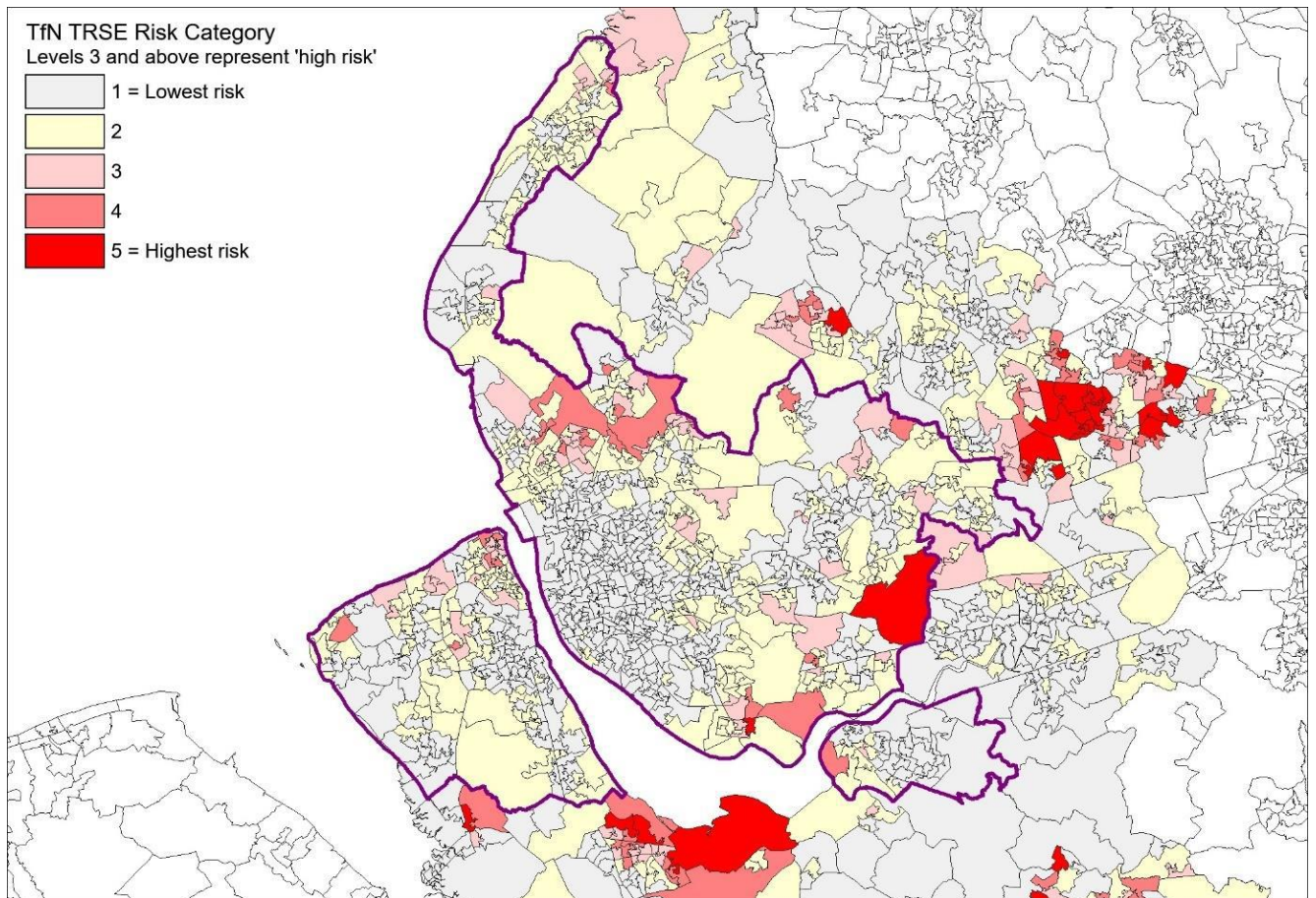
Areas at Risk of Transport Related Social Exclusion.
Source: Transport for the North

4.47   The key to addressing this is to provide significant investment across local public and sustainable transport services to make them more integrated and accessible. This is both in terms of cost - across modes and boundaries - and physical access, to provide viable and reliable access to opportunities, crucially outside of peak periods and core commuter routes. This should also be done in tandem with transforming car dominated areas into enabling active travel.

4.48   Through this plan, we set out how our sustainable transport system will be reformed, fully integrated, and provide a genuine alternative to the car. The design and delivery of our services will be facilitated through a co-design approach to ensure that service users, people with lived experience and local communities are able to influence and shape our services to ensure they are inclusive and accessible. This co-design approach will be implemented into the statutory engagement process and impacts captured as part of the regular reviewing of the Equality Impact Assessment and Monitoring and Evaluation processes. Transport measures on the existing transport network that remove physical and cognitive barriers will be prioritised and incorporated into the commissioning and design of all schemes and programmes.

4.49   We must accelerate the programme to make the LCR's rail stations accessible from street to train to fully accommodate active travel needs such as walking and wheeling. So too with access improvements across the city region's highways and public spaces, including as part of any routine maintenance schemes, and new development proposals, wherever possible.

PAS 1899:2022
Electric vehicles –
Accessible charging – Specification

Office for Zero Emission Vehicles · Motability · bsi.

4.50   Wherever possible, electric vehicle charging infrastructure will be required to meet the requirements of PAS 1899 so that they can be used easily and independently by drivers with physical disabilities.

4.51   Support packages to break down barriers to the use of independent and fully inclusive travel will be taken forward; these will include measures such as travel buddying, mentoring, travel training, cycle and wheeling training and confidence-building. These should replace the need for traditional, segregated door-to-door services that do not support the principles of inclusion and equality of access.

4.52   Making all of our transport services and infrastructure physically and cognitively accessible is central to breaking down these barriers, as well as supporting other LTP Goals in equal measure. Indeed, "making best use" - improving the usability and accessibility of existing transport networks, especially our rail network - can provide greater benefit and value for money than building a new facility or station outright.

4.53   The LCRCA Social Value Framework states we will connect all our communities to opportunity, both physically and digitally. As outlined in the Framework, Social Value captures the difference an organisation's project can make to the community or communities it operates in, considering the impact of the 'triple bottom line' of people (social), planet (environment) and use of resources (economy). It supports organisations or projects to make decisions which consider this wider definition of value to increase equality, improve wellbeing and increase environmental sustainability.

4.54   We will maximise the creation of Social Value through the LTP by championing and demonstrating best practice. This includes identifying the creation of Social Value at the start of project design, developing robust delivery plans and delivering consistent measurement processes. This is to ensure the creation of Social Value is maximised, delivered on time and positively impacts the Liverpool City Region.

4.55   The delivery of Social Value will be assessed using the LCRCA Social Value Measurement Approach. Examples of delivering Social Value include providing employment opportunities, such as full or part time employment or apprenticeship positions to local or disadvantaged people, paying employees working on a contract or project real living wage if not already doing so, delivering engagement sessions in schools and colleges on sector specific subjects, disclosing scope 1, 2 and 3 carbon emissions, or volunteering in local community groups or charities. The LCRCA Social Value Annual Report showcases examples of how social value has been maximised and delivered across all activities.

4.56   We will ensure equality, diversity, inclusion and Social Value is embedded throughout procurement, commissioning and delivery of schemes and measures that are commissioned or supported through the LTP process. Again, Equality Impact Assessments will be required as part of the development of schemes to ensure equality considerations inform design and delivery decisions. Scheme sponsors will also be required to consider how Social Value could be delivered as part of procuring of services, whilst maximising the delivery of Social Value will be considered both in the selection of and at all aspects of a project's lifecycle.

Principle 7:   Work with others to promote and deliver the vision, goals, principles and policies of the LTP

4.57   We know that movement is influenced by many organisations and interests and the LCRCA cannot deliver this plan alone. We must promote and champion the vision, goals, principles and policies in this plan with others, building on the engagement and public opinion that we have built to date.

4.58   Our own personal travel needs and habits have a direct bearing on the success of the LTP and the change in travel that's needed. Indeed, as we set out in the sections that follow, we need to reduce the numbers of car-based trips that people make from 433 individual car trips a year to between 346-372 trips by 2035. This is, quite literally, a journey that we must make with people and with our communities.

4.59   Providing reassurance, advice, support and incentives is vitally important part of the package needed to support modal shift from private car to sustainable alternatives to meet the priorities in this LTP. Travel plans for schools, colleges, workplaces and tourism attractions will be important tools here.

4.60   As this is a plan that looks to 2040, the views and aspirations of today's children and young people are central to our thinking. The LCRCA's Youth Combined Authority was established in 2022 and is made up of more than 20 young people from all over our city region. The YCA has a keen interest in transport related projects and will be an important sounding board in finalising this draft plan and shaping future schemes and ambitions.

4.61   We recognise that we must work hard to communicate and "sell" the benefits of new measures that encourage modal switch, including in the development of specific proposals, including as part of the engagement and consultation process. This will include the use of easily understood graphics, mock-ups, social media clips and animations as opposed to complicated technical drawings or plans.

Active Travel - The Art of the Possible

Liverpool City Regio...
359 subscribers

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297

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Source: Simon O'Brien and the Art of the Possible
Source: You Tube

4.62   The LCRCA will work will other bodies and agencies to align and accelerate the delivery of schemes and measures that support the aims of the LTP and wider policy priorities such as clean air, better health and greater levels of activity.

4.63   We will undertake detailed work to understand and overcome the barriers people face in changing how they travel, whether actual or perceptual barriers, including people who are not current users of the bus, rail and active travel networks.

4.64   In addition, we will work with partners to seek to embed clean, healthy, zero emission transport as forms of travel of choice and from the very start of a concept or a proposal, rather than as an afterthought. This will ensure that the principles set out in the LTP inform other relevant policies and decisions as we redevelop our town centres, regenerate communities or plan how services are provided. Workplace or school travel plans can be an effective way in which to do this.

4.65   Organisational partners will include constituent and adjoining local authorities, central government, government bodies, Transport for the North, incumbent and new transport operators, developers, industry and business, the health sector, charitable and not-for-profit bodies, Chambers of Commerce and our communities.

4.66   Importantly, the way that the benefits of transport schemes nationally are calculated can often favour schemes in the south and south east of the country, and where value for money is often higher due to benefits to a larger workforce or population, for example. This can

make the case for funding transformational, game-changing transport schemes in areas like the North of England harder. For this reason, we will continue to work closely with partners such as Transport for the North, the Urban Transport Group, the Department for Transport and the Treasury to pursue changes that better reflect the myriad benefits and value that transformational schemes such as the expansion of Liverpool Central Station and Northern Powerhouse Rail, highlighted under section 5.2 will deliver in support of this LTP.

4.67   The role of the complementary Spatial Development Strategy for the city region will become increasingly important in influencing local plans and planning decisions and in helping to deliver the aims of the LTP. As a result, we will engage with, and respond to plans, proposals, planning policies and planning proposals coming forward in the constituent local authorities. We will respond in a way that encourages, and helps shape proposals that support the vision, goals, principles and policies in this plan.

Principle 8:   A rolling programme of innovative transport investment

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4.67   This LTP supports the place-based, strategic narrative and strategic case for interventions that will go on to be identified, promoted, or developed by the Combined Authority, the constituent local authorities, by developers or by statutory bodies or agencies

4.68   As well as including policies to guide out priorities against each Goal, the LTP will set out a Delivery Plan in part 6. The Delivery Plan's priorities will be structured into three parts:

- Short term – from now until 2027
- Medium term – between 2027 – 2032
- Longer term – from 2032 to 2040

4.69   The level of detail and precision in our delivery plan will become more high-level and less specific as we look to the future. In the immediate term, our delivery plan for capital projects takes the form of our agreed City Region Sustainable Transport (CRSTS) programme between 2022-2027. We have been awarded £710 million by Government to deliver this programme. We also have additional funds available from tunnel toll income, from charitable organisations or from land and property developers (e.g. via section 106 and section 278 agreements) through the planning process for new development.

4.70   In October 2023, the previous Government agreed to the repurposing of £36bn of funding from the cancelled HS2 project from Birmingham to Manchester. Commitments were made for a second round of CRSTS funding in response. This effectively doubled the size of this second allocation for the LCR to £1.581 billion between 2027-2032, but this has not yet been formally confirmed. Making the case to Government to confirm this level of funding will be critical to address the significant programme of work needed to deliver this LTP.

4.71   There will, however, be other funds that are not yet known or confirmed. This means that we must be open to change and adaptable and make sure that our delivery plans are still delivering the aims that we have set out. Similarly, solutions that may have been relevant and feasible in the early days of the plan may become outdated or through new technology and innovations. Our Delivery Plan will be kept reviewed at regular intervals to ensure that

it's up to date and relevant, and we will keep our data and evidence updated as well, so that we plan from a fully informed position.

4.72   In addition to the capital funds outlined above, transport is supported and facilitated by other revenue-based funding from:

- The LCRCA's Mayoral Precept
- The Transport Levy
- Shared Prosperity Fund and successor funds
- Income from the Mersey Tunnels Tolls and in future, from franchised bus services or from any new approaches to delivering the local devolved Merseyrail concession
- Ad hoc revenue support and revenue-based competitions (e.g. for zero emission fleets, electric vehicles or for active travel)

and which are equally important in supporting the delivery of services and in turn, the aims of this LTP. Funding priorities will be guided by the vision, goals, principles and policies in the LTP.

4.73   Our LTP latter years' delivery priorities will, by necessity, be at a higher-level and be less specific, but will be updated on a rolling basis as circumstances change. Updated delivery programmes will therefore take the form of appendices to this plan. This approach will help ensure that the LTP remains current and relevant over its lifetime, and will help to give the evolving pipelines of schemes and priorities a more formal status as a supporting part of the adopted LTP.

4.74   As per *Principle 6: Guided by our commitment to inclusivity, accessibility and social value*, all activity as part of the LTP will be underpinned by the organisation's commitments to equality, diversity and inclusion (EDI) and maximising the creation of Social Value. This includes our approach to investment as outlined in the Investment Strategy Refresh document.

4.75   The development of schemes will also be guided by our ambition to be an innovative city region as set out in our Innovation Prospectus. This means utilising data and technology where appropriate to foster a "Smart Cities" approach. A Smart City is a place where traditional networks and services are made more efficient with the use of high-quality data and digital solutions for the benefit of its inhabitants and business. In the Liverpool City Region, we have an opportunity to transform our transport system through innovate and creative digital solutions that allow transport and movement to be planned and operated in real time, in response to specific circumstances or to respond to an emergency. We want to make the LCR a "Smart City Region".

4.76   This will include the management of traffic (using road, rail, air and water) in new and more efficient ways utilising live data and real time information. There is also significant potential for better data and technology, including artificial intelligence, automated vehicles and pods to transform the movement of goods and freight. Such approaches will become more prevalent over the life of the LTP, as technology is rapidly advancing in this area. The global artificial intelligence transportation market is forecast to reach $6.3 billion by 2027.

4.77   As a result, there are many cases of this approach already being utilised. In Santander, Spain battery-powered wireless sensors are being used for real-time monitoring of air quality, with devices installed on public vehicles such as buses, taxis, and police cars. This allows for

periodic monitoring of the air quality, of which the benefits are two-fold. Instantly, they inform public health alert systems which warn residents of the potential exposure to harmful pollutants. Then, over time, they can provide useful data to inform longer term strategic decision-making regarding air quality issues and identifying potential solutions.

4.78   In Cagliari, Italy, the installation of pedestrian and vehicular monitoring equipment, such as smart bus stops, Wi-Fi sniffers, traffic cameras, and traffic lights**,** aims to improve road transport movement. The system detects passengers by identifying users getting on and off buses via cameras. Wi-Fi sniffers then identify people waiting at bus stops and connecting to Wi-Fi. As shown in the graphic below, the pedestrian data is then combined with that of traffic flows, enabling real-time management of traffic light timings, to prioritise public transport movement. This approach is very much aligned with *Principle 5: Prioritise clean, healthy travel in all we do* through a transport hierarchy. An evaluation of this scheme has also suggested it has the potential be scaled up, possibly covering whole metropolitan areas.

4.79   Being innovative also goes beyond the utilisation of technology; it is a philosophy to be bold and a willingness to do things differently. The LCRCA will support trials and testbed of measures that support the aims of this LTP. This is why our delivery programme needs to be flexible and cannot be set in stone to 2040 now.

4.80   The eight principes above run through, and influence all of the policies under the specific goals that follow in the next section.

5. DELIVERING THE LTP

> ## *THE VISION*
>
> ### *Clean, safe and accessible transport for moving people and goods*
>
> ***To plan and deliver a future-facing, clean, safe and accessible transport system built to last. It will focus on moving people, goods and freight around the region in a way that delivers our local ambitions. Particular focus will be on a net zero carbon emitting city region by 2035.***

GOAL 1
Support good, clean job growth and opportunity for all
goal

5.1 Delivering Goal 1

5.1.1 This goal supports the economic wellbeing and prosperity of the city region in ways that are fair and inclusive where everyone has the same opportunity to meet their potential as set out in our Plan for Prosperity. Transport supports how we move things and deliver them to our companies. It allows, and opens up access to new homes, jobs, services, education, leisure and other opportunities.

Figure 1: Plan for Prosperity Outline

Realising our vision	• A Fairer City Region. • A Cleaner City Region. • A Stronger City Region.
Capitalising on our distinctive proposition	A place of Pioneers: our deep, holistic and distinctive innovation offer.
Achieving our strategic priorities	• An inclusive city region where levelling up means no one and no place is left behind. • Pioneers of the Green Industrial Revolution. • A global, confident and outward looking city region.
Strengthening the pillars of our economy	• Maximising impacts of innovation for people, places and businesses. • Turning people's potential into prosperity. • Thriving, sustainable and resilient places. • Integrated infrastructure for a connected city region.

Enhancing our resilience	Renewing our economy	Delivering shared prosperity

5.1.2 Recent demand for travel as we recover from COVID-19 has centred around the leisure market - whether town centres, entertainment, or green spaces, the coast or country parks. Equally, poor quality transport services, or no transport, acts as a barrier if it is not easy to get to a place of work easily or cheaply. In extreme cases, people may not be able to sustain jobs. We need to reduce car dependency as a city region and ensure that people never feel forced into buying or running a car to make their living and live their lives.

A shared purpose

5.1.3 We do not deliver transport for its own sake or as a measure of success in itself. We plan and deliver transport to do other things for the good of the city region - supporting good growth, better skills and education, better health and creating a better quality of life for all.

Policy G1-1
Consider sustainable transport and movement in all we do as a Combined Authority

The Combined Authority and its partners will consider the transport implications of all its economic policies, plans, and programmes from the outset. This is to ensure that its activities support the vision and goals of this plan in equal measure.

We will support activities, plans and proposals affecting the Liverpool City Region in accordance with LTP *Principle 5: Prioritise clean, healthy travel in all we do* with walking, cycling and clean public transport as the first choices of travel for people of all ages and abilities, and in ways that improve quality of life for all. It will also ensure that everyone can access education, work and life chances easily and fairly and that goods and services can move easily and sustainably.

Good accessibility and sustainable transport considerations will be central to our investment function in how we bid for, allocate and prioritise monies within our control and influence.

5.1.4 We must ensure that we focus our transport services and investment around the needs of our people, on where the need is strongest and do this in ways that support the vision and all five goals. But equally, we also recognise as a Combined Authority that other things that we do, outside of our transport responsibilities have a big impact. These include regeneration plans, the Freeport, work to improve people's employment chances and skills, and our planning policies – all of which influence travel demand and how people travel in good and in bad ways. This means that we must think about and manage the transport impacts of all that we do from the start and not as an afterthought. The LTP will guide and inform how we commission and fund activities and provide the strategic "case for change" in any relevant business case or funding submission.

5.1.5 The Combined Authority has specific powers around transport, economic development spatial planning, skills and devolved capital funding in the main. We know that many other powers and factors influence how and why people travel.

5.1.6 One of the main determinants of travel is the location and accessibility of development – homes, shops, workplaces, schools and facilities. This is in part why the LTP cannot deliver its aims in isolation; decisions around the location of education or health services have a bearing on the vision and goals set out in this plan.

5.1.7 The LCRCA's draft Spatial Development Strategy (SDS) influences where housing, economy and employment, leisure and commercial, infrastructure, community facilities and natural and historic environment. It also sets out principles, tests and criteria for new development. The SDS and LTP have been developed together, meaning that they share common aims around core issues such as:

- Tackling climate change has been and resilience to change
- Health and wellbeing
- growth and inward investment opportunities
- inclusive economy
- Liverpool City Centre as a world-class destination and regional economic centre
- businesses and communities that are connected and that thrive, supported by cleaner and greener travel and digital infrastructure
- well-connected communities, with place-making at the heart of new development

5.1.8   As the city region changes and grows in response to new development, we will ensure that the principles and policies of the LTP guide and influence how this development will be located, laid out and serviced. The illustrative map to the right identifies the draft SDS's main areas of growth and focus.   This will be directed to sustainable locations, focused on Liverpool City Centre, the Inner Urban Area and the Wider Urban Area. Importantly, these areas are typically best served by core bus and rail services so are not reliant on car-based trips.

Map 4.1 *Spatial Strategy*

Source: LCRCA Draft Spatial Development Strategy

5.1.9   Similarly, the spatial priorities set out on the preceding page and the strategic housing and employment sites being promoted by the draft SDS will inform investment priorities in the LTP's delivery programme especially. This recognises the need to support clean, sustainable access to these sites, avoiding the need to travel by car, to support the shared goals of the LTP and the SDS.

5.1.10   The aim will always be to ensure that all new development and economic assets are fully accessible by active travel and clean sustainable transport options from the start, rather than being dependent or accessible only by private transport. This LTP retains longstanding guidelines that aspire to enabling people to live within 400m of a bus service and 800m of a rail service. Equally, we must ensure that existing services, jobs, schools, colleges and leisure

opportunities are accessible to all – not just people with access to a car or to a lift, which is neither inclusive or supportive of the LTP's vision and goals. We will work closely with our partners to co-design schemes, new services and travel plans wherever we can, and ensure that there is a clear focus on clean, safe, healthy travel and access for all.

5.1.11   The maps that follow set out the draft SDS's core housing, commercial and economic opportunities for the city region that frame current transport and access priorities:

Map 5.1 - Strategic Housing Sites

Table 5.2 *LCR Strategic Housing Sites*

LCR REF	Site	Indicative capacity	Site area (ha)
SH1	Daresbury, Halton	1,476	75.9
SH2	Sandymoor, Halton	1,424	65.9
SH3	North East Widnes, Halton	1,155	56.3
SH4	Halebank, Halton	538	25.3
SH5	East of Halewood, Knowsley	2,035	56.1
SH6	South Whiston (Halsnead Garden Village), Knowsley	1,585	79.5
SH7	Cherryfield Drive, Knowsley	819	8.8
SH8	Land at Leeds St / Lanyork Road, Liverpool	742	0.8
SH9	Liverpool Waters, Liverpool	5,690	28.0
SH10	Scotland Rd/ Bevington Bush/Nicholas St, Liverpool	614	0.8
SH11	Former International Garden Festival Site, Liverpool	1,374	49.1
SH12	Brunswick Quay, Liverpool	552	1.0
SH13	Northern Dock, (Liverpool Waters) Liverpool	1,796	15.0

LCR REF	Site	Indicative capacity	Site area (ha)
SH14	Land at Aintree University Hospital, Liverpool	500	8.9
SH15	Freemasons Row, Liverpool	656	0.5
SH16	George St Development Area, Liverpool	1,008	1.5
SH17	Crowland Street, Sefton	500	25.8
SH18	East of Maghull, Sefton	1,807	85.8
SH19	Town Lane, Sefton	661	14.2
SH20	Land at Florida Farm, St. Helens	522	17.4
SH21	Bold Garden Village, St. Helens	690[54]	99.7
SH22	Garton's Lane, St. Helens	569	16.3
SH23	Cowley Hill, St. Helens	742[55]	31.1
SH24	Moss Nook, St. Helens	802	20.1
SH25	Land at Hind Street, Wirral	1,400	14.7
SH26	Wirral Waters, Wirral	3,234	12.7
SH27	Former D1 Oils Dock, Wirral	1,225	23.5
TOTAL		**34,377**	**834**

42

Map 5.2 - Strategic Employment Sites

Table 5.9 *Liverpool City Region Strategic Employment Sites*

LCR SDS Ref	Site	Indicative Site Area (Hectares)
SE1	The Heath Business Park, Halton	0.5
SE2	Sci-Tech Daresbury, Halton	18.2
SE3	West Runcorn (incl. Ineos, INOVYN), Halton[61]	N/A
SE4	3MG, Halton	78
SE5	Knowsley Industrial and Business Parks, Knowsley	60.03
SE6	Jaguar Land Rover, Knowsley	0.46
SE7	Land South of M62, Knowsley	22.51
SE8	CBD, Liverpool	2.89
SE9	Knowledge Quarter, Liverpool	N/A
SE10	Atlantic Business Park, Sefton	16.8
SE11	East of Maghull, Sefton	17.1
SE12	Omega South, St. Helens	12.39
SE13	Parkside[62](East), St. Helens	64.55
SE14	Parkside (West), St. Helens	79.75
SE15	Haydock Industrial Estate, St. Helens	28.33
SE16	Glass Futures	1.64
SE17	Northside, Wirral	13.11
SE18	Wirral Waters, Wirral	22.37

5.1.12 The draft SDS is also supported by a Strategic Infrastructure Plan (SIP). This identifies existing, funded, planned and aspirational strategic infrastructure needed to support SDS priorities and growth aspirations to 2040. The SIP also considers future infrastructure requirements up to 2045. The SIP will be a 'live' document and will be used to plan for the delivery of strategic infrastructure throughout the SDS plan period. The SIP will be used to inform Combined Authority policy, investment decisions and input to planning proposals for new development. Equally, this LTP will help inform future revisions to the SIP so that we are consistent and clear.

5.1.13 Transport is vital to support growth and access; as noted above, the Plan for Prosperity is also closely aligned and commits to delivering growth and prosperity in ways that support a cleaner, better connected, more sustainable and resilient city region. Our related Economic Opportunities Framework reaffirms these principles. It summarises the LCR's key strengths and locations that provide, or have the potential to provide, a catalytic impact on our economy. The message around transport is

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Enhancing our resilience	Renewing our economy	Delivering shared prosperity

consistent with this LTP – we must align connectivity between strategic transport corridors, economic opportunities, and achieve full digital connectivity to ensure that we can maximise our strengths to reflect the changing nature of work. Infrastructure is an economic enabler to support the shift to a low carbon economy, delivering new skills and opportunities.
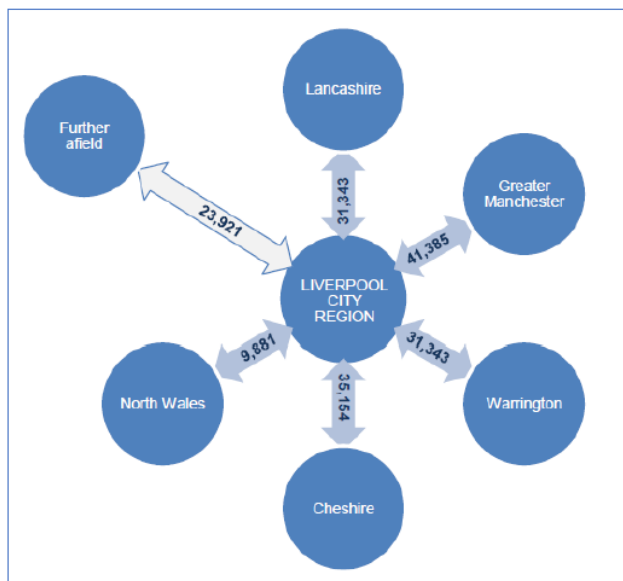
5.1.14 The devolved funding that we manage is closely linked to these principles, most recently through the 2023 Investment Strategy. Through the LTP, we reaffirm our commitment to adopt an approach to infrastructure that delivers clean, sustainable growth and shared prosperity for all our communities and businesses. We will transform our energy, transport, and digital infrastructure to deliver sustainable economic growth, protect the environment, improve public health, attract investment, and link people and businesses to opportunities across the city region and beyond. A modern, low carbon infrastructure system will be the underpinning enabler to deliver these ambitions. The role of the LTP is to support the transport investment and interventions to deliver this vision, whether to improve levels of connectivity, or help shift the balance of how people and goods move, through specific schemes or services.

5.1.15 A key point is that the LCR is not an island or a cul-de-sac; cross border journeys for people and freight are of critical importance in their impact and importance. Cross-boundary travel amounts for 37% of commuting trips.

5.1.16 The LCR is a gateway to and from the rest of the world. In 2019 there were 648,000 passengers using the Irish Sea ferry routes to Liverpool. By 2022 this had increased to 801,000. Pre-COVID Liverpool John Lennon Airport recorded 5.0m passengers in 2019, and by July 2023 had reached 86% of pre-COVID levels. The Liverpool City Region recorded 5.4m staying visitors and 60.8m day visitors annually.

No area is an island – Commuting trips to/from the Liverpool City Region (2011)

Source: Census 2011, ONS

5.1.17 As set out in the LCR Strategic Housing & Economic Development Needs Assessment (2023), the city region is influenced by a number of major employment locations surrounding it. These include Chester, Warrington, Preston and Manchester. The LCRCA will continue to work with neighbours and wider regional authorities and transport bodies over the lifetime of this LTP to help deliver transport improvements across the North, including improving inter-regional accessibility and supporting increased connectivity and economic integration for example with the Greater Manchester City Region, with the potential for agglomeration benefits.

5.1.18 Similarity, fast, frequent, and reliable connections between our economic centres for goods, people and business to other parts of the UK and to our international gateway The 2023 Northern Powerhouse Independent Economic Review (NPIER) identifies the economic prize of closing the productivity gap between the North and the UK would mean a northern economy that is £118bn pa larger by 2050. The LCRCA will work closely with bodies such as Transport for the North and the Government in pursuit of these aims, in a way that aligns with *Policy G2-2: Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity*

5.1.19 The LCRCA works closely with Transport for the North (TfN) as the sub-national transport body with a statutory role to collectively represent all of the region's 16 million citizens. TfN bring coordination and efficiency to unlock pan-regional issues of importance that help connect the city region to the east as well as north and south; when LCR residents travel for work or leisure across the North, they have the right, enabling travel network and services. Improving connectivity across the North is one of the main objectives of TfN's Strategic Transport Plan (STP).

5.1.20 Within the STP, TfN state a clear vision:

"By 2050 the North of England will have become a thriving, socially inclusive region. Our communities, businesses and places will all benefit from sustainable economic growth, improved health and wellbeing and access to opportunities for all. This will be achieved through a transformed, zero-emission, integrated, safe and sustainable transport system, which will enhance connectivity, resilience and journey times for all users. Our vision is supported by three clear strategic ambitions the North wants to achieve."

5.1.21 The Liverpool City Region Combined Authority is a signatory to this ambition, which reinforces the ambition to deliver a joined-up transport network across the North.

5.1.20 Equally, the LCRCA will work with closely bodies such as the Mersey-Dee Alliance, Transport for Wales, Welsh Government and adjoining Northern local authorities and Combined Authority areas to deliver joined-up, sustainable travel options across our borders.

Targeting action in response

Policy G1-2
Prioritising measures and services that improve people's access to opportunity

We will use our evidence to guide and prioritise measures that address gaps or weaknesses in the transport network that act as barriers to businesses, visitors and residents across the city region.

The spatial priorities (para 5.1.8) and the strategic housing and employment sites being promoted (5.1.11) will be especially important considerations in the specification of enhanced active travel, bus and rail links and measures to improve integration using new ticketing support, linked to Policy G1-3 below on issues of cost and convenience.

A re-mapped, franchised bus network will be critical in support of this policy and to help deliver the wider goals and principles of this plan.

5.1.21 Poor quality transport services, or no transport at all, acts as a barrier if it is not easy or safe to get to a place of work easily or cheaply – and we know that people have turned down offers of work due to the cost, availability or inconvenience of public transport. Transport for the North estimates that 8.7% of the Liverpool city region's population live in areas defined as being at high risk from [Transport Related Social Exclusion](#) (TRSE), whereby inequalities in our transport system contribute to poverty and economic deprivation, inequalities in health and wellbeing, and social isolation.
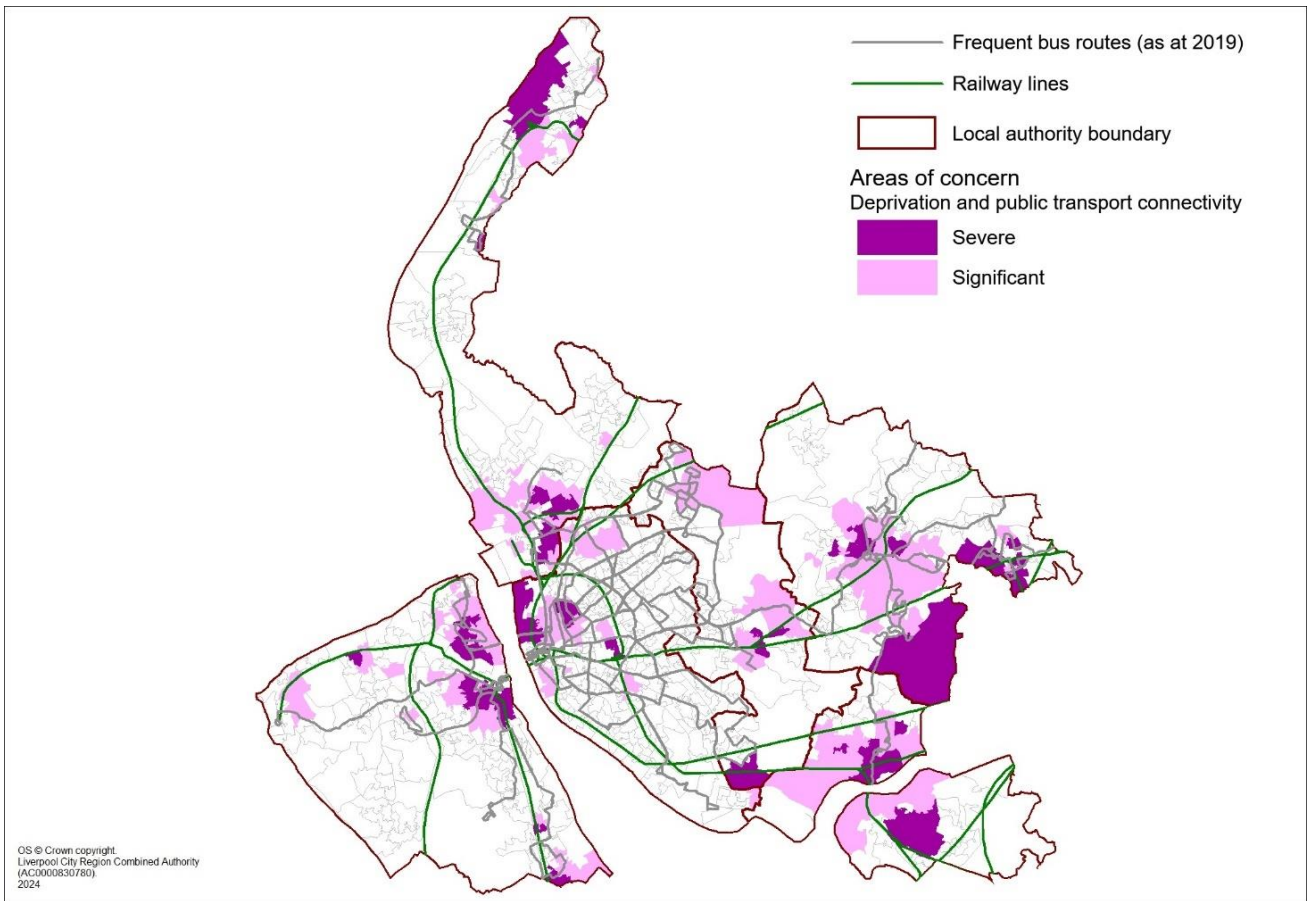
5.1.22 Poor levels of access to workplaces in turn create lead to higher levels of car usage and the challenges that this plan sets out to tackle. The map over the page shows where pockets of workplaces with particularly high levels of car use are likely to exist. Liverpool City Centre appears to perform better in terms of lower car use, but there are many areas of concentrated car use elsewhere.

Car use to workplaces and workplace concentrations

Levels of car use
All workplace zones >2,000 employees per km²

Green (Car use < 50%)
Amber (Car use 50% - 70%)
Red (Car use > 70%)
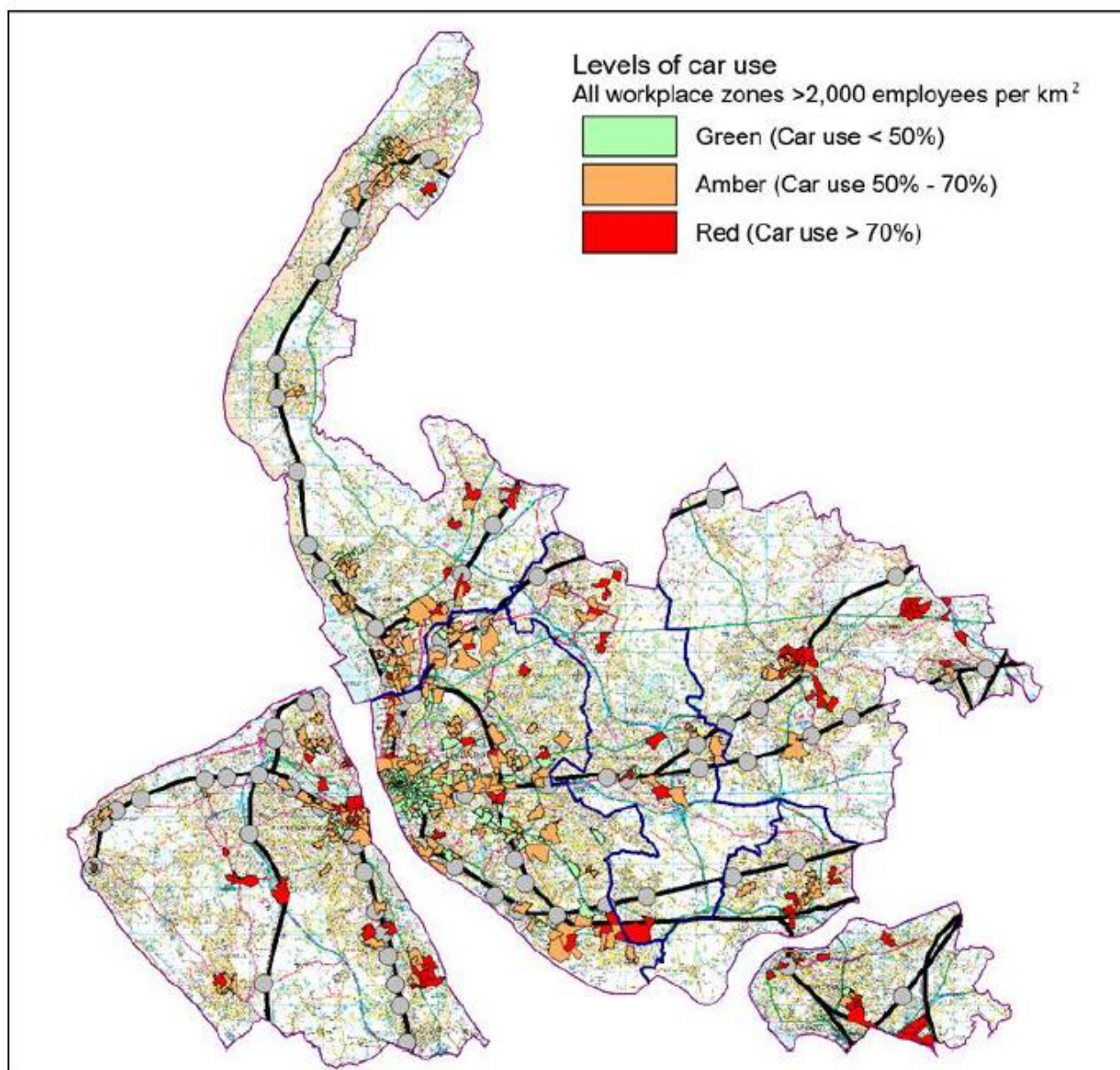
Source: Census 2011 and BRES 2010 to 2020; ONS

5.1.23   The following map shows areas with higher levels of deprivation, and where public transport is weaker than the car offer. This means that people without access to a car may not have as many opportunities or may be forced into running a car that places a big burden on their household finances because there is no alternative.

Frequent bus routes (as at 2019)
Railway lines
Local authority boundary

Areas of concern
Deprivation and public transport connectivity
Severe
Significant

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Liverpool City Region Combined Authority
(AC0000830780)
2024

5.1.24 Poor levels of access mean that people will either choose not to travel, travel in ways that are sub-optimal (e.g. on foot along dark streets late at night) or else use their own cars to make trips. This will not support our inclusive growth, safety, decarbonisation or environmental goals. We also need to bear in mind that jobs in retail, manufacturing, distribution and in the visitor economy are more likely to be shift-based or involve travel late and night or early in the morning when options are more limited. The ways in which we will enhance the reach and quality of public transport services are set out in more detail under Goal 2, but we must make clean transport choices easy, and affordable and competitive, especially in the current cost of living crisis. The cost of travel featured strongly in the priorities that our consultees raised in the consultation on the Vision and Goals in 2022.

Policy G1-3
Making it easy and affordable to travel

Using our City Region Sustainable Transport Fund between 2022-2027 and through new influences in the form of bus franchising and the further devolution of our rail services, we will deliver a new digital journey payment system that make bus and rail travel in the city region transport simple, flexible and affordable. The aim over time will be to extend this convenience to other forms of travel, including legalised scooters and e-bikes and new forms of mobility. This will be accessible by smartcard, mobile phone app or contactless debit card.

This will include the ability to 'cap' the costs of travel so that passengers pay no more for their journey than they need to, and not face penalties if they need to change bus or from bus to a train service. It will also make it simpler in time to mix and match different forms of transport and to fully integrate bus, rail and ferry services and to blend new forms of travel such as legalised shared e-scooters and e-bikes.

Through our digital inclusion commitments, we will ensure that no one is left behind or disadvantaged as a consequence of the move to new digital and account-based ticketing products from paper-based tickets or from payment by cash.

5.1.25 Taking the guesswork and uncertainty out of paying for transport using cashless payments can offer big benefits and help overcome these barriers. It can also break down costs, if users are not penalised for making trips by different forms of travel or on different operators. It's also central to how we deliver a truly integrated, London-style transport system. The ambition is for a simple, fair, inclusive and seamless methods to pay to access transport for everyone while helping reduce car dependency and use of the private car - the right fare for that journey. It should ensure that people will always be charged the lowest price for the route travelled.

5.1.26 The move to bus franchising in the early years of the LTP's delivery horizons will provide huge opportunities to streamline, review and integrate bus ticketing with other modes of travel. In particular, the need to buy different tickets for use on different operators' services, often at disproportionate cost, will be obviated.

5.1.27 Making the Liverpool City Region one of the UK's most digitally connected and inclusive regions in the UK is a key priority for the Combined Authority. As a city region, we are committed to ensuring that our residents have access to the skills and support needed to fully participate in an ever-evolving digital world. This is so that our plans for smart, integrated ticketing and new ways of paying or travel do not lead to digital exclusion and create unintended consequences. This means considering the needs of people who may not have access to the internet, the right equipment, appropriate digital skills, means to afford to engage online or may not have a bank account. The LCRCA's digital inclusion work provides help getting online, support around digital skills and accessing essential equipment.

5.1.28 When we take forward new digital ticketing products, and look at how they are sold and accessed by people we will:

a) deliver changes to ticketing products in ways that maintain a choice of formats and methods to ensure that the transport network and services allow freedom of travel for people who are digitally excluded and disadvantaged. Technology should enhance choice and ease of paying for access to the transport network, not stymie it.

b) Ensure that new products and services are integrated with the principles in the LCRCA's Digital Inclusion Network, so that support and mentoring is available for people who would otherwise be excluded or left behind

c) Reform and simplify the range of transport information, ticketing and payment systems.

Policy G1-4
Reviewing our travel support offer

We will review our travel support packages make sure that they are delivering benefits in ways that support the aims of this LTP.

This will include consideration and trials of new support or incentivisation packages for younger people facing barriers to education or work, for people who are of on the cusp of learning to drive and buy a car, for people struggling to access work or for people seeking asylum and who require urgent support. We will seek to do this as part of a review of our products and services, rather than on a case-by-case basis, and consult with affected groups and communities.

Where travel support is provided by others, such as local education authorities or the health sector, we will work collaboratively to ensure that solutions are complementary, don't duplicate or compete and support the vision and goals set out in this LTP. The presumption will be on maximising the use of travel choices that are at the top of the transport hierarchy set out in *Principle 5: Prioritise clean, healthy travel in all we do.*

5.1.29 We recognise that barriers to education, work and life chances can helped be unlocked by making travel cheaper and free of charge in cases – even if the level of service is good. We operate one of the most generous concessionary travel systems for people with disability and over the age of 60 in the country, and where we provide free travel on board buses and trains. We also provide lower cost travel or young people studying for apprenticeships. MyTicket is a prime example of a simple, low cost and flexible bus ticket that takes the guesswork out of travelling by bus and in changing from one bus service to another.

5.1.30 But as our economy changes, in terms of the types of jobs that people do, where these are based, how people travel, as technology changes and as our population ages, we will review how we best target our support. Our travel offer is not equitable across the six local authority areas either. Five of our local authorities are serviced by the Merseyside concessionary travel scheme and Halton is served by the equivalent Cheshire scheme, which is less generous. Younger people aged 16+ who are on the cusp of learning to drive or buying a car may feel that the existing travel ticketing system is too costly or complex. Simpler ticketing, or better and cheaper travel support packages for people in this age group may help to provide practical alternatives to buying or leasing a car, or else driving every trip and thus reduce levels of car dependency. It could also help tackle barriers to reaching education, training or new work opportunities

5.1.31 In 2019, those over 65 accounted for 19% of the city region population, but by 2045, they will account for 25%, and in places like Sefton, this will reach over 30% of the population. Over the same period, the LCR population aged 16 to 64 is projected to decline by around 72,000 (7.4%), compared to a 2.2% decline forecast nationally. This increase in the older population has big implications for transport networks, in terms of accessibility, ticketing, and network provision. It also has direct cost implications for the LCRCA.

5.1.32 Therefore, we will keep our offer under review. This is to provide best value for public funding and make sure that it offers greatest impact and benefits to support the vision, goals, principles and policies in this plan. This will include consideration of new support packages for people excluded from the jobs market, younger people facing barriers to education or work, people seeking asylum or people leaving the prison or care system. This will include the need to think beyond traditional public transport support. Technology is also changing rapidly, linked to new innovations that influence if, when and how people travel and how transport systems operate, and we must consider as part of the review.

GOAL 2
Achieve net-zero carbon and an improved environment
Reach net-zero carbon emissions by 2035, whilst protecting and improving our local environment

5.2   Delivering Goal 2

5.2.1   The LTP clearly sets out the challenges and risks presented by how we travel and move people and goods now. Supporting decarbonisation and a future by 2040 where the city region's transport network does not contribute any more carbon to the atmosphere that it can absorb is the starting point. Transport remains our biggest source of carbon, generating some 29% of total carbon dioxide emissions in the city region. The majority of emissions come from road traffic. This must change quickly.

Policy G2-1
Removing carbon emissions from transport

Removing carbon emissions rapidly to achieve our aim to be a net zero emitting city region by 2035 means that the way and how we plan for travel and movement must change.

All transport proposals, plans, services and schemes must set out their likely carbon impacts. Their ability to reduce carbon against the 2035 trajectory will form a core consideration in the decision-making process. The right plans and proposals that make big reductions in carbon emissions will be viewed favourably by the Combined Authority. Scheme promoters must look at a range of options from the outset to understand the relative impact of different solutions against the city region's decarbonisation trajectory.

This approach will extend to the consideration of whole life carbon analysis as set out in evolving DfT guidance. Principles set out in the PAS 2080 framework will be used in the assessment and appraisal of transport options and projects.

5.2.2   Importantly, tackling carbon emissions is not the sole focus of this LTP, as transport also generates other harmful pollutants to human health, such as nitrogen dioxide and microscopic particulates. This is addressed in more detail under Goal 3. Over the life of this LTP, more and more vehicle engines will shift from being powered by petrol and diesel to being powered by electricity or by hydrogen, and which is expected to improve nitrogen dioxide problems. However, all road-based vehicles generate harmful microscopic particles from tyre wear and brake dust and other sources. Tragically, any vehicle in capable of inflicting injury of death. Low-emission electric or hybrid vehicles are not a panacea for improving the environment and tackling other adverse effects from transport.

Modal shift

5.2.3   The headline is that measures to achieve very significant modal shift and a big reduction in vehicle trips must form a core part of this LTP. This is to deliver the goal of a clean, liveable, safe and healthy transport system that's not characterised by "cleaner congestion" but stressing that no congestion is clean or risk-free. Congestion is harmful to the economy and to people's safety and wellbeing.

> *To achieve net zero by 2035 locally from transport, the following estimates are re-iterated:*
>
> - *Based on an estimate that only 63%-75% of the car fleet will be zero emission vehicles by 2035 this must change, through increased uptake and/or mode shift*
> - *Levels of car trips will likely need to have reduced by between 11% and 21% relative to pre-COVID levels of demand*
> - *This is equivalent to taking between 216,000 and 395,000 daily car trips off the road*
>
> *If an average person takes 433 individual car trips a year (including non-car users), this will need to be reduced to between 346-372 trips*
>
> - *Bus trips will likely need to increase by between 61% and 82%*
> - *Rail trips will likely need to increase by between 69% and 72%*
> - *Cycling and walking trips will need to increase by between 8% and 35%*

5.2.4   The significant modal shift that is required to achieve our decarbonisation goal is stark and challenging. Our four "do minimum" scenarios show that not taking action will increase the number of car-based and freight trips and will not support decarbonisation by 2040. Clean vehicle technology alone will not support the decarbonisation of transport across the city region. This means reducing the need to travel by car, van and lorry, and making travel by car less desirable or attractive than the alternatives. But we recognise that there remains a need for, and a role for car travel. This may be for HGVs and vans for the movement of freight along a well maintained and resilient road network, or for individuals, notably those with a disability, who rely on private vehicles for safe and comfortable transportation.

5.2.5   This LTP is not "anti-car" but is instead "pro-transport choice" with the benefits of changing the balance of how we travel, and prioritise travel far outweighing the disbenefits.   The city region has an extensive highway network, developed over many years that serves an important purpose for everyone. But less traffic on the roads, with lower levels of congestion also directly benefits motorists, including essential freight deliveries and trips that cannot be made other than by car. This improves levels of connectivity and economic competitiveness at the same time. Put simply, we must give priority to people first, and then to clean forms of travel, and create a city region that is much less dominated by car traffic. The urgency of modal shift and making streets and places better for all will require a big focus on bus-based solutions, active travel and roadspace reallocation (e.g. the creation of bus lanes, walking cycling and wheeling routes, bus lanes and priorities, school streets and low traffic streets).

5.2.6   We also know that transport consumes resources in construction and may mean that large scale capital projects consume large amounts of carbon in their construction, from embodied steel, concrete, stone and tarmac. Taking a whole life analysis of carbon means that large-scale, new build projects may prove less justifiable than in the past, especially of their modal shift potential is unclear or unproven. This will require us to make best use of existing assets, buildings and facilities, and in reusing and recycling existing materials before new facilities are proposed or built. Equally, lower-cost measures such as traffic management or revenue-based activities may provide better solutions than large capital schemes and will need to be tested as part of a range of options. The policies under Goal 4 set out the importance of sustainable materials to reduce our carbon impacts.

5.2.7   We also know the alternative to the car is not there for everyone now to achieve the shift and the change that we need. As we set out in Goal 1, the lack of transport is also a barrier to accessing

work, training or essential services. Filling these gaps and providing a full integrated transport network (bus, rail, private hire vehicles, goods transport, active travel, new technology and also private transport) is needed to achieve this.   This is equally important in how we move freight and goods.

Policy G2-2
Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity

Tackling known constraints and barriers on the active travel, bus and rail networks to enable large numbers of people to be moved easily and efficiently will be essential to support the aims of this plan. Interventions will be focused and prioritise this action in two principal ways:

- By addressing weak links and connectivity gaps across the city region through infrastructure enhancements, improved ticketing, information and better service levels; and
- By targeting actions to achieve modal shift in areas or on corridors where use of cars, vans or HGVs is highest and where poor connectivity, poor journey times, or actual or perceived dangers hinder bus, rail and active travel choices and the delivery of the goals and principles in the LTP.

There will be a focus on filling missing links in our active travel routes and providing safe, high quality "last mile" links to areas of growth, schools, transport hubs and other big trip generators.

Actions that ensue must be delivered as part of an integrated package of place-based options. These should be informed by *Principle 5: Prioritise clean, healthy travel in all we do* and in line with *Principle 3: Decisions must be based on need and evidence,* not as a preconceived scheme or solution.
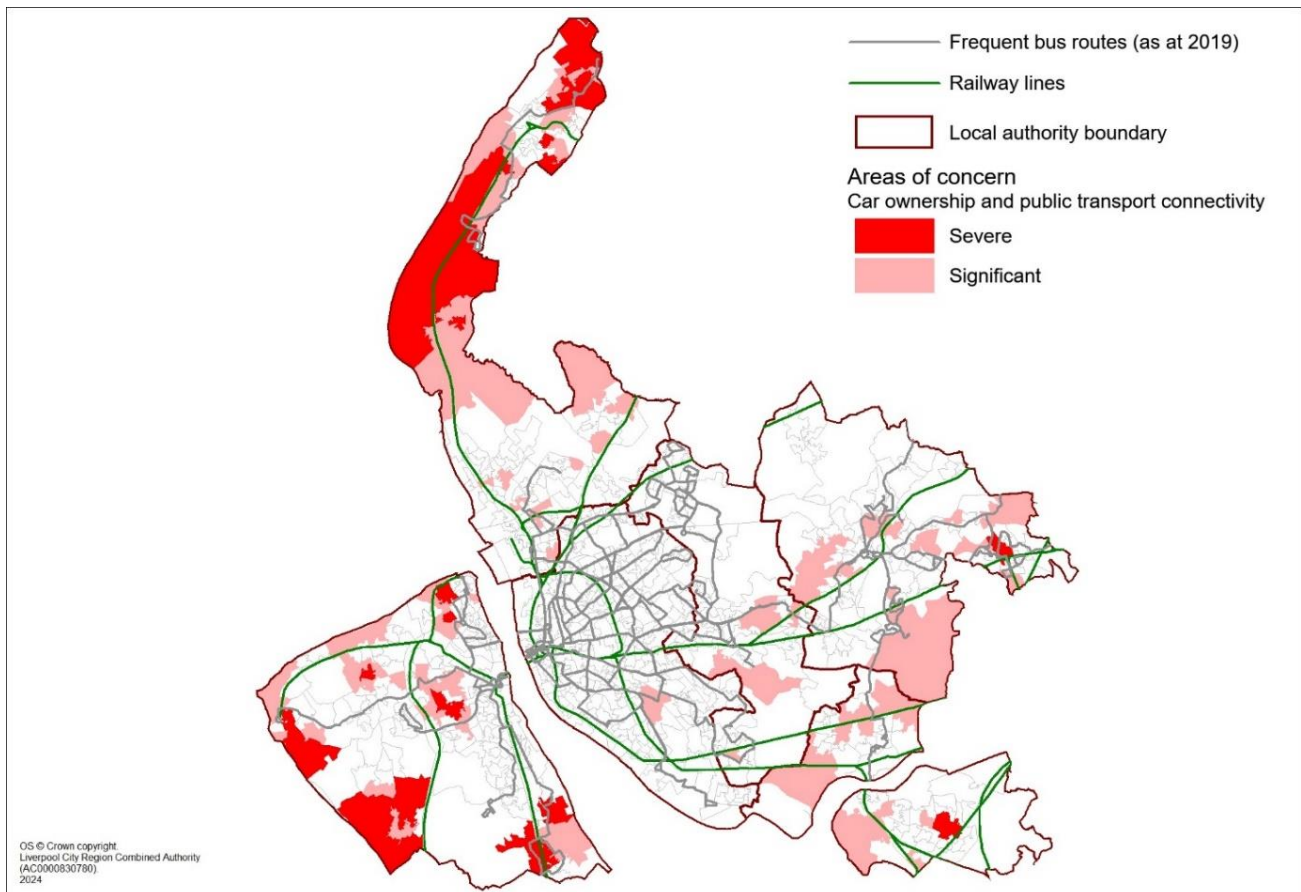
The delivery of a fully integrated system where different forms of transport and travel can feed one another, and be mixed and matched easily, is a priority. This will require capital and revenue-based measures to be considered and blended as a whole. Revenue measures will include enhanced ticketing options to widen choice and integration, measures to manage demand for private vehicles (e.g. travel plans) and marketing and incentivisation measures.

Incentive and behavioural change measures will be built into the approval process for schemes and interventions that are funded by the LCRCA, with a requirement to promote new transport measures to new users and encourage people to change how they travel or move goods.

Looking at specific priorities, the LCR supports the delivery of Northern Powerhouse Rail in full, and which is essential to deliver the connectivity, capacity that is needed to accommodate more passenger and freight on the rail network. This is also needed to improve connectivity and allow modal shift between the city region and other towns and cities across the north.

Solutions to capacity and crowding problems at Liverpool Central Station will be prioritised in partnership with Government and relevant bodies and agencies and which will otherwise inhibit growth needed on the local rail network.

5.2.8   Goal 1 focuses on the importance of the right transport choices and infrastructure to provide good access for people and businesses. We need to do the same to support the goal of decarbonising transport; in areas with high car ownership, and where public transport is weaker than the car offer, where there may not be a good alternative to driving, the alternatives must be prioritised. The map below highlights where levels of high car ownership and poor public transport connectivity coexist:

Map legend:
- Frequent bus routes (as at 2019)
- Railway lines
- Local authority boundary

Areas of concern
Car ownership and public transport connectivity
- Severe
- Significant

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Liverpool City Region Combined Authority
(AC0000830780)
2024

5.2.9   There are known gaps and shortcoming in our transport networks. These include:

- Capacity constraints at Central Station in Liverpool City Centre that if unaddressed, will choke growth on the rail network and the ability to extend Merseyrail services beyond the current limits of the network. It is also holding back investment and economic potential in the wider area.
- Poor rail connectivity and quality of service on City Line routes to the east of Liverpool towards Huyton, St Helens, Wigan and Warrington
- Limited sustainable travel choices to areas of growth such as Wirral Waters, Liverpool Waters, Knowsley Industrial Park, Daresbury and east Runcorn.
- Cross-border capacity limits and bottlenecks, compounded by poor service levels on rail routes through Chester, Central Manchester, on the West Coast Main Line (especially following the cancellation of the northern leg of High Speed 2), and towards Deeside in Flintshire on the Borderlands Line
- Areas of poor connectivity by bus and where journey times are poor relative to the private car or rail options, if these exist, including poor connectivity in the evenings, at night and at weekends in response to changes in demand. Equally, there are areas that are over-bussed, or else where buses compete with each other and with parallel rail networks, rather than operating as a joined-up network.
- An embryonic segregated walking, cycling and wheeling network, with missing links that need to be filled to create the vision in the Local Cycling and Walking Implementation Plan
- Danger on our roads both physically (poor surfacing or maintenance) and from risks presented by wide roads, high speed traffic in dense urban areas, and conflict for pedestrians, cyclists and wheelers and vulnerable road users especially

- Poor levels of direct rail connectivity relative to other core cities in the UK and that limit the potential of rail to replace car-based trips
- Adverse impacts of freight and distribution activities, especially on main arterial routes leading to the Port of Liverpool and to other major freight and logistics depots and hubs, related to the limited alternatives to end-to-end movement by HGVs or vans.
- Poor alternatives to, or poor perceptions of alternative to private car use or the use of a lorry or a van to move freight

Delivering modal shift through active travel

5.2.10   The principles in our Local Cycling and Walking Infrastructure Plan (LCWIP), new standards in Local Transport Note 1/20 that supports the Government's Gear Change strategy, and standards and guidance from Active Travel England will guide how we deliver high quality, safe active travel. The principles in this Local Transport Plan build on and reaffirm these standards and successive standards with similar aims and objectives. We support Gear Change's vision for cycling, walking and wheeling to be the natural first choice for many journeys, with half of all journeys in towns and cities being cycled, wheeled or walked by 2030.

5.2.11   We will deliver plans for walking, cycling and wheeling in ways that are joined up with the wider transport network and with the key developments and destinations prioritised under Goal 1. Every bus or train trip starts on foot or by being wheeled. If we make it easier to reach bus stops and rail stations in this way, we immediately make bus and train travel easier, safer and more appealing as well as widening personal choice ad addressing the modal shift imperative of the plan.

5.2.12   The principle of the movement hierarchy also places the needs and requirements of active travel as the first and most prominent considerations in any solution, service option or infrastructure proposal. We will use our Design Panel to ensure that all relevant schemes and proposals maximise safe, well designed active travel measures.

5.2.13   The adoption of an LCWIP is a requirement of government, in order to support delivery and development on the ground. Updates to the LCWIP will be guided by the goals, principles and policies set out within the LTP.

The role of buses and bus priority

5.2.14   The role and potential of high-quality bus travel in supporting this plan is enormous. We will build on the commitments in our Bus Services Improvement Plan (BSIP) that stems from Government's Bus Back Better strategy, to support our plans for increasing bus usage.   One of the most significant tools

that the LTP will draw from in growing bus patronage and usage will be bus reform and how we manage and operate bus services and better integrate them with other forms of travel. In October 2023, following a public consultation, the Combined Authority agreed to move to a bus franchising model and a Mayoral Order has enabled the final decision to go ahead.

5.2.15 Bus services – including routes, frequencies, fares and standards – will now be brought under local control through franchising. The Combined Authority will coordinate the bus network based on what passengers need, make sure it is better connected with other modes of transport like rail and Mersey Ferries, and will reinvest any surplus made back into improving services. Local control of the bus network will also allow ticketing to made simpler and more affordable, with a new tap-and-go system ensuring passengers always pay the lowest fare for their journeys.

5.2.16 We are investing in new technologies to make our 1,000+ buses across the city region even cleaner. Our first 20 hydrogen buses setting the standard for our bus network in the summer of 2023 and we secured funds in early 2024 for a fleet of 58 electric buses. But head-turning buses producing no emissions from their engines will only deliver the aims of our strategy if many more people use them in place of trips otherwise made by car. Latest estimates suggest that buses account for only 2.3% of all road transport energy use or 3.6% of all diesel road energy use. This is why shifting people from cars to buses is so vital, given the dominance of cars and vans in our total carbon emissions.

5.2.17 It is why we cannot afford to have clean buses stuck in traffic as this means that we are delivering only part of the solution - creating priority for buses, and removing conflict and delay is vital. This will benefit many more people than bus users alone, through better levels of access for everyone, better air quality less congestion and safer and more attractive roads and public spaces. The safe and easy movement of bus services will be a requirement of any scheme, or in any highway intervention that is planned and delivered, in line with the transport hierarchy. This is also incumbent on us reducing traffic levels on our roads and in supporting our target to grow bus trips by between 61% and 82% by 2035 if we are to meet the goals in this LTP.
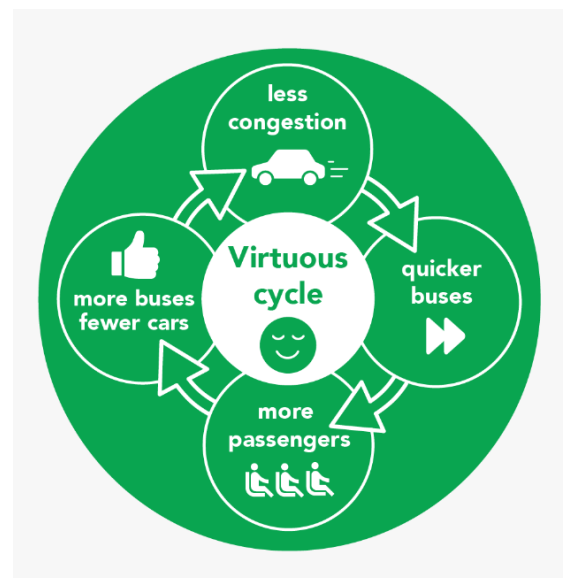
5.2.18 Making road space available to support bus priority and to give bus travel the competitive edge that it needs to make bus usage more attractive, more efficient and more convenient is essential. Measures to create bus priority and bus lanes through our devolved funding will be important ways in which to achieve this aim.

5.2.19 The development of the BSIP remains a requirement of government and will support delivery and development on the ground. Bus Rapid Transit (BRT) options, where buses operate on fixed routes

with very high quality, tram-style infrastructure and extensive prioritisation or segregation will be pursued. Priorities will be the city centre, to Liverpool John Lennon Airport and the city's main football stadia.

5.2.20   Updates to future BSIPs will be guided by the goals, principles and policies set out within the LTP.

Rail services and infrastructure

5.2.21   Our newly launched Class 777 Merseyrail trains are game changers in boosting the quality and capacity of our already successful, locally managed rail network. The new trains allow many trips made by car, especially into the city and main towns to be switched to clean, swift train travel. There is also the potential of the trains to support the carriage of small packages or freight in time, as an alternative to diesel powered vans.

5.2.22   Our Independently Powered Electric Multiple Unit (IPEMU) technology is highly significant. It allows our electric trains to operate beyond the artificial confines of the electrified Merseyrail network using on-board batteries. With the development of new and existing stations, and the right capacity solutions at Liverpool Central station, this will allow the new trains to extend deeper across our city region and beyond, and support the aims of this plan - especially the shift needed from car to rail travel for people and for goods. It will help to improve our residents', employees' and visitors' access to job, training and other life chances. This is an issue that featured very prominently and positively in our first round of consultation on the LTP's Vision and Goals, especially from areas just outside the geographic remit of the LCRCA.   Allied to this are proposals to be funded from the short-term delivery programme to develop a new station at the Liverpool Baltic (for the Baltic Triangle) in Liverpool and to expand the reach of the Merseyrail network, using IPEMU technology.

5.2.23 But as we note above on gaps and constraints, the same quality of service does not exist on route to the east on City Line services. Rail use is typically higher in those catchments around Merseyrail Electrics stations, often forming over 10% of commutes. The same is not true of City Line stations, where service levels, reliability and overall quality is lower. This is an impediment to greater use of rail and widened travel options.

Addressing this is a priority, but we recognise that many of the solutions will need to be pursued sub-nationally and nationally. The same is true of the electrification needed to support a rapid shift from diesel powered trains to electrical power on our trunk unelectrified passenger and freight lines.

5.2.24 The development of Northern Powerhouse Rail as part of the Network North proposals is critically important for the LCR. In the LTP's short term delivery window, decisions will be made on route alignments that will be informed locally by this LTP. Our clear view is that Northern Powerhouse Rail Option 5.1, proposed to serve Liverpool under the Integrated Rail Plan, cannot be supported. Options that create the right capacity (for passengers and freight), improve journey times and avoid disruption on the critical section of the NPR route between Liverpool and Warrington will frame the discussion around what we want and need for NPR. This must also include transformational station investment and expansion in Liverpool City Centre and a parkway station between Liverpool and Warrington should be evaluated.

5.2.25 But too often in the past, the importance of rail from a freight modal shift and efficiency point of view has been overlooked. Several major Freeport sites in the LCR are rail connected, namely the Port of Liverpool, Garston Freightliner Terminal, 3MG at Ditton and Parkside in St Helens. This is positive, but the reality is that train paths are constrained by bottlenecks outside the city region in many cases. *Policy G2-6 - Sustainable and efficient freight and logistics* expands on this aspect and the solutions that are needed.

Supporting shared mobility, including taxis and private hire vehicles

5.2.25 Owning a car or van brings great freedom, benefit and opportunity. But is costly, involving many sunk costs such as financing, insurance, servicing, repairs and vehicle excise duty. This can make the "per mile" cost of a car journey low relative to an equivalent bus, taxi or train journey once these upfront costs have been paid and forgotten about.

Policy G2-3
The role of shared mobility and micromobility

The Combined Authority strongly supports travel solutions that provide the same convenience a car using flexible and shared forms of transport, with fewer disbenefits than owning or running a car.

We will proactively work with our local authorities and private sector partners to roll-out the implementation of car clubs and to encourage uptake. Zero emission electric vehicles will be incentivised, in line with our approach to technology and new technologies in *Policy G5-3 - A Smart City Region – Investing in new technologies and utilising Artificial Intelligence.*

Measures that make existing, general on-street and off-street parking spaces available for the convenient parking, docking and charging of micromobility options, such as car club vehicles, e-sooters, e-bikes and cargo bikes will be encouraged.

Micromobility options will be tested, incentivised and negotiated through regeneration proposals, masterplans, travel plans and relevant development proposals.

Taxis and private hire vehicles will remain an important part of the shared mobility mix, integrating closely with public mass transit network. We will work with our constituent local licensing authorities to make taxi and private hire vehicle standards higher and more consistent for users.

5.2.27 The role of shared mobility and new technology is important here, to provide very practical alternatives to owning and running a private vehicle (or multiple vehicles). Research by the Sustainable Transport Alliance suggests that the average private car is parked 96% of the time, wasting resource and space, particularly so with average size being 32% larger than in the 1960s, taking up 35%-41% of urban spaces. This will support *Principle 4: Transport must support placemaking.*

5.2.28 This is where "micromobility" or shared mobility can provide a practical alternative for a trip that could have been made in full or part by a car. Car clubs provide huge potential to give people access to hire a private vehicle by the mile when they need one, but without the upfront cost and ongoing running costs. More specific operational guidance is available from CoMo UK – a national umbrella organisation for shared transport.

5.2.29 Recent research suggests that people using a car club make far fewer car trips than if they owned a vehicle. Car club schemes encourage use of active travel and public transport too: 32% of car club members use a bicycle at least weekly, 76% walk for travel at least weekly, 48% use a bus at least weekly given that the default is not to use a car or van for every trip.

Making the right use of our roads and public spaces

Policy G2-4
Reallocating road space and making best use of finite capacity

We will invest in, and make the very best use of our extensive and valuable highway network to meet the Goals of the LTP.   In doing this we will review how road space is used and reprioritise road space to make sustainable modes of travel – walking, cycling, clean public transport and new forms of mobility such as e-bikes and e-scooters the first choices in their attractiveness, convenience and affordability. This is to support the shift that is needed from travel by private cars and vans to incentivise the most sustainable alternatives in line with *Principle 5: Principle 5: Prioritise clean, healthy travel in all we do.*

Highway maintenance schemes must consider and incorporate plans to support walking, wheeling and public transport use in equal measure.

We accept that this change in emphasis will mean that journey times by car or by private vehicle may become slower, less direct or less convenient than they may have been previously.   The principle of such consequences will not be viewed negatively in the decision-making process, providing that these are outweighed by benefits for people who are walking, cycling, wheeling and using public transport.

The Combined Authority will commission, fund and support measures that provide new access to development and re-prioritise highway space in ways that give priority to our most vulnerable road users, and to sustainable mass transit and in support of *Principle 5: Prioritise clean, healthy travel in all we do.*

There will be a presumption against proposals or schemes that create additional highway capacity for general, private traffic. Schemes that induce more trips by private transport will typically not be supported by the Combined Authority.

We will use Design Panels and reviews through our scheme Gateway Approval processes to assess the suitability of proposals against the tests set out in this LTP, alongside consultation with Local Authorities.

5.2.30   In recent decades, too many plans and funding decisions have made travel by car easier, more attractive usually at the expense of other forms of travel. This has included significant road building locally and nationally. In parallel, we have seen a reduction in bus and rail networks and conditions that make walking, cycling and wheeling less attractive and safe. Designing streets, new homes, shops and workplaces has also been focused on the needs of cars and private forms of travel as the priority. This has led to danger, collisions and injuries, pollution and people feeling excluded and left behind. This must change if we are to achieve the vision and the aims of this Goal especially.

5.2.31   Helping to move more people and goods by clean forms of travel and provide better travel choices to all provides greater benefit overall. In turn, levels of congestion will fall which benefit road users making trips that can only be made by car, van or by heavy goods vehicle, through more efficient, reliable and predictable journeys. It is important to reiterate that this benefits all road users.

Source: LCRCA

5.2.32   The use of Design Panels, to allow schemes and plans to be robustly tested against a range of criteria, frameworks and designs standards by a range of subject experts is strongly encouraged. This will be linked to the Gateway Approval processes that has been adopted by the Combined Authority in its management of the CRSTS programme and through the Strategic Investment Fund Investment Strategy. This will provide a transparent process assessing transport and investment proposals against the policies in this LTP.

Targeting transport enhancements in our main urban areas

Policy G2-5
A high quality, low carbon transport network in Liverpool City Centre and in our main towns

With Liverpool City Council, we will jointly develop a new Mobility Strategy for Liverpool City Centre. This will radically repurpose how the city centre operates and is prioritised for movement by walking, cycling and wheeling and by clean public transport and logistics uses.

This Strategy will inform the rolling LTP Delivery Plan in Section 6.

We support related priorities to create more liveable, more sustainable and better-connected towns and main centres across the LCR, as some of our main generators of trips and movement, linked the LCR's spatial priorities (para 5.1.16) and the strategic housing and employment sites (5.1.11).

The development of area-wide strategies and masterplans will be encouraged, to plan movement and development in an integrated way and in ways that support the LTP's vision, goals and principles.

5.2.33   As the hub of the city region's bus and rail networks, as a vital destination and attraction in its own right, it is essential that we get sustainable movement right in the city centre.   Liverpool City Council developed a City Transport Plan in 2023 that sets out a bold ambition for a liveable, and reprioritised city centre. Through this LTP, and the rolling delivery plans set out in section 6, there will be a strong focus on the city centre and on main arterial travel corridors into and from the city centre. These are areas that can achieve big modal switch to bus, rail, walking and cycling. Congestion levels are also

high, and poor air quality from nitrous oxides is a city-wide problem. Taking action in these corridors will also result in benefits that will be felt further afield across the city region.

Freight

5.2.33 Freight is not a stand-alone activity in this plan; the movement of goods, services and products is a common thread that flows through all of the guiding Vision, Goals and Principles. Freight and the movement of goods is part of the lifeblood of the city region, reflected most recently in our Freeport status. But it is often one of our least understood sectors in terms of movement, especially road-based transport and where freight is destined for when it leaves ports or rail depots.

Policy G2-6
Delivering sustainable and efficient freight and logistics

We will deliver and support measures that reduce the adverse impact of freight and distribution activities and that improve their efficiency and maximise their positive social and economic role. This will include measures that:

a) Support movement by rail, sea or water, where these prioritise sustainable fuels, in place of high carbon road-based movement, in line with *Principle 5: Prioritise clean, healthy travel in all we do*
b) Ensure, through evidence, engagement and lobbying that the Government's plans for developing the national rail network post-High Speed 2 and through Northern Powerhouse Rail deliver the best possible outcome for the Liverpool City Region by creating essential capacity to accommodate more rail freight and a shift from road to rail.
c) Support the uptake of clean, zero emission fuels for freight vehicles and vans, aircraft, boats, ships and ferries, such as battery electric and green hydrogen and ensuring that fuelling or charging facilities are co-developed in the right locations with fuel suppliers and operators
d) Support measures in urban areas especially that enable freight to be consolidated onto a smaller number of vehicles or else moved by ultra-clean forms of travel, such as cargo bikes where it can be moved more efficiently. This will include new and innovative ways to manage highways, junctions and other bottlenecks in ways that support *Principle 5: Prioritise clean, healthy travel in all we do*

The above will be supported by clear evidence on where vehicle flows in particular can be minimised and transferred to other forms of transport in line with *Principle 3: Transport decisions must be based on clear need and evidence*.

Through *Principle 6: Guided by our commitment to inclusivity, accessibility and social value,* we will ensure that essential facilities for all freight and distribution operators, such as safe vehicle parking, rest, changing and toilet facilities are considered from the outset.

5.2.34 To support *Guiding Principle 3: Transport decisions must be based on clear need and evidence*, we have begun to build a significant body of evidence about freight movement in the city region. This shows where road-based freight is moving to and from, with a focus on traffic coming to and from our main seaports. We will use this data to help target measures that can switch freight from road to rail or water, or from diesel to alternatives such as hydrogen or battery electric trucks. Better data will guide how and where we focus our activities, but it must in all cases be where significant mode shift, decarbonisation and cleaner air can be achieved. This will also include activities to improve facilities for freight operators, notably high quality lorry parking and rest facilities. We will work with

Government to deliver its recently announced [75% rail freight growth target](#) as a particular priority in the LCR.
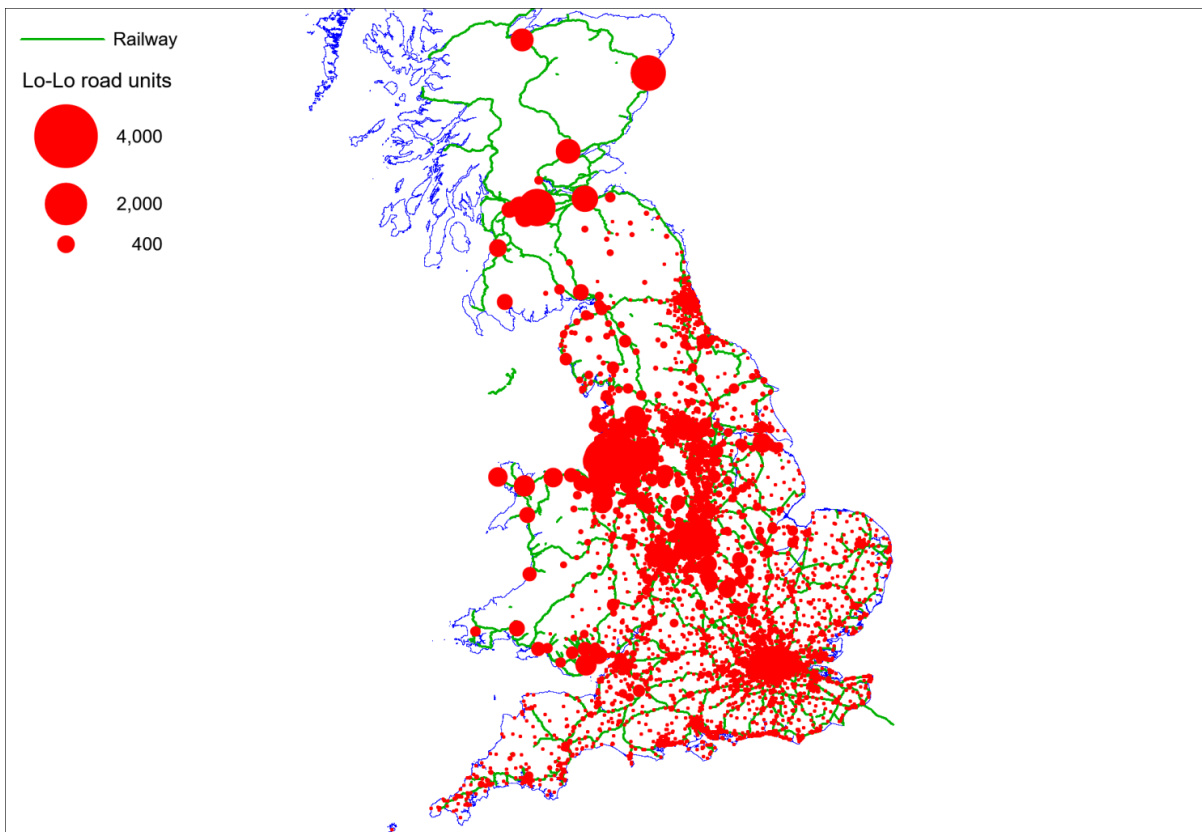
Source: Mott MacDonald and MDS Transmodal –
End destination of road-based freight landing at Port of Liverpool
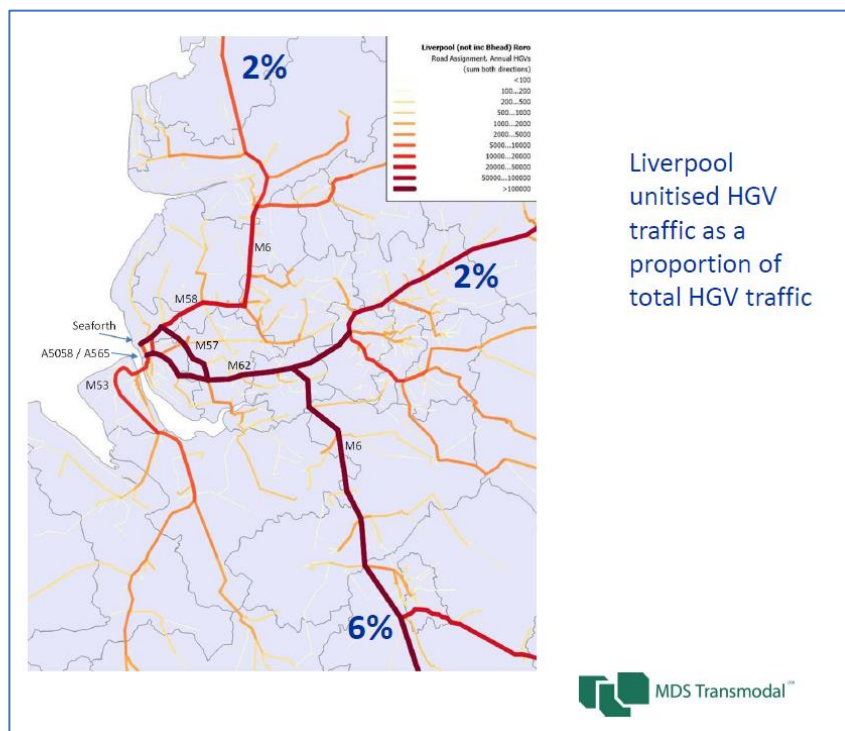
Source: Mott MacDonald and MDS Transmodal
Proportion of total HGV traffic from Port of Liverpool on main motorways
in the North West and Midlands

5.2.35 As we have set out, being a city region with important ports, cruise liner, seaports, airport and seaports, linked to the Freeport cluster, brings many important economic benefits. However, the disbenefits include pollution, noise and disturbance, high carbon emissions and poor quality of life. In response to such challenges, National Highways is developing proposals for accessing the Port of Liverpool through the Road Investment Strategy process, as a prominent example over the lifetime of this plan.

Map 5.7 - International Connectivity

Key Infrastructure
1 - Port of Liverpool
2 - Liverpool Cruise Terminal
3 - Tranmere Oil Terminal
4 - Freeport Tax Site
5 - Liverpool John Lennon Airport
6 - Queen Elizabeth II Dock

Source: LCRCA Spatial Development Strategy

5.2.36 Trade-offs between economic growth and transport disbenefits do not fit with the goals of this LTP, which is about support for economic growth that support decarbonisation and a better quality of live. This means that a big focus on delivery will be on decarbonising our freight and logistics activities. This will be in two main ways:-

- Shifting the balance of goods and how they move. This will be by promoting the use of rail for freight, clean inland waterways, or short sea shipping, and encouraging freight and logistics developments to be multi modal, and where possible incorporate rail access.
- Adopting clean, sustainable fuels. This will be linked to related strategies supporting the phasing out of diesel, marine diesel, aircraft kerosene and petrol as fuel sources

The true costs of transport

5.2.37 We know that many factors influence how people travel, and how much carbon is emitted in response. Pricing is essential to incentivise bus and rail use especially instead of using a car, or where active travel is not an option. Pricing tools include: the cost of fuel, the cost of tunnel tolls, car parking charges, insurance costs, and changes to vehicle and fuel taxation. . The use of new ticketing products, account-based price capping and easy payment methods are all essential here too, linked to priorities supporting inclusive growth in Policy G1-4 on new ticketing products.

Policy G2-7
Implementing "polluter pays" approaches

The Combined Authority supports the role of pricing measures that help manage demand for the use of cars, vans, and freight vehicles in ways that support the vision, goals and principles in this plan. Equally, making the cleanest and most sustainable transport choices more affordable will be pursued through *Policy G1-3 Making it easy and affordable to travel.*

Tunnel tolls and discounting on the Mersey Tunnels will be kept under review. This is to ensure that users pay the fair and true cost of their travel and in a way that makes clean, sustainable transport affordable and competitive. The likely impacts of different pricing options on carbon emissions will guide reviews of tolling and operations.

We will work with our private sector partners and local authorities to make the cost of parking more consistent and reflective of the true costs of vehicle use. We will work to seek to reduce overall parking provision, especially long-term parking to encourage the modal shift and associated benefits needed.

The Combined Authority supports the principle of a move to a national system of road pricing to replace existing duty on petrol and diesel and Vehicle Excise Duty as part of the transition from fossil fuel powered vehicles to electric vehicles. This will also ensure that the cost of a journey reflects its relative contribution to congestion and pollution levels.

5.2.38　The Combined Authority supports the principle of pricing measures to help manage usage and demand for cars, vans and freight vehicles in ways that support much greater use of clean alternatives. One of the most effective measures to affect the way people travel is congestion charging and a car parking levy, as evidenced in Greater London and Nottingham, respectively. Despite the scale of modal shift that we know is needed, the Combined Authority does not consider a localised road user charging scheme or a workplace parking levy scheme to be the best way of supporting the vision and goals in this LTP. This is because such measures can distort local investment decisions in ways that do not address our socio-economic challenges as a city region. Future reviews of the LTP will keep these options under review. Our focus now is on reprioritising transport and managing demand for travel through how we manage our highways and road space.

5.2.39　Many pricing tools lie outside the remit of the Combined Authority, meaning that we will work with others to make the case for change. This aligns with *Principle 7: Work with others to promote and deliver the vision, goals, principles and policies of the LTP.*

5.2.40　The Combined Authority believes that moving to a national system of road pricing, as opposed to an area-by-area approach is fairest and most effective way in which to ensure that transport pays its way and generates the income that is needed. It is also the fairest way in which to reflect transport's true cost on the environment, economy and on people. The transition to electric vehicles in particular means that revenues from fuel duty and vehicle excise duty will diminish, and which need to be replaced by alternative taxes, again, at a national level.

GOAL 3
Improve health and quality of life
Improve the health and quality of life for our people and communities. Make sure transport is safe, clean and good for the environment around us

5.3 Delivering Goal 3

5.3.1 Death and serious injury on our roads are the most direct and tragic demonstration of our transport system's damaging effects on health. In 2021 there were 2,773 reported casualties on the City Region's roads, including 465 people killed or seriously injured ("KSIs"). Of the latter, 58.5% were pedestrians or cyclists.

5.3.2 Our 2023 annual road safety update notes with concern that KSI levels across the LCR have started to plateau, recognising that 2020 was a statistical anomaly due to COVID-19 restrictions.

Fig 1 Annual KSIs in the Liverpool City Region 2000 - 2022
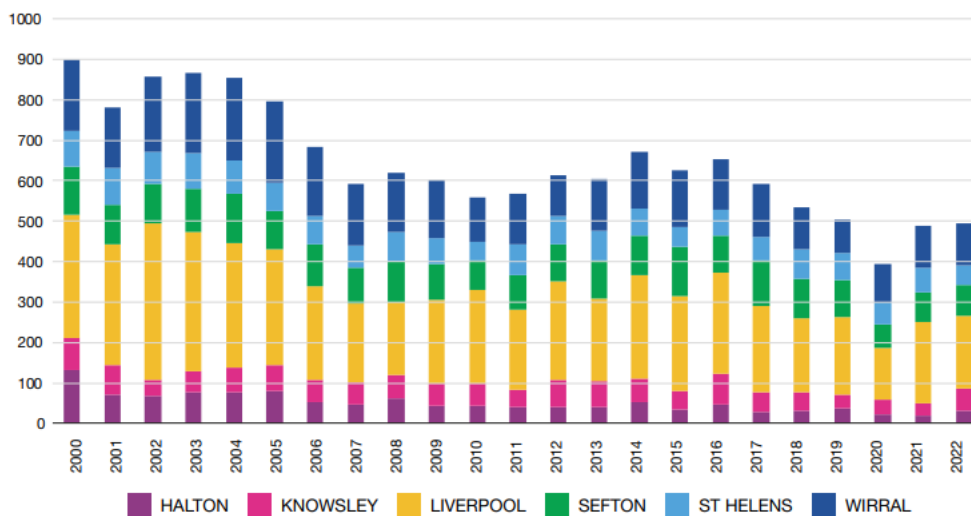
Source: Road Safety Strategy, 2021

5.3.3 Across Transport for the North's area of influence, then between 2017 and 2021, 2,041 people were killed and 28,519 were seriously injured in road traffic collisions. Of those killed or seriously injured:

- 38.9% were drivers or passengers in cars
- 23.7% were pedestrians,
- 18.2% motorcycle riders or passengers and
- 14.5% were cyclists.

5.3.4   Again, this is a significant and wholly unacceptable burden of mortality and morbidity, with a disproportionate impact on those travelling actively. The most common cause of death among those walking, wheeling and cycling is collisions with cars, while nearly 40% of fatalities among car occupants and motorcycle riders are single vehicle incidents

"Vision Zero"

5.3.5   One avoidable death or injury on the road is one too many. Our clear target is to see no deaths and serious injuries on our roads by 2040.

Policy G3-1
Reinforcing "Vision Zero" and Safe Systems approaches – no deaths or serious injuries on the city region's roads by 2040

We reinforce and commit to the clear vision of achieving a big reduction in the number and severity of road traffic collisions, working to a target of no avoidable collisions by 2040.

The Safe Systems principles in the Merseyside Road Safety Partnership's 2021 Road Safety Strategy and successor strategies with similar aims will guide our actions in the delivery of safe streets and the elimination of death and serious injuries on our roads.

We will support work by the Cheshire Road Safety Partnership in the development of a similar Vision Zero commitment for Halton Borough, policed by Cheshire Constabulary.

The LCRCA will support the work of the Merseyside and Cheshire Road Safety Partnerships by sharing data and intelligence to understand the causes and factors leading to collisions and "near misses" on the roads, and to develop strategies and interventions in response. This will include the use of Artificial Intelligence (AI) from the growing network of roadside sensors, in-vehicle GPS systems and related technologies.

We will work with the Merseyside and Cheshire Road Safety Partnerships to tackle unsafe or illegal behaviours on the roads and support the resourcing of essential enforcement and intelligence-led activities.

We will support safe behaviours through educational measures including targeted educational campaigns and road safety training that supports the Safe Systems principle. This will include the delivery and expansion of Bikeability-standard training.

Issues of public safety, personal responsibility and user training must be considered fully as part of the testing and roll-out of new forms of shared mobility linked to *Policy G2-3 - The role of shared mobility and micromobility.*

5.3.6   Collisions on the road happen for many reasons. Historically, the focus has been on educating road users, designing out dangerous road layouts and taking action against people who speed or drive dangerously. This has reduced numbers of deaths and serious injuries. What this approach has not done is to accept that people make mistakes, hence the need to reduce danger at source. This is to ensure that people are not put at risk, fundamentally, from being mixed with heavy or speeding

traffic. The speed at which vehicles travel on our roads affect the risk and safety of those who share the network. If a pedestrian is hit by a vehicle travelling at 20mph, they are about five times less likely to be killed than by a vehicle travelling at 30mph.

Safe Systems Model

Fig 3

5.3.7 To combat this, the development of new infrastructure and changes to existing infrastructure must ensure that road danger is reduced. A Safe Systems approach is needed, where we ensure the streets and roads are attractive for all road users can encourage a shift in transportation modes and empower communities to navigate areas safely and confidently whilst reducing danger and therefore casualty rates. Low Traffic Neighbourhoods are a good example, which remove through traffic and reduce volumes and the speed of motor traffic. This approach fits with other important policy objectives, especially policies on decarbonising transport and making our transport system fairer for all.

5.3.8 This LTP therefore reinforces and re-states the messages set out in the Combined Authority's Road Safety Strategy and the Vision Zero principle.

Our strategic outcomes for road safety

A reduction in the number and severity of road traffic collisions working to a target of no avoidable collisions by 2040.

Creating the conditions for more people to make safer journeys on foot or by bicycle, and enabling more children to walk or cycle to school.

Contributing to improved air quality and reducing climate changing CO_2 emissions.

5.3.9 We also need to ensure that our residents and workforce continue to have the confidence to walk and wheel in safety; in addition to our focus on creating safe roads, we also need to build confidence and skills for children to cycle, walk and wheel safely. This will include training needed to support the safe use of new forms of mobility, such as e-scooters, including enforcement where rules are broken. We will develop ways of expanding on our plans and programmes for Bikeability-standard cycle training and other bespoke training, to include many other cohorts, and support packages that seek to:

- Break down barriers to walking and cycling for people who have physical or sensory disabilities and other protected characteristics

- Address transport related social exclusion by improving personal, independent access to employment, education and other key services
- Support decarbonisation goals through complementary training and incentive measures for residents or for cycle freight couriers where these complement new or improved infrastructure for walking, cycling and wheeling

Safe places for people

5.3.10 The Vision Zero approach is closely related to how we plan, design and use our city region – how it looks and feels as a place. This is the basis of the LTP's *Principle 4: Transport must support placemaking.*

Policy G3-2
Delivering clean, healthy travel and placemaking in all we do

Transport schemes and traffic management schemes of any scale must be designed around the needs of the movement hierarchy. Highways and other spaces used by the public must be made safe and attractive for people who are walking, wheeling or cycling as the first consideration.   Achieving a reduction in the speed, volume, noise and dominance of traffic must a stated objective of transport-related schemes or traffic management measures, especially in built up areas.

Proposals that involve changes to the movement of people or traffic must be considered as a cohesive and complementary package of measures focused on the wider locality or environment. Improving the streetscape through good design, improved public realm and high-quality street furniture and planting will be encouraged, but only as part of a cohesive package aimed at reducing the speed, volume and dominance of traffic.

Measures such as school streets, Low Traffic Neighbourhoods and "Mini Holland" schemes will be encouraged. So too will measures that remove the dominance and dangers of street-level car parking, whether on- or off-road.
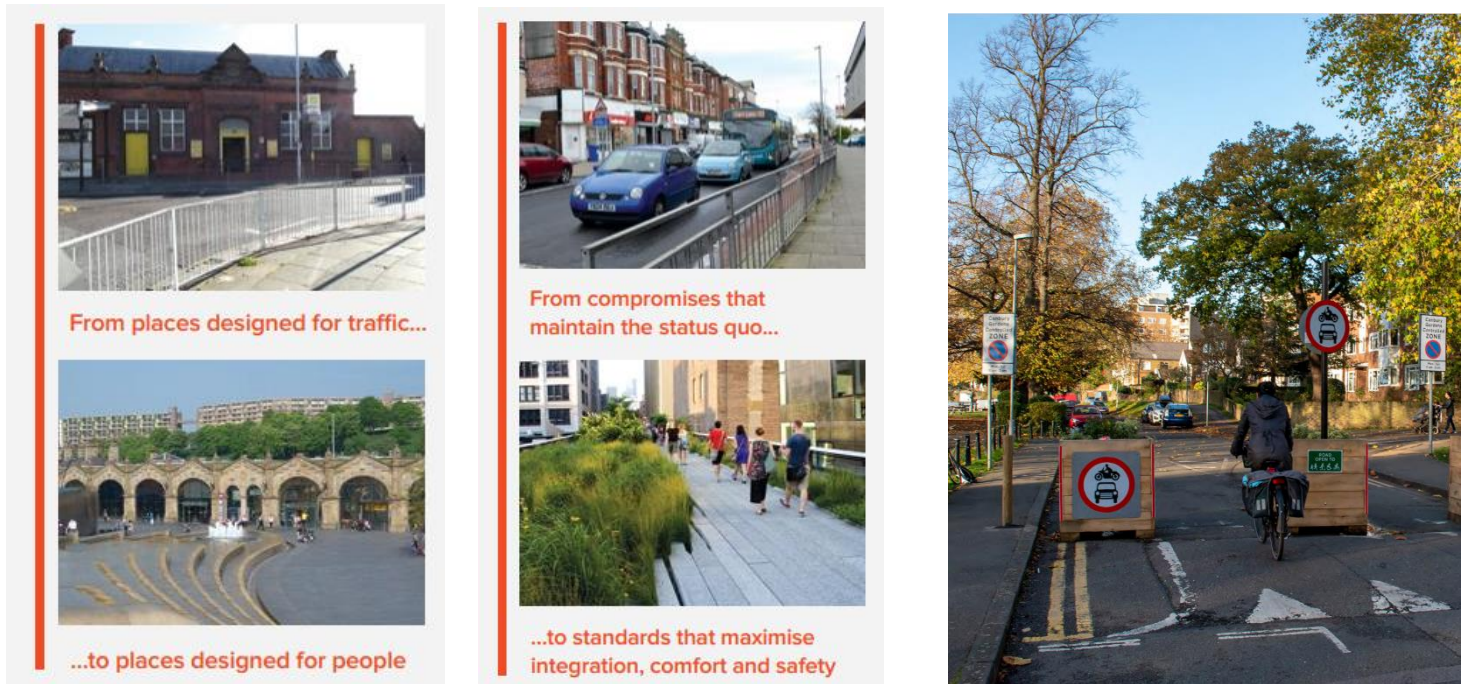
Low speed zones, including 20mph zones will be supported, especially where accompanied by complementary packages such as road markings, traffic calming features, road narrowing or speed humps.

The devolved, CRSTS transport funds managed by the LCRCA between 2024-2032 will support this place-based approach to developing solutions.

The LCRCA will urgently progress means to address the problems, dangers and unsightliness of pavement parking. We will press for and use powers that Government is proposing to make available to local areas.

5.3.11 Places have been designed around the needs of vehicles rather than people in the recent decades, in response to the growth in car travel and on seeking to separate people from traffic. This has created large areas that are dominated by wide highways, high speed junctions, or space for car parking. Evidence by the Sustainable Transport Alliance suggests that the average private car is parked 96% of the time, wasting resource and space, particularly so with average size being 32% larger than in the 1960s, taking up 35%-41% of urban spaces.

5.3.12   This has created a vicious circle of then making the alternatives – walking, cycling, wheeling, using the bus to the train station – less attractive. Creating safe places that prioritise walking, wheeling and the use of public transport, with reduced reliance on private motorised journeys, can reduce road casualties whilst simultaneously improving air quality, reducing carbon emissions and improving public health as people become more active in their day-to-day activities. This can also improve mental wellbeing and levels of happiness. As a city region with a strong tourism base and thriving visitor economy, measures that make the city region more accessible and attractive creates a virtuous circle.
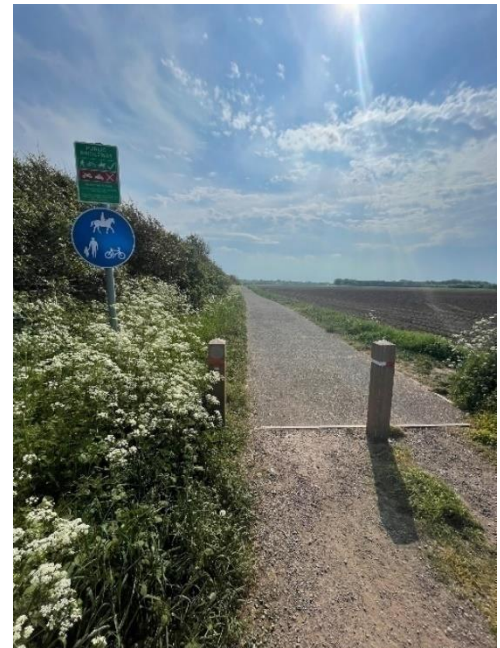

From places designed for traffic...

...to places designed for people

From compromises that maintain the status quo...

...to standards that maximise integration, comfort and safety

Source: LCRCA Local Journeys Strategy, 2018 (left and middle)
LCR Road Safety Strategy (right)

5.3.13   The transport hierarchy principle will guide our plans and any scheme that affect movement, to support this safe placemaking approach. Our clear expectation is that movement by people and by public transport users must be considered and planned as the first priority.   We must consider the safety and needs and priorities of road users most at risk in the event of a collision and who are at the top of the hierarchy. It does not remove the need for everyone to behave responsibly, in line with the requirements of the new Highway Code.

Keeping all vulnerable road users safe

5.3.14 It is not explicit in our hierarchy, but our approach reflects new highway code guidance in considering the needs and safety of horse riders. Levels of horse riding are relatively low in our largely urbanised city region, but is still an important form of travel, especially in more rural fringes. The dangers faced by horse riders are of concern and action must be taken. The Combined Authority supports the British Horse Society's policy that that highway authorities and other providers should accommodate horse riders as well as cyclists and pedestrians on all off-road routes where it is practicable. The city region also showcases good practice of successful shared user paths, where horse riders, wheelers and pedestrians can use a facility safety and comfortably.

Example of shared use walking, wheeling and equestrian route, Dibb Lane, Crosby. Image: LCRCA

Healthy and active lives

5.3.15 From a health angle, too few people are active in their daily lives, which leads to problems later in life. Gear Change notes, starkly, that physical inactivity is responsible for 1 in 6 UK deaths. There are also stark health inequalities between the richest and the poorest neighbourhoods in the city region and poor health is a major reason why many people are not in work. People living in our more disadvantaged communities, on major arterial roads and with lower levels of car ownership are also, perversely, most affected by poor air quality and noise that they're least likely to have contributed to. Both of these problems stem from the domination of traffic and a lack of, or perceived lack of safe alternatives.

Source: All Together Active

5.3.16 We don't want to make walking and cycling a chore or a formal activity that people expect to do in a gym. It is about how everyone moves every day, to live their lives in a way to stay healthy for longer. More activity is not a panacea for health inequality, but it has been identified as a key tool in health improvement by colleagues in our health and wellbeing sectors. This is also central to the principle of making transport and transport investment fully accessible and usable by people of all ages, backgrounds and abilities and improving public health.

5.3.17 We will work with the health sector to deliver our plans for healthy transport on a "prevention is better than cure" basis. It will be vital to join-up activities that support independent travel training, cycle training, buddying and confidence building. Social prescribing of walking and cycling by the health sector can be an alternative to medication or surgery to tackle obesity, stress or high blood pressure. Not only is it cheaper, but goes on to be more rewarding as life skills and supports collective action to decarbonise.

5.3.17 The related priority is to ensure that changes to health services consider access and travel issues from the outset. If health facilities, clinics and hospitals are located in areas that are highly accessible by foot, cycle, wheeling and bus and train, staff, patients and visitors do not need to drive and will not be at a disadvantage, making this a fairer, cheaper and healthier approach. This is a good example of where we must champion *Principle 7: Work with others to promote and deliver the vision, goals, principles and policies of the LTP.*

The right to clean air

Policy G3-3
Improving air quality from transport

As well as achieving quantifiable carbon reductions from our transport network, reducing all other harmful emissions from transport, including Nitrogen Dioxide and Particulate Matter remains a high priority in delivering this plan.

Eliminating harmful pollution at source and in ways that improve air quality and allow the revocation of the city region's Air Quality Management Areas (AQMAs) is a fundamental aim.

The LCRCA will use its powers, influences and responsibilities, especially through commissioning, franchising or funding processes for transport schemes and transport services, to radically improve air quality. This will include, in priority order:

- **Supporting the collection of granular, real time air quality data** to understand the extent of poor air quality and the impact of different measures on air quality. This will include rolling-out smart air quality sensors linked to artificial intelligence and traffic management systems
- **Support consistent traffic management across the city region** to give priority to the cleanest and most efficient forms of transport in areas where poor air quality hotspots or AQMAs exist. This will be through measures to prioritise modes at the top of the movement hierarchy, to reduce traffic and congestion levels, and tackle stop-start traffic conditions for buses and heavy goods vehicles that emit high levels of pollution.
- **Phasing out the use of fossil fuelled vehicles, fleets and craft over the lifetime of the LTP** in favour of transport powered by clean hydrogen, electricity or other sustainable sources, especially where this helps tackle defined air quality problems. This will be achieved in a variety of ways, including: direct intervention by the LCRCA, in partnership with bus, rail, port, airport and road freight operators, by supporting clean fuel charging or fuelling facilities, or by supporting the case for national legislative or regulatory change.

5.3.18 Goal 2 has focused on the need to remove carbon from transport. We also set out the air quality challenges that we have in our city region and the direct harm caused by poor air quality from transport, especially from Nitrogen Dioxide from vehicles' engines. The move to electric vehicles and zero emission vehicles will mean that Nitrogen Dioxide emissions will fall, and which will be good for health. But it is not the sole solution and we must be careful not to tackle one problem at the risk of creating another. Electric vehicles can produce less noise, which can be a positive from a disturbance angle, but negative for people with visual or other sensory impairments. Electric or zero emission vehicles also produce particulate matter (dust and sooty deposits) from their brakes, tyres and road wear and which can be equally or more harmful to health than nitrogen dioxide from fossil fuels. Similarly, zero emission vehicles require scarce land for roads and for parking, and can still tragically, kill and seriously injure people. Modal shift to reduce overall reliance upon, and use of private and commercial vehicles especially remains critical.

5.3.19   If we simply switch all of our private and goods vehicles to electric or zero emission vehicles and away from petrol or diesel, we will still not deliver all of the goals in this plan. A total shift towards electric is currently not practical for many people from both a cost and convenience perspective too. This is why shifting people to walking, wheeling, bus and rail use wherever possible is critical. Equally, this is why it's important for our public transport (including rail freight infrastructure) to be "best in class" in terms of quality and provision and by being clean, accessible and zero emission.

5.3.20   The LCRCA is not legally responsible for taking action in response to poor air quality, but we can and must take action in response, not least as transport is the primary cause of poor air quality across the LCR. An LCRCA Air Quality Action Plan has been adopted to support these commitments. National Highways has been given new responsibilities for air quality on the strategic road network as a result of recent legislative changes. Only through collective action by aa range of stakeholders can efforts be maximised.

5.3.21   Liverpool City Council is mandated by Government to examine a Clean Air Zone option in response to its air quality problems.   Sefton Council is also undertaking a study to examine the potential of a Clean Air Zone (CAZ) in the vicinity of the Port of Liverpool from HGV traffic. This study work is in development and will be used to inform future actions and LTP investment plans. However, the goals, principles and policies in this LTP are intended to have a very positive impact on air quality and help address the challenges faced by our local authorities and by our communities.

5.3.22   Despite this, the quality of air quality data across the city region is poor as it can be patchy and coarse, which can require assumptions to be taken. It also hinders evidence-based problem solving and decision making - for example, being able to change traffic flows in real time in response to an episode of poor air quality.   Staff capacity at local authority level is also stretched, meaning that there is a role for the LCRCA to support local authorities and the public alike through the collection of better data and the consideration of air quality implications, especially in transport terms through this LTP.

The right to travel in safety and without fear

Policy G3-4
Making transport safe, inclusive, attractive and reassuring for the user

Building on *Principle 4: Transport must support placemaking* and *Principle 6: Guided by our commitment to inclusivity, accessibility and social value* we will ensure that transport developments and changes improve the safety, and perceptions of safety for all.

This will be achieved by designing-out the risk of crime and anti-social behaviour by creating inviting spaces for movement and for people waiting or interchanging between different forms of travel. Creating transport schemes, transport corridors, streets, points of access and new spaces that are well-lit, well designed and inviting form essential design components in support of this. Considering the movement needs of people with cognitive and hidden disabilities (e.g. dementia), is also essential.

The involvement of people who are most affected by crime or fear or crime, including women and girls and other vulnerable groups of people, will also be captured in development and design of proposals and projects.   Design Panels will be used by the Combined Authority to consider and mitigate against any potential impacts of schemes and investments, and for any unintended consequences to be addressed.

We will actively support multi agency partnerships and campaigns, such as TravelSafe and work with transport operators and the relevant authorities such as the Police and Crime Commissioners and British

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Transport Police to prevent, and tackle anti-social behaviour on our transport networks and offer reassurance to all

Learning from the experiences of COVID-19, physical cleanliness, the enforcement of laws and byelaws, and perceptions of cleanliness form a critical component of a safe and attractive transport network. This is essential to reassure and attract back new and lapsed users of the public transport network and support the growth in bus and rail travel required to deliver the aims of the LTP. Enhanced cleaning regimes that have been so important in supporting the recovery of the transport network will continue and we will work to communicate reassurances that public transport is physically clean and safe. We will also ensure the surrounding user experience of public transport is accessible and safe, including the provision of well-maintained public toilets along the network, where practical, or else safe and secure access to public facilities.

We commit to the importance of human interaction and active surveillance in creating feelings of safety and confidence.

5.3.23   Improving physical health is not the sole focus of this Goal. Transport can lead to or exacerbate sensory or mental health issues. Lack of transport and lack of personal interaction can lead to loneliness and isolation. Incidents of crime and harassment on the street and on public transport, including the fear or crime and harassment also act as barriers to the very significant shift needed from private car trips to deliver the aims of the LTP.

5.3.24   In addition, digital technology - increasingly needed to access transport information or transport services - can have negative impacts on mental health or quality of life, if people feel tethered to their mobile phone at all times. In-person interactions is not only important for many to get the right information and product, but also from a safety, wellbeing and reassurance point of view. This is why a human touch is important, linked to staffed railway stations and in ensuring a physical presence, and where people may otherwise feel vulnerable or unsure about using sustainable travel choices.

5.3.25   Our consultation – especially consultation with children, highlighted how important personal safety is. Younger people are, rightly, concerned about knife crime and gangs and anti-social behaviour on public transport. We are very concerned about the growing cases of violence against women and girls (VAWG) and are working with a range of partners, including TravelSafe and the Urban Transport Group to tackle this.   We know that if we do not address these issues, we will not make public transport the safe, attractive everyday form of transport that it needs to be, especially as children grow to be the drivers, bus and rail users and cyclists and wheelers of the future. Ensuring that no one is excluded from using and accessing the transport system is central to our aims.

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GOAL 4
Transport that's well maintained and tough
Make sure our transport network and assets are well maintained, long lasting, and tough to the effects of climate change.

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5.4   Delivering Goal 4

5.4.1   We have a large and established transport network that has been developed over many years. It includes: motorways, roads, footpaths, cycle routes and cycle lanes, rights of way, car parks, two road tunnels beneath the River Mersey, some 5,000 bus shelters or bus stops, an extensive electrified rail network including a river tunnel and a five underground railway stations, plus mainline rail services that connect the city region with other towns and cities. Our transport network is a large, very valuable, complex and in most parts, elderly. The public highway network in particular is one of largest and most obvious assets owned and maintained by our local authorities, or by National Highways, in the case of the Strategic Road Network. If roads are closed or made impassable as a result of poor maintenance, flooding, landslip or other emergency, the disbenefits are felt immediately – journey times are extended, people are inconvenienced, and essential "just in time" goods that are the lifeblood of the city region can't be moved.

5.4.2   Our transport assets are at growing risk due to the way that our climate is changing. More heat, rain, wind and flooding puts more pressure on our transport system. Extreme weather can bring the road and rail networks to a halt as a result of flooding, landslides, ice, cracking and buckling, and contribute to injury or even death. Financially, public liability claims, such as claims for damage to vehicles from potholes are also more likely. More and more road traffic – forecast under our "do minimum" scenarios described in section 2 also bring the risk of greater wear and tear and pressure upon our roads and streets.

Source: Network Rail

5.4.3   A badly maintained highway network presents dangers if potholes are created, paving and kerbs are damaged, highway drainage is blocked, or if road markings and signs are damaged or missing. This is especially problematic for pedestrians, cyclists, people wheeling and people who may have sensory or mobility problems. Similarly, dangers are presented if cycle paths, railway platforms and footpaths that are not swept,

Source: Liverpool Echo

maintained or kept free of weeds and debris. Poorly maintained roads are not conducive to growing the use of buses and may serve as a disincentive if new bus fleets operate on worn or potholed roads that impact on passenger comfort. Investing in highways infrastructure supports improved reliability for public transport, as well as improving the quality of the active travel offer. It also better ensures

that the transport network is resilient in response to the significant risks of climate change outlined above.

A network that's fit for purpose

5.4.4   A well maintained and tough transport system is a fundamental starting point to delivering an effective sustainable transport system that supports the visions, goals and principles set out. We recognise that stepping up, and regularly updating our data on the condition of our transport assets is vitally important – ultimately, in "real time". Good quality information gives us early warnings and the ability to target resources where they are needed in good time and before long term damage or serious risks are presented.

Policy G4-1
Well maintained transport infrastructure informed by good data

We will strive to keep the condition of the city region's road network well maintained and regularly reviewed to a consistent standard, and in ways that follow national guidance and best practice.

Our ambition is to collect and use data in real time is our ambition, in line with Principle 3: *Transport decisions must be based on clear need and evidence* to make the case for, and prioritise the significant levels of investment needed to improve their condition and lifespan.

The primary focus on maintenance in the immediate term is the Key Route Network of local roads, structures and footways. In the medium term, we must ensure that the condition of all carriageways, footways, cycleways, public rights of way, highway structures, signs, markings and other associated highway assets are addressed and brought up to an acceptable maintainable standard. This will partly be achieved by adopting spend to save initiatives and by focusing spend where need is greatest.

The tolled Mersey Tunnels and Mersey Bridge Crossings provide vital connections between our communities and the wider travel to work area for people and for goods. They will be proactively maintained in line with robust asset management plans.

The city region's rail network and infrastructure is complex and vulnerable, especially in light of changing weather patterns that increase risks of high winds, flooding and icing. We will work closely with industry partners to develop robust evidence, mitigation and action plans in response.

5.4.5   The Combined Authority has defined a Key Route Network (KRN) of local roads. The KRN accounts for around 10% of the total local road network, but those that are most important as links to workplaces, residential areas, our motorway network and further afield. But these are not simply roads that are important for motorised traffic – they are also routes that are important bus routes, walking, cycling and wheeling routes, tourism routes or routes to leisure facilities.
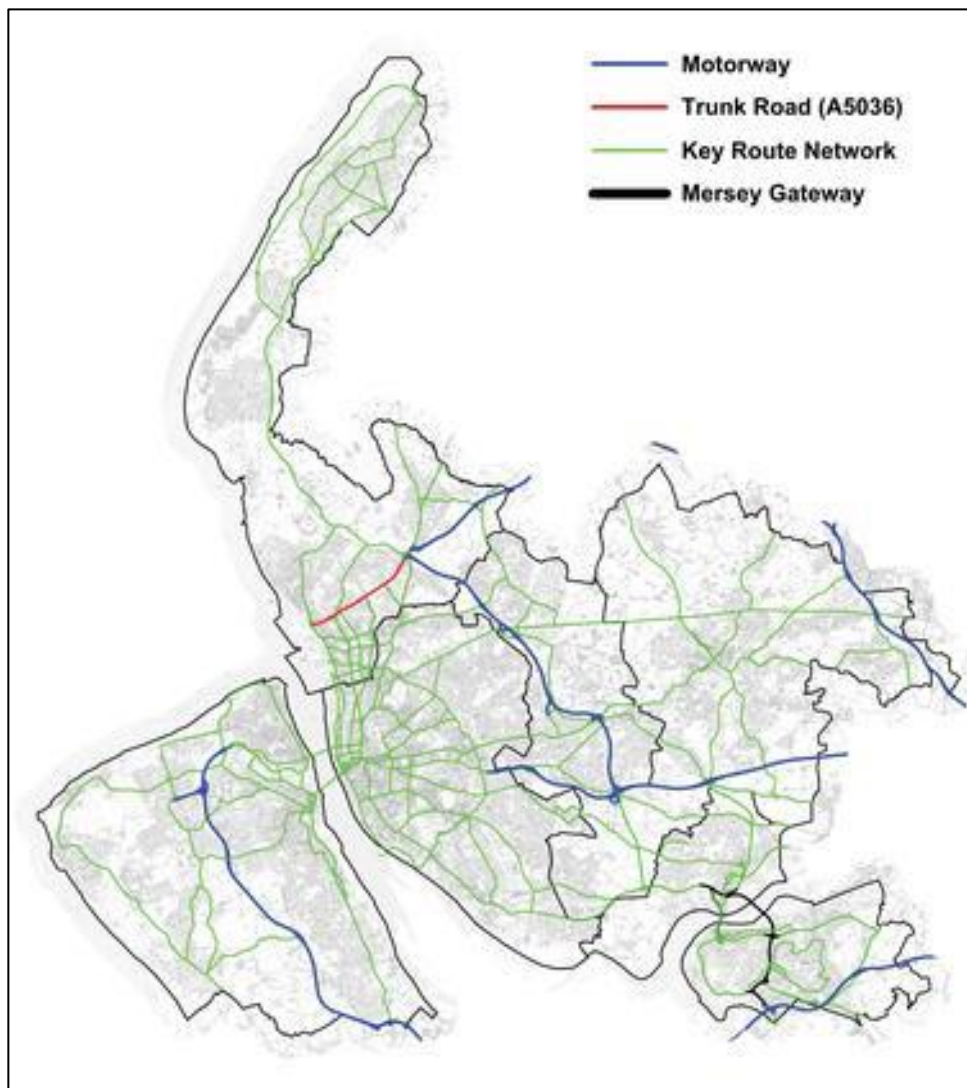
The LCR's Defined Key Route Network
Source: LCRCA

5.4.6   In defining our KRN, we acknowledged the significant benefit that a more co-ordinated approach to managing this network of roads could deliver. This includes:

- a more consistent approach to delivery and highway standards;
- economies of scale, for example procuring and delivering on a city region-wide basis;
- potential staffing benefits through the ability to pool services and efforts; and
- greater efficiencies from the amalgamation of delivery arrangements and contracts.

5.4.7   As a first stage in ensuring that this network especially is fit for purpose, a Highway Infrastructure Asset Management Plan (HIAMP) was developed in 2018. This provided an understanding of the physical condition of the main carriageways on a consistent footing for the first time. Over the life of this LTP, this HIAMP data must also be enhanced to provide a detailed and consistent understanding of all highway assets, such as bridges, drainage, safety restraints, lights, traffic signals, street furniture and pavements. This is essential in being able to make the case for the right funding and prioritisation to support preventative maintenance and reconstruction.

5.4.8   In our first HIAMP surveys in 2017, the headline conclusion is that the condition of the highway network is degrading, and that current funding is not at a level to properly address the maintenance

backlog of the highway network. The analysis shows that to maintain current levels of service (i.e. maintain a steady state) that:

- approximately £12 million is required per annum for Structural Maintenance;
- approximately £2.5 million is required for Preventative Maintenance; and
- the maintenance need "backlog" was approximately £56.8 million

5.4.9   This maintenance backlog affects the city region as a whole, but the majority of KRN roads requiring urgent structural maintenance are within the City of Liverpool. Similarly, the maintenance backlog in Liverpool is especially acute, meaning that interventions on these roads demand the highest priority in terms of evidenced need. The priority in the early years of the LTP's delivery will be to refresh these surveys and build a detailed picture of the condition of the assets.

5.4.10   The city region's KRN also features two complex road tunnels managed by the Combined Authority which also form part of the Key Route Network. The oldest tunnel is 90 years old and the newest is over 50 years old. Outside of the Combined Authority's management are two important bridge crossings downstream – the Silver Jubilee Bridge and the Mersey Gateway between Runcorn and Widnes. These act as critical links for people, goods and visitors and must be kept well maintained, usable and, where necessary, upgraded to withstand increasingly severe weather events.

Tough infrastructure that can withstand climate change

Policy G4-2
**Delivering transport that can withstand the effects of climate change**

We will adopt design standards for new and existing infrastructure that lessens the effects of extreme weather events on network performance to both protect assets and improve people's perceptions and experiences. These standards for new and existing infrastructure to be retrofitted will, where possible, incorporate green infrastructure to help mitigate impacts of climate change on the transport network.

We will monitor weather events in real time and take proactive measures to reduce disruption, for example diverting vehicles and people from flood prone or high wind routes.

Tree maintenance schedules for trees adjacent to the transport network will be better informed by climate projections to prevent disruption, improve reliability and minimise risk of physical harm.

We will ensure that all new infrastructure and retrofitted projects designed to reduce surface water runoff and flooding are developed in collaboration with utility companies to eliminate negative implications on the drainage network, such as Sustainable Urban Drainage systems.

5.4.11 As noted earlier, the vulnerability of transport infrastructure in the Liverpool City Region has been made evident; multiple storms and heatwaves in 2023 caused significant damage and disruptions to the transport network. The LCR experienced the highest temperature on record of 36°C in July 2022 during a heatwave which caused widespread disruption on the rail network. It is predicted that maximum summer temperatures in Liverpool will increase up to 2.1°C by 2030 and winter precipitation will increase up to 11%. Extreme weather events are going to become more prevalent, intense and unpredictable; not only does our infrastructure need to be able to withstand these impacts, but to encourage modal shift we need to minimise the impacts of climate change on a user's journey from start to finish.

Cost of Compensation due to Rail Delay in the North West and Central
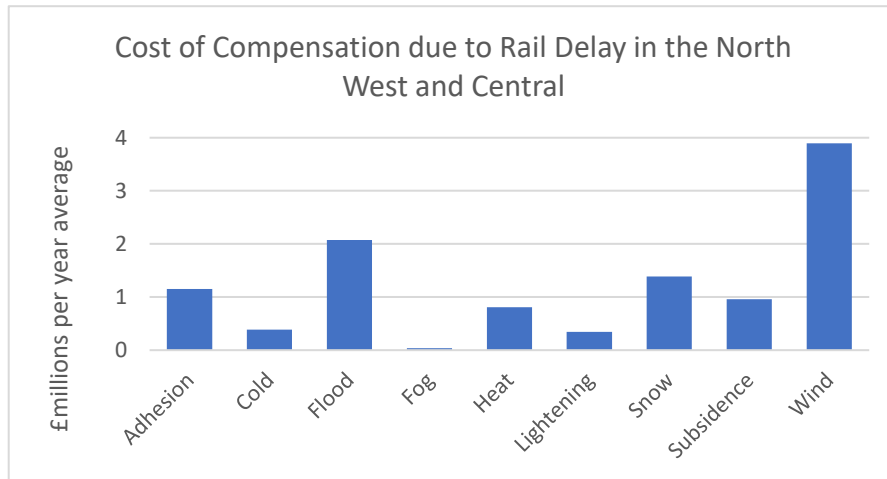
Source: Network Rail delay compensation costs due to weather events in their North West Central area – average taken from period 2006/07 to 2018/19

Delay Time (minutes) per year average
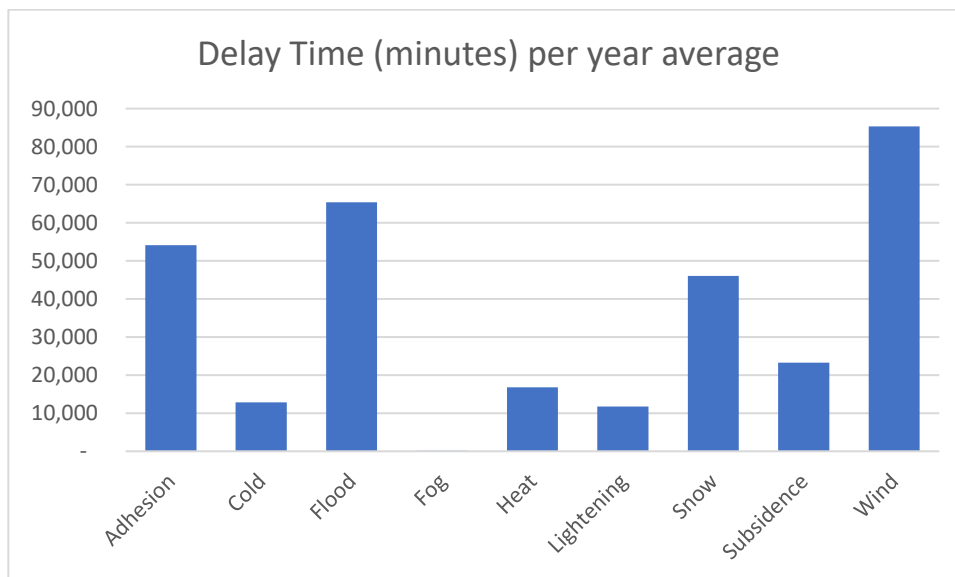
Source: Network Rail delay minutes due to weather events in their North West Central area – average taken from period 2006/07 to 2018/19

5.4.12   New infrastructure assets should be planned, designed, built, and operated in anticipation of the effects of climate change that they are predicted to face in their lifetime. Existing infrastructure should be retrofitted with appropriate measures whilst ensuring climate resilience is a continual process throughout the life of the asset. Heat, wind, storm surges and precipitation are the major threats that the Liverpool City Region faces.

5.4.13   Heat can cause deformities in road surfaces such as ruts due to expansion and contraction of surface materials. National Highways have made a shift to using Thin Surface Course Systems (TSCS) from the more traditional hot rolled asphalt. TSCS is considered to be more resilient to adverse weather and climate change, including to heat.

5.4.14 It is important that the not just the transportation itself can withstand the effects, but also active travel corridors and waiting areas like bus stops and train stations. Singapore in 2018 completed the installation of 200km of covered walkways, under the Land Transport Authority's Walk2Ride programme. This protects pedestrians below from extreme heat as well as rainfall. These walkways serve different transport hubs as well as to public services and make use of walkways by pedestrians more appealing when faced by adverse weather conditions.

Source The Straits Times, 2018

5.4.15 Buses in London have tinted windows to reduce heat from sunlight and ventilation to improve comfort. They also have white roofs, plus ceiling insulation to reflect heat. Double decker buses which make up around three quarters of the London bus fleet have air cooling in the upper deck. The entire Transport for London train fleet also has tinted windows installed to improve user experience.

5.4.16 Bus stops can be optimised in multiple ways to improve air quality, reduce temperature, increase biodiversity, and attenuate water. For example, in Seville, innovative "climate shelters" are in development, which are sustainable bus stops capable of reducing temperatures by up to 20ºC. The shelters have a water cistern that stores fresh water. During the day, solar panels help pump fresh air through small holes. Each structure has a temperature and pedestrian detection sensor to optimise performance. Similarly, Iceland has 'storm shelter' bus stops that have animal-safe wind turbines on the top which power lighting, heating and mobile charging in the bus stop. These are all real-life examples of how the LCR's transport network could be made more resilient and comfortable.

Source - Iceland Magazine, 2016

Tough infrastructure with a lower environmental impact

Policy G4-3
Ensuring that we develop and maintain infrastructure in a sustainable way

We will pilot, test and commission new ways of reducing carbon from transport infrastructure, including from concrete, steel, glass and bitumen and shift to new, low carbon technologies and alternative materials and construction methods in all that we commission and deliver. This will include sustainable net zero energy generation sources, such as heat pumps, photovoltaics and wind power.

Retrofitting street lighting and traffic signals with LED and power-saving technologies to consume less power will also be rolled-out.

To integrate circular economy principles into the transport network, there will be a strong focus on reusing existing buildings, materials, equipment and infrastructure, where possible, to make best use of existing resources and reduce waste and carbon emissions.

We will actively support new construction methods and technologies that absorb carbon and support wider biodiversity and nature recovery plans and in ways that make areas feel safer and more attractive for people. Measures may include green roofs and wildflower planting.

 When implementing nature-based solutions to climate change impacts across the transport network, the Local Nature Recovery Strategy (LNRS) will inform opportunities for nature recovery interventions in locations where they are most needed and will provide the biggest benefit to both nature and people.

We will map and align resilience opportunities, opportunities to increase Biodiversity Net Gain and make improvements to the transport network, especially to improve active travel conditions.

We will work with the rail industry to improve resilience and development in ways that support the aims of this plan, including increasing the amount of natural capital in ways that support the safe and efficient operation of the network.

5.4.17   As we set out in Goal 2, and under *Policy G2-1: Removing carbon emissions from transport*, transport infrastructure consumes large amounts of carbon. In looking at a whole life approach to carbon in our schemes and activities, we must look to reduce the environment impacts of construction materials and maintenance, in ways that also support the aims of this goal in delivering a tough, adaptable transport system. This may require a focus on making best use of existing assets, buildings and facilities, and in reusing and recycling existing materials before new facilities are proposed or built.

5.4.18   Increasing levels of biodiversity as part of enhancement and repair of the transport network where possible is also important. More planting can absorb carbon and other pollutants, as well as aiding in tackling extreme weather via natural, permeable materials to prevent flooding. Increasing Biodiversity Net Gain (BNG) is also a mandatory part of the land use planning process for developments, as showcased at the recently opened Headbolt Lane station in Kirkby. The role of BNG is cross-referenced in *Policy LCR DP7 - The Natural Environment and Nature Recovery* in the draft Spatial Development Strategy for the LCR. Developers must deliver a BNG of 10%. This means a development will result in more or better-quality natural habitat than there was before development. The use of the right planting and biodiversity to create high quality places and visual interest also supports other guiding principles in the plan, notably *Principle 4: Transport must support placemaking.*

GOAL 5

Plan and respond to uncertainty and change and be innovative

Become a forward-thinking region. Use innovation and new technologies, plan for uncertainty and change, and improve future travel in the region

5.5 Delivering Goal 5

5.5.1 The Liverpool City Region has huge strengths, ambitions and plans for the future. The devolution of powers and funds to a local level is critical, to allow decisions to be taken at the same level where impact will be felt and in response to local needs and evidence.

5.5.2 Innovation has always, and will always be core to LCR's strengths since the birth of the industrial revolution – dock systems, pioneering inter-city rail, medicines, vaccines, innovative new materials and digital innovation as examples. Innovation and change will enable the Liverpool City Region to remain prosperous, vibrant and competitive long into the future against the backdrop of a constantly evolving context. Through this LTP, we will support our aim to become a nationally exemplary, forward-thinking city region in how we plan and deliver transport. We will use innovation and new technologies to help deliver our goals and be receptive to change, disruptive technologies and uncertainty in equal measure.

5.5.3 We recognise that technology and innovation can help revolutionise travel and transport and how people access it. The provision of comprehensive digital connectivity for everyone will be vital to achieving the vision of our LTP; it allows people to work and shop from home, and enables the seamless provision of Real Time Information and Smart Ticketing services. Powered forms of mobility such as e-bikes and e-scooters are reliant on digital connectivity and apps allow people to book trips and track the location of vehicle fleets. It is also a crucial building block for future transport services, including connected and autonomous vehicles.
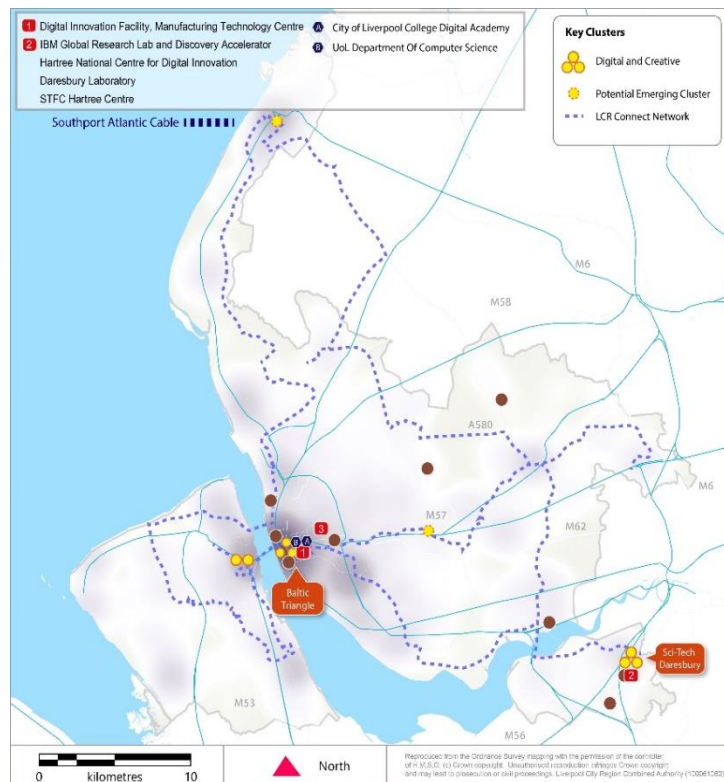
The LCR Connect digital fibre spine
Source: LCRCA Draft Spatial Development Strategy

5.5.4   The completion of the [LCR Connect](#) digital fibre spine in 2024 represents a pioneering and vitally important development, that will allow ultrafast broadband connectivity across the city region for services or functions that are yet to be invented. In the same way that water and electricity are vital utilities for our prosperity and wellbeing, so too is digital connectivity.

5.5.5   Despite these transformative innovations, the COVID-19 pandemic was a grave reminder that the future is uncertain and sudden change can happen and blindside us. Lockdown had an immediate and overnight impact on travel, and traffic levels plummeted as schools, workplaces and shops closed. We still don't know what the long-term impact will be, as homeworking for those who can, and online home shopping continued long after travel restrictions eased.

5.5.6   In addition to the impact of the pandemic, our future is especially uncertain at present; the impact of Brexit, rising inflation, the cost of energy, the cost of living crisis and industrial action in the transport sector frame the drafting of this plan. The fluctuating costs of petrol, diesel and electrical power for electric vehicles also have the potential to change how and why people travel and how goods are moved.

5.5.7   People's attitudes also change over time – often quickly and with radical implications. The switch from tobacco from vaping is a notable recent example, as are attitudes to drink driving today compared to those in the 1960s.   Changing attitudes and values will equally have a bearing on why and where people travel, how they choose to travel, and how they want to pay for it. For example, recent [research](#) suggests that fewer young people hold driving licenses compared to previous generations, and are driving less. If this trend continues, linked to growing costs of running a car, young people's demands will change. This may mean that demand for high quality public transport and shared mobility, for example, will grow.

5.5.4   Finally, we must not rely on a technology for its own sake or jump to conclusions where the technology is in its infancy. This is why tests and trials will be supported in how we deliver this LTP. This comes in addition to the need to prevent digital exclusion and in ensuring fairness in line with *Principle 6: Guided by our commitment to inclusivity, accessibility and social value.*

Uncertainty and change

5.5.8   Building on *Principle 3: Transport decisions must be based on clear need and evidence,* proposals must also be tested against future uncertainty as part of the risk management process. The four future travel scenarios that have informed the development of this plan are especially important considerations. Schemes or interventions that stack up against uncertainty and a range of futures will typically have the additional assurance of demonstrating that they are robust and future-proof.

Policy G5-1
Testing options and proposals against uncertainty and change

Plans, proposals and interventions taken forward in support of this plan must be tested against a range of uncertainties in the future.

In particular, the four future travel scenarios identified in section 3 – *Transport Scenarios for the Future of the City Region* - must be considered in proposals and business cases for relevant schemes and interventions. This is to provide assurance that schemes and priorities remain relevant and robust set against a range of futures and uncertainties.

There will be a presumption in favour of supporting plans, proposals and interventions that perform well against a range of uncertainties, rather than schemes that have been developed against a single set of forecasts or a narrow range of assumptions.

5.5.9   Schemes and projects that are identified and developed need to be tested against different futures. For example, this could include a scenario of falling costs of motoring at one end of the spectrum, but with a national road user charging scheme that charges the affordability and attractiveness of car commuting at the other end. Or it could include a comparison of travel demand in a low growth, poorly performing economy, and in a high growth inclusive economy. Our delivery plan that follows needs to be responsive to these changes.

5.5.10 A significant uncertainty that we face concerns funding; the early years of delivery are underpinned by significant levels of funding from the City Region Sustainable Transport Settlement (CRSTS). Between 2022-2027, the £710 million City Region Sustainable Transport Settlement will support measures that support the goals set out in this plan. But at the same time, this funding does not keep up with rising inflation, and is worth less year-on-year.

5.5.11 The October 2023 cancellation of HS2 between Birmingham and Manchester is a powerful example of how a longstanding strategy and proposal can alter almost overnight. But its cancellation led to the repurposing of £36bn of funding into the Network North plan effectively committed to doubling this second allocation to £1.581 billion, but confirmation is awaited.   This means that there is potential certainty over levels of capital spend in the medium and longer-term.

5.5.12 However, funding pressures are likely to be acute in the short to medium term especially in revenue terms for local authorities. Revenue funding is used to maintain roads and open spaces, commission services, and employ staff to develop schemes. The public sector in under extreme financial pressures and staffing levels have been squeezed over recent years. Levels of revenue funding, needed to support the delivery of bus, rail and ferry services, concessionary travel and the development and delivery of schemes and projects are under extreme pressure. We need to make the case for essential funding to realise the many benefits to society that the LTP sets out. Equally, this uncertainty and these funding pressures emphasise the need to be led by clear evidence, to consider a range of options including "making best use" of existing assets before building new schemes that may have very significant running costs. Delivering multiple benefits through a well-designed scheme is also more efficient in delivering the aims of this plan – examples include "packaging up" road space reallocation, public transport and road safety improvements as part of the delivery of highway capital maintenance schemes, rather than as like-for-like highway maintenance schemes.

5.5.14 Likewise, the generation of new funding sources or returns on investment will feature, to maximise value and to leverage travel support and assistance to people needing it most. In addition, working across different sectors, there is huge scope to improve how existing funds works and complement one another, including through public sector reform. The latter will include reviewing what and how we deliver transport activities and projects, to maximise our efficiency and impact.

5.5.15 Critically, we must keep an open mind and be receptive to change. We cannot lock ourselves into a specific view of what the future might look like or else our plans will become outdated and irrelevant, especially if they are based on past trends or established conventions.

Testing and trialling new measures

5.5.16 When the future is uncertain, or when we are progressing new ideas or solutions, the use of trials and experiments can prove useful. A trial can ensure that we don't commit large amounts of funding to things that may not be proven or effective. It can also help us to test ideas in a "real world" setting, especially if the use of forecasts or transport models is inappropriate. Equally, a trial can be useful if our communities are not sure whether a proposed solution to a problem will work, especially if a solution is seen as radical or challenging in how road space is used, linked to *Principle 5: Prioritise clean, healthy travel in all we do.*

Policy G5-2
Piloting options, trials and new technologies in a climate of uncertainty and change

We recognise that we do not always have all the facts or all the right answers at our disposal when developing solutions to the transport problems and challenges set out in this LTP. This is especially important where public support is untested or where the evidence is inconclusive.

We support the use of trials, pilots and innovations that support the vision and goals in this plan to test impacts in a "real life" setting that could include:

- New methods of collecting data on movement or the condition of transport networks and assets, including the use of "digital twins"
- Small-scale trials that use new forms of data collection (including artificial intelligence) to inform the development of more permanent solutions or longer-term plans
- Behavioural pilots to understand incentives to making change
- Pilots of ticketing and pricing options, including dynamic pricing to reduce or spread the demand for travel
- New technologies that can move people or goods in more efficient ways, including the ability to make changes in real time in response to changing conditions or circumstances.
- measures to trial and evaluate the impact of schemes that reprioritise road space to deliver the visions, goals and policies of this plan. This can include temporary trials of car-free environments, road closures, low speed zones, active travel, bus priority and micromobility measures.

5.5.16 It can mean that piloting a new form of transport or technology is the right thing to do, as we are doing now with e-scooters in Liverpool. Our pioneering battery powered Class 777 trains are national game-changers in looking at new, and lower cost ways in which to decarbonise the rail network and increase its the reach.

5.5.17 Pop-up cycle lanes were promoted as quick, temporary solutions to help people move in a socially distanced way about during the height of COVID-19 restrictions in 2020. Not all were successful or

popular, but provided an immediate solution to a problem to the point that a number of these have been made, or are being made permanent. Robust monitoring and evaluating of the success or otherwise of these initiatives is essential.

A smart, innovative city region

5.5.18   We recognise that new innovations and technology have the potential to change the way we live our lives and how we travel and move. This is in much the same way that high speed broadband and smart phones have revolutionised the way many of us work, shop, book tickets and communicate. Our aim will be to capitalise on technology that allows all of our goals to be met in line with *Principle 2: We will apply the five goals equally*.

5.5.19   We support the ambition to be a "Smart City Region" – using Artificial Intelligence (AI) for good to transform our transport system through innovative and creative digital solutions that allow movement to be planned and operated in real time. This can be in response to changing circumstances or to respond to an emergency and include the management of traffic, using road, rail, air and water, in new and more efficient ways utilising live data and real time information.

Policy G5-3
A Smart City Region – Investing in new technologies and utilising Artificial Intelligence

The delivery of the vision, goals, principles and policies or this plan will be informed by the ambition to be smart and innovative in the use of intelligence (including Artificial Intelligence) and traffic and transport control systems. The commitment to a rolling LTP delivery programme will allow technologies and potential solutions to be assessed and embedded into plans and proposals.

Scheme promotors must consider the opportunity to improve digital connectivity coverage as part of pipeline schemes through the adoption of "Dig Once" principes, whereby digital infrastructure can be undertaken with other highway works to minimise disruption and reduce incremental costs.

We will facilitate the transition from petrol and diesel vehicles to electric and other sustainable fuels in a technology-agnostic way. New fuels may include electrical and battery power, green hydrogen, ammonia, methanol and sustainable aviation fuels.

As a more advanced technology, the electrification of cars and vans will be facilitated through the Local Vehicle Infrastructure Fund (LEVI) programme as a short-to-medium-term delivery deliverable. This will include a mix of on-street low powered chargers and high capacity "hub" chargers with a focus on areas lacking off-street parking and charging facilities. Wherever possible, electric vehicle charging infrastructure will be required to meet the requirements of PAS 1899 so that they can be used easily and independently by drivers with physical disabilities.

In rolling-out electric vehicle charging, we will prioritise shared mobility principles, with a focus on the provision of access to clean electrified transport rather than on ownership of electric vehicles, in line with *Policy G2-3 - The role of shared mobility and micromobility.* We will integrate vehicle charging proposals with our placemaking plans and with the wider transport network, including bus, rail, ferry, e-scooter, walking and cycling networks.

The electrification of mass transit and associated infrastructure (e.g. the electrification of rail lines and electric or hydrogen powers buses, vans, HGVs, ferries, logistics and shipping) will be pursued locally with industry and other key partners. The focus will be on delivering such measures as part of a cohesive,

integrated package of measures aimed at tackling modal shift especially. This will be in line with *Policy G2-2 - Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity.*

5.5.20   A Smart City Region is reliant on having the right infrastructure in place. Much of this, and what enables the required digital connectivity, is located or buried within the transport assets. We will seek to ensure that our future pipeline of transport schemes is compatible with future roll out of 5G connectivity, to facilitate the use of real time information and artificial intelligence.

5.5.21   There is very significant potential for better data and technology to transform the safe and sustainable movement of goods and freight. This will directly support *Principle 3: Transport decisions must be based on clear need and evidence.* Road safety aspects are especially important; we express concern in our 2021 Road Safety Strategy about the lack of significant road safety innovations, akin to the introduction of road safety cameras in the early 1990s. To achieve the aim of zero avoidable killed or seriously injured casualties by 2040, we recognise that innovation will play a key role in ensuring very significant reductions in collisions and in injury.

5.5.22   Better data gathered from real-time traffic monitoring can be used to inform traffic signal and traffic flow adjustments, based on emergency response requirements. This could give priority to road users to help ease bus or freight flows, for example, in relevant areas. Similarly, low-cost technological measures that warn against, or tackle a problem at source (e.g. early warnings of hidden dangers on the road or rail network and automatically take action in response) can provide innovative solutions as well as supporting the safety and quality of life goals of this plan. Ensuring our systems and data are protected is also a fundamental aspect of our approach. Cybercrime could have catastrophic impacts on urban transport systems if we don't consider, manage and mitigate against these risks. We will work with partners to ensure the appropriate cyber security processes and measures are in place to protect systems and data centres.

5.5.23   Technology is changing how transport itself operates, especially the shift from petrol and diesel engines to electric power in the quest to decarbonise. Despite the shift in technology, and huge growth in recent years, and electric vehicles (EVs) currently represent a small proportion of total vehicle stocks. But in 2035, the sale of new petrol and diesel cars and vans will be banned, with buses, and heavy vehicles following suit later. The uptake of EVs is influenced by many factors, especially affordability, confidence in the technology, and the availability of EV charging facilities. This LTP must support this ambition by ensuring that the infrastructure to charge and refuel vehicles is in place, working closely with industry on a "pump priming" basis. The £10 million LEVI fund will be the focus on activity in the early years of the LTP's delivery horizons.

5.5.24   A robust electrical grid must be in place to underpin this approach. We will continue to work with key partners and stakeholders, including Scottish Power Energy Networks (SPEN), to ensure grid capacity is in place to support the transition, as well as championing to use of renewable energy sources, including the plans for Mersey Tidal, to decarbonise the electricity grid.

5.5.25   In line with the wider aims of this LTP, a one-for-one switch from fossil fuel vehicles to EVs or alternatively fuelled vehicles is not desirable. As we set out throughout this plan, if we don't plan proactively, we will risk a situation of "clean congestion" with a continuation of problems of emissions, serious accidents, isolation, exclusion and roads dominated by traffic.

5.5.26 Indeed, new technology and innovation to encourage alternatives to cars, vans and the movement of freight are emerging, often termed "mobility as a service" (MaaS) – a concept that brings together many modes of travel, under one app or platform to allow users to plan, book and buy tickets for various mobility modes. MaaS measures can provide the same benefit as having ownership of a private car or van, but without the cost burdens associated with this. We must reflect the role of technology and new mobility in filling gaps in the transport network and providing viable alternatives to private car use. To reaffirm policies in support of the preceding goals, measures like car clubs, e-scooters, e-bikes, cargo bikes, ride sharing apps and payment systems can increase affordability and equality of access will be supported through this LTP.

An e-scooter at Liverpool's Pier Head.
Source: engageliverpool.com

5.5.27 The focus must be on capitalising on new flexible forms of travel and new technologies to replace trips currently made by private car, van or HGV as well as filling first and last mile gaps to reach bus or rail services. The response to new transport technologies and opportunities will be guided by their fit against the goals, principles and policies of the LTP.

5.5.28 Equally, technologies such as drones and autonomous vehicles or pods are in their infancy, but could provide efficient, low carbon means to move small goods to from a consolidation centre on the edge of a built-up area or town centre for their "last mile" instead of end-to-end movement using a diesel van or a diesel HGV. Conventional vehicles are becoming increasingly smart – ranging from the ability to "see" the road ahead and warn drivers of hazards, to self-driving and autonomous vehicles and pods.

5.5.29 As technology evolves, the skills and technical requirements will change accordingly. Numbers of vehicles with internal combustion engines will fall significant during the life of this LTP and the mechanical skills that we have relied on so heavily will change. Electrical and hydrogen power will become more prevalent, with very different skillsets and maintenance requirements, as will new technologies such as micromobility, as set out under Goal 2. The LCRCA is working closely with employers and training organisations to ensure that our workforce, and workforce of the future, are equipped with future-focused skills.

6.   THE DELIVERY PLAN

THE LTP's DELIVERY PLAN IS IN DEVELOPMENT AND IS NOT SUBJECT TO THIS ROUND OF CONSULTATION

7.   MONITORING & EVALUATION

7.1   The LCRCA recognises the importance of monitoring and evaluation (M&E) as tools to understand the success of plans and strategies. The Combined Authority's Monitoring and Evaluation Framework describes our approach to M&E. It outlines the commitment to collecting evidence of progress and performance against local strategies to demonstrate how devolved funding is being invested and estimate the overall benefits this generates for residents, businesses and local communities. This evidence also provides information about what works and why, to support future planning, decision making and investments.

7.2   Although monitoring and evaluation draw on and inform one another, they are two different processes:

- **Monitoring** involves regularly collecting data on planned activities to understand if they are happening as anticipated
- **Evaluation** aims to understanding the effectiveness of a plan, strategy or project in terms of the design, implementation and outcomes achieved.

7.3   Monitoring and evaluation are generally used together - monitoring data provides early evidence that can help to refine or change an approach to ensure things are being delivered as expected. Evaluation builds on monitoring data to provide a fuller assessment of the benefits, outcomes and impacts of a plan or project.[1]

7.4   Previous LTPs have included extensive suites of targets and performance measures, many of which were mandated or recommended by central Government. However, this LTP has been drafted in a period of uncertainty and without any formal update to Government guidance last issued in 2009. In this context, we have developed a local approach to measuring the success and impact of the LTP in line with the CA's Monitoring and Evaluation Framework and Assurance Framework. It provides a clear mechanism for assessing how effectively the vision and goals are being delivered whilst providing accountability and focus for continuous learning and improvement.

7.5   The remainder of this section outlines the approach, and describes:

- outcomes that will be used to demonstrate progress against the LTP vision and goals
- data that will be used to measure these outcomes, how it will be collected and who will collect it
- how the CA will report and communicate performance and progress against our vision and goals, including timelines and governance arrangements.

Key outcome measures

7.6   Given the importance of the recently published 2021 Transport Decarbonisation Strategy, understanding the LTP's impact on carbon emissions will be vital, but in line with *Principle 2: We will apply the five goals equally*, decarbonisation is an equal priority to the other four goals. We have therefore identified a set of outcome measures that align to all LTP goals, including metrics which relate to:

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[1] Transport Analysis Guidance (TAG) on the evaluation of transport interventions, Department of Transport (DfT)

- existing Government funded programmes, especially the City Region Sustainable Transport Fund (CRSTS) - which have monitoring and evaluation plans in place to track indicators at both scheme and LCR level and to inform the national evaluation
- delivery and performance data from ongoing CA transport activities and services
- other CA plans and strategies that directly align with the Local Transport Plan, or directly influence and affect transport, such as the Five Year Climate Action Plan and Spatial Development Strategy (SDS).

7.7   The table on the next page sets out the goals and the overarching vision of the Plan against key outcomes drawn from key chapters of this document.

Outcome indicators for Local Transport Plan 2024 – 2040

Local Transport Vision: To plan and deliver a future-facing, clean, safe and accessible transport system built to last. It will focus on moving people, goods and freight around the region in a way that delivers our local ambitions. Particular focus will be on a net zero carbon emitting city region by 2040 or sooner

Outcome no.	Outcome measure	Goal 1: Support good, clean job growth and opportunity for all	Goal 2: Achieving net-zero carbon and an improved environment	Goal 3: Improve the health and quality of life for our people and communities. Making sure transport is safe, clean and good for the environment around us.	Goal 4: Make sure our transport network and assets are well maintained, long lasting, and tough to the effects of climate change	Goal 5: Become a forward-thinking region. Use innovation and new technologies, plan for uncertainty and change and improve future travel in the region.
1	Increased satisfaction with public transport offer (experience, affordability, convenience, reliability, punctuality, journey time, accessibility, resilience, safety/security)	✓	✓	✓	✓	
1.1	- By key groups (age, gender, disability, ethnic background, residents living in areas of deprivation)	✓		✓		
2	Increased satisfaction with active travel offer (experience, convenience, accessibility, safety, condition)	✓	✓	✓		
2.1	- By key groups (age, gender, disability, ethnic background, residents living in areas of deprivation)	✓		✓		
3	Improved access to services and opportunities	✓				
3.1	- By key groups (age, gender, disability, ethnic background, residents	✓				

Outcome no.	Outcome measure	Goal 1: Support good, clean job growth and opportunity for all	Goal 2: Achieving net-zero carbon and an improved environment	Goal 3: Improve the health and quality of life for our people and communities. Making sure transport is safe, clean and good for the environment around us.	Goal 4: Make sure our transport network and assets are well maintained, long lasting, and tough to the effects of climate change	Goal 5: Become a forward-thinking region. Use innovation and new technologies, plan for uncertainty and change and improve future travel in the region.
	living in areas of deprivation)					
4	Reduction in transport-related social exclusion (TRSE)	✓				
5	Reduction in transport carbon emissions		✓			
6	Improved air quality		✓	✓		
7	Modal shift - increase in cycling, walking, and public transport use (bus and rail patronage)		✓			
8	Modal shift - reduction in private car use		✓			
9	Increase in low/zero emission freight journeys		✓			
10	Improved public transport performance measures (rail, bus and ferries) - punctuality/reliability		✓		✓	
11	Reduction in LCR road casualties			✓		
12	Improved road condition			✓	✓	
13	Improved perception of local neighbourhoods - car dominance, clean air, community spirit			✓		
14	Improved perception of local town centres (car dominance, clean air, feel comfortable walking/wheeling and cycling)			✓		
14.1	- By key groups (residents and visitors)			✓		

Outcome no.	Outcome measure	Goal 1: Support good, clean job growth and opportunity for all	Goal 2: Achieving net-zero carbon and an improved environment	Goal 3: Improve the health and quality of life for our people and communities. Making sure transport is safe, clean and good for the environment around us.	Goal 4: Make sure our transport network and assets are well maintained, long lasting, and tough to the effects of climate change	Goal 5: Become a forward-thinking region. Use innovation and new technologies, plan for uncertainty and change and improve future travel in the region.
15	Increased satisfaction with condition of highway, including assets (footways, cycleways and structures)				✓	
15.1	- by key groups (residents and businesses)				✓	
16	Increased satisfaction with Mersey Tunnels (overall satisfaction, safety, condition of road surface)				✓	
17	Increase in access and uptake of alternative sustainable transport options (e.g. City Bike and car share schemes, E-Scooter schemes)					✓
18	Improved use of data/evidence to inform transport management and planning					✓
19	Improved infrastructure in key locations to support roll out and uptake of zero emission transport					✓

Data collection

7.8   Data will be collected from existing sources, where possible. These include:

- National surveys:
    - Your Bus Survey and Rail User Survey, carried out annually by Transport Focus to understand passenger experience of rail and bus journeys
    - Walking and Cycling Index (WACI), a study of active travel conducted every two years by Sustrans in 23 cities and urban areas across the UK and Ireland
- Local surveys:
    - LCR Household Travel Survey, which provides rich data on the travel behaviour of local residents. This was last undertaken in 2017 but is due to be updated and refreshed in 2024
    - LCR Mode Share Survey, which captures mode share of transport into key LCR centres (annually for Liverpool City Centre, biennially for other major towns)
    - Mersey Tunnels Customer Satisfaction Survey, conducted ever 2-3 years with tunnel users
- Local data:
    - Walking and cycling flows and air quality data from a network of sensors and monitors across the LCR
    - Public transport patronage data for rail, bus and ferries
    - Travelsafe and Police data on transport related crime and safety
- Performance data collected by the CA on the delivery of ongoing transport services and schemes ('business as usual' data)
- National and subregional statistics published by the Department of Transport (DfT) and Transport for the North (TfN) on themes like transport carbon emissions, road condition and traffic accident data.

7.9   In addition to the above, it is envisaged that we will look to strengthen our evidence base through, for example:

- Commissioning research to improve insight on perceptions of public transport, active travel, access to services and opportunities for transport-related placemaking - particularly amongst key groups, including surveys with:
    - Residents - to understand non-user perceptions of public transport, safety, access to services and opportunities, local neighbourhoods and town centres
    - Public transport users - to measure perceptions of affordability, convenience, reliability, punctuality, journey time, accessibility, resilience and feelings of safety and personal security when travelling
    - Visitors - to assess and measure perceptions of town centre accessibility and public transport
    - Businesses - to understand changes in satisfaction with highways assets

- Exploring ways to improve:
    - LCR rail and bus patronage data, particularly at a more local level
    - modelling of transport user costs, including ticketing
    - data collection and monitoring of traffic flows along the key road network

- Undertaking further analysis and collection of:
    - freight data, including data around LGV use for logistics and last mile delivery

  ○ road user safety data, particularly in terms of deepening understanding of actual and perceived issues relating to cycling safety.

Resource, reporting and dissemination

7.10 An annual highlights document will report progress on the "Outcome indicators for Local Transport Plan 2024 – 2040" table. This will draw on monitoring data from schemes delivered through CRSTS, other funding streams and ongoing CA activities alongside national and local research and analysis. This will provide an opportunity to share evidence of what has been achieved to date and demonstrate progress against each LTP goal, alongside more qualitative narrative on key successes and future areas of focus to reflect new or emerging priorities.

7.11 To supplement the annual reviews, we will carry out periodic 'deep dive' analysis to assess how the plan is being implemented, including the application of the eight LTP principles, to understand:

- what is working well, or less well, for who and why
- what can be improved, and how any lessons learned can be implemented
- if delivery of the LTP is progressing as intended
- how the context in which the plan is being delivered is influencing it's delivery.

7.12 These reports will align with key phase of the LTP delivery plan (as outlined in section 6), or where it may be necessary to formally review it, for example in the event that national or local policy changes need to be reflected.

7.13 It is anticipated that a number of internal teams will support the LTP monitoring and evaluation activities. Reports will be shared organisationally, with constituent authorities, key partners and stakeholders, including LCRCA residents, through the CAs website and other relevant communication channels. Findings, including lessons learned, will be used to improve and refine the LTP and shape future service and policy planning and delivery.

Appendix One: UK Government Missions mapped against LTP Goals, Principles and Policies

UK Government Mission	Corresponding LTP Goal	Corresponding LTP Principle	Corresponding Core LTP Policies
Kickstart economic growth *to secure the highest sustained growth in the G7 – with good jobs and productivity growth in every part of the country making everyone, not just a few, better off.*	*GOAL 1* *Support good, clean job growth and opportunity for all*	*Principle 6:* *Guided by our commitment to inclusivity, accessibility and social value*	*Policy G1-2* *Prioritising measures and services that improve people's access to opportunity* *Policy G2-2* *Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity* *Policy G2-5* *A high quality, low carbon transport network in Liverpool City Centre and in our main towns* *Policy G2-6* *Sustainable and efficient freight and logistics*
Make Britain a clean energy superpower *to cut bills, create jobs and deliver security with cheaper, zero-carbon electricity by 2030, accelerating to net zero.*	*GOAL 2* *Achieve net-zero carbon and an improved environment*	*Principle 5:* *Prioritise clean, healthy travel in all we do*	*Policy G2-1* *Removing carbon emissions from transport*
Take back our streets *by halving serious violent crime and raising confidence in the police and criminal justice system to its highest levels.*	*GOAL 3* *Improve health and quality of life*	*Principle 4:* *Transport must support placemaking*	*Policy G3-2* *Delivering the movement hierarchy and placemaking principles* *Policy G3-4* *Making transport safe, inclusive, attractive and reassuring for the user*

UK Government Mission	Corresponding LTP Goal	Corresponding LTP Principle	Corresponding Core LTP Policies
Break down barriers to opportunity by reforming our childcare and education systems, to make sure there is no class ceiling on the ambitions of young people in Britain.	GOAL 1 Support good, clean job growth and opportunity for all	Principle 6: Guided by our commitment to inclusivity, accessibility and social value	Policy G1-2 Prioritising measures and services that improve people's access to opportunity Policy G1-3 Making it easy and affordable to travel Policy G1-4 Reviewing our travel support offer
Build an NHS fit for the future that is there when people need it; with fewer lives lost to the biggest killers; in a fairer Britain, where everyone lives well for longer.	GOAL 3 Improve health and quality of life	Principle 5: Prioritise clean, healthy travel in all we do	Policy G3-1 Reinforcing "Vision Zero" – no deaths or serious injuries on the city region's roads by 2040 Policy G3-3 Improving air quality from transport Policy G3-4 Making transport safe, inclusive, attractive and reassuring for the user

Appendix Two: UK Government 's five strategic transport mapped against LTP Goals, Principles and Policies

UK Government 's five strategic transport priorities	Corresponding LTP Goals	Corresponding LTP Principles	Corresponding Core LTP Policies
improving performance on the railways and driving forward rail reform	*GOAL 2* *Achieve net-zero carbon and an improved environment* *GOAL 4* *Transport that's well maintained and tough*	*Principle 5:* *Prioritise clean, healthy travel in all we do*	*Policy G1-2* *Prioritising measures and services that improve people's access to opportunity* *Policy G1-3* *Making it easy and affordable to travel* *Policy G2-2* *Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity* *Policy G2-5* *A high quality, low carbon transport network in Liverpool City Centre and in our main towns* *Policy G2-6* *Sustainable and efficient freight and logistics*
improving bus services and growing usage across the country	*GOAL 2* *Achieve net-zero carbon and an improved environment*	*Principle 4:* *Transport must support placemaking* *Principle 5:* *Prioritise clean, healthy travel in all we do*	*Policy G1-3* *Making it easy and affordable to travel* *Policy G2-2* *Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity* *Policy G2-5* *A high quality, low carbon transport network in Liverpool City Centre and in our main towns* *Policy G1-3* *Making it easy and affordable to travel*

UK Government 's five strategic transport priorities	Corresponding LTP Goals	Corresponding LTP Principles	Corresponding Core LTP Policies
transforming infrastructure to work for the whole country, promoting social mobility and tackling regional inequality	*GOAL 1* Support good, clean job growth and opportunity for all *GOAL 3* Improve health and quality of life	*Principle 4:* Transport must support placemaking *Principle 6:* Guided by our commitment to inclusivity, accessibility and social value	*Policy G1-3* Making it easy and affordable to travel *Policy G2-2* Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity *Policy G2-5* A high quality, low carbon transport network in Liverpool City Centre and in our main towns *Policy G2-6* Sustainable and efficient freight and logistics *Policy G3-1* Reinforcing "Vision Zero" – no deaths or serious injuries on the city region's roads by 2040 *Policy G3-4* Making transport safe, inclusive, attractive and reassuring for the user
delivering greener transport	*GOAL 2* Achieve net-zero carbon and an improved environment	*Principle 4:* Transport must support placemaking	*Policy G1-2* Prioritising measures and services that improve people's access to opportunity *Policy G1-3* Making it easy and affordable to travel *Policy G2-1* Removing carbon emissions from transport

UK Government 's five strategic transport priorities	Corresponding LTP Goals	Corresponding LTP Principles	Corresponding Core LTP Policies
better integrating transport networks	*GOAL 1* *Support good, clean job growth and opportunity for all* *GOAL 2* *Achieve net-zero carbon and an improved environment*	*Principle 5:* *Prioritise clean, healthy travel in all we do*	*Policy G1-2* *Prioritising measures and services that improve people's access to opportunity* *Policy G1-3* *Making it easy and affordable to travel* *Policy G2-2* *Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity* *Policy G3-2* *Delivering the movement hierarchy and placemaking principles* *Policy G3-4* *Making transport safe, inclusive, attractive and reassuring for the user*

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Liverpool City Region Combined Authority Local Transport Plan

"PEOPLE, PLACES, MOVEMENT"

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