STRATEGIC ECONOMIC PLAN
Draft Transport Strategy

871candwep.co.uk

Cheshire and Warrington 871 Local Enterprise Partnership

CHESHIRE AND WARRINGTON MATTERS

Table of Contents

1. Executive Summary

Executive Summary

The Strategic Economic Plan (SEP), produced by the Cheshire and Warrington Local Enterprise Partnership (CWLEP), covers the period up to 2040. It sets out an ambitious growth strategy for the sub-region focussing on delivering a £50 billion a year economy in terms of GVA. The SEP identifies the need for growth to be targeted in key growth opportunity areas including through the identification of four areas of focus:

- Cheshire Science Corridor;
- Mersey Dee Economic Axis;
- Constellation Partnership;
- Warrington New City.

Transport and connectivity will be central to achieving Cheshire and Warrington's aspirations for growth and supporting economic development, in particular to these spatial priorities. Effective transport networks will be crucial for the continued success of the sub region as an attractive place in which to live and do business.

Transport and Connectivity

In physical network terms Cheshire and Warrington is well connected. It sits at the heart of the strategic road network and is served by nationally significant motorways and locally important motorways and trunk-roads. The sub region is also well placed in relation to the strategic rail network. A number of key rail hubs (including Chester, Warrington and Crewe) provide access to the West Coast Mainline linking the sub region with services to London and Scotland. It also benefits from proximity to a number of key international gateways including Manchester and Liverpool Airports and the Port of Liverpool. The

economy of Cheshire and Warrington and its transport networks are also interwoven with those of neighbouring sub-regions and Core Cities. As a result there are significant flows of workers to and from neighbouring authorities.

Despite the existing strategic links, connectivity varies within the sub region, with lower levels of accessibility in some rural and intermediate areas. Significant peak period congestion on the highway network and infrequent and indirect local rail services can also impact on travel. Economic growth will further increase demand for travel in particular in areas aligned to the spatial priorities.

Transport Challenges

Improved connectivity is a central and recurring theme of our SEP. Improving accessibility will be essential for the unlocking of strategic and wider development sites for housing and employment as well as relieving the many congested areas of our local and strategic transport networks. It must also address variability in levels of connectivity across the sub region. To support the identification of priority transport interventions we have identified the key challenges for the transport network that will be addressed through the strategy:

1) Accommodating development growth,
2) Congestion on strategic routes,
3) Sub regional movement,
4) Cross boundary movement,
5) Rural connectivity,
6) Dominance of car for mode share,
7) Low bus use,
8) Modernising local rail services,
9) Increasing levels of cycling and walking, and
10) Digital connectivity.

Strategic Transport Infrastructure Priorities

In association with the respective Local Authorities, the LEP has identified a list of proposed schemes that will be essential for achieving Cheshire and Warrington's growth plan. The immediate focus for the Strategy is on the short term measures to be delivered over the next five years or on scheme development for longer term schemes.

Highways Priorities: We will work with partners to ensure our road network contributes to the improved economic performance and growth in Cheshire and Warrington. This will include through the following:

- Working with Highways England to develop schemes that facilitate growth and address key constraints on the **Strategic Road Network**.
- Working with Local Authorities and TfN to define and enhance a **Major Road Network**.
- Working with the three local authorities to prioritise **Local Highway Measures** that provide access to key strategic development sites, enhance town centre access and address congestion.

Improving Rail Infrastructure: We will work with the rail industry to maximise the potential for rail to contribute to economic development and performance, including in relation to freight movements. This will include capitalising on the unique opportunities for rail afforded by the arrival of HS2 at Crewe Hub and development of the Northern Powerhouse Rail Network.

Improving Bus Services: We will collaborate with the bus industry and local authorities to develop a more detailed strategy to improve bus services and to set out how the bus network will support access to employment, education and services and integrate with economic and housing growth areas.

2. Context for Strategy

Context for the Strategy

Cheshire and Warrington is one of the UK's most successful places, its economy out-performing the UK average on a number of measures.

The Strategic Economic Plan (SEP), produced by the Cheshire and Warrington Local Enterprise Partnership (CWLEP), covers the period up to 2040. It sets out an ambitious growth strategy building upon the existing strengths of the sub-region and the dynamic opportunities inherent in its key economic corridors and plans for future investment and development.

The success factors outlined by the SEP include a series of clearly defined outcomes that are sought to enable growth targets to be met by 2040. The outcomes include:

- Growing the economy to at least a £50 billion a year economy in terms of Gross Value Added;
- To increase the number of jobs by 120,000 (net additional);
- To build up to 127,000 new homes;
- To improve productivity per resident such that it is 20% higher than the UK average;
- Enhancing Cheshire and Warrington as an attractive, aspirational and successful place that supports economic growth;
- Delivering a transport system in line with the needs of local people and businesses; and
- Embracing new technologies and innovation to support efficient delivery of transport provision.

The SEP also identifies the need for growth to be targeted in key growth opportunity areas. Whilst not limited to these areas, connectivity will be particularly important for these four areas of focus:

- Cheshire Science Corridor,
- Mersey Dee Economic Axis,
- Constellation Partnership; and
- Warrington New City.

Transport and connectivity are central to ensuring that aspirations for growth within Cheshire and Warrington are met. Accessibility is also a crucial factor in enabling the sub-region to continue to be an attractive place in which to live and do business. In a recent quality of place survey undertaken by the LEP, 90% of respondents cited transport as a key issue. A good transport system enables businesses to reach markets and access skills and talent, and it allows residents to reach jobs, education, shops and services. Transport can also have a major impact on people's health and well-being by facilitating social interaction, encouraging more active, healthy travel and addressing traffic pollution.

To understand the implications of the growth potential of the sub-region on transport CWLEP undertook analysis which included use of spatial modelling to identify where demand for movement growth was anticipated. The distribution is expected to be more concentrated in some areas than others. Aligned to local priorities, the scale of change is forecast to be highest in Middlewich, Winsford, Crewe, Warrington, Northwich, Chester & the M53 Corridor.

This Transport Strategy identifies the transport investment priorities needed to accommodate this increase in demand. The strategy is multi-modal and seeks to make the best use of existing networks with targeted improvements to: improve road access to key developments; tackle congestion pinch points; ensure frequent HS2 services call at Crewe; enhance regional rail services to maximise connectivity to HS2 and key rail hub stations; ensure enhanced connectivity through Northern Powerhouse Rail; and improve local transport, including bus services.

Strategic Economic Plan Areas of Focus
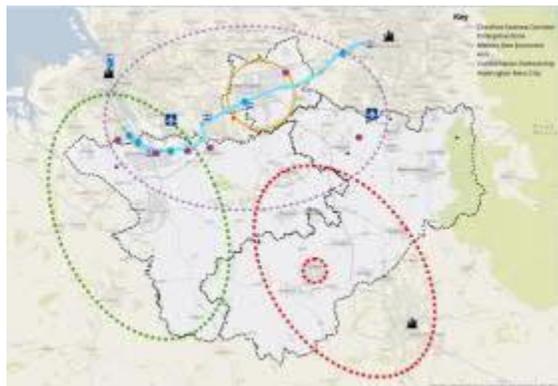
Constellation Partnership

The Constellation Partnership sits at the heart of the UK economy, strategically located between the Northern Powerhouse and Midlands Engine. Future growth is centred around the establishment of a series of key transport hubs which capitalise on the introduction of HS2, including Crewe as well as Stoke-on-Trent and Stafford.

Our objective is to work together across Cheshire and Warrington, Stoke—on-Trent and the north of Staffordshire to capitalise on the growth potential provided by investment in HS2 and associated infrastructure to create a constellation of connected and successful places. Building upon the local areas success and growth in science, engineering, rail and automotive, coupled with its enviable lifestyle and unrivalled connectivity, the Constellation will ensure that the benefits of HS spread well beyond the footprint of HS2 transport hubs..

Within Cheshire and Warrington, the objective is to build on Crewe's role as the Constellation's primary transport hub, to create stronger linkages to the cluster of towns and villages in mid-Cheshire (including Northwich, Winsford and Middlewich), where we will create the opportunity for growth that would otherwise take decades to deliver, and underpin Crewe's position as the "Gateway to the Northern Powerhouse". Across the wider Constellation area there is the potential to deliver over 100,000 jobs and over 100,000 homes.

HS2 will deliver a step-change in reduced travel times and increased rail capacity enhancing the competitiveness and productivity of the sub-region. In order to maximise the economic potential of the Crewe hub, it is essential that access to it is maintained and enhanced. This means improving road access, tackling congestion pinch points, ensuring frequent HS2 services call at Crewe to open up connectivity, enhancing regional rail services to maximise connectivity to HS2 and improving local bus services.

Cheshire Science Corridor

In April 2016 the Cheshire Science Corridor Enterprise Zone was launched, covering 100 hectares of opportunity with the potential to attract in the order of 500 businesses and to create almost 20,000 jobs between 2015 and 2040. The Enterprise Zone sites are targeted at the best commercial opportunities in the Science Corridor and comprise Alderley Park, Birchwood, Protos, Thornton Science Park and a portfolio of sites in Ellesmere Port.

The Science Corridor is physically well connected by road, rail, water and air, but increasing road congestion (especially on the M56) and limited public transport services will need to be addressed.

Mersey Dee Economic Axis

The Mersey Dee Economic Axis is at a pivotal location linking the Northern Powerhouse and North Wales. It is the location of a substantial range of nationally important industrial and commercial activities providing 380,000 jobs and recording 27,000 registered companies. It is a hot bed for the energy sector, advanced manufacturing, and high-tech engineering, boasting international names such as Airbus, Toyota and Essar Oil.

To support growth, transport connectivity needs to be enhanced to enable businesses to interact more easily. By reducing barriers to connectivity it makes the sub-region more competitive through reducing costs and supporting the range of local cross service provision, including tackling congestion pinch points, improving rail services and improving bus services.

Growth Track 360, which comprises a cross-border alliance of business, political and public sector leaders with full stakeholder input, has been established to identify the rail requirements across North Wales and into Mersey-Dee. These are feeding in to the development of a rail plan for the wider area which includes Warrington New City and Constellation Partnership.

Warrington New City

Warrington is one of the most dynamic and fastest growing urban economies in the UK today and one of the main engines of growth in the Northern Powerhouse. The strategy for delivering Warrington New City – that is completing the Warrington New Town and creating the Warrington New City though a programme of major investment in transport and community infrastructure – is set out in greater detail in 'Warrington Means Business'.

Key components include:

- A New City at the heart of the Northern Powerhouse built on Garden City principles;
- A City-wide Green Network – a framework for New City living;
- A Ribbon of Blue – rediscovering the waterfront City;
- A New Central City – a new city centre for the new Garden City;
- New Garden Suburbs – enhancing existing neighbourhoods and creating beautiful new ones;
- Stronger Healthier Neighbourhoods;
- Houses for All:
  o A rich mixture of tenures and home types;
  o Quality houses with gardens and urban space and parks to enjoy; and
  o Delivering the government's housing agenda – acceleration, additionality and affordability.
- Sustainable Transportation and Connectivity – a step change in smart urban transportation;
- Accessible Business and Employment Areas – jobs close to where people live and at strategic transport interchanges;

- Waste and Energy – a low carbon and energy positive city;
- The Smart City – smart technologies and smart people; and
- Ensuring Quality in Design – hotwiring design into the City.

Transport and Connectivity

Transport must play a central role for the aspirations of the spatial priorities to be achieved. As one of the prime enablers, a number of specific transport and connectivity objectives have been identified within the SEP.

The Transport Strategy and its desired outcomes cannot be delivered in isolation. The economy of Cheshire and Warrington and its transport networks are interwoven with those of neighbouring sub-regions and Core Cities. Working with partners in the Northern Powerhouse, Midlands Engine and North Wales will be a fundamental requirement for a successful strategy.

Development and implementation with strategic transport partners such as Highways England, Network Rail and the Department for Transport will also be crucial for the successful delivery of transport interventions.

SEP Transport and Connectivity Objectives

1. Improve connections to support development of priority employment sites including those within the Cheshire Science Corridor.

2. Improve connections to neighbouring sub-regions, including international gateways to ensure that business has connectivity to global markets and to facilitate the economic benefits of both out and in commuting that takes place daily.

3. Resolve pinch points and congestion in the transport network, both road and rail, which act as barriers to growth if left unaddressed. Delays and unpredictable journey times affect business activity directly (e.g. the supply of components to the automotive sector) and indirectly, and influences commuting flows.

4. Address network resilience issues to deliver predictable and efficient journey times to support business productivity.

5. Make best use of the existing road (e.g. smart motorways) and rail network to capitalise on existing infrastructure, offering efficient mechanisms for improvement and helping deliver best value for money from investment.

6. Ensure that the maximum benefit is gained in economic and connectivity terms from the development of the HS2 Hub Station at Crewe, and future opportunities for Northern Powerhouse Rail across the sub-region.

3. Existing Accessibility and Travel Patterns

Existing Accessibility

Cheshire and Warrington is a successful and attractive place to live and do business. As one of the highest performing economies in England, with a strong presence of high value jobs and international and export orientated companies, it relies on high quality transport links.

In physical network terms Cheshire and Warrington is well connected. It sits at the heart of the strategic road and rail network and is served by nationally significant motorways (M6 and M62), providing both north/south and east/west connectivity, and locally important motorways (M56 and M53) and trunk-roads (e.g. the A55 providing links to North Wales).

The sub region is also well placed in relation to access to the strategic rail network. A number of key rail hubs (including Chester, Warrington and Crewe) provide access to the West Coast Mainline linking the sub region with services to London and Scotland. It also benefits from proximity to a number of key international gateways including Manchester and Liverpool Airports and the Port of Liverpool.

Despite these strategic links connectivity varies within the sub region with lower levels of accessibility in some areas, in particular more rural areas to the south west. Connectivity by road and rail is also weaker in intermediate locations between the main population centres and for east-west movements. Whilst there are differences in journey times by car across the sub-region, the variability in journey times is particularly noticeable when considering access to public transport.

Figure 3.1: Morning Travel Times to nearest Major Rail Station by Public Transport[1]
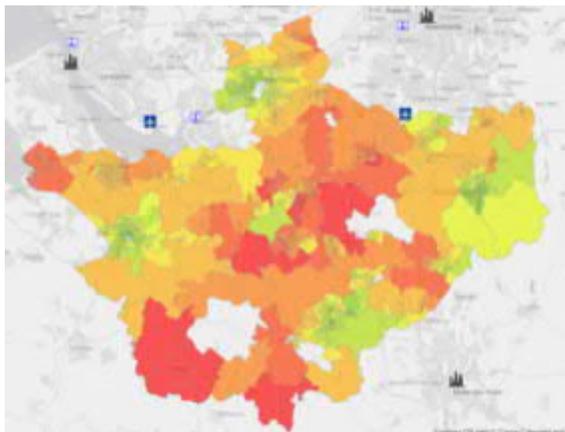
Significant peak period congestion on the highway network and infrequent and indirect local rail services impact on commuters, business travellers and freight and logistics operations. Without investment in our networks, congestion has the potential to constrain planned growth, in particular on established economic corridors.

3.2 Existing Travel Patterns

The existing strategic transport corridors are central to the connectivity of the sub-region, both internally and to adjacent areas. As well as supporting local residents, the major transport corridors act as gateways for wider national connectivity. The M6 and West Coast Main Line travel north-south through the sub-region linking to London and Birmingham to the south and economic centres in the North West of England and Scotland.

Cheshire and Warrington is also well connected to the City Regions of Manchester and Liverpool and the economic interaction with these key economic centres is significant. The existing road and rail links to neighbouring parts of Wales and the Midlands also results in significant travel between these areas although the volumes are lower than for travel to the north.

As a result of proximity, and ease of access to neighbouring areas, the employment opportunities in Cheshire and Warrington are attractive for workers from other areas. Whilst around 70% of residents live and work in Cheshire and Warrington there is net commuting of workers into the sub-region from neighbouring authorities.

Figure 3.2: Places of work of Cheshire and Warrington residents
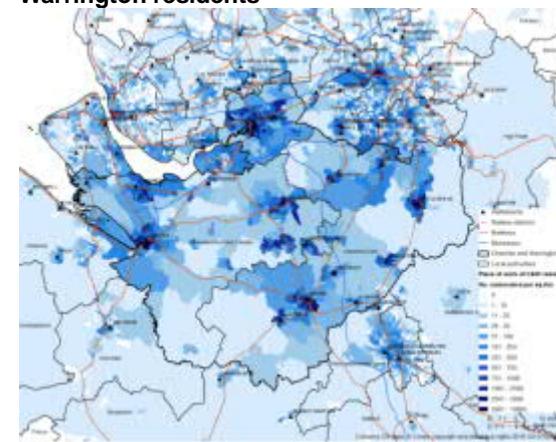
Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

[1] https://data.gov.uk/dataset/connectivity-travel-time-data (DfT)

Figure 3.3: Places of residence of Cheshire and Warrington workers
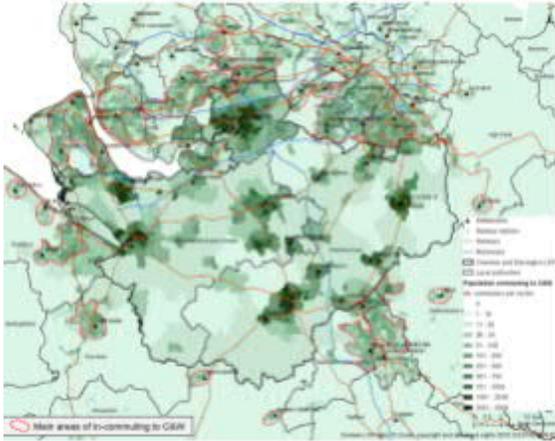
Source: Metro Dynamics analysis of ONS Census 2011 and Ordnance Survey data

Commuting Flows in/out of Sub Region

The importance of strong connectivity to neighbouring areas is highlighted by the high levels of commuting in and out of Cheshire and Warrington. The majority of neighbouring local authority areas have net inflows of workers into Cheshire and Warrington with the highest inflows being from Wirral, Wigan and St Helens. Net outflows of residents currently take place to Manchester, Trafford, Liverpool and Salford. The total levels of commuting in, out and within the sub-region, are around half a million movements a day.

The main destinations for Cheshire and Warrington residents to commute to are primarily in the city regions of Manchester and Liverpool with the highest number of commuters traveling to the city of Manchester. The main places of residence (outside the sub region) for Cheshire and Warrington are also focused in Greater Manchester and Merseyside however the highest number of trips by local authority area are from Wirral and then Flintshire.

Figure 3.4: Commuting numbers for Cheshire and Warrington residents and workers
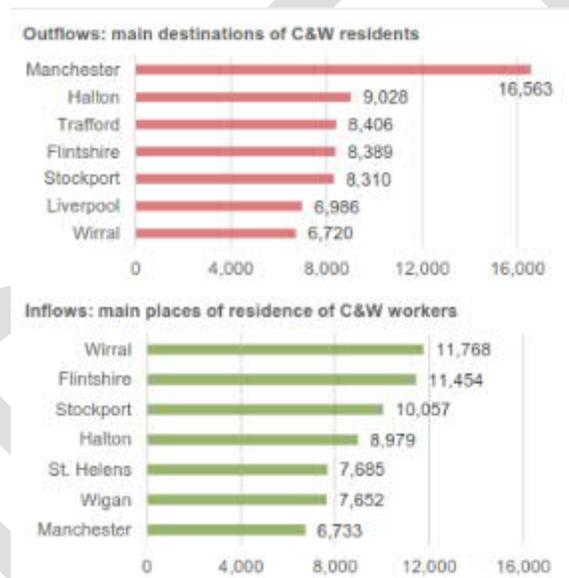
Source: Census data (2011)
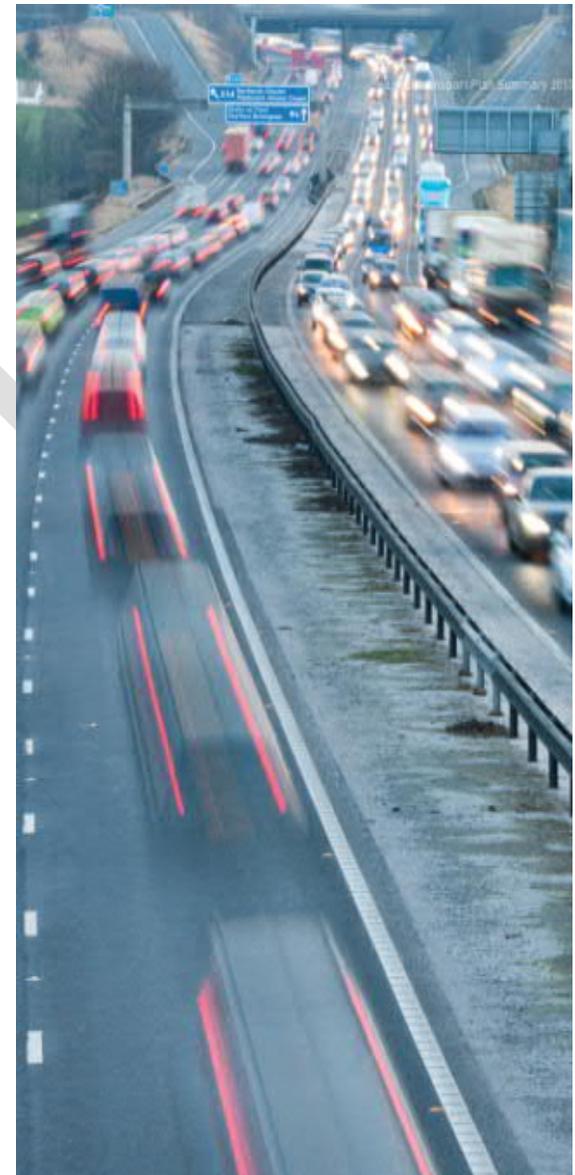
4. Transport Challenges

Transport Challenges

To achieve the level of connectivity required to deliver our growth ambitions will require a long term approach that complements our economic strengths and addresses connectivity constraints. This must build upon existing progress that has been made and focus on the key aspects of transport and connectivity (including digital connectivity) that will help Cheshire and Warrington meet its full potential.

This means targeted investment which unlocks strategic development sites for housing and employment. It also requires us to address some of the existing network constraints on our local and strategic transport networks that currently inhibit movement across the sub-region and beyond.

In a recent quality of place survey undertaken by the LEP 90% of respondents cited transport as a key issue.

Transport has a vital role in supporting the spatial priorities of the SEP. In order to do this we will need to respond to the additional demand placed upon our road and rail networks and meet the diverse requirements of our residents and businesses.

A successful transport network will be one that provides direct and convenient connections across Cheshire and Warrington, to the rest of the UK and international gateways. It will enable the agglomeration of skills and industries and support the broadening of labour markets that will provide increased opportunities for businesses and residents along with better productivity. Equally, addressing sub regional disparities in levels of access to transport networks, jobs and services will

be vital to ensure that opportunities remain inclusive.

To develop the right solutions we will need to continue to develop the evidence base, which will involve working closely with TfN, neighbouring authorities, DfT and developers.

To support the identification of priority transport interventions we have identified the key challenges for the transport network that will be addressed through the strategy:

1. Accommodating development growth

Transport will play a crucial role in transforming the economy of Cheshire and Warrington. Our road and rail network will be at the heart of delivering a £50 billion economy. By 2040 120,000 jobs could be generated along with 127,000 additional homes. This could result in a significant increase in travel demand.

Figure 4.1: Growth in Demand for Movement
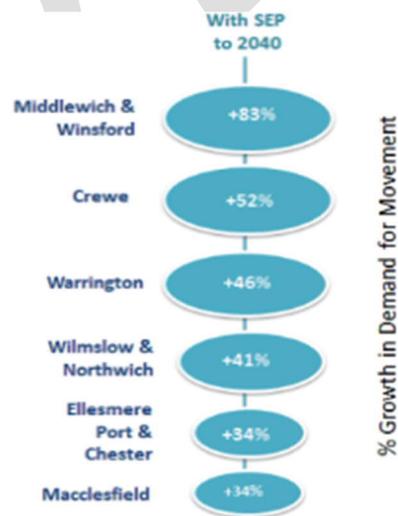
C&WLEP analysis has indicated that increased demand for movement resulting from our growth plans will take place across Cheshire and Warrington. In Middlewich and Winsford growth of 83% is forecast by 2040. Transport networks will have to accommodate significant increases in growth in Crewe (+52%), Warrington (+46%) and Wilmslow and Northwich (+41%).

Our infrastructure and services must be resilient to this change and support sustainable development, ensuring that improved connections are made to priority improvement sites. High value growth areas are likely to continue the trend for high commuter flows into the sub-region.

The Government's Industrial Strategy sets out the need to support the growth of businesses in the UK's leading sectors. In Cheshire and Warrington this includes key sector strengths in Manufacturing, Life Sciences, Energy & Environment, Chemicals, Finance and Business Services and Logistics. Further consolidation in these sectors (and others) will require strategic links to regional, national and international opportunities including from areas such as Cheshire Science Corridor.

Supporting housing growth, with a particular focus on the key towns, will be crucial for the vitality of the sub region. Many people, especially part time workers and younger people looking to rent, are finding it difficult to find the right kind of housing and which is affordable.

House price analysis undertaken as part of the SEP highlighted areas of wealth (as defined by the top 5% LEP house prices) can predominantly be found in rural areas with clusters around Wilmslow and Knutsford, and in the territory surrounding Warrington. Properties in the bottom 5% of

properties can predominantly be found in urban areas including Crewe, central Warrington and Ellesmere Port.

Further analysis of housing affordability (house price per income ratio) highlights the low levels of affordability which occurs primarily in rural areas but also includes Chester.

The SEP outlines the importance of supporting the provision of the right types of housing, in the right locations and at affordable prices. With a particular focus on urban areas, transport has a key role to play in supporting the development of new homes that are both affordable and well connected.

Figure 4.2: Highest and lowest residential prices (2015)
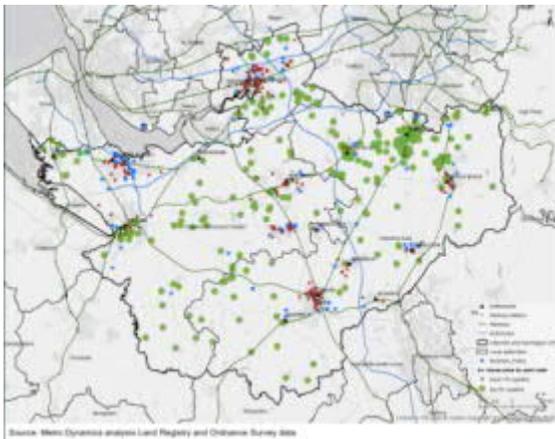
Source: Metro Dynamics analysis Land Registry and Ordnance Survey data

Figure 4.3: Housing affordability (2015)
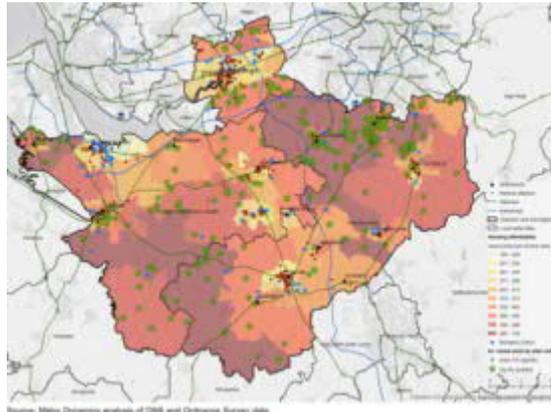
Source: Metro Dynamics analysis Land Registry and Ordnance Survey data

2. Congestion on Strategic Routes

Without addressing congestion on strategic routes, the potential for economic growth and development will face significant constraints.

Congested motorways and links to motorways, along with poor road connections between the main areas of population, impact on journey times and reliability. Congestion and network resilience are already issues on sections of the M6, M62, M56 and M53 and on key approaches to the M6. Expected growth in traffic levels will further increase pressure on these strategic links.

Congestion and delay on internal links further impacts on internal movements, in particular A roads. This is a particular issue at congestion hot spots and pinch points on links connecting major centres. Resilience to incidents and maintenance works on the network are other factors that can cause significant delay.

3. Sub regional Movements

Most Cheshire and Warrington residents currently live and work in the sub region. This factor reinforces the importance of intra-regional connectivity and the need to ensure that there are high quality options for internal movement.

Table 4.1: Work destination by local authority

Usual Workplace	Warrington	Cheshire East	Cheshire West and Chester
Warrington	59%	1%	3%
Cheshire East	2%	64%	7%
Cheshire West and Chester	3%	5%	61%

Source: Census data (2011)

There is also a need to address disparity in the level of connectivity between settlements. Sub-regional movements are currently concentrated on nearest urban centres.

Constraints on internal connectivity impact upon employers' ability to recruit locally and hence reduce access to labour markets. Congestion on the M56 and M6, as well as at key pinch points on the A road network, impact on journey times. Internal connectivity is also limited by single carriageway A roads with limited opportunities for overtaking slow moving vehicles and by some A roads having restrictions such as single lane bridges. Infrequent internal rail connections and interchange constraints limit the attractiveness of public transport.

4. Cross Boundary Movements

Cross boundary movements are important to secure agglomeration benefits. Whilst the sub region experiences significant cross-boundary movements, current levels of accessibility limit this potential. There are significant cross boundary movements to and from the city regions of Manchester and Liverpool and neighbouring regions in North Wales. These links, and access to economic and cultural opportunities, are crucial factors in attracting and retaining attracting and retaining graduates and those aged 25-35.

Figure 4.4: Cross Boundary Movements
Source: Census data (2011)
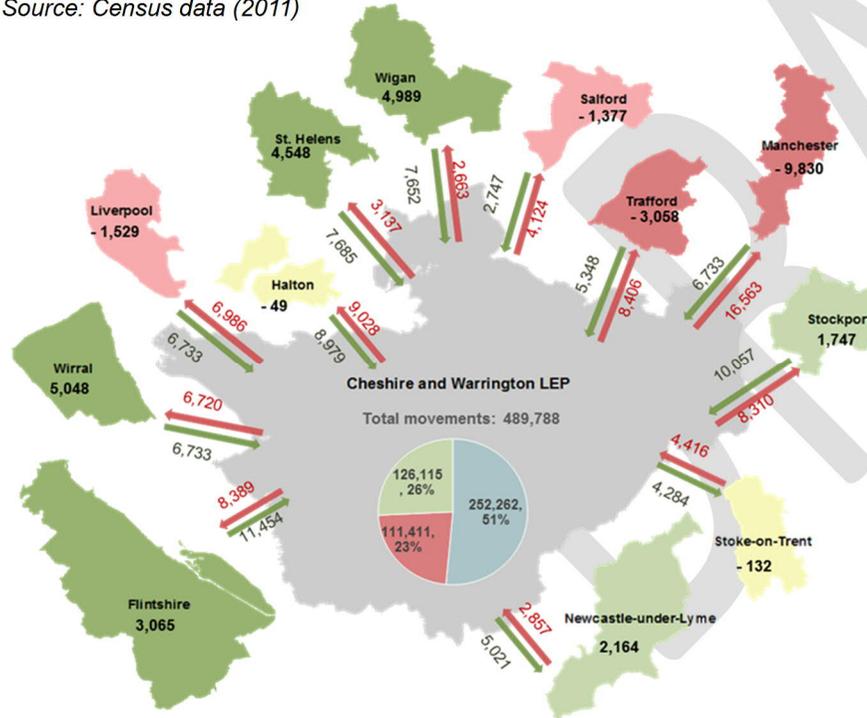
Plans for the Constellation Partnership area will increase the opportunity for economic interaction between Stoke-on-Trent and North Staffordshire and the sub-region. Improving east-west movements by rail (including through frequency and journey time improvements) and access by road will be crucial to ensure that these prospects are maximised. Ensuring connectivity to Crewe Hub from neighbouring areas will be needed for it to meet its full potential.

5. Rural connectivity

There is a need to address disparity in the level of connectivity across the sub region to ensure that transport networks and the sub-regional economy remain inclusive. Poor connectivity is a particular issue in some rural communities, most notably in the south western part of the sub-region and parts of Mid Cheshire. These are areas where public transport provision is generally poorer and connectivity to strategic highways is weaker. Commonly these issues arise because of a lower frequency of rural services, limited coordination with increasingly varied shift patterns, and insufficient parking at key transport hubs, such as rail stations. As a result, this is encouraging a higher dependency on car use and is restricting access to potential job opportunities.

Additionally, there is an increasing need to accommodate digital transport infrastructure across rural areas to ensure networks are efficient, integrated, resilient and safe. Strategies for such interventions, including investment plans, will therefore be crucial in successfully delivering these technologies in currently constrained and poorly connected areas.

Figure 4.5 overleaf presents analysis of travel times in minutes from Lower Super Output Areas2 (LSOA) to strategic transport networks in the morning peaks. Accessibility is generally stronger to the north of the sub region and along the major Motorway corridors and in the vicinity of the larger towns and cities.

---

[2] https://data.gov.uk/dataset/connectivity-travel-time-data (DfT)

Figure 4.5: Morning travel time analysis[3]

Morning Travel Times to nearest Major Airport (Manchester or Liverpool) by Car	Morning Travel Times to nearest Major Rail Station by Public Transport *
Morning Travel Times to nearest Major Rail Stations by Car	Morning Travel Times to nearest Motorway Junction by Car

Key

Travel Times (mins)

- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 +

* Unshaded output areas where no data was available

---

[3] https://data.gov.uk/dataset/connectivity-travel-time-data (DfT)

Ports and airports across the North West are key assets that are considerable drivers of economic activity and growth for the sub region. These assets support the creation of highly skilled jobs, the agglomeration of business clusters and increased access to global trade relations and routes for the area. These benefits gained from the links with ports across the North West will be particularly significant for the sub region as the country prepares to enters the post Brexit period.

However, despite the known benefits these assets provide for the sub region's economy, levels of accessibility and connectivity to key ports and airports are limited. In particular, links to The Port of Liverpool and Manchester and Liverpool John Lennon airports are affected by congestion and accidents on the motorway network, particularly the M62, M6 and M56. This makes journey times to these sites long and unreliable. Furthermore, public transport accessibility is limited from the sub region.

Contributing to these issues of poor connectivity and poor public transport links are a number of challenges found on existing networks and infrastructure. These include bottlenecks, 'first and last mile' challenges, and slow, indirect and low frequent public transport links. As well as restricting economic activity, these issues are encouraging a higher dependency of car use between the sub-region and ports/airports. This is generating increased strain of the existing highways network and adding to environmental concerns. If these challenges are to be addressed, this will require significant investment in surface transport and the strengthening of public transport links.

6. Dominance of car for mode share

Private car use is the sub-region's dominant means of travel. 2011 Census travel to work data highlights that driving a car or a van makes up 68% of commuter trips in Cheshire East and Cheshire West and 71% in Warrington. **Table 4.2** shows the mode of transport which people within the sub-region travel to work as recorded in the 2011 Census. It highlights that for all three local Authorities drivers and passengers of cars or vans make up over 70% of journeys to work. Whilst comparable to the average for Wales the proportion is significantly higher than for England. Warrington has the highest proportion of journeys by car or van with 71% of journeys to work by car or van.

Table 4.2: Travel to Work Mode Splits

| Mode of Travel (2011 Census)	Cheshire East	Cheshire West & Chester	Warrington	England	Wales
Work mainly at or from home	7%	6%	5%	5%	5%
Underground, metro, light rail, tram	0%	0%	0%	4%	0%
Train	3%	2%	2%	5%	2%
Bus, minibus or coach	2%	3%	5%	7%	5%
Taxi	0%	1%	0%	1%	0%
Motorcycle, scooter, moped	1%	1%	1%	1%	1%
Driving a car or van	68%	68%	71%	57%	67%
Passenger in a car or van	5%	6%	6%	5%	7%
Bicycle	3%	3%	3%	3%	1%
On foot	10%	10%	8%	11%	11%
Other method of travel	1%	1%	1%	1%	1%

Source: 2011 Census

Current levels of private car use have contributed to congestion, journey time reliability and environmental impacts. If the full aspirations for economic growth are to be achieved additional capacity will be required on our road networks along with greater use of non-car modes.

In addition, whilst car use remains important, not everyone has access to a car and as a result there is a need to provide viable and attractive alternatives to ensure that opportunities across the sub-region remain inclusive and open to all.

Households with no car (**Figure 4.6**) are focused primarily in urban areas but there are also parts of mid Cheshire where car ownership is less concentrated. There is a synergy between low car ownership and higher levels of deprivation (as shown in **Figure 4.7**) although some central and southern rural areas also experience higher levels of deprivation. Lack of accessibility is a key barrier for people accessing employment opportunities. In parts of mid Cheshire, for example, low car ownership and weaker access to public transport impact upon access to opportunity.

Figure 4.6: Percentage of households with no car
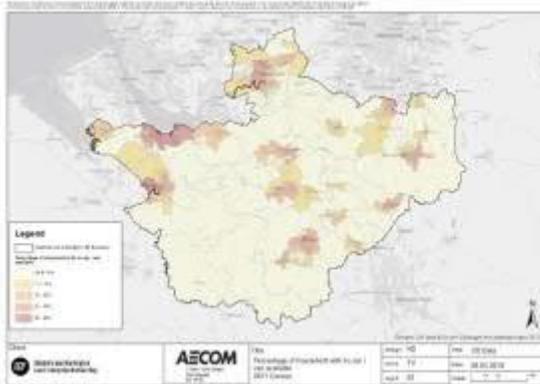
Source: 2011 Census

Figure 4.7: Index of Multiple Deprivation Data
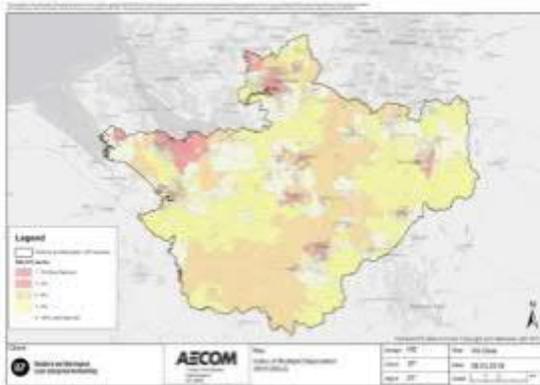
Source: 2015 DCLG

7. Low bus use

Travel by bus will be crucial for the success of local economies but is currently underutilised as a mode

in the sub-region. In Warrington there been a noticeable decline in patronage and whilst in recent years bus use has remained relatively stable in Cheshire West and Cheshire East, this is from a low base.

Figure 4.8: Passenger Journeys on Local Bus Services
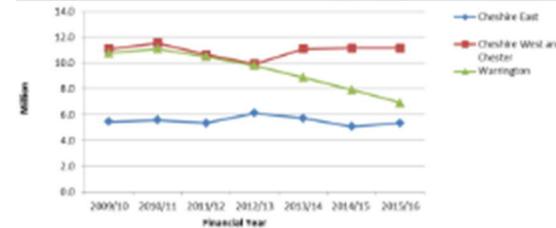
Source: Statistical Data Set BUS0109a, DfT (2017)

A significant contributor to the underutilisation of bus use across the sub region is the poor quality of connections and frequencies currently displayed across the network. The limited nature of services is encouraging greater dependency on car use as the dominate mode of travel, which is putting greater pressure on parking facilities at stations and places of employment. The changing economy from traditional 9-5 to more flexible employment means that poor bus connectivity is also constraining job opportunities, because many services are not operating in alignment with changing shift patterns or accommodating more flexible working (e.g. part time work or working across multiple locations).

The introduction of the Bus Services Act, (June 2017) provides new bus powers and obligations that provide different models for managing the local bus market and enhancing the passenger experience. Adopting a partnership based approach has the

potential to address some of the key challenges faced by the bus market:

For buses to play a central role in contributing to economic development there is a need for close alignment of employment and housing growth to bus services. Central to this is ensuring that land use planning is integrated with existing bus routing / service frequencies such that new development does not divert services to such an extent that they reduce existing demand but instead reinforces provision on core routes.

8. Modernising local rail services

Rail is often uncompetitive with travel by car for large parts of the sub-region. Currently many local rail links are unattractive due to the quality of local service rolling stock (in particular the use of Pacer trains), the length of journey times, the frequency and reliability of service, and the lack of available packing at stations. The need to transfer between services can also add to journey times, causing further delays and reduce the legibility of services. These issues are particularly prevalent for east-west rail services. Corridors where there are poor travel times and journey experiences include between the sub-regions major settlements and to neighbouring regional cities. For example, journeys between

Chester and Manchester take around an hour via Warrington and 90 minutes via the mid Cheshire Line. The development of a HS2 hub further increases the importance of increasing access to Crewe from the rest of the sub-region.

The sub region currently benefits from its proximity to centres such as Liverpool, Greater Manchester, Stockport, North Wales and Manchester Airport. There are further opportunities to provide convenient commuting corridors by rail, which could be enhanced through the integration with emerging infrastructure proposals. For example, regional services could integrate with phase 2a and 2b of HS2, which would significantly reduce journey times and free capacity on regional routes. Additionally, the reopening of the Middlewich line and integration of the airport western link with the Mid-Cheshire line could create further direct connections to Greater Manchester and Manchester Airport from the sub region.

9. Freight and Logistics

Freight and logistics are key components to the sub region's economy, with a number of key hubs and routes within the area generating employment and business activity. Successful freight and logistical routes are typically dependent on strong national and international connectivity. As connectivity within the sub region is constrained, this is significantly limiting the potential that could be gained from the freight and logistics industry across the area. With a large increase in freight and logistics occurring across the North West, most notably at Manchester Airport, this presents an opportunity for additional economic growth. For example, the Manchester Ship Canal provides an opportunity to improve

connectivity to international trade routes and reducing the dependence on road haulage.

The LEP and associated local authorities should therefore consider undertaking further studies into freight and logistics solutions for the region, including the promotion of multi modal freight. This will ensure the sub region can deliver a more connected, accessible and sustainable freight network, and support the low carbon movement of a larger proportion of goods.

10. Increasing levels of cycling and walking

Whilst 2011 census data identifies travel to work by bike as matching the national average in all three areas (3%) walking is slightly below national levels with 10% of journeys in Cheshire East and Cheshire West and 8% in Warrington.

Many of our local trips are suitable for walking and cycling either as part of a single trip or as a leg on a longer journey. Our topography is generally favourable for active travel and our urban areas are of a scale where travel on foot or by bike is a viable option for many.

Increasing the proportion of trips made by walking and cycling can play a significant role in accommodating demand without adding to levels of congestion on our networks. It can also contribute to achieving wider strategic objectives such as those associated with public health and air quality.

To achieve these goals improvements will need to be made to facilities and local infrastructure to support the establishment of healthy and sustainable communities. The integration between walking and cycling and public transport will be

important in promoting these goals. This could include interventions such as sufficient cycle storage at stations and routes that are safe, well maintained and navigable. This should also include the promotion of recreational routes such as greenways and waterways to further promote active travel choices. Achieving these goals will promote a healthier population, increased wellbeing and support air quality improvements.

11. Digital connectivity

Digital connectivity has an important role in enabling people to make more informed travel decisions that allows drivers and passengers to make more efficient use of the transport networks. More flexible working practises also have the potential to relive pressure on our transport systems through reducing the need to travel, particularly in peak times.

For these options to be viable there is a need for consistent, reliable and high quality digital provision. However, digital connectivity currently varies across the region, with rural areas sometimes experiencing poor connectivity. Continued investment is needed to expand '4G' mobile data coverage and support the transition towards 5G. This will be important for access to information on travel and to ensure transport networks have the digital infrastructure to support technological changes, such as connected and autonomous vehicles, as they emerge.

12. Adapting to Electric and Autonomous Vehicles

There are an increasing number of electric vehicles using the highway network and also a move towards autonomous vehicles. These developments are expected to reduce pollution and improve air quality across the sub region over time. However, they will

not eliminate all pollutants (e.g. arising from brake and tyre wear).

Electric vehicles will require the delivery of charging points across the network and will have an impact on the electricity supply network. The speed at which these points can charge and where they are located will need to be considered.

Autonomous vehicles, in theory, should offer increased safety and increased capacity (this is because they can travel closer together and in platoons, and are able to react more quickly to incidents). However, there are concerns about mixing autonomous vehicles with manually controlled vehicles, and how they will interact with each other. This could lead to accident risks. There is also a concern about the impact of autonomous vehicles on employment (e.g. public transport, taxi and hauliers).

Therefore, this is a need to produce a long term strategy to consider this trend and minimise the negative impacts and maximise the benefits. Despite the increase in capacity offered by autonomous vehicles there will still be a finite capacity on the highway network; hence the strategy will still need to consider options to help people to use their car less.

13. Addressing the needs of an ageing population

Providing an accessible, reliable and frequent transport network is important when catering for an ageing population. This is particularly important when addressing issues of isolation, often experienced by users who suffer from barriers to mobility and accessibility.

Currently, many parts of the sub region do not offer sufficient travel options for ageing populations. Poor quality transport infrastructure, including bus stops and the quality of buses and trains, the lack of direct and frequent links, and the current scheduling of bus and rail services all contribute to barriers to mobility. These challenges have the potential to become even more significant as community transport becomes further constrained due to funding limitations. This is because this method of travel is so often a vital lifeline for many older people who do not have access to car and are unable to use conventional public transport. Hence there is a need to provide accessible and affordable alternative solutions.

To provide accessible and safe travel options for an ageing population across the sub region, the following measures should be considered when developing solutions: improving connections and frequencies to key locations such as hospitals and towns, introducing more evening and weekend services, locating bus stops conveniently, providing more seating at waiting areas and installing working lifts at stations.

5. Key Transport Design Principles

Key Transport Design Principles

The focus of this strategy is on addressing the key challenges whilst targeting a future for transport that is customer focused and meets the needs of residents, businesses and visitors.

Our transport strategy is forward looking and deliberately aspirational. It identifies the areas of focus that will be essential to ensure that the economic opportunities of Cheshire and Warrington can be reached whilst the existing quality of life that residents enjoy can be maintained.

To ensure that the strategy identifies appropriate solutions we have developed a set of guiding principles. The principles represent key aspects of a successful transport network and are intended to help shape the identification of transport priorities.

Figure 5.1: Key Design Principles

Integrated	Establishing an integrated transport network supporting seamless travel within Cheshire and Warrington and to wider opportunities outside the sub-region. Supporting provision of choice and flexibility with alternatives to the car seen as viable and attractive.
Accessible and Inclusive	The transport network should be accessible and inclusive for all users. It should provide a high level of service for the full length of journeys including the first and last mile and provide affordable options.
Customer Focused	The transport network will meet the diverse requirements of local people and businesses. It will ensure customers have confidence in the network and innovations are used to drive forward quality.
Sustainable	Provision of attractive and high quality alternatives to journeys by private car supporting modal shift. Walking and cycling will provide a viable option for shorter journeys through the establishment of attractive routes serving local neighbourhoods and high quality routes to public transport services.
Resilient and Safe	The transport network will be well maintained and resilient to change and events. It will be safe, reducing accidents and deaths.
Embracing change	New technologies and innovations will be embraced supporting efficient transport systems. Electric vehicles and on-demand travel will play a new role in personal mobility. Live information and smart ticketing will improve the customer experience.
Decarbonising Transport	Utilising technology and promoting behaviours which reduce carbon emissions. Future proofing transport networks to embrace innovation and drive efficiencies.

6. Addressing the Challenges

Addressing the Challenges

By 2040 Cheshire and Warrington is to become one of the best-connected places in the UK (digital, road, rail, air and sea): broadening our labour market catchment and giving business easy access to markets and opportunities.

Through the Government's Industrial Strategy and the Northern Powerhouse Strategy a clear commitment has been made to the Northern economy. Cheshire and Warrington is already a hugely successful economy with an economic output (in terms of GVA) greater than that of Core Cities such as Birmingham, Leeds and Sheffield. It is also a growing economy which has doubled in size since 1997. To support this continued success, practical steps have been taken to identify the connectivity improvements to ensure that economic growth is sustained and economic growth delivers benefits across the LEP area.

Cheshire and Warrington can play a leading role in building upon the impetus of the work of Transport for the North through delivering the infrastructure required to improve productivity, increase agglomeration factors and contribute to long-term sustainable growth.

It is recognised that the strategy will only be effective and deliver successful outcomes if we collaborate with our partners. This includes developing a strong and compelling case for delivering the transport priorities identified in this document. It also means ensuring that the accessibility needs of our businesses, residents and stakeholders are fully addressed.

Equally it is recognised that strategy development is a continual and evolving process that will be interlinked with wider strategy development, investment planning and scheme development. As a result the strategy will, in effect, be a live tool for integrating with wider work. We will also need to influence government and TfN to ensure that our transport and connectivity needs are included in strategic plans and funding decisions.

The outcomes of the strategy will be of particular importance for ongoing work to identify future priorities for the SRN and the establishment and improvement of an MRN. It also provides a framework for defining key requirements for the rail network, including interfaces with HS2 and NPR.

Figure 6.1: Interlinking with Wider Strategic Context
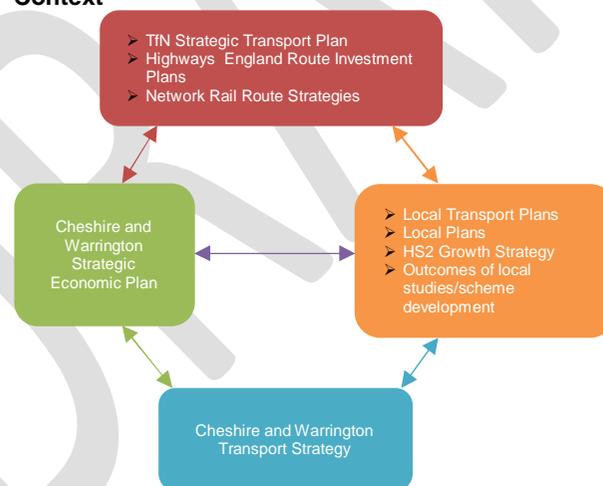
The delivery of the Strategy will focus on embedding the identified priorities and opportunities into parallel areas of work and delivery. This will include the following core activities:

Working closely with Transport for the North to identify transformational improvements: In the short-term this involves inputting into the West and Wales and Southern Pennines Strategic Development Corridor Studies to develop the evidence base to underpin our investment priorities and ensure the needs of the sub-region are taken into account within TfN's Strategic Transport Plan (STP)[4].

We will collaborate with TfN so that they recognise and endorse our transport recommendations. Through this process we will seek to embed our strategic transport priorities within TfN's Strategic Development Corridors - this will be key to securing future funding from the Department for Transport. We will also assist TfN with delivering their Investment Programme through supporting the future development of business cases for short term priorities.

Improving Bus Services: We will work collaboratively with the local authorities and bus industry to identify how the bus network can meet the changing needs of users and business including how it can appropriately accommodate the specific needs of older and disabled people.

We will identify how we can collectively improve the quality and frequency of public transport links to and from key locations such as educational institutions, places of work, hospitals, and towns and cities. We will identify solutions which accommodate older users, particularly those experiencing isolation, (e.g. the need for conveniently locating bus stops, more seating and working lifts at stations/interchanges).

---

[4] Strategic Transport Strategy, Draft for Public Consultation, TfN, January 2018

Additionally, we will review the role of services to and from key employment sites, to consider how public transport services can match changing work patterns and unlock current restricted employment opportunities.

Our intention is to develop a more detailed strategy which will identify solutions to the issues identified above, and which can improve multi-modal integration, and improve the competiveness of public transport with car use. We will look at opportunities to reduce the need to transfer between bus services across the network where possible. Where a change is necessary, we will look at how we can improve the quality of integration by delivering high quality interchange and public realm design, smarter ticketing and sufficient information to prevent confusion. A key component of the strategy will be to develop measures which are affordable to deliver and which will attract additional usage to make services sustainable over the long-term We will also work closely with Merseytravel and TfGM to align cross boundary strategies. Our aim is to develop a network for all users that is accessible, affordable, reliable and with appropriate frequencies

Developing the Plan for Rail: We will work collaboratively with neighbouring authorities, the rail industry, TfN, Welsh Government, Midlands Connect and central Government to develop a comprehensive plan that supports the delivery of growth. This will input into TfN's Long Term Rail Strategy[5] where we will seek to ensure that maximum benefits are gained from:

---
[5] Long Term Rail Strategy, Draft Update, TfN January 2018

- HS2 Hub at Crewe;
- Warrington & Northern Powerhouse Rail; and
- Growth Track 360: Chester & North Wales.

We have been working with partners to develop a Strategic Rail Prospectus for West and Wales. The Prospectus sets out our collective long-term vision for improvements to the rail network and builds upon the excellent work and progress achieved to date through Growth Track 360, the Constellation Partnership and Warrington New City.

The prospectus aligns with TfN's Strategic Corridor covering 'West and Wales' and sets out plans to transform rail travel through creating effective access by rail to labour markets, population centres, education and healthcare in order to unlock growth. This includes ensuring that an integrated rail network is in place that works for everyone.

Key emerging priorities from the Rail Prospectus are the development of key hubs at Crewe, Chester, Warrington and Manchester Airport to improve inter-regional connectivity and enhancing the potential of the future HS2 network through improving connectivity on Strategic Rail Corridors.

We will work collaboratively to help Identify sequencing of investment into an affordable and deliverable programme that aligns with aspirations for service improvements. We will support and contribute funding towards feasibility studies and business case development for emerging priorities.

Improving Rail Services: We will work with the DfT rail franchises to promote services which link the four hubs and provide quicker and more frequent services whilst collaborating with Network Rail to prioritise and deliver cost effective infrastructure needed to support the improved services.

Our aim is to increase service frequencies and reduce journey times to improve provision for passengers. This will be particularly important for east-west connectivity which is currently weaker. This may include consideration of the potential for light rail to serve some parts of the sub region. We will also work with the DfT and rail operators to look at opportunities for improving the quality of trains across the network to support the growing economy.

New digital technology provides a significant opportunity to improve passenger's journeys. Digital tools will offer a range of solutions that can reduce delays and maximise efficiency and will be explored when considering options for addressing challenges faced by the railways.

Collaborative working with Highways England to enhance the Strategic Road Network: We will work closely with Highways England, TfN, Midlands Connect and Welsh government to identify and prioritise schemes in the sub-region which tackle congestion, journey reliability and network resilience.

Following the (December 2017) publishing of Highways England's Strategic Road Network, Initial Report, we will continue to support the development of the post-2020 Road Investment Strategy through the identification and inclusion of our long term priorities. This will include increasing capacity at key junctions accessing the SRN and the continuation of the Smart Motorways Programme. We will also look to ensure that future capacity requirements are considered to enable local growth aspirations and support wider growth, in particular in relation to the M6.

We will also collaborate with key stakeholders and innovators to respond to emerging technological innovations which will shape the future development and management of the SRN.

We will work with Highways England to identify key accident hot spots and understand the causes of accidents to help develop solutions to improve safety and network resilience.

Establishing and enhancing a Major Roads Network covering Cheshire and Warrington. DfT is currently consulting on proposals for the creation of a Major Road Network (MRN))[6]. The establishment of an MRN, which supports the existing SRN, will play a crucial role in helping to reduce congestion whilst supporting economic and housing growth along with rebalancing the economy.

The DfT's commitment includes the creation of dedicated funding from the National Roads Fund (NRF) to be used to improve the MRN network. We will work with DfT, and build upon the existing work of TfN to identify an MRN for the north, to ensure that the future MRN meets the needs of the sub region.

We will also identify and sequence priorities for improvement in order to secure funding opportunities via this new mechanism through the NRF.

Improving access to Manchester Airport: Manchester Airport is undergoing a period of transformation that will see a £1billion investment in airport facilities. This will include a new expanded Terminal 2 which will support increased passenger

numbers and future growth to accommodate up to 50 million passengers.

Complementing the new airport facilities, the expansion of on-site logistics, offices, hotels and advanced manufacturing at Airport City will further expand economic opportunities in the vicinity of the airport.

The airport will continue to act as an international gateway for Cheshire and Warrington whilst adjacent business and employment activity will provide economic opportunities for businesses and residents. To maximise the benefits of our close proximity to this key driver for growth, there is a need to ensure the airport is accessible from across the sub-region.

We will work closely with GMCA, TfGM and the relevant local authorities to improve connectivity to Manchester Airport both as an international gateway and as a location of significant employment opportunity.

We will work collaboratively with the authorities to manage the impact of congestion and maximise public transport connectivity. This will include addressing poorer connectivity from the west as a result of weaker rail connections and congestion on the M56.

The proposed introduction of a HS2 station at Manchester Airport will provide a crucial gateway to the airport and provide the opportunity to improve passenger access from the sub-region in particular via Crewe Hub and through enhanced connectivity through Northern Powerhouse Rail improvements.

Enhancing access to ports: Recent and planned investment in port facilities in Cheshire and

Warrington and adjacent areas provides a real opportunity to capitalise on new trading relationships that are emerging post-Brexit. Working with local authorities, Highways England, rail operators and freight partners we will seek to enhance access between the sub-region and key ports.

The new deep water Liverpool2 terminal opens up the North West to servicing 95% of the world's largest container ships. Planned multimodal access improvements will further improve accessibility to the port and global trading opportunities. As well as providing new opportunities for our businesses, increased use of the port and better access to the port by rail will reduce demand on the Motorway network through reducing the number of HGV's.

Added to this, improved port facilities along the Manchester Ship Canal – including Port Ince, Port Cheshire and Port Warrington – will further enhance international freight connectivity and support investment opportunities linked to these ports.

Improving Bus Services: We will collaborate with the bus industry in order to improve bus services that support access to employment and education. This will be particularly important for areas without direct access to rail and where existing accessibility to rail stations by public transport is weaker, including parts of Mid Cheshire. Opportunities to improve access to rail hubs and adjacent employment opportunities at Crewe, Warrington and Chester will be crucial.

The Bus Service Act (2017) provides a real opportunity to address declining bus patronage and to enhance levels of service. We will work with the Department for Transport, the three Local

---

[6] Proposals for the Creation of a Major Road Network 'Consultation', December 2017

Authorities and bus operators to explore options for partnership based models for improving connectivity and integration of travel by bus.

Given the importance of bus services and the significant issues surrounding funding, we will develop a detailed bus strategy that aims to make bus travel more attractive and accessible.. As well as bus services, frequencies and infrastructure, this will take into consideration improved options for ticketing (including through alignment with emerging pan northern smart ticketing initiatives) and real time journey information. We will also work with the local authorities, the bus industry and the Department for Transport to explore new opportunities as a result of powers available to local authorities through the Bus Services Act 2017.

Improving Local Transport: Local transport has a vital role in our transport network and in the quality of life of our residents through the creation of sustainable places. We will work closely with Local Authorities to deliver local solutions that support access to employment, education, leisure and services and which provide for the vital first and last mile of journeys.

Priorities will include tackling pinch points (including single lane sections of A roads), improving the reliability of the Major Road Network and increasing access to the wider transport network to improve internal movements within the sub-region and to open up key development land to support growth. This will include local highways, public transport and pedestrian and cycling improvements along with ensuring the transport network and economic opportunities are accessible for all.

Local transport also has role in helping to address environmental impacts, noise and pollution, and in improving the health and wellbeing of our residents. Working in partnership with local employers we will seek to actively promote working practices and travel to work that minimises single occupancy car travel.

Promoting walking and cycling

Encouraging walking and cycling across the sub region will support a healthier population and improve wellbeing. Active travel will also address environmental concerns such as air quality by reducing the number of trips made by motorised transport, particularly those made for short journeys.

To make this possible, we work with local authorities to develop active travel networks that are not only well connected and accessible but are also safe, well maintained and integrated with other modes of transport. This will improve the appeal and attractiveness of active travel options, and therefore encourage a shift from other modes for journeys that could otherwise be made by walking or cycling (for example, walking to school or short journeys to work). Greater connectivity achieved by walking and cycling will also significantly improve mobility for those with limited travel options.

To achieve this, we work with the local authorities to improve and enhance existing infrastructure, maximise greenway, waterway and recreational routes such as canals, and improve integration with new and existing transport hubs. Interventions could include increasing storage for bicycles at stations and at other key locations, improving signage and the quality of paths along key routes, and by

working closely with the community and other key stakeholders to promote active travel choices.

Promoting Integrated Land Use Planning: We will encourage the local authorities and developers to promote the integration of land use and transport planning to ensure new development occurs in sustainable and accessible locations. This includes identifying opportunities to enhance access to strategic sites and promoting appropriate freight terminal locations.

We will input into the development of strategic and land use plans, such as the emerging Housing Strategy for Cheshire and Warrington, to support the development of policies and identification of locations which support access by a range of modes, including public transport.

Complementing schemes in neighbouring areas: Economic growth and the expansion of high value industries in Cheshire and Warrington will further increase the importance of facilitating cross boundary movements including through access to the international gateways in neighbouring areas.

Improving these links will also provide our residents with greater opportunities to access jobs and services outside the sub-region.

We will work closely with Transport for Greater Manchester, Merseytravel, Mersey Dee Alliance, and the Constellation Partnership to maximise cross border opportunities for improved connectivity which support economic interaction and agglomeration across regions.

Supporting digital connectivity: Cheshire and Warrington as one of the best connected areas for high-speed fibre broadband coverage. We will build

upon the work of the Connecting Cheshire programme to maximise the opportunities for digital connectivity to support the needs of our businesses and workforce. This will include ensuring that digital connectivity underpins opportunities for more people to work from home. It also means helping people to make more informed decisions about their journeys which respond to '*live*' travel conditions.

The Government's digital strategy[7] sets out an ambition to improve digital connectivity across the UK. We will work with the Government to identify opportunities for the transport network to support and benefit from enhanced digital connectivity and seek to trial new technologies. We will also collaborate with partners to ensure that digital coverage does not exclude areas, or groups, and promote the emergence of digital clusters in Macclesfield, Wilmslow and Warrington.

Opportunities for new transport infrastructure, including new rail lines and highway links, to embed digital infrastructure will be explored to maximise the potential to broaden digital connectivity and to support new transport technologies, such as electric charging.

Responding to transport innovations: We will work with partners to explore technological and digital innovations that will enable us to better manage the existing network and improve the resilience of the network to incidents and issues such as climate change.

Improvements in digital connectivity and innovation also provide new opportunities to work with public

transport operators to improve the legibility of transport networks, allowing people to make more informed decisions about their journeys.

Ticketing solutions will also provide a crucial role in supporting access to public transport and enhanced integration between services. TfN is working collaboratively with stakeholders to deliver a smart travel solution across the North. We will support this process and work with local partners to maximise opportunities to enhance the transport offer in this area.

The role of electric vehicles is another increasingly prevalent trend that will require the development and delivery of a strategy to help accommodate and integrate the technology as part of the existing transport network for the sub region. The strategy will need to consider measures such as providing sufficient charging points across the sub region, ensuring there is enough energy to accommodate the increased demand for electricity and to identify ways to ease the introduction of electric vehicles into existing transport networks that will minimise disruption. Autonomous and connected vehicles are also likely to play an increasing role in our transport network. Working with partners we will seek to embed the necessary infrastructure and support networks to ensure that our networks can respond to these changes.

Maintaining a skilled workforce: Cheshire and Warrington has the second highest level of Gross Value Added (GVA) per head of population in England outside of London and in terms of productivity our output per head is around 121% of

the UK average8. It is home to a wide range of high value sectors because of its connectivity to and access to a highly skilled workforce.

Cheshire and Warrington Local Enterprise Partnership has set out its key priorities for our workforce in its Skills & Education Plan[9]. It emphasises the need to maximise our workforce and retain highly skilled people. Demand for skills is expected to increase as a result of economic growth, planned development and through the replacement of older workers, and an ageing workforce, moving into retirement.

Infrastructure and connectivity will be crucial for the sub region to strengthen its position by supporting the delivery of a suitable supply of employment sites and to enable young people in particular to move easily between employment sites and centres of education and training. The development of housing, in particular affordable housing for younger people, will also help to maintain and attract a skilled workforce to the sub-region.

For our key sectors to grow it is vital that they have access to the skills they need to grow. The importance of providing access to training and education along with connecting people to high skilled employment opportunities will be crucial, both within the sub region and in surrounding areas. Whilst we have a highly skilled workforce, skill levels in younger age groups are lower than in other areas and we face problems attracting and retaining graduates and those aged 25-35. To help retain and

[7] Next Generation Mobile Technologies: A 5G Strategy for the UK, HM Treasury, March 2017

[8] Cheshire and Warrington Strategic Economic Plan, Cheshire and Warrington LEP, (2017)
[9] http://www.871candwep.co.uk/content/uploads/2017/12/SkillsBrochure_Layout.pdf

enhance our skill base the transport network must support access to neighbouring city regions whilst it also has a role in helping to improve the vitality and amenity of our urban areas.

In addition, we must focus on addressing the barriers to employment faced by certain age groups and in our most deprived communities. Tackling these barriers includes ensuring that there are the connections in place to ensure that the right opportunities are accessible. This is particularly true for some of urban areas but is also an important factor for some of our rural areas and in mid Cheshire.

Upskilling the Transport Sector: We will actively work with the industry to address any skill shortages and to support development, training and diversity. This will include working with industry initiatives such as the Transport Infrastructure Skills Strategy and the Rail Sector Skills Delivery Plan.

We can also show case job and progression opportunities via the network of employer led Pledges in Cheshire and Warrington, where employers are at the heart of inspiring and informing young people and individuals seeking work about the opportunities open to them.

It is vital that we maximise the opportunities arising from nationally significant infrastructure projects such as the implementation of HS2 and plans for the expansion of Heathrow Airport. This includes collaborating with the Heathrow Skills Taskforce and our local industries to identify supply chain opportunities for Cheshire and Warrington and to understand how best to address skill shortages, in doing so building a skills legacy for future projects.

Underpinning these opportunities is the need to work with the Employers' Skills and Education Board and education suppliers to support the development of coherent and high quality training and education that meets the needs of employers and, which enables our local residents to benefit from employment in the transport sector. This includes putting the employers at the heart of inspiring and informing young people about the career pathways available to them, in particular through apprenticeships.

7. Strategic Transport Infrastructure Priorities

Strategic Transport Infrastructure Priorities

To achieve the economic objectives of the LEP and deliver a £50bn economy in Cheshire and Warrington by 2040, an integrated programme of transport improvements will be needed over the short, medium and long term.

To identify the requirements that will be needed to support transformational growth in our priority areas, Jacobs Consultancy was commissioned by the Cheshire & Warrington LEP (C&W LEP), along with the Local Authorities of Warrington, Cheshire East and Cheshire West, to undertake a study to identify the necessary transport improvements and core network requirements.

The work analysed the scale of challenge at the local level, especially in terms of growth and demands on local networks. From this, a series of transport interventions were generated and an evidence and objective led prioritisation exercise was completed to identify a suitably scaled and prioritised transport investment strategy, focussed on maximising economic growth. It concluded that to address the transport challenges the transport network needs to provide:

- Fast, frequent connectivity between sub-regional centres for people and freight;
- Travel by car and sustainable modes within 30 minutes between key centres;
- Reliable journey times, with all growth areas within 1 hour, door-to-door, from all parts of Cheshire and Warrington, and key economic centres; and
- Support existing areas of success through:
  o Dedicated, high-quality inter-urban corridors to Manchester, Liverpool, Wales, Birmingham and Yorkshire;
  o Direct links to London and the UK's top city economies; and
  o Fast, reliable connectivity to key international gateways.

To meet these requirements, and to achieve the necessary connectivity and capacity enhancements, it is recognised that sustained and targeted investment will be required over the short, medium and long term. In association with the respective Local Authorities, the LEP has identified a list of proposed schemes that will be essential for achieving Cheshire and Warrington's growth plan.

The immediate focus for the Strategy is on the short term measures to be delivered over the next five years or on scheme development for longer term schemes.

In the following sections we provide a summary of the highway and rail schemes that will be the focus of this initial work and outline the rationale for their implementation. The schemes are categorised into those that are already being developed and schemes which are to be prioritised for short term development i.e. within the next five years.

-

-

Highways Priorities

Travel by car is the dominant means of travel in Cheshire and Warrington. For strategic trips it is likely to remain the most viable option for many people. Whilst the focus will be on promoting new development in locations accessible via a range of modes there will still be a requirement to invest in our highways to accommodate growing levels of traffic and to improve the reliability of the network both in the short term and in the future.

We will work with partners to address the most significant congestion hot spots on the network and to support the development of opportunities to open up the sub-region and to enable and sustain the £50 billion economy. To do this the necessary steps will be taken now through planning and development work which will set out our future priorities.

Improving the maintenance and resilience of our network will also be crucial. The impact of collisions, renewals and maintenance can have a significant impact on travel comfort and network performance on affected links and adjacent routes. In addition to new highways improvements we will also continue to work to improve and maintain conditions on the highways network through planned and targeted interventions that minimize disruption. This includes both on strategic sections of the network and on local highways.

Figure 7.1 maps our proposed short term infrastructure priorities for the sub region. The scheme numbers referenced in the map align with the scheme numbers (in brackets) accompanying the following scheme descriptions.

Figure 7.1: Short Term Highway Priorities
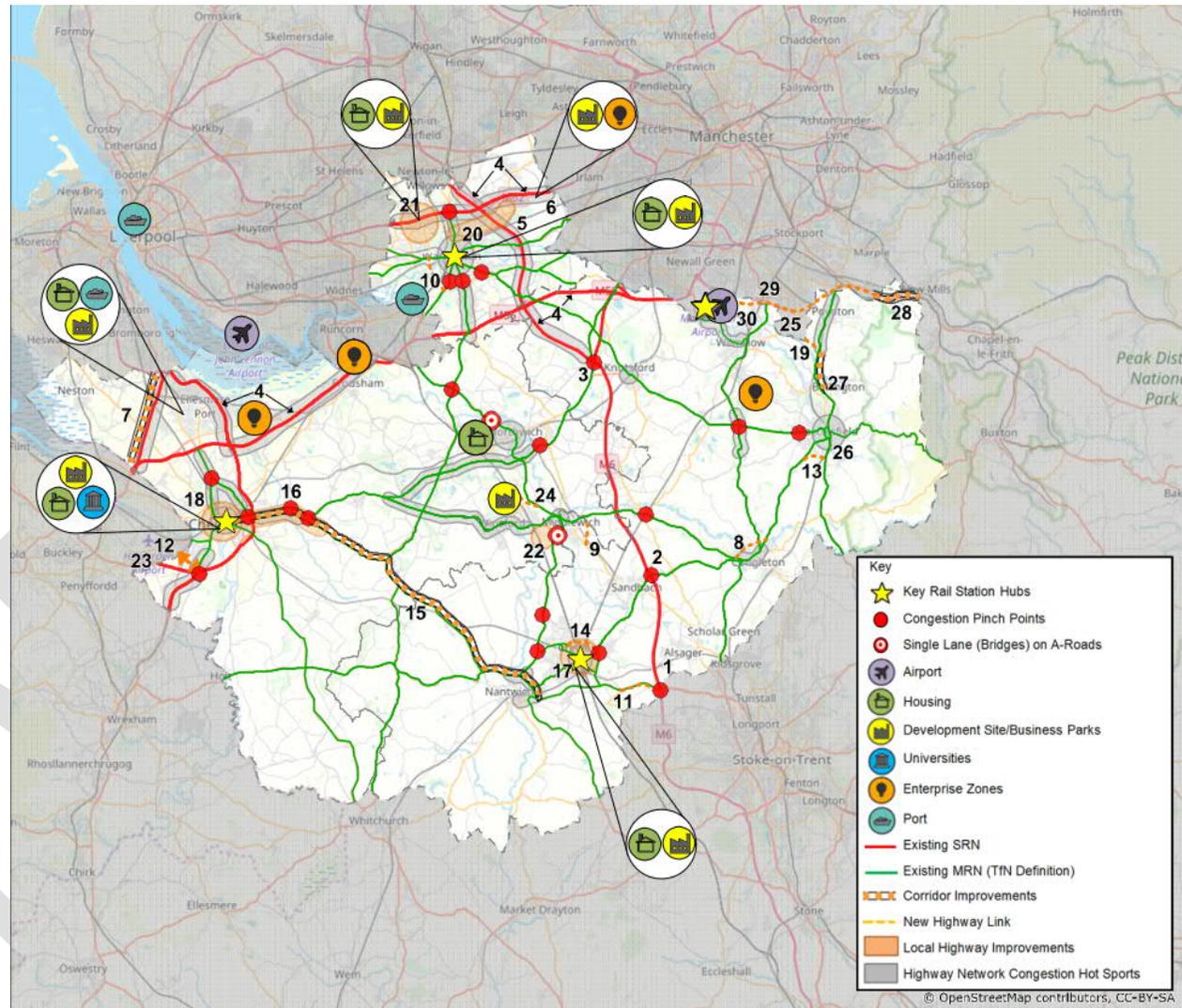
Strategic Road Network

Highways England is a government-owned company with responsibility for the operation, maintenance and improvement of motorways and trunk roads in England. This network is known as the Strategic Road Network (SRN). The following SRN scheme priorities have been identified:

Priorities for Scheme Development for RIS2

We will work with Highways England to develop schemes that address key constraints on the network, improve journey time reliability and safety and which help to support economic development. The below schemes represent our priorities for inclusion in Highways England's Road Investment Strategy period 2 (2020-2025).

In addition, we will work with Welsh Government to understand the impacts of proposed improvements to the A55 / A494 / A548 Deeside Corridor on traffic using the SRN and MRN network in Cheshire and Warrington (*number 23 in* **Figure 7.1**). Proposals include a new link between the A55-A5119 Northop Junction and the A494 / A550 north of Deeside Parkway and improved capacity along the A548. The scheme would improve connectivity between Chester and North Wales, including accessibility to employment sites in Deeside.

Strategic Road Network Short Term Priorities	
Priorities for Scheme Development (for RIS2)	
M6 J16 Grade Separation (1)	Introduction of a grade separated junction to create a direct link through M6 J16 on the A500 corridor. We will work with Highways England to identify opportunities to introduce junction improvements that will reduce journey times and increase connectivity between Crewe, Stoke and the M6 (including enhanced access to Crewe HS2 hub). The scheme would also support the delivery of housing growth along the A500 corridor.
M6 J17 improvement (2)	Currently the junction acts as a significant pinch point for vehicles accessing on and off the M6. We will work with Highways England to identify potential options for the junction which would improve capacity, address congestion/delay and improve local air quality.
M6 J19 improvement (3)	Major scheme to increase capacity and journey time reliability and improve safety. The scheme would improve connectivity between the M6 and A556 supporting wider connectivity and development on the A556 corridor. The proposals also include enhanced non-motorised users provision.
Smart Motorways (4)	Continuation of smart motorways programme to improve journey time reliability and incident management on congested links. Proposed priorities include: M6 (Junction 19 to 21a) and remaining sections of the M56. Where feasible, elements of Smart Motorway treatment are also to be considered for application on the M53 within the physical constraints of the motorway.

Priorities for SRN Scheme Development (post RIS2)

We have also identified schemes where initial work is required to develop solutions for delivery in the medium to longer term with implementation post RIS2.

This longer term view is required to ensure that these key routes can deliver the connectivity and reliability enhancements that will be essential for delivering Cheshire and Warrington's economic growth plans The potential for transformational improvements on these key north-south and east-west corridors will be considered alongside the wider impacts and the impacts on connecting links.

Strategic Road Network Short Term Priorities	
Priorities for SRN Scheme Development (post RIS2)	
M6 Capacity Study (5)	A study of longer-term capacity improvements is required for M6 J16 to J22 (beyond the introduction of Smart Motorways). If unaddressed, future traffic growth along this key corridor could constrain long-term economic growth.
M62 Capacity & Junction Improvements (6)	Significant capacity increases along the M62, especially between J7 and J10, and at key junctions will be required to support aspirations for growth in and around Warrington.
A550 Dualling (7)	Completion of a study to review the potential for dualling of the A550 between A5117 and M53. This would significantly improve access between NE Wales and West Cheshire/Wirral. The scheme would also contribute towards alleviating congestion on arterial routes in the area, and open up access to employment opportunities and development at Deeside Gateway.
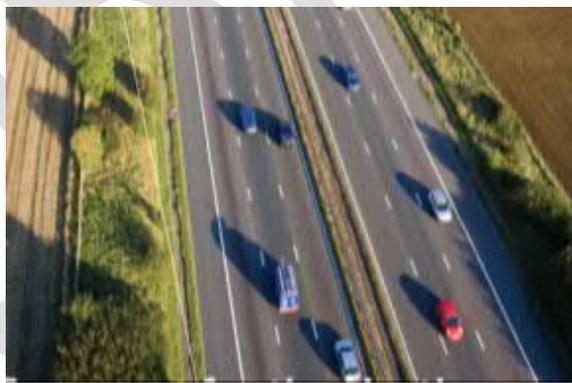
Major Road Network (TfN Network)

Large extents of Cheshire and Warrington are sustained by a network of strategic roads, operated and maintained by the local highway authorities, which provide vital links between economic centres, to neighbouring cities and regions and the wider SRN. To address the gap between the SRN and the local road network, TfN and its Partners have defined a Major Road Network (MRN) for the North.

The principles behind the development of a MRN are to link both current economic centres and future economic growth locations.

As such the MRN will be central to the economic aspirations of Cheshire and Warrington. An efficient and reliable MRN, which provides a consistent standard of provision, will provide residents and businesses with the necessary connectivity across the sub-region to enable them to reach their potential. The MRN will also play a vital role in unlocking development at strategic sites.

The following short term priorities have been identified as priorities for enhancing capacity, addressing congestion hot spots and supporting key growth areas in Cheshire and Warrington:

Major Road Network (TfN network) Short Term Priorities	
Schemes under development	
A6 MARR (25)	The scheme, due to open in 2018, will improve strategic connectivity, and local access, on an east-west route from the A6 near Hazel Grove, via the 4 kilometres of existing A555 to Manchester Airport, and the link road to the M56. As well as enhancing access to Manchester Airport and adjacent employment opportunities, the scheme will also improve connectivity with the M56.
Congleton Link Road (8)	A new road to the north of Congleton is proposed to alleviate congestion through the town centre, especially at peak times. The scheme is also to support new development sites and improve access to jobs at Radnor Park Industrial Estate and Congleton Businesses Park. This scheme is currently out to tender and is due to commence construction in 2018, with completion in 2020.
Middlewich Eastern Bypass (9)	The eastern bypass will help address some of the congestion issues through the town whilst improving access to the Midpoint 18 site supporting employment and residential development. The scheme has received indicative DfT funding of £47m from the Large Local Majors programme and a planning application is expected to be submitted in the Summer of 2018.
Warrington Western Link Road (10)	New road proposed to link the A56 and A57 as part of Warrington New City. The scheme would help address town centre congestion, and improve north-south accessibility and support development at Warrington waterfront and Port Warrington. Initial funding has been granted by the DfT to support the development of the business case.
Warrington East - Phase 2 / Phase 3 (20)	Works to upgrade the eastern gateway into Warrington and Birchwood Enterprise Zone. Phase 2 relates to a package of improvements on the A574 to reduce congestion and improve road safety and provide for cyclists and pedestrians. Phase 3 is a NPIF scheme to provide new traffic signals on Junction 11 of the M62 and the partial widening of the A574 Birchwood Way.
Omega Local Highways Schemes (21)	A package of highway improvements to serve the Omega development site and facilitate further development of employment and housing.
A500 Dualling Scheme (11)	Dualling scheme to increase capacity on the A500 on approach to J16 of the M6.Scheme is required to improve journey times and connectivity between Crewe (including Crewe Hub), Stoke and the M6 and to help facilitate housing and employment growth.
A51 Tarvin to Chester	Local Growth Fund scheme to remove three pinch points by delivering carriageway improvements, additional lanes and bridge widening between A51/A55 junction at Chester, Stamford bridge at A51/B5132 and Tarvin roundabout A51/ A54 to alleviate congestion, improve journey time reliability and improve economic development.

Major Road Network (TfN network) Short Term Priorities	
Priorities for Scheme Development	
Chester to Broughton Growth Corridor (12)	A new route alignment investigation for a potential new road link between Cheshire West and Chester and Flintshire essentially linking Chester to Broughton and the A55, connecting to key growth areas.
South Macclesfield Link Road (13)	Construction of a new road linking Congleton Road and London Road. The route would facilitate the delivery of the South Macclesfield Development Area.
A530 – A534 North Crewe Corridor(14)	Facilitating growth and addressing existing congestion on the east-west corridor between the A530 and A534 between Leighton Hospital and Crewe Green. The scheme could play a key role in facilitating growth as a result of HS2.
Proposed studies	
A51 Corridor Study (15)	A study to consider options to tackle capacity constraints and network resilience along the A51 corridor between the M6 and A55. The scheme will also help to address severance amongst communities along the route.
A523 Corridor Improvements (27)	Review of on-line options for local capacity and safety improvements on the A523 corridor between the Silk Road and proposed alignment for Poynton bypass. This could include junction improvements and localised widening to address congestion and journey time reliability on this route. Scheme would enhance local and strategic connectivity to the north of Macclesfield.
A6 corridor improvements (28)	The A6 provides a key route for strategic movements in the SEMMMS strategy area and is also important for wider connectivity (including for freight) for trans-Pennine movements. Currently the route experiences poor journey time reliability and congestion, which also impacts on bus services. The study would consider options for addressing transport constraints on the A6 corridor at High Lane and Disley, including off-line bypass options.
A34/A555 Junction Improvement (29)	Study to review options for increasing capacity and addressing congestion at the junction of the A34 and A555 and tie in with improvements on the A6 MARR scheme. Junction improvements would also support plans for North Cheshire Growth Village.

Improving Local Highway Infrastructure

Complementing the SRN and MRN, local highway links will play an important role in providing access to the wider strategic network and getting people around in Cheshire and Warrington with 90% of the road network in Cheshire and Warrington not part of the SRN or proposed MRN New and improved links will also be vital in facilitating new development.

Working with the three local authorities, we have identified some of the emerging short term priorities for local highway improvements which have a particular focus on supporting access to development sites, enhancing town centre access and addressing congestion. We will continue to work with the Local Authorities to understand the priority identify local pinch points

The adjacent table identifies the initial schemes that are being developed or have been identified as a priority for development in the short term. We are also proposing two area based studies to identify packages of schemes for medium to longer term delivery.

Local Highway Infrastructure Short Term Priorities	
Schemes under development	
A51 Congestion Relief Scheme - Tarvin Road (16)	Local Growth Fund scheme to remove two pinchpoints by delivering carriageway improvements, additional lanes and widening the A51/B5132 roundabout to alleviate a bottleneck and improve economic development.
Unlocking Winsford Industrial Expansion Land (24)	Local Growth Fund scheme to support infrastructure improvements to unlock the development potential of a 30 hectare area of new employment land around Winsford Industrial Estate.
Macclesfield Movement Strategy	Proposed strategy for improving transport and accessibility in Macclesfield. This includes addressing congestion hotspots across the town centre.
Centre Park Link, Warrington	Local Growth Fund Scheme to provide resilience to town centre highway network and unlock housing site.

Local Highway Infrastructure Short Term Priorities	
Priorities for Scheme Development	
Crewe HS2 Hub Station Access Improvements (17)	Identifying multimodal access improvements to ensure Crewe HS2 Hub and neighbouring developments are well connected. Promotion of opportunities to access the station by non-car modes.
Chester Pinch Point Schemes (18)	Implementation of schemes as part of a wider package of interventions to address congestion and support growth in and around Chester.
Poynton Relief Road (19)	Proposed relief road to alleviate congestion through Poynton town centre and other congested corridors. Route supports enhanced connectivity to Manchester Airport through connection to the A6 MARR scheme. Planning permission has been obtained for the scheme and an Inquiry into the compulsory purchase and side road orders is scheduled for Summer 2018.
A54 to A530 / HS2 Depot Corridor (22)	Development of an outline business case covering a potential link between the Middlewich Eastern Bypass and Winsford along with improvements to the A530 to support growth and access to the proposed HS2 rolling stock depot.
Proposed studies	
Mid Cheshire Towns Study Phase 2 (area wide)	Study to consider the longer-term opportunities to address network constraints and improve access. It will assess the requirements of road and public transport access to Crewe HS2 hub and across to the M6 corridor.
Segregated Bus Priority on key corridors	Study to consider opportunities for introducing segregated provision for buses to improve bus options and journey times. Measures could include localised widening at congestion hot spots. The focus of the work is to be on key corridors such as the A34 and A555.
Bus Rapid Transit Stockport to Airport via Handforth (30)	Study to consider new public transport connectivity options linking new development and Manchester Airport, including the potential for Bus Rapid Transit. This would include improving connectivity to and from Handforth.
A50 Corridor Study	The A50 corridor study will look at traffic movements around the A50 corridor (including side roads) between Arclid and Mere. This study will consider both north-south and east-west traffic movements in and across the A50 corridor and recommend infrastructure improvements where appropriate. Given the sensitivity of the A50 corridor to traffic conditions on the M6, this study is scheduled to commence once the current M6 Smart Motorway scheme has been completed.
Warrington Mass Transit Study	Study to consider options to deliver transformational change in the public transport network in Warrington. This is essential to support existing and future transport needs by connecting key centres for growth with residential areas.

Improving Rail Infrastructure

The DfT is responsible for the award of passenger rail franchises in conjunction with Welsh Government and Transport for the North. Network Rail operates and maintains the rail infrastructure as a "not for dividend" company limited by guarantee. Freight operators access the network on a commercial basis.

The DfT has presented a future vision of a world class rail network which integrates with the wider transport network through its Strategic Vision for Rail[10]. In order to meet these aspirations, there is a recognised need to improve rail infrastructure and services across the north of England.

The arrival of HS2 at Crewe provides a unique opportunity to transform rail connectivity. To maximise this potential, and ensure that rail is a viable alternative to the car, there is a need to invest in rail to create high quality, well connected links that sustain the economic transformation of the sub region.

West & Wales Strategic Rail Prospectus

West and Wales is a region of great opportunity with a diverse and successful economy. It encompasses three Local Enterprise partnership areas: Cheshire and Warrington; North Wales and Mersey Dee Alliance and the Constellation Partnership. The work also aligns with TfN's West and Wales Strategic Development Corridor area.

---

[10] Connecting People a Strategic Vision for Rail, DfT, November 2017.

Recent rail investment is providing improvements that are enhancing the rail offer and addressing network constraints. This includes redoubling of the line between Chester and Wrexham, the reopening of the Halton Curve and investment in Warrington Stations. However, to maximise the potential of this region and improve the passenger experience, further targeted and sequential infrastructure and service investment is required so that rail can play a larger role in supporting connectivity and growth.

Through the Prospectus we have set out our collective long-term vision for improvements to the rail network. We have a strong, integrated and growing economy covering Cheshire & Warrington, North Wales and the Constellation Partnership. In order to continue to support high levels of economic growth and housing provision we need rail to play a greater role than it does currently.

Whilst north-south services are currently frequent for main stations with good quality trains, east-west and local services do not currently provide the internal connectivity or quality necessary to support our growth. For example there are over 1 million cross-border (Wales-England) commuter movements in both directions per year yet only 1% is currently by rail.

We want to make travel by rail for local, regional and national journeys as accessible and attractive as possible. This will help deliver an integrated rail network, reduce pressure on the road network and an economy that works for everyone.

The prospectus identifies several key investments to support our long-term growth ambitions. They all rely, in the first instance, on the Crewe Hub. A properly designed Hub will not only ensure

connectivity to key centres around the Country but is a critical component to improving internal connectivity by ensuring that it caters for enhanced regional services. This will create effective access to labour markets, population centres, education and healthcare. It is fundamental to ensuring we can deliver our strategy for our railway and our economy.

In the longer-term we want to maximise the benefits of Northern Powerhouse Rail (NPR). NPR would link the North's six main cities and Manchester Airport, as well as other significant economic centres. In the sub-region it would provide enhanced connectivity via Warrington to/from Liverpool, Manchester Airport, Manchester, and beyond to Leeds, Hull and Newcastle.

NPR together with HS2, would offer much faster, more frequent and reliable rail links and opening up new opportunities for residents and businesses across the sub-region.

Four Hub Concept

Cheshire and Warrington sits centrally within a complex and diverse rail network. This includes the north-south spine of the West Coast Mainline and branches to Chester and North Wales, Liverpool, Manchester, Stoke-on-Trent and the East Midlands, Shrewsbury and South Wales with Crewe forming the main interchange points for these lines. Warrington also provides a northern gateway providing access to towards Lancashire and Cumbria and to the east to Manchester and Leeds.

Central to the forward plan for rail is the establishment of four core hubs (*Crewe, Chester, Warrington and Manchester Airport*). These hubs

will form an axis for future rail travel and access to strategic sites. They will ensure connectivity is enhanced to a wide range of destinations providing improved links to Greater Manchester, Merseyside and Staffordshire along with wider access to the Northern Powerhouse and Midlands Engine. They will also play a key role in supporting global connectivity through improving access to Manchester and Liverpool Airports and the ports of Holyhead and Liverpool.

Four Core Rail Hubs

The four hubs are proposed to be the focal points for rail travel in the sub region. Early investment will underpin strategic rail travel in the region through increased frequency and improved services. They will also provide key interchanges to the wider spokes of the local transport network.

The immediate priority is to ensure that **Crewe Hub station** is delivered such that it spreads the benefits of HS2 across a wide area by having more HS2 services stopping at Crewe, and facilitating interchange with enhanced regional services.

As well as future proofing for HS2 access, the station will need to cater for hub-and-spoke connecting services and support the aspirations for the station and services to support 13,000 homes by 2043 and new employment opportunities.

To achieve these goals Crewe Hub needs to be able to deliver the following:

- Provide a high quality interchange with platforms adjacent to the existing station, not on the independent lines.
- Accommodate 5-7 HS2 trains per hour stopping at Crewe, connecting to Manchester, Birmingham and London;
- Have flexibility for HS2 to serve other destinations including Chester, North Wales and further services to Warrington, utilising the splitting of trains at Crewe to serve the widest range of destinations;
- Accommodate enhanced regional rail services and freight; and
- Build in flexibility for the future in order to respond to other infrastructure projects e.g. Northern Powerhouse Rail and any potential changes to HS2 Phase 2b.

Enhancing Strategic Corridors

The West and Wales Prospectus also identifies that for HS2 to deliver increased patronage, and far reaching benefits there will need to be improvements to the sub-regional rail network.

Investment will need to be delivered across the region which focuses on strengthening existing core rail corridors for passengers and rail freight. Nine Strategic Corridors have been identified for targeting improvements that will enable service frequencies to be increased and journey times reduced whilst providing the opportunity to increase the proportion of freight that is transported by rail.

The corridors will provide the core routes to the HS2 hub at Crewe, ensuring that opportunities for interchange at Crewe Hub are maximised. They will also support sub-regional connectivity to strategic development and enhanced cross boundary movement.

West and Wales Strategic Rail Corridors
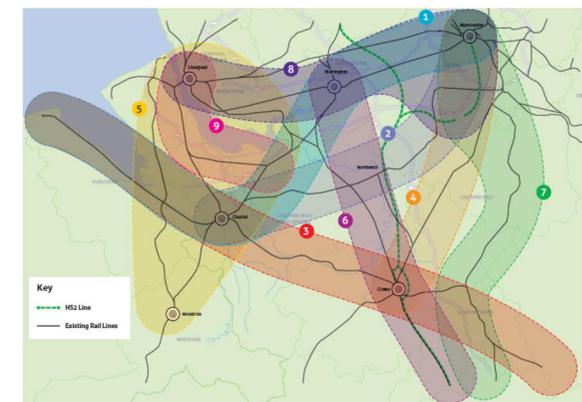
Figure 7.2 maps our proposed short term rail infrastructure priorities for the sub region. The scheme numbers referenced in the map align with the scheme numbers (in brackets) accompanying the following scheme descriptions.

Figure 7.2 Short Term Rail Infrastructure Priorities

TRANSPORT STRATEGY:
SHORT
TERM RAIL PRIORITIES

Area Wide Scheme
• Rail Station Facilities Upgrades

Rail Infrastructure Schemes

1) Crewe HS2 Hub
2) Chester Station Improvements and Capacity Improvements*
3) North Wales/Chester to Crewe/Warrington*
4) Warrington Bank Quay Station
5) Crewe to Warrington*
6) CLC Rail Line Electrification & Warrington East*
7) Crewe to Stoke Line Capacity Improvements*
8) Chester to Wrexham Line Improvements*
9) Liverpool – Chester Improvements*
10) Mid-Cheshire Line Improvements*
11) Manchester Airport Western Link*
12) Macclesfield Station Improvements*

*Scheme Development

Key
- Key Rail Station Hubs
- Airport
- Housing
- Development Site/Business Parks
- Universities
- Enterprise Zones
- Port
- Proposed HS2 Alignment (Phase 2a)
- Proposed HS2 Alignment (Phase 2b)
- Existing Rail Lines

© OpenStreetMap (and) contributors, CC-BY-SA

Rail Priorities Short Term Priorities

We will work with the rail industry to assess options for improvements to journey times, capacity, services and infrastructure across the network including for freight movements.

Rail will play a vital role in supporting effective agglomeration of people and opportunities and in unlocking economic growth. There is a need to ensure that travel by rail for local, regional and national journeys are as accessible and attractive as possible. There is a need to ensure that the rail network is integrated and works for everyone to maximise its potential within the sub-region.

Short-term priorities include enhancing accessibility to, and integration with, HS2 and in the longer term, Northern Powerhouse Rail. It includes enhancements to our key rail hubs and reviewing opportunities to enhance the sub-regions rail corridors to provide convenient and comfortable journeys,

Scheme Under Development	
Crewe HS2 Hub (1)	Development of a hub station supporting the completion of HS2 as far as Crewe by 2027. There is a need to ensure the design of the station provides the capacity to serve HS2 and improved regional services, supporting a step change in connectivity and growth across the region. We are working with Network Rail and partners to ensure Crewe Hub will become a key interchange on the HS2 network with trains linking to London, Manchester, Birmingham and Scotland. Integral to the success of Crewe Hub is enhancing classic rail service levels on regional lines to the Hub and increasing rail freight access and capacity, including access to new freight terminal locations.
Warrington West Station (13)	New station on CLC line between Liverpool and Manchester, providing new accessible station serviced by 250 space car park and well connected to local areas of housing and employment growth. The station will be served by 3 trains per hour once opened in 2019.
Priorities for Scheme Development	
Chester Station & Capacity Improvements (2)	Establishment of Chester Station as a hub station and gateway to the city through a wider package of on and off track improvements as part of the Chester City Gateway project. Improvements are required to address the following constraints: - Low frequencies and line speeds into Chester; - Constraints associated with Chester East junction; - Limited platform capacity limiting east-west services.
Warrington Bank Quay Station (4)	Creation of a nationally significant rail hub at Warrington Bank Quay Station to provide a strategic interchange for north-south and east-west rail services including accommodating the potential future intersection of HS2 and Northern Powerhouse Rail services. Station enhancements are also to support the creation of a new mixed use neighbourhood centred on the station.
Rail Station facilities upgrades	Initial phase of rail station improvements to upgrade facilities and improve local access to make travel by rail more attractive and viable. Enhancing facilities and access to stations is required to enhance the passenger experience and improve local connections.

Rail Short Term Priorities	
Proposed Studies	
CLC Rail Line Electrification & Warrington East (6)	Second stage of a study looking at the potential for electrification of the CLC line between Liverpool and Manchester. The study will seek solutions to address constraints associated with current timetabling and journey times and capacity constraints on the line. The CLC Rail Line also has the potential to support key growth corridors including development sites to the east of Warrington at Birchwood.
Chester to Wrexham Line Improvements (8)	A study looking at further opportunities to increase line capacity between Chester and Wrexham following work to redouble the existing line between Chester and Wrexham. Improvements would enhance connectivity between Wrexham and Chester to support access to key development sites along the corridor and provide onward connectivity to South Wales via Wrexham.
North Wales/Chester to Crewe/Warrington (3)	Study looking at opportunities to address slow line-speeds, low service frequencies & poor rolling stock on lines connecting North Wales and the core rail hubs. This includes looking at opportunities to enhance access to the port of Holyhead (the majority of services currently terminate at Llandudno) and commissioning of a study to consider the potential for electrification.
Mid-Cheshire & Middlewich Lines Improvements (10)	Study to consider the options for increasing rail frequency and address capacity issues associated with a single track section and inefficient signalling. Study to consider looking at opportunities to reopen the Middlewich line to passengers with potential for additional stations at Middlewich and Gadbrook Park.
Manchester Airport Western Link (11)	A study to look at options for a new rail spur between (north of) Mobberley and Manchester Airport. The scheme would support direct rail access from the Mid Cheshire Line to the airport, significantly cutting rail journey times.
Crewe to Stoke Line Capacity Improvements (7)	Study of opportunities to increase rail line capacity and address current junction capacity issues between Crewe and Stoke (supporting development of the HS2 hub).
Crewe to Warrington (5)	Study to consider opportunities for capacity enhancements and journey time reductions on the West Coast Main Line which will support improved strategic connectivity through key hubs at Crewe and Warrington. There is also a need to align the route to HS2 delivery which could further increase capacity issues.
Liverpool - Chester Improvements (9)	Identification of opportunities for improving journey times and service frequency to Liverpool supporting enhanced access to employment and businesses in the city region. This includes improvements to the two distinct routes via Bidston and via Liverpool South Parkway (post opening of the Halton Curve). Improvements would also support enhanced connectivity to North Wales and Wrexham.
Macclesfield Station Improvements (12)	Study to consider options for station enhancements at Macclesfield Station in advance of new opportunities resulting from the introduction of HS2. This could include the potential to support new services and destinations, served from Macclesfield Station.

Connected Communities

At the local level we will seek to ensure that our neighbourhoods and communities benefit from being truly integrated into the transport network. The first and last mile of a journey are central to the overall experience and can significantly affect travel horizons. They can be the difference between whether goods or people can travel efficiently and reliably. Addressing local network constraints and ensuring new developments are well connected will be essential for achieving high levels of accessibility across the sub region.

Establishing healthy, safe and attractive places will also be crucial for the wellbeing of our communities and to continue to attract investment and talent. This means reducing the impact of traffic (congestion, noise, air quality and severance) on local roads and providing viable alternatives. Active travel is to be a natural choice for those making shorter journeys whilst easy and reliable access to public transport corridors will be crucial. We will seek to embed the principles of good place making and local connectivity across Cheshire and Warrington including in existing settlements and as part of new development.

Local Authorities will set out the opportunities for local transport through their local transport plans. We will support the implementation of measures that seek to encourage more sustainable travel patterns and healthier 'places'. Through the Sustainable Travel Access Fund we have allocated £5 million of Local Growth Fund resources.

Increasing the role of active travel through establishing walking and cycling friendly neighbourhoods including safe and direct routes between neighborhoods, employment, education and services

Developing Local Cycling and Walking Infrastructure Plans (LCWIPs) that will help plan for long term investment and respond to future funding opportunities in active travel

Providing easy access to public transport and seamless integration and interchange of public transport services

Work with bus operators to explore opportunities for enhancing bus services

Establishing inclusive neighbourhoods which allow everyone to travel in a pleasant and safe environment

Targeted improvements on the local highway network to address congestion pinch points (including single lane sections of A roads) and safety issues. Improving access to strategic sites to facilitate economic growth

Improving the legibility of transport networks through physical and digital mapping and information

Development and promotion of car sharing and car pools to reduce single occupancy car trips.

Promotion of sustainable movement of freight

Employers to identify opportunities to promote sustainable travel including through flexible working and encouraging the use of alternatives to car

Medium and Long Term Priorities

Sustained investment in transport will be required to achieve the specific transport needs of a growing economy. Our ambition is for a transport system that continues to contribute to the strategic aspirations of the sub-region and promotes accessibility for all residents. Longer term and aspirational opportunities have been identified by Local Authorities and the LEP which will require further development in the medium and long term.

The medium term priorities are those where scheme development or implementation is anticipated to take place beyond five years. This includes further development and delivery of short term priorities following the completion of initial study work, business case development and scheme development.

The longer term priorities are those where development and delivery is anticipated to take place beyond ten years.

We will work with partners to identify and develop these longer term priorities. It is also recognised that the forward programme of interventions will need to be regularly reviewed to reflect the evolving strategic context and opportunities arising from wider initiatives and investment programmes.

Scheme Summary

A summary of proposed short term priorities and indicative medium and long term priorities is included below. The tables include the identification of whether the proposed work will be a Study, Scheme Development or Delivery.

Summary of proposed interventions and indicative timeframes (Studies (STU), Scheme Development (DEV) and Delivery (DEL))

Scheme Name	Spatial Growth Area	Short <5yr	Med. 5-10yr	Long >10yr
Rail Network				
Warrington West Station	Warrington New City	DEL		
Crewe HS2 Hub	Constellation Partnership	DEV	DEL	
Chester Station & Capacity Improvements	Mersey Dee Economic Axis & Cheshire Science Corridor	DEV		
Warrington Bank Quay Station	Warrington New City	DEV	DEL	
Rail Station facilities upgrades	Mersey Dee Economic Axis	DEV	DEL	
Crewe to Warrington	Constellation Partnership	STU	DEL	
Liverpool - Chester Improvements	Mersey Dee Economic Axis	STU		DEL
Crewe to Stoke Line Capacity Improvements	Constellation Partnership	STU		
CLC Rail Line Electrification & Warrington East	Warrington New City	STU	DEL	
Chester to Wrexham Line Improvements	Mersey Dee Economic Axis	STU		
North Wales/Chester to Crewe/Warrington	Mersey Dee Economic Axis & Warrington New City	STU	DEL	
Mid-Cheshire & Middlewich Line Improvements	Constellation Partnership	STU	DEL	
Man. Airport Western Link	Mersey Dee Economic Axis	STU	DEV	DEL
Macclesfield Station Improvements	Cheshire Science Corridor	STU		
Hooton - Ellesmere Port - Helsby Electrification	Mersey Dee Economic Axis		DEV	DEL
Wrexham Central to Bidston Line	Mersey Dee Economic Axis		DEV	DEL
Improved Connectivity for	Constellation Partnership		DEV	DEL

Scheme Name	Spatial Growth Area	Short <5yr	Med. 5-10yr	Long >10yr
Winsford, Hartford & Acton Bridge Stations (rail lines)				
Chester to North Wales Coast Electrification	Mersey Dee Economic Axis		DEV	DEL
HS2/NPR Interchange	Warrington New City	DEV	DEV	DEL
Strategic Road Network				
M6 J16 Grade Separation	Constellation Partnership	DEV	DEL	
M6 J17 improvement	Constellation Partnership	DEV		
M6 J19 improvement:	Constellation Partnership	DEV		
Smart Motorways (M6/M56/M53)	Mersey Dee Economic Axis, Warrington New City, Constellation Partnership	DEV	DEL	
M62 Capacity & Junction Improvements Business Case	Warrington New City	DEV		
M6 Capacity Study	Constellation Partnership & Warrington New City	STU	DEV	
Dualling A550	Mersey Dee Economic Axis	STU	DEV	
M56 New Junction 11A	Mersey Dee Economic Axis, Cheshire Science Corridor		DEV	
M6 J17 relocation/A534 link	Constellation Partnership		DEV	DEL
Major Road Network				
A6 MARR	Cheshire Science Corridor	DEL		
Congleton Link Road	Constellation Partnership	DEL		
Middlewich Eastern Bypass	Constellation Partnership	DEL		
Warrington East Phase 2 and 3	Warrington New City	DEL		
Omega Local Highway Schemes	Warrington New City	DEL		
South Macclesfield Link Road	Cheshire Science Corridor	DEL		

Scheme Name	Spatial Growth Area	Short <5yr	Med. 5-10yr	Long >10yr
Warrington Western Link Road	Warrington New City	DEV		
A500 Dualling: Scheme	Constellation Partnership	DEV	DEL	
Chester to Broughton Growth Corridor	Mersey Dee Economic Axis	DEV	DEV	DEL
A530 – A534 North Crewe Corridor	Constellation Partnership	DEV	DEL	DEL
A523 Corridor Improvements	Cheshire Science Corridor	STU		
A6 corridor improvements.	Cheshire Science Corridor	STU		
A34/A555 Junction Improvement	Cheshire Science Corridor	STU		
A51 Corridor Study	Mersey Dee Economic Axis	STU	DEV	DEL
A530 Realignment	Constellation Partnership		DEV	DEL
A54 Holmes Chapel E-W Corridor	Constellation Partnership		DEV	DEL
A534 – M6 J17 E-W corridor	Constellation Partnership		DEV	DEL
A51 – A500 Sth Nantwich corridor	Constellation Partnership		DEV	DEL
Local Transport				
Unlocking Winsford Industrial Estate Expansion Land	Mersey Dee Economic Axis	DEL		
A51 Congestion Relief Scheme – Tarvin Road	Mersey Dee Economic Axis	DEL		
Centre Park Link	Warrington New City	DEL		
Macclesfield Movement Strategy	Cheshire Science Corridor	DEL	DEL	
Crewe HS2 Hub Station Access Improvements	Constellation Partnership	DEV	DEL	
Chester Pinch Point Schemes	Mersey Dee Economic Axis	DEV	DEL	
Poynton Relief Road	Constellation Partnership	DEL		
A54 to A530 / HS2 Depot corridor	The Constellation Partnership	DEV	DEL	DEL

Scheme Name	Spatial Growth Area	Short <5yr	Med. 5-10yr	Long >10yr
Mid Cheshire Towns Study Phase 2	Constellation Partnership	STU		
Segregated Bus Priority on key corridors	Cheshire Science Corridor	STU		
Bus Rapid Transit Stockport to Airport via Handforth	Cheshire Science Corridor	STU		
A50 Corridor Study	Constellation Partnership	STU		
Warrington Mass Transit Network	Warrington New City	STU		DEV
Warrington East Phases 4&5	Warrington New City		DEV	DEL
Chester City Gateway	Mersey Dee Economic Axis		DEV	DEL
Warrington South Strategic Infrastructure	Warrington New City		DEV	DEL
Bridgefoot Link and Brian Bevan Island	Warrington New City			DEV
A49 North Corridor Improvements	Warrington New City			DEV
High Level Cantilever Bridge Crossing Replacement	Warrington New City			DEV
Southern Gateway Development Access Framework	Warrington New City		DEV	DEL
Warrington North Pinch Points and Omega Access Strategy	Warrington New City		DEV	DEL
Stadium Quarter Highway Improvement Package	Warrington New City		DEV	DEL
City Centre Vision Access Package	Warrington New City		DEV	DEL

8. Monitoring Performance

Monitoring Performance

Measuring performance will be a central aspect of delivering the Strategy. Performance is to be measured using Key Performance Indicators (or metrics) linked to Conditional Outputs which are focused on identifying transport's contribution to economic performance.

The following tables identify outputs that could be used to monitor performance. The outputs are largely based upon the Conditional Outputs identified by TfN as part of work to develop the evidence base for the Strategic Transport Plan.

Table 8.1: Conditional Outputs: Road Network (to include SRN and MRN)[11]

Conditional Outputs	Metrics	Data Source
Reliability	- % of Acceptable Journeys: Car; LGV/HGV	Traffic Master
Efficiency	- Minutes of delay per hr: Car; LGV/HGV	
	- Vehicle occupancy in peak hours	Transport User Survey
	- % of Network that is Adaptive	HE/LHA
Resilience	- # of road closure events per annum on defined corridors of MRN	HE/LHA
Journey Quality	- Business Perceptions of Journey Information Provision and Road Condition	Transport User Survey

Table 8.2: Conditional Outputs: Rail[12]

Conditional Outputs	Passenger	Freight
Connectivity	- Proportion of population/ catchment within 60 / 90 mins of economic centres	- Freight journey times - Number of freight paths - Ease of freight transfer
Capacity	- Crowded minutes on rail services	- Total rail freight capacity (in relation to demand)
Coherence	- Journey time reliability - Quality of service (NTS)	- Journey time reliability - Consistency of provision
Cost Effectiveness	- Operating costs per vehicle km - Operating costs per passenger km - Revenue per passenger km	- Unit rates for transferring goods - Transit times

Table 8.3: Draft Conditional Outputs: Local Transport

Conditional Outputs	Metrics	Data Source
Reliability	- Journey time reliability (car) - Public transport journey time	- Traffic Master - Bus Operators
Efficiency	- Minutes of delay per hr: Car; LGV/HGV; buses	- Traffic Master - Bus Operators
	- Vehicle/bus capacity and occupancy in peak hours	- Transport User Survey - Bus Operators
	- Levels of cycling and walking	- Levels of cycling and walking to work / education.
Resilience	- # of road closure events per annum on roads	- LHA
Journey Quality	- Business Perceptions of Journey Information Provision and Road Condition	- Transport User Survey
Safety	- People KSI	- STATS19 data
Access for all	- DDA compliant vehicles and infrastructure	- Local Authorities, Network Rail, and bus operators.

---

[11]Initial Major Roads Report Strategic Transport Plan Evidence Base (2017) Jacobs on behalf of TfN

[12]Initial Integrated Rail Report Strategic Transport Plan Evidence Base (2017) Steer Davis Gleave on behalf of TfN

Cheshire and Warrington
Local Enterprise Partnership

871

RICHMOND HOUSE, CADISHEAD BUSINESS PARK, IRLAM LANE, NORTHWICH, CW9 7TN

📞 01606 812280   🖥 871candwep.co.uk

871 SQ MILES OF
OPPORTUNITY

Cheshire West
and Chester

WARRINGTON
Borough Council

Cheshire East
Council