Local Transport Plan Refresh

LTP4 January 2022

Contents

1. Introduction

In 2011, Swindon Borough Council's third Local Transport Plan (LTP3) was published, setting out the council's forward-looking policies and strategy for investment in transport infrastructure for the years to 2026. The Plan was produced in accordance with statutory guidance issued by the Department for Transport (DfT) in July 2009.

The economic backdrop of the years up to LTP3's publication was uncertain, with financial realities and practicalities shaping the need for the LTP to emphasise stringent value for money requirements. Since the LTP3 was produced, the local transport context of Swindon has changed. The council has now taken the opportunity to refresh the LTP to reflect both the changes in the transport system in recent years and the aspirations to transform Swindon into a town for the future.

1.1. Our approach to the LTP refresh

The Local Transport Plan refresh process has resulted in this streamlined and more relevant LTP (LTP4) which presents a forward-thinking plan to support the delivery of schemes to facilitate economic growth and regeneration in Swindon.

The LTP refresh has been undertaken in a phased approach that has included:

- Analysis of LTP3 and its achievements to identify strengths, weaknesses and gaps to be closed in LTP4.
- Analysis of resulting gaps, to identify recommendations to bring forward to LTP4.
- A comparison between the Swindon of 2011 and the Swindon of today, including identifying new policy areas or topics that have changed or grown in importance in the intervening years.
- Research into new, changed or emerging topic areas including climate change, transport related social inclusion and the potential impacts of the COVID-19 pandemic.
- Identification of key policy areas for LTP4.

This document presents a summary of the refresh's findings, but you can also read more about the work undertaken during the refresh in the supporting documents provided elsewhere.

2. Local and regional context

2.1. Swindon today

- Swindon is one of the UK's fastest growing towns and one of the 5 UK Fast Growth Cities.
- Today, as in 2011, Swindon has a diverse and successful economy with increasing focus on the growth of the digital-tech sector.
- Swindon's outward connections are strong and improving, with access to five major cities, numerous international transport hubs and the motorway system through two significantly enhanced junctions.
- Railway line electrification has reduced journey times to London to less than an hour further enhancing Swindon as an attractive place to live, work and do business.

2.2. Policy context

While refreshing the LTP, close consideration has been given to the vision and priorities of the council, Swindon and Wiltshire Local Enterprise Partnership (SWLEP) and England's Economic Heartland Strategic Alliance (EEH).

The **Swindon and Wiltshire Local Enterprise Partnership (SWLEP)** was established by central government in 2011 as a private sector led partnership between local businesses, Swindon Borough Council and Wiltshire Council. SWLEP now sets the local economic priorities for Swindon and Wiltshire by tackling issues such as planning, housing, employment and local transport and facilitates projects that help accelerate economic growth and job creation in the area.

England's Economic Heartland Strategic Alliance (EEH) was established in 2015. The EEH is a voluntary sub-national Transport Body for the region spanning north-eastwards from Swindon to Cambridgeshire. EEH's Transport Strategy provides a 30 year strategic vision for the region's transport system, providing one voice on the formulation and execution of the infrastructure strategy for the entire region.

LTP3 was informed by the vision and priorities of SBC's Council Plan 2008-2030, "A Shared Vision for Swindon". The key challenge identified for Swindon at this time was growth, and specifically, the need to build many more houses. Although the main themes of the visions articulated for Swindon in 2011 remain consistent today, and still do relate to growth, the council's, LEP's and EEH's current priorities also include some additional aspects which have grown in importance since 2011. Relevant to Swindon's transport infrastructure, ambitions for a low-carbon economy, digital connectivity and social impact aspects such as inclusion and quality of life have been considered during the LTP refresh.

The refreshed LTP4 Strategy document has been updated to reflect the Council's latest Priorities and Pledges. In October 2021 the Council agreed the Council Plan for 2022 to 2025. This included updated Council Priorities and a new set of 27 Pledges. This was based upon the results of a residents survey conducted in August 2021. It highlighted high levels of dissatisfaction with highway maintenance. It identified improvements to road and pavement repairs and the level of traffic congestion as priorities for residents.

The Local Transport Plan will contribute to two of the Priorities - Priority Three: Deliver Sustainable Growth: through high quality affordable homes alongside infrastructure to support our growing town, and Priority Five: Make Swindon Greener and more sustainable: we will help residents reduce their environmental impact and, as a council, we will aim to achieve net zero emissions by 2030.

It will also contribute to Pledge 7 (reduced traffic congestion), Pledge 8 (Road Maintenance) and Pledge 14 (Sustainable Travel).

National policy context

During preparation of the plans there have seen a number of significant national policy announcements related to transport.

The policies and strategies within the refreshed LTP document will contribute to the legally binding UK target in the Climate Act 2008 to bring all greenhouse gas emissions to net zero by 2050.

On 14 July 2021 the Department for Transport published "Decarbonising Transport: a better, greener Britain". This is the government's transport decarbonisation plan and it sets out the government's commitments and the actions needed to decarbonise the entire transport system in the UK. It includes the pathway to net zero transport in the UK, the wider benefits net zero transport can deliver and the principles that underpin the approach to delivering net zero transport.

The Plan includes a commitment to drive decarbonisation and transport improvements at a local level by making quantifiable carbon reductions a fundamental part of local transport planning and funding.

The Plan states: "Going forward, LTPs will also need to set out how local areas will deliver ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas. This will need to be in line with carbon budgets and net zero"

The Department for Transport will therefore be providing guidance to local authorities on designing sustainable transport solutions through LTPs. They are looking for local authorities to have quantified plans in place will ensure that every area understands the level of ambition required to reduce emissions and ensure that this ambition can be translated into action.

They make it clear that for future local transport funding, this will be conditional on local areas being able to demonstrate how they will reduce emissions over a portfolio of transport investments through LTPs, which will become a focus of engagement between central and local government about future funding.

It is expected that new guidance on requirements for LTPs will be released in the coming months. In the meantime the Department for Transport will continue to ensure that existing committed investments achieve emissions reductions. To enable this, local investment plans will need to commit to certain measures. The approach taken to this will depend on the funding stream and its associated assessment criteria for allocating funding.

The LTP Implementation Plan will therefore need to take account of the new guidance when issued in order to set out a clear pathway to achieve decarbonisation of transport in Swindon.

Published in 2020, Gear Change: A Bold Vision for Cycling and Walking sets out the government's ambition to create cycle and walking corridors. The Councils' Local Cycling and Walking Infrastructure Plan will set outs its proposals for future projects. It has been prepared alongside the LTP refresh.

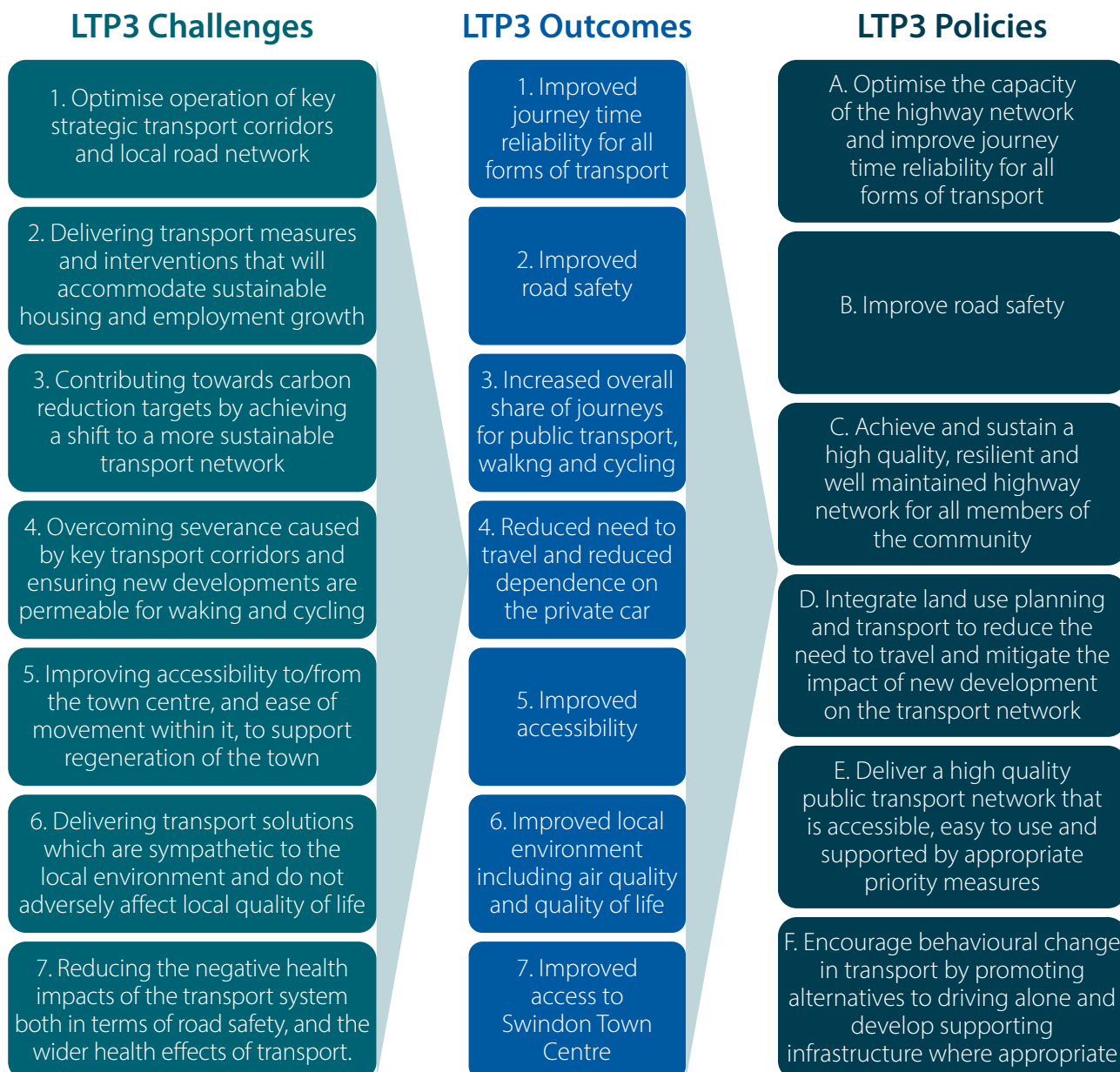The Bus Back Better National Bus Strategy (March 2021) sets out how access to bus transformation funding will require publication of Bus Service Improvement Plans (BSIPs) and local commitment to bus franchises or partnerships. The Councils' own BSIP has been produced in partnership with the bus operators to show how these ambitions can be achieved locally. It has been prepared alongside the LTP refresh.

3. LTP3 summary

LTP3's policies were shaped by the identification of seven core transport-related challenges faced by Swindon at the time of writing. LTP3's overall mission was to create *"A safe, effective and fit for purpose transport network that supports Swindon's ambitions for town centre regeneration and economic growth whilst protecting and enhancing quality of life and the environment for the benefit of local residents, visitors and businesses".*

The **challenges** and transport **outcomes** identified for LTP3 are shown in Figure 3 1. These informed the development of LTP3's six **policies** which in turn informed the selection of transport interventions for progression in the years following the plan's publication.

Figure 3.1 – LTP3 challenges, outcomes and policies

LTP3 Challenges	LTP3 Outcomes	LTP3 Policies
1. Optimise operation of key strategic transport corridors and local road network	1. Improved journey time reliability for all forms of transport	A. Optimise the capacity of the highway network and improve journey time reliability for all forms of transport
2. Delivering transport measures and interventions that will accommodate sustainable housing and employment growth	2. Improved road safety	B. Improve road safety
3. Contributing towards carbon reduction targets by achieving a shift to a more sustainable transport network	3. Increased overall share of journeys for public transport, walkng and cycling	C. Achieve and sustain a high quality, resilient and well maintained highway network for all members of the community
4. Overcoming severance caused by key transport corridors and ensuring new developments are permeable for waking and cycling	4. Reduced need to travel and reduced dependence on the private car	D. Integrate land use planning and transport to reduce the need to travel and mitigate the impact of new development on the transport network
5. Improving accessibility to/from the town centre, and ease of movement within it, to support regeneration of the town	5. Improved accessibility	E. Deliver a high quality public transport network that is accessible, easy to use and supported by appropriate priority measures
6. Delivering transport solutions which are sympathetic to the local environment and do not adversely affect local quality of life	6. Improved local environment including air quality and quality of life	F. Encourage behavioural change in transport by promoting alternatives to driving alone and develop supporting infrastructure where appropriate
7. Reducing the negative health impacts of the transport system both in terms of road safety, and the wider health effects of transport.	7. Improved access to Swindon Town Centre	

4. Review of progress since LTP3

An important element of the Local Transport Plan refresh has been consideration of whether the policies of LTP3 are still relevant to Swindon today. The following pages summarise the extent to which the intended outcomes of LTP3 have been achieved and link the outcomes to LTP3's policies.

Although in some instances, lack of data availability constrains the conclusions that can be drawn, the findings have been used to inform recommendations for LTP4.

4.1. LTP3 transport outcome 1: Improved journey time reliability for all forms of transport

LTP3 identified that increasing levels of congestion in the town were affecting the efficient operation of the main road network and journey time reliability, impacting on economic productivity and discouraging investment in regeneration and economic growth.

Through **optimising the capacity of the highway network and improve journey time reliability for all forms of transport (policy A)**, LTP3 committed to working to better manage the highway network to ensure that capacity was used efficiently.

Our analysis found that little meaningful contribution towards achieving the transport outcome has been achieved since LTP3 was produced:

- For cars and LGVs, the average delay on A roads in Swindon increased by 3.7 seconds per vehicle per mile between 2015 and 2018[1]. Data on local A roads in Swindon paints a more varied picture with some road segments seeing decreases in delays and others having increases1.
- For buses, journey time reliability was found to have reduced between 2011 and 2018[2].
- Limited data on journey time reliability for other public transport or active modes is currently available for Swindon so conclusions cannot be drawn on the impact of policy A on these aspects however it is anticipated that journey time reliability trends are consistent across modes.

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1 Department for Transport, Road congestion and travel time, Table CGN0502c

2 Department for Transport, Bus Statistics Table BUS0902

4.2. LTP3 transport outcome 2: Improved road safety

Local Transport Plan 3's second policy, **policy B – Improve road safety**, sought to both reduce the loss of productivity and the cost to society through reducing road traffic collisions and the associated healthcare requirements, and also improving journey time reliability by reducing the tailbacks and delays caused by accidents.

Analysis undertaken during the LTP refresh found that some progress towards achieving this transport outcome has been achieved since LTP3 was produced, as follows:

- The total number of reported accidents on Swindon's roads fluctuates each year and does not appear to be on a downwards trend.
- Swindon's overall accident rates are generally lower than three of four comparable authorities[3], however the gap between them appears to be closing, with a reduction in collisions more evident in the other authority areas.

4.3. LTP3 transport outcome 3: Increased share of journeys for public transport, walking and cycling

In order to improve the share of journeys for non-car modes, alternative methods of transport require investment and improvement. LTP3 **policies E and F** relate to this: **policy E – Deliver a high quality public transport network that is accessible, easy to use and supported by appropriate priority measures and policy F – Encourage behavioural change in transport by promoting alternatives to driving alone and develop supporting infrastructure where appropriate**.

The main aims of these policies are to encourage the use of public transport, cycling and walking; improving bus services to make them a more attractive and accessible transport option; and promoting active transport options.

Our analysis found that little meaningful contribution towards achieving the transport outcome has been achieved since LTP3 was produced:

- The total number of local bus passenger journeys in Swindon has fallen from 12.5 million to 11.9 million[4], with total passenger numbers fluctuating throughout this time period.
- In 2019 the most popular method of travel to school (across all school types) was on foot (55.2%), with car being the second most common mode (26%). The percentage change between 2014 and 2019 for school commuting on foot (walk) is negative, at -5.7%. Meanwhile, the percentage of pupils commuting to all schools by car has increased by 3.9%.[5]

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3 Milton Keynes, Peterborough, Telford and Wrekin and Warrington

4 Department for Transport, Bus Statistics

5 Swindon Borough Council, Mode of Travel to school report, 2019

- In total for 2019, the mode share for public transport was relatively small, with only 7.9% of pupils reporting to use bus to commute to school. 5.1% of pupils commute by bike. The number of pupils choosing to cycle or use a bus has remained comparatively consistent since 2014[5].

4.4. LTP3 transport outcome 4: Reduced need to travel/dependence on private car

Reducing the need to travel and hence lowering dependence on the private car was identified as a key transport outcome of LTP3, partially related to **policy D – Integrating land use planning and transport, policy E – Deliver a high quality public transport network that is accessible, easy to use and supported by appropriate priority measures** and **policy F – Encourage behavioural change in transport by promoting alternatives to driving alone, and develop supporting infrastructure where appropriate**.

The main aims of these policies included co-locating new housing and employment developments to help reduce the need to travel and encourage the use of public transport, cycling and walking; improving bus services to make them a more attractive and accessible transport option; and promoting active transport options.

Analysis undertaken during the LTP refresh found that only a small amount of progress towards achieving this transport outcome has been achieved since LTP3 was produced:

- Average journey times to the nearest employment site has consistently increased for employment sites of all sizes between 2014 and 2016, with the most significant increase being to smaller employment sites[6].
- The percentage of people living within a 15 minute walk, bus, cycle or car journey of all employment site sizes has decreased or remained the same.

Although many planned developments in Swindon do include the co-location of housing and employment sites, the developments progressed to 2016 may have negatively impacted travel to work times in the Borough due to an increased number of people living in edge-of-town locations.

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6 Department for Transport, Journey time statistics: data tables (JTS)

4.5. LTP3 transport outcome 5: Improved accessibility

Policy E of LTP3 was to: **Deliver a high quality public transport network that is accessible, easy to use and supported by appropriate priority measures**. The anticipated outcome of this policy was that improved accessibility through improving the quality of public transport will widen travel choice giving a viable alternative to the private car for everyday journeys. This policy also contributes towards the transport outcome of improving access to Swindon's town centre.

The main target of this policy was improved bus services, particularly to help those without access to a car and to allow regeneration of the town centre to be accommodated without causing deterioration of journey time reliability and the environmental impact of increased car use.

Analysis undertaken during the LTP refresh found that some progress towards achieving this transport outcome has been achieved since LTP3 was produced, as follows:

- Average travel time to key destinations including schools, GP surgeries, hospitals, pharmacies and food stores in Swindon have remained fairly consistent from 2014 to 2016, with only some minor fluctuations[7].
- However, public satisfaction around accessibility in Swindon has improved from 68% in 2017 to 73% in 2018[8]. This score is based on a combination of measures including "ease of access without a car", which also saw an improvement of 6% to a score of 74% in 2018.

4.6. LTP3 transport outcome 6: Local environment

Policy F of LTP3 focuses on ways to improve the health of Swindon's residents and visitors by **encouraging behavioural change in transport by promoting alternatives to driving alone and develop supporting infrastructure where appropriate**.

LTP refresh analysis of available data found that a reasonable level of progress had been made against this LTP3 transport outcome in terms of air quality improvement. Further analysis was constrained by data availability:

- Analysis of air quality indicators shows that between 2011 and 2017, the average annual background concentrations of Nitrogen Dioxide and annual averages of particulate matter decreased almost ubiquitously across Swindon suggesting that on the whole, air quality has been improved since 2011[9].

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7 Department for Transport, Journey time statistics: data tables (JTS)

8 Swindon's National Highways and Transport Network (NHT), 2018

9 DEFRA, UK Air Information Resource

4.7. LTP3 transport outcome 7: Access to town centre

Policies D and **E** relate to **integration of land use planning and transport to reduce the need to travel and mitigate the impact of new development on the transport network** and **delivering a high quality public transport network that is accessible, easy to use and supported by appropriate priority measures**.

Both of these policies reference the desire to regenerate the town centre through encouraging brown field site development and improved connectivity via public transport and active transport modes.

Analysis undertaken during the LTP refresh found that only a small amount of progress towards achieving this transport outcome has been achieved since LTP3 was produced:

- Between 2014 and 2016 the journey time for people in Swindon travelling to the nearest town centre on foot or by public transport increased from 19.3 minutes to 19.9 minutes[7].
- When considering access to the town centre by bike, between 2014 and 2016 no change in journey time was reported, with average journey times remaining close to 16 minutes[7].
- Journey times for cars increased slightly from 10.7 minutes to 11.4 minutes between 2015 and 2016[7].

5. LTP refresh evidence base

As part of the LTP refresh, an evidence base of transport related data and information was gathered. This document includes evidence on the following topics:

- Population and growth;
- Transport changes and growth;
- Safety and access; and
- Health and quality of life.

While much of the data was analysed during the COVID-19 pandemic, the impact of the pandemic has not been explicitly considered in this evidence base due to constraints on the availability of data and the uncertainty presented by the pandemic.

Key information and statistics identified through the evidence base production are summarised in the following pages and are documented in full in the LTP Evidence Base report.

5.1. Population and growth

- Swindon has an ageing population. Council projections indicate that over half of the estimated population growth between 2018 and 2038 will be in the 65+ age group (27,700 people)[10].
- Sustainable economic and housing growth will be delivered in Swindon Borough between 2011 and 2026, equating to the provision of approximately 22,000 dwellings and 119.5 hectares of employment land[11].

5.2. Transport changes and growth

- There are some significant gaps in off-road cycle provision across Swindon, resulting in a disjointed network[12]. The walking and cycling routes from Swindon out into the surrounding villages are also limited; they are mostly on fairly narrow, national speed limit roads. These roads also generally do not have a footway.
- Swindon is reasonably well served by a large number of bus services, however there are discrepancies in frequency and network coverage across the district[13].
- Swindon's main railway links are with Bristol and Bath to the west and Didcot to the east. Rail links to the north and south are more limited, with interchange generally required[14].
- Swindon is well connected to its neighbours by road, with the nearby M4, A419, A420 and A4361 acting as strategic highway corridors.

5.3. Safety and access

- The total number of reported accidents on Swindon's roads fluctuates each year and does not appear to be on a downwards trend[15].
- Swindon's overall accident rates are generally lower than three of four comparable authorities[16], however the gap between them appears to be closing, with a reduction in collisions more evident in the other authority areas[17].
- Just under one quarter of Swindon's households have no access to a car or van, and almost half of Swindon's households have access to one car or van. There are large pockets of particularly low car ownership, for example in the town centre[18].

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10 Swindon Borough Council and Swindon Clinical Commissioning Group policy-led population projections, 2018

11 Swindon Borough Council, Adopted Local Plan 2026, 2015

12 Cycle routes © OpenStreetMap contributors

13 Basemap DataCutter; DfT,National Public Transport Data Repository (NPTDR); DfT, National Public Transport Access Nodes (NaPTAN)

14 Data © OpenStreetMap contributors

15 Department for Transport, annual traffic statistics by Local Authority; DfT Road Safety statistics by Local Authority (STATS19)

16 Milton Keynes, Peterborough, Telford and Wrekin and Warrington

17 Department for Transport, Total length excluding motorways; DfT Road Safety statistics by Local Authority, Table RDL0202a (STATS19)

- While only 33% of Swindon's population aged between 16 and 19 can walk or take public transport to further education within 15 minutes, 89% can do so within 30 minutes[19].
- All households within Swindon borough can access a GP within a 45 minute walk or public transport trip, whereas only 60% are within 45 minutes of a hospital[19].
- Of Swindon's 16 to 74 year olds, 93% and 99% are respectively within a 15 and 30 minute walk or public transport journey of at least one small employment centre (at least 100 jobs). When considering large employment centres (at least 5,000 jobs), this drops to 11% and 65% of Swindon's working age population respectively[19].

5.4. Health and quality of life

- The number of small areas in Swindon that fall within the most deprived 10% for England in terms of health increased between 2015 and 2019 from 2 to 8[20].
- Poor health is a significant issue in Swindon borough, including amongst children who exhibit higher rates of obesity in Swindon compared to those for the South West of England in general[21].
- that physical activity is important in maintaining a healthy weight and studies show that greater access to segregated, well maintained bicycle lanes is significantly associated with increased physical activity among children and adolescents[22].
- 15.3% of people over 60 in Swindon experience income deprivation – this rises to nearly half of older people in the Manchester Road area of Central ward[21].
- The only Air Quality Management Area (AQMA) in Swindon borough is on Kingshill Road (A4289). The area has a moderately dense population of children and is near to small pockets which have a high concentration of residents over the age of 70.
- In terms of public satisfaction, Swindon performs relatively well in indicators relating to local bus services and public travel information, showing improvement since 2019 as well as being significantly above the average of the participating authorities[23].
- While also above average in walking and cycling facilities, these areas have both seen a minor decrease in satisfaction since 2019[23].
- Highway condition was seen more negatively in 2020 than 2019 at only 33% satisfaction, while road safety showed little change since 2019 and is approximately in line with the average[23].
- Congestion is seen to have improved since 2019, but Swindon remains 2% below average for this indicator at only 44% satisfaction[23].

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18 Nomis, Car or van availability (KS404UK), 2011

19 Department for Transport, Travel time, destination and origin indicators for key services by mode of travel and Local Authority, England, 2017

20 Ministry of Housing, Communities & Local Government; English Indices of Deprivation, 2015 & 2019

21 Swindon's Joint Strategic Needs Assessment (JSNA), 2018-19

22 Pan et al, Access to bike lanes and childhood obesity: A systematic review and meta-analysis, 2020

23 National Highways and Transport (NHT) Network Survey, 2020

6. Review of key themes for LTP4

The LTP refresh identified several themes and focus areas that have emerged or grown in importance since LTP3 was produced. These are outlined further in this section and include:

- Climate change and the need to work towards a zero-carbon economy;
- Transport related social inclusion, accessibility and equality;
- The role of new technology; and
- The importance of a joined up approach to land use planning and transport planning.

The refresh has also revisited some transport areas that may not have been given sufficient focus in the original policies or outcomes related to LTP3. These are explored further in this section and include:

- The value of effective highway maintenance;
- The impacts of development, regeneration and growth priorities; and
- The location of Swindon and it's connectivity with other economic centres.

The longer term impact of the COVID-19 pandemic on Swindon's transport network has also been considered at a high level.

6.1. Climate change

6.1.1. Challenge for LTP4

The increased concern over the Climate Emergency is one of the key areas of change in policy context that has occurred over the time frame since Swindon's LTP3 was published in 2011. Climate change is now widely considered to be the most pressing environmental challenge of our time. According to the ICC Special Report on Global Warming[24], since pre-industrial times it is estimated that human activity has caused a global increase in temperature of 1°C. Without transformative systemic global change, global warming is likely to reach and subsequently exceed 1.5°C between 2030 and 2052. Without considerable action to address the climate challenge, temperature change at this level is expected to have serious, and some potentially irreversible, impacts on ecosystems, natural resources, flooding and extreme weather events.

One of the risks is damage to transport infrastructure as a result of increased temperatures, flooding, rising sea levels and high winds. As well as causing damage, such extreme weather events are also likely to have a significant impact on passenger safety and network reliability, and therefore could have considerable implications on the economy.

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24 IPCC, Special Report: Global Warming of 1.5°C, 2017

Transport in Swindon and the South West contributes a greater proportion of total CO2 emissions than the average for other regions in England. Since 2014, transport has consistently been the greatest energy-related contributor to CO2 emissions in the South West and in Swindon. Business as usual is not an option; a step change is essential to ensure that transport emissions are urgently reduced.

This is supported by the Pathways to Decarbonisation study[25] carried out by the EEH region, which highlights the need for large-scale behaviour change, resulting in a rapid shift away from the current reliance on petrol and diesel fuelled private cars.

To date, 227 out of 407 (68%) of District, County, Unitary & Metropolitan Councils have declared a Climate Emergency. While Swindon Borough Council has not made such a declaration, the council has started to take action towards reducing the borough's carbon emissions.

6.1.2. Approach for the future

It is vital that action is taken to improve the resilience of transport infrastructure (climate change adaption[26]) and reduce future greenhouse gas emissions resulting from transport (climate change mitigation[27]). Addressing climate change will also deliver a range of co-benefits including improved public health, reduced air pollution and noise. Poor air quality because of transport emissions is recognised as a significant environmental risk to public health.

Climate change adaption
LTP3 acknowledged that in order to fully understand the existing vulnerability of transport infrastructure in Swindon, work still needed to be done – this is still the case. Climate change adaptions should be considered across the borough. These may include physical improvements to the infrastructure and use of improved communication technologies and methods.

Climate change mitigation
Due to the convenience, flexibility and low cost of trips of private car travel, significant policy interventions will be required to ensure that alternatives are competitive. Alongside policies aiming to reduce private car travel, the LTP4 refresh has also found a requirement to promote sustainable alternatives to petrol and diesel cars such as hybrid and electric vehicles. Swindon also has a legacy of being at the forefront of other emission-reducing innovation, including hydrogen fuel cell technology. The council should seek to support local organisations in this sector and more widely, including in the upgrading of their vehicle fleets and providing electric vehicle only parking spaces. Into the future, all new developments brought forward must have sustainable travel measures at their core.

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25 England's Economic Heartlands Pathways to Decarbonisation, 2020

26 Climate change adaption actions are focused on transport infrastructure design and communication management and have the aim of ensuring that transport infrastructure is resilient to extreme weather events caused or exacerbated by climate change.

27 Mitigation against climate change involves taking steps to reduce future impact on the climate.

6.2. Social inclusion, accessibility and equality

6.2.1. Challenge for LTP4

The LTP refresh study found that there remain considerable barriers to accessing and using Swindon's active travel and public transport network for some members of society. The barriers can be grouped into physical and attitudinal or behavioural barriers and include:

For walking and cycling:

- A lack of safe, segregated walking and cycle routes which are joined up across the borough and into surrounding villages;
- A lack of secure storage and suitable lighting along routes;
- Poor design of facilities that don't meet the needs of all groups, including those with a disability; and
- Perceptions that active travel isn't safe or socially acceptable for all.

For public transport:

- Disjointed bus routes;
- Poor facilities at stops and stations;
- A lack of real time information provision at stops and stations;
- The cost of using public transport.

It was also found that barriers to use of the highway network mainly relate to having access to a car rather than any physical or attitudinal barriers. In Swindon, car or van availability does vary by group, with 18% of women in Swindon not having access to a car or van (compared to 14% of men)[28] in 2011, and 26% of Black/African/Caribbean/Black British do not have access to a car or van (compared to 15% of White people)[29].

This could suggest that Swindon's historic focus on delivery of highway schemes may not be benefitting the borough's female or ethnic minority population to the same extent as its White and male residents.

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28 Nomis, Car or van availability by sex by age, LC4109EW

29 Nomis, Tenure by car or van availability by ethnic group, DC4203EW

6.2.2. Approach for the future

Based on the barriers identified, the following requirements have been identified to support equal distribution of Swindon's future transport opportunities:

For walking and cycling:

- Greater provision and advertisement of safe, segregated walking and cycle routes, which are joined up across the borough;
- Tackling public health concerns by improving the provision of safe, off-road, well-connected cycle routes that are suitable for vulnerable users;
- Considering road safety improvements in areas with high proportions of households with children;
- Outlining active mode provision requirements for all future transport schemes, including those extending to the peripheries of the borough;
- Focussing particularly on improving the active travel facilities in the town's older (pre-1980's) developments;
- Improved facilities including provision of secure storage and better lighting along routes;
- Design of facilities that meets the needs of all groups, including those with a disability;
- Support for walk / cycle to school and work programmes;
- Including ambitious and specific goals and policies relating to provision for cyclists;
- Support for the purchase, maintenance and insurance of bicycles, including disability adapted bikes, and related equipment; and
- Publicity and support for campaigns and social groups that provide more information and change the image of walking and cycling for transport and leisure.

For public transport:

- Greater provision and advertisement of bus routes, which are joined up across the borough, such as improved orbital public transport connections;
- Improved facilities at stops and stations including a range of ticket purchase options, inclusive facilities and improved safety measures;
- Better real time information provision at stops, stations and online and also improved visual and audio information;
- Consider the accessibility requirements of the older members of Swindon's population, particularly around bus facilities;
- Supporting those with limited access to private vehicles – and encouraging modal shift among those without this limitation – through improved public transport journey times and reliability;
- Identifying any high priority movements, particularly focussing on employment areas, that are not currently catered for by public transport and investigate means to address;
- Publicity and support for campaigns that promote the use of public transport; and
- Better financial support for those in disadvantaged groups or those who might not be able to afford public transport.

Furthermore, several of the research documents studied in the refresh identified lack of representation as an issue during the development and delivery of transport schemes. In particular, consultation and engagement should be inclusive and accessible for both men and women, older people, those with disabilities and non-White ethnic groups.

LTP4's supporting documents will set out a number of geographically distinct policies to address the variations in population across the borough. Currently, central Swindon, the large residential areas, the industrial, business and retail parks and the peripheral villages each have very different transport strengths and areas for improvement, therefore identical policies would not necessarily serve the residents and employees in each area.

6.3. New technology

6.3.1. Challenge for LTP4

Advances in technology are changing how we travel. In addition, social changes have altered how and why the transport system is used across the UK. Looking towards 2040, better data and connectivity will provide the basis for new transport modes and support a better, more integrated transport system.

The Institution of Engineering and Technology and ITS UK set out a transport roadmap showing a selected timeline of current and future transport technologies in their 2016 Local Authority Guide to Emerging Transport Technology. Key areas where technology may change the future of transport include:

- **Electric / low emission vehicles, including private vehicles, buses and e-bikes**
  The government are demonstrably committed to the widespread introduction of low emission vehicles across the UK. This is largely tied to the government's aspirations to meet net zero and carbon emission targets.

- **Connected and autonomous vehicles (CAVs)**
  The government see the UK as being in a unique position to be at the forefront of the connected and autonomous vehicle market which has the potential to be worth £51 billion per year to the UK economy by 2030. As such, the UK government is investing heavily in CAV research and development, as outlined in the Industrial Strategy[30].

- **New transport business models including mobility as a service and mobility hubs**
  The Department for Transport defines Mobility as a service (MaaS) as "the integration of various modes of transport along with information and payment functions into a single mobility service[31].

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30 HM Government, Industrial Strategy, 2017
31 Department for Transport, Future of Mobility: Urban Strategy, 2019

CoMoUK define mobility hubs as "a recognisable place with an offer of different and connected transport modes supplemented with enhanced facilities and information features to both attract and benefit the traveller"[32].

6.3.2. Approach for the future

Electric / low emission vehicles, including private vehicles, buses and e-bikes

The growth in the numbers of licensed ultra-low emission vehicles in Swindon appears to broadly comparable to the UK overall, however the number of public charge points in Swindon appears to be low compared to other areas[33].

The council should also seek opportunities to capitalise on and invest in hydrogen fuel research and production and promote this, alongside battery-powered electric vehicles, as a viable alternative to petrol and diesel-powered vehicles. This should also include providing support for local organisations in upgrading their vehicle fleets and providing hydrogen/ electric vehicle only parking spaces

To make the most of on the benefits that e-bikes present, steps must be taken to overcome potential barriers, including through commitment to providing e-bike infrastructure in Swindon.

Connected and autonomous vehicles (CAVs)

Given the residual uncertainty around CAV introduction onto UK roads, the council will look to take early opportunities to shape the role that CAVs will play on our roads and determine what part they should play in Swindon's future. As discussed in guidance[34], consideration should be given to:

- Ensuring safe and acceptable rules of the road;
- Shaping the network efficiency;
- Guarding against adverse consequences for public/sustainable transport; and
- Ensuring CAV developments enhance mobility for all.

New transport business models including mobility as a service and mobility hubs

The council will explore new transport models as they arrive as well as employing some of MaaS' core principles into wider policies; namely encouraging integration and improved interchange between existing transport modes. This may include consideration on how mobility hubs can be incorporated into local, regional and national land use planning into the future, as the efficient use of space and movement of people continues to grow in importance.

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32 CoMoUK, Mobility Hubs

33 Department for Transport, Ultra-low emissions vehicles (ULEVs), Table VEH0134a, 2020

34 Mott Macdonald, Planning for Connected and Autonomous Vehicles, 2019

6.4. Planning policy

6.4.1. Challenge for LTP4

National and local planning policy has an impact on the performance of the transport network because in allocating and permitting development it influences the demand for travel, journey length, purpose and mode. The planning system is also a means for identifying and delivering the transport infrastructure and services required to support the demand generated from planned development.

The National Planning Policy Framework (NPPF) provides the framework for local planning authorities to conduct the plan making process, set local planning policies and make planning decisions. The NPPF provides the national framework for local planning authorities to set local planning policy which is contained in adopted local plans for that area. The government has begun consultation to reform the planning system which is likely to have an impact on local and national planning policy, including the NPPF. These reforms aim to reduce the complexity of the system and support quicker development of new net gain developments.

Swindon has an adopted Local Plan covering the period to 2026. The council is currently preparing to submit its Local Plan 2036 for examination before being adopted by the authority. This plan will need to deliver sustainable growth in line with the NPPF. Alongside policy, recent work has developed best practice in relation to developments and transport, this includes:

- The Transport for New Homes checklist for new housing developments. Whereby the developed checklist is used by planning and transport authorities responsible for developing planning policy and areas impacted by new development to nest sustainability within new developments.
- The Sustrans Manifesto for UK Government sets out the walking and cycling charity's vision in which all people living in towns and cities have access to everything they need within a 20-minute walking round trip.

6.4.2. Approach for the future

The council will consider likely future reforms to the planning system which are currently being consulted upon by MHCLG as well as lessons learnt from the Transport for New Homes research. This may result in policies which provide the link between new developments and/ or planning policy in order the strengthen the policy basis for achieving the LTP4 outcomes. Swindon also need to consider the transport network for the existing built up area in addition to new developments considered under the Local Plan policies (2026 and 2036). This includes consideration of the 20-minute neighbourhoods concept.

6.5. Highway maintenance

6.5.1. Challenge for LTP4

LTP3 policy C aims to achieve and sustain a high quality, resilient and well maintained highway network for all members of the community in Swindon. Sustaining a high quality, resilient and well maintained highway network plays a vital part in ensuring the longevity of all transport interventions seeing as it commits to ongoing highway network maintenance. Swindon Borough Council's highway infrastructure asset management (HIAM) policy and strategy were adopted in 2015 and outline the long term approach to asset management. The policy acknowledges the fact that highway infrastructure is the council's biggest capital asset and is worth in excess of a billion pounds. The council's approach to monitoring HIAM achievements is described in the HIAM Strategy[35] and is called the Performance Management Framework (PMF), adopted in 2018. This framework provides a facility to systematically assess service delivery over time and defines five levels of service which align to the HIAM policy and Council Vision

However, in 2019, the National Highways and Transport (NHT) Network Survey reported that the highway condition in Swindon was seen more negatively in 2020 than 2019 by residents at only 33% satisfaction. There was a satisfaction rate of just 50% regarding highway maintenance.

6.5.2. Approach for the future

Swindon Borough Council have some considerable strengths and weaknesses in terms of our HIAM performance and, according to the limited data available, appear to be broadly in line with comparable councils. There are approximately 1,268km of footways and cycle tracks managed by Swindon Borough Council (compared to 824km of carriageways), however the current PMF does not include any performance indicators specific to the maintenance of cycle tracks or associated infrastructure and includes only one indicator directly relevant to footways. Given the council's keen focus on sustainability and public health, new performance indicators should be considered to redress this balance and bring it in line with wider council objectives.

In addition to this, with the increasing public awareness of climate issues and government ambitions for Net Zero, the council should look to expand the current approach to promoting sustainable solutions. With the highway being the council's largest asset, HIAM will have a part to play in this. Recommendations for consideration in the future could include the introduction of smart highway infrastructure that communicates with vehicles to maximise driving efficiency and reduce stop-start vehicle movements.

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35 Swindon Highway Asset Management Strategy, 2018

The HIAM Policy Statement commits to undertaking engagement with stakeholders and associated surveys. Inviting stakeholders and members of the public to comment or rate Swindon Borough Council's HIAM achievements through satisfaction surveys presents the significant advantage of providing a new data source to feed into each of the PMF service levels.

Another key recommendation for the future is to go further than LTP3 in demonstrating the direct links between HIAM policies and wider council policies. Clearer links between HIAM-related LTP policies and the PMF should also be emphasised.

6.6. Impacts of development, regeneration and growth priorities

6.6.1. Challenge for LTP4

LTP3 policy D outlined the need for transport schemes and developments to be approached in an integrated manner. Currently, there are a number of congested areas within Swindon. Analysis of Swindon Transport Model outputs for 2036 forecasts show that congestion remains particularly at key junctions to the east, along the A419 and in the centre of Swindon (along Great Western Way). This is the result of the housing growth reflected in the model; 8,270 new dwellings to 2036.

The LTP refresh study found that many of the highway schemes progressed since 2011 are planned to support of strategic development locations, such as New Eastern Villages (NEV), as part of an integrated land use plan.

6.6.2. Approach for the future

The Swindon Transport Model forecasts considered as part of the LTP refresh suggest that Swindon will continue to suffer from high congestion and delays on its highway network into the future despite the numerous transport schemes likely to be in place by 2036. This suggests that, while the schemes may have been effective in mitigating impacts of planned development, they have not addressed the underlying transport issues, including reliance on car.

The planned transport mitigations also highlight a relative lack of dedicated walking and cycling infrastructure and public transport schemes compared to the number of highway schemes. To enable sustainable transport modes to become a competitive alternative to the private car, LTP4 seeks to place more focus on public transport and active mode schemes, specifically those that provide significant journey time savings for public transport users.

Journey time savings could also be made through reductions in congestion. Given that schemes focused on highway and junction improvements have not achieved this, demand management measures may also be considered in the future.

Furthermore, the transport schemes likely to be in place by 2036 are focused on linking proposed development sites to the town centre rather than connecting locations radially or

considering the locations of existing major employment sites. Many existing employment sites are located on the edges of Swindon, such as the South Marston Industrial Estate and Windmill Hill Business Park. Going forward, we are considering how existing land uses can be better integrated or linked using public transport provisions.

6.7. Swindon's connectivity

6.7.1. Challenge for LTP4

Swindon's outward connections are strong and improving, with cities such as Bristol, Bath, Gloucester, Oxford and Reading accessible within an hour's drive from central Swindon and links to numerous international transport hubs and the motorway system through two significantly enhanced junctions. Railway line electrification has further reduced journey times to London to less than an hour, further enhancing Swindon as an attractive place to live, work and do business.

The 2011 Census found that of Swindon's employed population:

- 64% commuted by driving a car or van – this is a higher proportion than for commuters in the South West region (62%) and for England (57%)
- 14% walked or cycled to work
- 9% commuted via bus
- 1% commuted via train

There is a significant reliance on private car for journeys both within and extending beyond the district boundaries. It is evident that the alternatives to car travel are not sufficiently competitive; analysis of journey times between Swindon and key locations found that bus journey times are consistently longer than the equivalent journeys by car. A general decline in bus reliability since 2010/11 also adds to this challenge[36].

There are bus routes near to most of the key employment sites. However, many of these bus services are infrequent. While these employment locations have reasonable connections to the town centre by bus, it is also important that there are strong connections with other key residential areas.

In general, cycle provision is better in Swindon's newer developments due to more rigorous requirements being introduced in the planning process since the 1980's. Conversely, cycle facilities were not built into the town's older residential areas, which have significant overlaps with the more deprived areas. There is no cycle provision along the A419 route corridor and no designated alternative cycle routes. The walking and cycling routes from Swindon out into the surrounding villages are very limited. This all results in a disjointed cycle network which compounds the connectivity problem in Swindon for active modes.

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36 Department for Transport, Bus Reliability and Punctuality, BUS0902

6.7.2. Approach for the future

Through LTP4 the council are looking to increase the bus, train and active travel modal share, extending the bus service strength beyond internal Swindon trips. Improving bus journey times is a recurring challenge in Swindon. It is likely that to enable more competitive bus journey times, significant improvements to bus priority and infrastructure, or measures to decrease the ease of using private vehicles, such as congestion charging or parking levies, will be required.

A key opportunity for Swindon is its existing rail links to areas across the UK, including towns and cities that are accessible within one hour's journey. In fact, rail journeys can present the quickest method of travel between Swindon and key commuter origin and destinations. However, only a small percentage of commuters utilise rail. This is likely to be partially due to a lack of attractive options for journeys to and from the rail station so, in order to maximise the benefit of these connections, the council are looking into methods to improve access to rail services, particularly by bus. It's also likely that low use of rail may be due to other factors such as price and interchange requirements.

Connectivity and journey time analysis demonstrates that Swindon is more poorly connected by road and rail to areas north east of the town, such as Oxford, than areas to the south west. Going forward, LTP4 looks to redress the balance and build stronger transport links with Oxford and other areas within England's Economic Heartland which may open up a new economic catchment for Swindon to explore and attract a greater number of commuters. In particular, the A420 corridor, which is the most direct route between Swindon and Oxford, should be promoted for improvement. Any improvements to the A420 should include the upgrade or provision of high quality bus priority, cycle and pedestrian infrastructure. The Council is committed to working with Oxfordshire County Council, England Economic Heartland and other stakeholders on a Connectivity Study of all aspects of the Swindon to Oxford corridor.

The council will also promote the collection of data relating to non-commuting journeys into the future in order to paint a more representative picture of the travel behaviour of those travelling to, from and around Swindon.

6.8. COVID-19 impact

6.8.1. Challenge for LTP4

In March 2020 the UK Government issued guidelines in response to the COVID-19 pandemic. To reduce the spread of the COVID-19 virus, the general public were instructed to remain two metres away from anyone outside of their household and unnecessary travel was not permitted. This period was commonly known as 'lockdown'. Lockdown guidelines were progressively relaxed during the summer, with workplaces reopening and travel restrictions lifted. However, there has been a resurgence of the virus, with a large increase in cases during October 2020, and restrictions have been reintroduced through the latter part of 2020 and into 2021.

During this period many people in the UK were forced to rethink their travel behaviours, and the tight restrictions had a dramatic impact on every transport mode as outlined below.

Walking	⬆	Rise in local trips	During the initial lockdown phase people walking for exercise was up from 59% in week one to 63% in week six[37].
Cycling	⬆	Rise in local trips	Throughout April 2020, cycle trips rose to an average of 176% of the trip rate from the equivalent days in 2019.
Car	⬇	Large drop in car traffic	Throughout April 2020, car trips dropped to an average of 33% of the equivalent day in 2019[38]. At its lowest on 12 March, car trips were down to 22% of equivalent 2019 levels.
Bus	⬇	Large drop in bus demand	Bus trips (outside of London) fell to an average of 11% of usual numbers compared to the same days in 2019 throughout April 2020.
Rail	⬇	Large drop in rail demand	Throughout April 2020, national rail trips fell to an average of 5% of usual numbers compared to the same days in 2019.
Freight	➘	Drop in LGV and HGV trips Rise in home deliveries	In April 2020, LGV and HGV trips fell to 41% and 62% of 2019 averages respectively, reflecting the temporary closure of many businesses. However, 45% of UK adults are reported to have been receiving more parcel deliveries since COVID-19 lockdown measures were introduced[39].
Non-travel	⬆	Large rise in home working	Before the pandemic, 1.7 million people in the UK worked from home. During lockdown this saw an increase to an estimated 20 million people working from their homes[40]. In the south west 45% of workers were home-working in April 2020[41].

37 Sport England, Surge in appreciation of exercise and activity during lockdown, 2020

38 Department for Transport, Transport use during the coronavirus (COVID-19) pandemic

39 Essential Retail. COVID Royal Mail Increase Parcel Deliveries, 2020

40 ONS, Technology intensity and homeworking in the UK, 2020

41 ONS, Homeworking, 2020

This time has presented a unique opportunity to reflect on what is important and to reassess priorities. When we emerge from the crisis, some former transport practices are likely to return, however some practices will change, for example many workplaces are envisaging a long-term increase in the number of people working from home.

This, coupled with the public's increased desire to walk and cycle and a heightened public awareness of climate and social issues, provides a unique situation to implement forward-thinking transport policies that have the potential to reimagine the role and performance of Swindon's transport network.

6.8.2. Approach for the future

Rapid implementation of transport measures to respond to changing behaviours is crucial to supporting the mode shift seen during the COVID-19 pandemic. The impacts of the COVID-19 pandemic have shown that widespread travel behaviour change is possible, if alternative arrangements are in place, such as support for home working.

Furthering this, the potential for large numbers of local trips to be made by foot or bike has been proven. To maintain long term uptake and safety, investment in improved facilities and a sustained reduction in conflict for road users will be needed.

The impacts of mass travel reduction have been felt heaviest by public transport, and recovery for these modes is likely to be slower. Urgent prioritisation of sustainable transport infrastructure will be needed to encourage a safe return to use.

It is important to note that this COVID-19 pandemic has impacted the UK and the world in ways never seen before and has caused much uncertainty which is likely to continue into the future. So, while the information and recommendations set out in the LTP are based on the most recent available data and research as of the time of writing, impacts and responses to the pandemic are likely to evolve over time.

7. Challenges and outcomes for LTP4

7.1. Review of LTP challenges

LTP3's challenges were transport focused and did not widely include reference to wider social or economic challenges aside. By identifying challenges, outcomes and policies for LTP4 that contribute positively to ensure social, environmental and economic sustainability, this refreshed LTP seeks provide a solid foundation for a sustainable and resilient transport network that works for everyone in Swindon.

7.1.1. Social challenges

The role that transport plays in addressing **social** inequalities is widely evidenced. For example, transport problems have a direct impact on people's likelihood for applying for some jobs[42], and a lack of access to affordable transport can in some cases can force individuals into unaffordable car ownership to allow them to access employment[43]. Mobility problems and losing access to transport are also associated with a withdrawal from leisure activities and cultural engagement[44].The provision of affordable transport links is therefore key in combatting transport related inequity.

Some of the key social challenges for Swindon identified through the LTP refresh include:

- High levels of poor health;
- Ageing population;
- Deprivation levels are high in some wards; and
- Barriers to use of the transport network for some groups.

7.1.2. Environmental challenges

Transport is the highest contributor to CO_2 emissions. It is clear that a greater effort must be made to ensure that transport emissions are urgently reduced, and the associated negative **environmental** impacts mitigated. Furthermore, Environmental Protection UK state that road transport is one of the biggest sources of pollution in the UK, contributing to poor air quality, noise disturbance, congestion and climate change[45].

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42 Chetty and Hendren, The Impacts of Neighbourhoods on Intergenerational Mobility, 2015

43 Lucas et al, Inequalities in Mobility and Access in the UK Transport System, 2019

44 Department for Transport, Transport for Everyone: an action plan to promote equality, 2012

45 Environmental Protection UK: Car pollution

Some of the key environmental challenges for Swindon identified through the LTP refresh include:

- Unsustainable levels of carbon emissions;
- Susceptibility to the impacts of climate change; and
- Areas of poor air quality.

7.1.3. Economic challenges

Transport is essential to the efficient working of the economy. Investment in transport can influence many aspects of the economy, such as the functioning of labour markets, business productivity and competitiveness. As these impacts interact over time, they can also impact positively on the quality of life and the overall attractiveness of towns. Economic benefits from transport can arise from investment in all modes, including active travel. Investment in walking and cycling can help to boost local town centres for example, as well as improving physical fitness and reducing absences from work[46].

Some of the key economic challenges for Swindon identified through the LTP refresh include:

- Uncertainty caused by the COVID-19 pandemic;
- Need for town centre regeneration;
- Closure of the Honda plant; and
- Pockets of unemployment in deprived wards.

7.1.4. LTP4 challenges

The resulting refreshed challenges identified for LTP4 are presented in Table 7-1.

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46 Greener Journeys: Transport and the economy

Table 7-1 - Challenges for LTP4

Theme	Challenge summary
Economic	Decline of the town centre
	Growing demand for housing and employment
	Closure of the Honda plant
	Economic uncertainty, including that caused by the COVID-19 pandemic
	Pockets of high unemployment in deprived wards
Environment	Poor air quality
	Unsustainable levels of carbon emissions
	Susceptibility to the impacts of climate change
Social	Obesity and poor health
	Areas of deprivation
	Growing and ageing population
	Barriers to using the public and active transport network for some groups
	Unequal access to car or van for some groups
Transport	Congestion at pinch points on the network
	Over reliance on private car use
	Gaps in the public transport network and poor connectivity between some areas
	Gaps in the walking and cycling network
	Above target numbers of road accidents
	Uncertainty around the future of travel behaviours
	Emergence of potentially disruptive new transport technologies

7.2. Review of LTP outcomes

LTP3 defined seven key transport outcomes that the plan sought to achieve in order to address the transport challenges in Swindon. These outcomes informed the development of LTP3's six policies which in turn informed the selection of transport interventions for progression in the years following the plan's publication.

7.2.1. LTP4 outcomes

During the LTP refresh, these transport outcomes were reviewed and redefined for LTP4. The eight new outcomes combine many of LTP3's original ambitions as well as linking to the new challenges identified through this study:

*   Improved journey times and journey time reliability for buses;
*   Improved journey time reliability for highway users;
*   Improved road safety for all road users;
*   Increased use of public transport, walking and cycling and reduced reliance on the private car;
*   Improved accessibility and connectivity between housing, employment and leisure facilities by bus, walking and cycling;
*   Improved access to and from Swindon rail station and town centre by bus, walking and cycling;
*   Reduced impact on the environment; and
*   Improved local environment, public realm and local amenity.

Figure 7-1 shows how findings of the LTP refresh study have influenced the definition of these transport outcomes for LTP4. The LTP4 transport outcomes have also been considered against existing council, Local Plan, SWLEP (Swindon and Wiltshire Local Enterprise Partnership) and EEH (England's Economic Heartland) policies to ensure overall alignment.

Figure 7-1 - LTP4 outcomes

LTP3 Outcomes

LTP4 Outcomes

Improved journey time reliability for all forms of transport

The LTP refresh identified a need for LTP4 to disaggregate by mode in order to increase focus on improvements for buses in particular.

Improved journey times and journey time reliability for buses

Improved journey time reliability for highway users

Improved road safety

Many current safety-related indicators are specific to car trips only, omitting the impact of accidents on busses, cyclists and pedestrians.

Improved road safety for all users

Increased overall share of journeys for public transport, walking and cycling

Reduced need to travel and reduced dependence on the private car

The refresh highlighted the importance of having location and mode specific transport outcomes in LTP4. This may help to reframe the focus onto sustainable transport choices.

Further, transport schemes should consider their impacts in a wider land use context, encouraging equitable transport solutions that benefit all of Swindon's residents rather than just those moving to new development sites.

Increased use of public transport, walking and cycling and reduced reliance on the private car

Improved accessibility

Improved access to Swindon Town Centre

Improved accessibility and connectivity between housing, employment and leisure facilities by bus, walking and cycling

Improved access to and from Swindon rail station and town centre by bus, walking and cycling

Improved local environment including air quality and quality of life

Two of the new themes indentified through the refresh relate to improvements to the environment and social inclusion. The transport network has a great role to play in achieving both of these aims.

Progress towards zero Carbon and improved air quality

Improved local environment, public realm and local amenity

8. LTP4 relationship to Local Plan

The council is currently in the process of developing a Local Plan for the period to 2036. The current adopted Local Plan 2026 references the role of the Local Transport Plan 3 in feeding into the Local Plan. As such the LTP4 policies need to consider the emerging Local Plan 2036.

Table 8-1 - Local Plan strategic priorities & objectives

	Swindon Local Plan 2026 (adopted 2015)	Swindon Local Plan 2036 (pre-submission draft July 2021)
Strategic priorities	• Deliver growth that is balanced and sustainable, and provides the necessary infrastructure, while addressing the impacts of climate change; • Deliver regeneration in a way that meets the needs of Swindon's future, but conserves and enhances the best of the past; and • Recognise the important role of green infrastructure to enhance the quality of life for existing and future residents.	• Deliver growth that is balanced and sustainable, and provides the necessary infrastructure, while addressing the impacts of climate change; • Deliver regeneration in a way that meets the needs of Swindon's future, but conserves and enhances the best of the past; and • Recognises the important role of green infrastructure to enhance the quality of life for existing and future residents
Strategic objective	• Strategic Objective 7: Transport - to support Swindon's growth through the provision of a comprehensive and sustainable transport network that is efficient, safe, affordable, accessible and easy to understand, and offers a genuine choice of modes.	• Strategic Objective 7: Transport - to support Swindon's growth on a sustainable basis through the provision of a transport network that ensures walking, cycling and public transport offer the most attractive choices and is efficient, safe, affordable, accessible and easy to understand.
Transport policies	• TR1: Sustainable Transport Networks. • TR2: Transport and Development. • EN11: Heritage Transport.	• Policy DM 19 - Transport and Development. • Policy DM 35 Heritage Transport.

Transport related policies	• Detailed policy for transport at specific sites contained within New Communities policies (NC1 to NC5).	• Detailed policy for transport at specific sites contained within policies:
		• Strategic Allocations (SA 1 to 5).
		• Local Site Allocations (LA1 to 34).
		• Policy SP 1 Sustainable Planning Principles and Adaption to Climate Change
		• 1 (i) offer the highest possible levels of accessibility by walking, cycling and/or public transport, demonstrably ensuring that these modes offer a choice that is highly competitive with personal car use;
		• Policy CC1 Adaptation to Climate Change
		• 3 (h) reduce the reliance on fossil fuel vehicles by maximising the opportunities for walking and cycling, and through the provision of low carbon transport infrastructure in accordance with Policy DM22 'Infrastructure Requirements Resulting from Development'

The Local Plan 2036 continues the strategic priorities and objectives from the Local Plan 2026. There are some minor differences between the policies, with Local Plan 2036 policy DM 19 continuing the same approach and sentiment as the Local Plan 2026. As part of the Local Development Scheme Swindon Borough Council is also developing:

• Revised Parking Standards
• Swindon's Railway Conservation Area Appraisal and Management Plan

In addition to these points for consideration in LTP4, a wider question relates to the Strategic Road Network (SRN) in Swindon. Highways England, responsible for operation and maintenance of the SRN (A419 and M4), is a statutory consultee for the Local Plan 2036. It provided the following comment on the Local Plan 2036 pre-submission draft:

"It is recognised that the delivery of a number of strategic allocations, including New Eastern Villages and Kingsdown, has been delayed and subsequently a number of unallocated and speculative development sites have been permitted, particularly along the A419 corridor. Highways England need to better understand the changes to the spatial strategy for Swindon that are proposed by the Local Plan Review, its impact on the SRN and the implications for the delivery of necessary highways and transport infrastructure". (Swindon Borough Local Development Scheme Review 2020, Cabinet, 9th September 2020)

Swindon Borough Council is currently working with Highways England to address these comments in relation to the technical work required to understand the impacts through the use of analytical tools.

The comments also present a wider question to be considered once the likely impacts are better understood. The wider policy question to be considered by Swindon Borough Council and Highways England is whether to adopt an approach which:

- Provides additional capacity on the SRN to maintain its safe and efficient operation; or
- Promotes increased use of walk, cycle and bus through improved provision for local journeys that would otherwise use the A419 and M4.

This relates to a further wider question regarding the transport network in the existing built up areas of Swindon which would not be covered under the Local Plan 2036 policies. It would be expected that the LTP4 policies would include policies covering this.

The LTP4 also needs to consider the wider policy question relating to the longer-term approach to managing traffic on the Strategic Road network (SRN) in Swindon.

Analysis of the proposed LTP4 outcomes against the current draft Local Plan 2036 transport policies was conducted in order to understand any gaps which would need to be considered in the development of the LTP4 policies (Table 8-2). This analysis has identified that the Local Plan 2036 (pre-submission draft) transport policies will be important for supporting the delivery of the LTP4 outcomes. Therefore, in order to ensure an integrated approach to transport and planning policy, the LTP4 policies have been considered alongside the Local Plan 2036 (pre-submission draft) policies and vice-versa.

Table 8-2 – LTP4 outcomes and Local Plan policies

	Proposed SBC LTP4 outcomes	Planning policy influence	Local Plan 2036 (pre-submission draft) transport policies
A.	**Improved journey times and journey time reliability for buses**	The design and road layout of new developments can ensure the efficient operation of bus services, this could include providing bus priority measures and dedicated bus only accesses or section of carriageway.	DM19-3 New development located and designed to reduce need to travel prioritise ped, cycle & bus. DM19-5 Development should not impede existing/planned cycle routes.
B.	**Improved journey time reliability for highway users**	Appropriate levels of highway capacity and mitigating the highway impact of demand generated from new development and help improve journey time reliability for highway users.	DM19-7 Mitigating measures to avoid adverse impact of development on transport network.
C.	**Improved road safety for all road users**	The design and road layout of new developments as well as appropriate provision for pedestrians and cyclists and improve road safety for all users.	DM19-4 Permit development only where safe access.
D.	**Increased use of public transport, walking and cycling and reduced reliance on the private car**	By providing high quality provision for pedestrians, cyclists and buses new developments can encourage and facilitate increased use of these modes.	DM19-9 Travel plan. DM19-6 Only disrupt PRoW when other adequate, acceptable alternative provision or diversions are arranged.

E.	**Improved accessibility and connectivity between housing, employment and leisure facilities by bus, walking and cycling**	Internal design of new developments can provide for this, in addition to contributions from development to off-site provision of transport services and infrastructure.	• Policies relating connectivity by bus, walking and cycling included under specific policies for: • Strategic Allocations (policies SA 1 to 5). • Local Site Allocations (policies LA1 to 34).
F.	**Improved access to and from Swindon train station and town centre by bus, walking and cycling**		
G.	**Reduced impact on the environment**	The design and layout of new developments to an environment conducive for pedestrians, cyclists and bus use thus reducing the number of car trips, this would also make for more people-friendly environments, high quality public realm and local amenity.	DM19-9 Travel plan. DM19-10 Mitigation works to meet environment etc policy.
H.	**Improved local environment, public realm and local amenity**		DM19-8 Parking, including for cycles and electric charging.

9. Adopting an Avoid-Shift-Improve approach

The Avoid-Shift-Improve (ASI) framework aims to reshape the understanding of how traditionally car-based transport systems are improved to meet future demand. This approach considers wider human factors relating to the need for private mobility and promotes reducing or mitigating this need, instead of simply providing for growth in demand for road space for more cars.

The ASI framework consists of three key components:

• **Avoidance** which considers reducing the need for private travel through ideas of demand management and integrated land use planning which could improve the efficiency of present transport systems;
• **Shifting** demand which is key in optimising usage of current systems. For example, shifting trips from cars and vans towards more sustainable modes such as active and public transport can result in environmental, social and economic benefits; and

- **Improving** the transport system, such as through reviewing how technology can support sustainable habits such as improved fuel efficiency or green fuel for motor vehicles.

The framework has been considered by Swindon during the identification of policies for LTP4 as a whole, as should also be applied during the development and assessment of transport options and sustainable transport strategies.

The ASI approach or its underlying principles are already being used or considered by authorities across the UK and Europe[47] to address environmental challenges and to support the creation of more liveable places through facilitating delivery of:

- Environmental benefits: The ASI approach aims to tackle climate change through the reduction and removal of polluting journeys.
- Economic benefits: Reducing congestion and improving accessibility by public transport and active modes can contribute to the efficient functioning of the economy and boost local town centres.
- Social benefits: As congestion reduces, air quality improves and infrastructure for active modes increases in quantity and quality, towns become more accessible and liveable for all.

Through considering the ASI approach outlined in this section alongside the proposed transport outcomes and undertaking an inclusive consultation with council officers and the public, the policies proposed for LTP4 will underpin a sustainable and resilient transport future that works for everyone in Swindon.

10. Policy area recommendations for LTP4

In order to address the challenges for LTP4 and realise the transport outcomes, a significant shift in priority is required. As a result, the refreshed policy areas for LTP4 place a greater emphasis on protecting our environment, promoting and facilitating alternatives to car travel, holistic network maintenance, reducing travel demand and influencing planning policy. These are directly in line with the Avoid-Shift-Improve framework.

The role of LTP4's policies is to address the challenges identified through the LTP refresh and contribute to the delivery of the transport outcomes. These policies seek to establish a new way of thinking about transport decision making in Swindon, ensuring that all developments, schemes and interventions are in line with our wider priorities.

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47 In the UK, this includes Torbay Council and West Midlands Combined Authority within their respective 2021-26 action plans.

The council recognises the duty to work towards a carbon neutral transport network and, as such, LTP4 policy areas 2-7 are underpinned by and contribute to LTP4 policy area 1: Reducing carbon emissions, improving air quality and protecting our environment. This is demonstrated in Figure 10-1.

The policy area recommendations for LTP4 are as follows:

Policies that…
1. work towards zero carbon emissions, improving air quality and protecting our environment
2. encourage and facilitate active travel.
3. improve accessibility by bus and rail.
4. maintain the quality of all parts of the transport network.
5. encourage and facilitate sustainable travel behaviour change and manage demand.
6. underpin the Local Plan and encourage sustainable development.
7. provide a safe and effective transport system for all users

Figure 10.1 - LTP4 policy areas
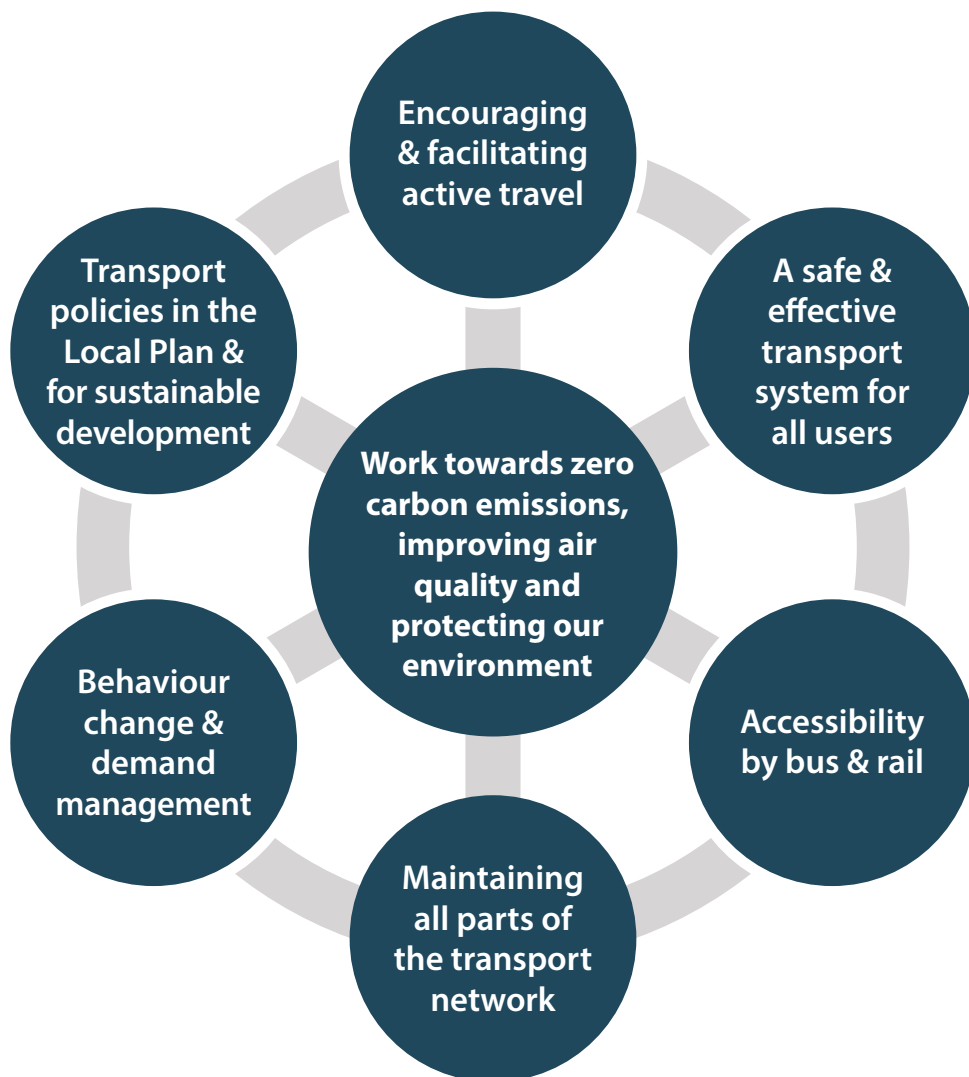
Transport Policy areas

The role of LTP4's policies is to address the challenges identified through the LTP refresh and contribute to the delivery of the transport outcomes. The LTP3 policy areas have therefore been refined as a result of the work on the LTP refresh and set out the policy framework for LTP4 through to 2036.

These policies (Policies 1 to 7) set out the high level policy topic areas for LTP4 and are supported by a series of specific policy documents covering a range of areas in greater detail.

Policy Area 1 - work towards zero carbon emissions, improve air quality and protect our environment

This overarching policy area recognises our duty to work towards a carbon neutral transport network and underpins the other policy areas. Our general approach will be based upon the Avoid-Shift-Improve framework described previously.

Policy Area 2 - encourage and facilitate active travel

Encouraging and making it easier for people to choose to walk, cycle or use public transport for everyday journeys offers a range of benefits for individuals and the transport network generally. By building increased physical activity, such as walking and cycling, into daily routines there are significant health benefits. An increased share of journeys undertaken by walking, cycling and public transport will reduce congestion and pollution on the road network, improving air quality and reducing accidents.

The Council will work closely with partners in the health sector (eg PCT), the bus operators, and the voluntary sector (eg Sustrans) to promote the full range of alternatives to driving alone. This work will also identify locations where additional supporting infrastructure is required.

Delivery options include:

- Lift (car) sharing schemes
- Improved cycle parking facilities
- More off road cycle routes
- Marketing and promotion of travel choices
- Signing and way-finding for walking and cycling networks
- Improved walking and cycling routes in rural areas
- Improved public transport provision
- Low Traffic Neighbourhoods
- Community Activation
- Road safety and speed management measures
- Micromobility schemes eg shared bikes

Policy Area 3 - improve accessibility by bus and rail

Improving the quality of public transport will widen travel choice giving a viable alternative to the private car for everyday journeys. For those without access to a car, buses and taxis are often the only realistic travel option for journeys to access goods and services. As Swindon town centre is regenerated more people will wish to access the area and it is essential that a good quality bus service is provided along the main corridors to the town centre. This will allow regeneration and growth to be accommodated while preventing deterioration of journey time reliability and the environmental impact of increased car use.

The Council will work closely with bus operators through the emerging Bus Service improvement Plan and Enhanced Partnership (required by the new National Bus Strategy 2021). We will help plan and deliver service improvements and work towards a network of quality bus corridors as economic growth progresses in future years. While focussed on the town centre the network will also cater for inter suburban journeys. The aim is to ensure that public transport provides a reliable and attractive alternative to the private car, with accurate and up to date information on how services are running. Measures will focus on improving the affordability, convenience and attractiveness of public transport.

Delivery options include:

- Development of quality bus corridors on main radial routes focussed on the town centre
- An orbital bus route for implementation as economic growth continues
- New bus station facilities for the town centre
- Network management measures to address congestion at locations where bus services are delayed
- Expanded traveller pre and in journey information provision
- Improved bus stops
- Park and Ride services
- Improved multi-modal interchange

Supporting policy documents:

- Bus Service Improvement plan

Policy Area 4 - maintain the quality of all parts of the transport network

Physical highway infrastructure deteriorates with age and use, and as a result requires regular maintenance to ensure it meets the needs of users and provides for the safe movement of people and goods. The economy of Swindon and quality of life of its residents depends on having a well maintained highway network that can cater for the movement of people and goods. The condition of the highway network is under pressure as a result of increasing numbers of extreme weather events and maintenance is of importance in order to increase the resilience of the network.

Highway maintenance investment will be targeted where it is needed most, and in a way that will ensure value for money whilst protecting and enhancing the condition of the network. Decisions will be based on the principles outlined in the Highway Asset Management Strategy.

Delivery options include:

- Annual maintenance programme on classified (major) roads
- Annual maintenance programme on unclassified (minor) roads
- Maintenance of rural roads
- Reactive maintenance across the network
- Annual renewal programme for street lighting
- Annual programme of maintenance of highway structures
- Improvements to highway drainage at known flood risk locations
- Enhanced maintenance of Active Travel routes

Supporting policy documents:

- Highway Asset Management Strategy

Policy Area 5 - encourage and facilitate sustainable travel behaviour change and manage demand

Based upon the Avoid-Shift-Improve framework this policy seeks to influence the demand for travel and the selection of travel options.

Delivery options include:

- Residential, workplace and school travel plans
- Behaviour change programmes
- Pricing and availability of parking
- Sustainable development policies
- School streets and low traffic neighbourhoods
- 20 minute neighbourhood principle

Policy Area 6 - underpin the Local Plan and encourage sustainable development

The location, scale, density and design of new development and the mix of land uses has a significant influence on the demand for travel. Encouraging development in the town centre, on brown field sites close to existing shops and services, and supporting, where viable, higher density, mixed use developments helps to reduce the need to travel and the length of journeys, and makes it easier for people to walk, cycle or use public transport. It also reduces the need to fund expensive highway infrastructure.

The Local Plan will encourage mixed use developments to be brought forward in locations that are accessible by a range of travel methods. There will be encouragement to locate new housing and employment development within close proximity, to help reduce the need to travel and encourage the use of public transport, cycling and walking. Good design of residential developments will ensure that key services and facilities are provided locally and that neighbourhoods are walkable with good cycle and public transport links to nearby centres. Residential and workplace travel planning will be used to effectively manage the journeys created by development.

Delivery options include:

- Higher density housing developments
- Mixed use development so employment is located close to housing
- Priority to re-use previously used (brown field) sites
- Concentration on regeneration of the town centre
- Design of developments to encourage walking, cycling and public transport
- Developer contributions to mitigate the impact of new development on existing transport networks

Policy Area 7 - provide a safe and effective transport system for all users

The highway network includes roads, cycle tracks, footways and footpaths as well as facilities used by public transport. The highway network needs to operate in a safe and effective way for all members of the community.

Increasing levels of congestion affect both the efficient operation of the main road network and journey time reliability, impacting on economic productivity and discouraging investment in regeneration and economic growth.

The Local Transport Plan will work to better manage the existing highway network to ensure that existing capacity is optimised and used efficiently. This will entail using the latest traffic signal control technology and other traffic management techniques. It will involve the provision of up to date and accurate information to allow people to make informed decisions about their travel choices. It must also include measures to improve the attractiveness of alternatives to driving alone, particularly at peak periods.

Road traffic collisions, as well as causing distress to those involved, also result in wider costs to society in terms of the cost of providing healthcare treatment to those injured, and loss of productivity. Collisions create delays that adversely affect journey time reliability.

The Local Transport Plan will seek to reduce incidences of speeding and unsafe road user behaviour through a range of education, engineering and enforcement measures. Particular attention will be given to improving road safety amongst vulnerable road users especially where this restricts their quality of life or travel choices.

Traffic management related delivery options include:

- The modernisation, removal, or conversion to part time operation of traffic lights where this will improve the operation of the highway
- Changes to road layouts and lane markings where this will improve the operation of the highway.
- Improve pre- and in journey travel information using static and mobile media
- Improve co-ordination of road works and management of special events
- Improve network resilience through planning for incidents and extreme weather events
- Priority measures for public transport services where they currently experience delays and unreliability on the network

Safety related delivery options include:

- Speed management measures where excess speeds are identified as an issue.
- Traffic management measures where accident records indicate potential issues related to the highway infrastructure.
- Safer Routes to School schemes and School Safety Zones.
- Road Safety education and training schemes eg cycle training
- Electronic speed warning signs
- Road safety publicity campaigns
- Specific schemes to address motorcycle casualties

Supporting policy documents:

- Road Safety Strategy
- Network Management Plan
- Cycling and Walking Infrastructure Plan

The above policies support the delivery of the outcomes through which the key challenges will be shown to have been addressed through the LTP.

Each policy will be delivered by a range of appropriate measures included within the policy packages identified as being the most effective across a range of indicators.

Table 10-1 - Compatibility between policy areas recommendations and LPT4 outcomes

	Policies that…						
	Work towards zero carbon emissions, improve air quality and protect our environment.	Encourage and facilitate active travel.	Improve accessibility by bus and rail.	Maintain the quality of all parts of the transport network.	Encourage and facilitate sustainable travel behaviour change manage	Underpin the Local Plan and encourage sustainable	Provide a safe and effective transport system for all users
Improved journey times and journey time reliability for buses.		✔	✔	✔	✔	✔	✔
Improved journey time reliability for highway users.				✔			✔
Improved road safety for all road users.		✔		✔	✔		✔
Increased use of public transport, walking and cycling and reduced reliance on the private car.	✔	✔	✔	✔	✔	✔	
Improved access to and from Swindon train station and town centre by bus, walking and cycling.	✔	✔	✔	✔	✔	✔	
Reduced impact on the environment.	✔	✔	✔	✔	✔	✔	✔
Improved local environment, public realm and local amenity.	✔	✔	✔	✔	✔	✔	✔

11. Long list of options

A wide range of potential options have been identified to tackle Swindon's transport challenges and to deliver the desired outcomes. This "long list" of options will be assessed in order to select the most appropriate interventions to take forward in the LTP Implementation Plan.

The long list of options include:

- Schemes that have already been developed (such as those in the Town Centre Movement Strategy and Heritage Action Zone)
- Recognised best practice interventions from across the country
- Ideas generated by the project team following comprehensive analysis of the specific situation in Swindon.

The potential options include both measures to influence travel behaviour and schemes to improve the efficiency of the transport system. These include:

- Travel behaviour change programmes (e.g. personalised journey planning and School Travel Plans)
- Demand management options (e.g. a Workplace Parking Levy or Road User Charging)
- Improved public realm in the town centre
- Improvements to walking routes and pedestrian infrastructure
- Improvements to cycling infrastructure (including segregated cycleways and cycle parking)
- Electric bike (e-bike) programmes to improve the feasibility of cycling longer distances, and innovative new micromobility options such as 'e-scooters'
- Public transport improvements, including new bus services, bus stops, passenger information, bus priority and Park & Ride schemes
- Shift to zero emission transport (electric buses, electric taxis and charging infrastructure for electric vehicles)
- Roadspace reallocation and road safety measures
- Freight schemes e.g. Freight Consolidation Centres
- Integrated road corridor programmes (which could include safety treatments, improvements to walking and cycling, and bus priority measures)
- Major improvements linked to Swindon's growth ambitions
- Improving the efficiency and reliability of the existing network.

The focus in this process has been to tackle the root causes of the challenges in Swindon, including high car dependency and lack of attractive alternatives to the car. There is therefore a focus on options to significantly improve the attractiveness of walking, cycling and public transport in the town.

However, it is also important to recognise the impacts of cars and freight traffic in the town. High volumes of traffic in urban areas have high social costs, e.g. costs of delays, health impacts of poor air quality and the costs to society of collisions on the road network. These issues also need to be addressed. Details of potential options are shown below.

Behaviour change options

These are focused on influencing people's travel behaviour through marketing, information, and support to reduce the need to travel and shift to walking, cycling and public transport

Mobility as a Service
New technologies to allow people to make multi-modal journeys, including information on travel options, ticketing and real time information, via Apps.

Personalised Journey Planning
Support to provide residents with tailored information on different options to meet their travel needs.

Incentivising active travel to schools
Promoting sustainable travel to schools, for example the Golden Boot Challenge, Eco Schools and School Journey Plans, training on safe cycling to school. This could be twinned with real-time air quality monitoring at schools to determine effectiveness of interventions.

Promoting flexible working arrangements
The Covid-19 pandemic has caused large numbers of people to work from home. This could cause longer-term changes in how people work, helping to reduce peak hour pressures on the road and rail networks.

Car club schemes
These offer a cost-effective option for people to access cars without the need to own their own vehicle. They give people the opportunity to hire cars, on an hourly or daily basis, for journeys where other options are not viable.

Ride sharing schemes
A brokering service to match people undertaking the same trips – offering the chance to share costs, reduce vehicles on the road and contribute to carbon reduction.

Subsidised fares for local bus services
The costs of using bus services are often identified as one of the barriers to using public transport. Providing low fares is one way to encourage more people to use public transport.

Community Activation
Physically and visually transforming a public space or place within your community, then 'activating' it in a variety of ways that inspires and involves local people who are less active to get more physically active

Micromobility schemes
Such as shared bikes or scooters

Demand management options

These are focused on influencing travel demand through reducing or changing the supply of parking or increasing the cost of travelling by car.

Rationalisation of town centre car parks
There are numerous car parks across the town centre, which encourage people to drive around the town centre road system. Rationalising the number of car parks could help to reduce traffic circulation in the town centre.

Re-purposing of town centre car parks
The car parks also use large amounts of valuable space. This could be used more productively for commercial or community purposes and "place making".

Workplace Parking Levy
Many businesses have on-site parking where employees park for free. Other towns are considering options to charge businesses for their parking, to encourage them to repurpose spaces and encourage employees to shift from cars to more sustainable modes. If supported, this would require regional or national delivery and facilitating legislation.

Road User Charging
Driving is convenient but traffic causes congestion, poor air quality and carbon emissions. Road User Charging is a system in which people are charged to drive. Different options are available, based on 'cordons' or area-wide schemes. If supported, this would require regional or national delivery and facilitating legislation.

Improved public realm

The public realm (i.e. the quality of the streets) is poor in many parts of the town centre. There is also a lack of places where people can congregate or rest. However, there are distinct opportunities to develop new high-quality public spaces.

Existing pedestrian routes
Make best use of the existing streets by providing interesting and attractive links with coherent signage and ensure adequate crossing facilities.

Reduce dominance of vehicles
Reconfigure key streets to reduce impact of through traffic and parking.

Railway Village
Implementation of Heritage Action Zone to provide an area wide up grade of public realm across this historic area linking and highlighting Swindon's heritage.

Low Traffic Neighbourhoods
groups of residential streets, bordered by main roads, where non local "through" motor vehicle traffic is discouraged or removed

Walking routes and pedestrian infrastructure

Challenges have been highlighted about lack of safe and accessible walking routes in some areas which reduce walking as a viable option for some shorter journeys.

Boroughwide
Options for full pedestrianisation or for significant reallocation of road space to pedestrians, with narrowing to one lane for general traffic or buses only.

Wayfinding
Improved legibility of walking routes through improved wayfinding signage.

Leisure routes
Provision of high quality waymarked walking routes for recreation purposes.

Missing links
Mechanism for filling in missing links in the walking network identified by the local community

Improved crossing facilities
Additional crossing facilities where required with additional safety measures to protect users.

Disabled access
Comprehensive provision of flush kerbs and tactile pavement to improve access for wheelchair users and those with limited mobility.

LCWIP
Strategic infrastructure identified through the Local Cycling and Walking Infrastructure Plan (LCWIP).

Cycling routes and infrastructure

Measures to encourage a greater percentage of trip by bike for a whole range of journey purposes.

LCWIP
Strategic infrastructure identified through the Local Cycling and Walking Infrastructure Plan (LCWIP).

Cycle parking around the town
The availability of safe places to park bikes is important for cyclists. Cycle stands should be provided near to key destinations across the town.

Wayfinding
Improved legibility of cycling routes through improved wayfinding signage.

Leisure routes
Provision of high quality waymarked cycling routes for recreation purposes.

Missing links
Mechanism for filling in missing links in the cycling network identified by the local community

Improved road safety for cyclists
Additional facilities where required with additional safety measures to protect users.

E-bikes and e-scooters

Innovative new options are now emerging that offer the potential to significantly improve accessibility without the need for a car. Electrically assisted bikes (e-bikes) can significantly increase the range of viable journeys and can tackle problems in climbing hills. E-scooters are a new technology that is rapidly developing. Whilst privately owned e-scooters cannot yet be legally used on the public highway, trials of e-scooter hire schemes in cities across England are examining the issues, with the objective of enabling future larger-scale implementation of this technology.

Subsidised e bikes purchase
Financial assistance to help people buy e-bikes.

E-bike rental scheme
E-bikes available for hire by residents across the town.

E-bike hire hubs
E-bike hubs across the town, with the ability to "unlock and ride" using an app.

E-scooter hire
E-scooter hire stations across the town with the ability to "unlock and ride" using an app. This requires enhance user credentials (including full drivers licence) to unlock a scooter.

Public transport improvements

Swindon benefits from good east-west rail links to London, Bristol/South Wales and significant numbers of people commuted by train before the COVID-19 pandemic. It is not clear how working patterns and commuting will change in the longer-term, but this could

have significant implications for the viability of train services. These will need to be carefully monitored and reviewed over the next year.

The bus network does not, at present, offer a level of service that is sufficiently fast, frequent, or convenient to attract large numbers of people from their cars. The focus would therefore be to increase service frequencies on key routes, supported by bus priorities, state-of-the art electric vehicles and low fares.

Expansion of free bus passes
Extension of free travel to children.

Increased service frequencies
Minimum frequency level to be agreed per hour on key corridors, including evenings and Sundays.

Electric bus fleet
Introduction of new electric buses on all services in Swindon.
New bus routes – where gaps exist in current provisions.

New demand-responsive bus services
New demand responsive bus services on routes not served by frequent main services, with information and booking using new App technologies.

Rural mobility hubs
To provide connections between rural area services and main routes.

Improved bus stops
Improved bus stops, with level boarding, new bus shelters and advanced real time information.

Bus priority measures
Focused on areas with delays and poor journey time reliability. Options include bus lanes and 'bus gates'.

Priority Road Bus Corridors
Programme to significantly improve attractiveness of bus travel: high frequency services, new stops, real time information, bus priority.

Park & Ride / Mobility Hub
Sites to include car parks, high quality waiting facilities (shelters and real time information), frequent electric bus services to town centre and bus priorities to reduce journey times. Protecting potential future sites identified at NEV and Wichelstowe.

Freight

Swindon caters for high volumes of goods vehicles serving the warehousing and distribution centres across the Borough as well as making local deliveries. These have significant impacts on traffic flow and the urban environment. A wide range of options to better manage the impacts of lorries and vans have been identified, including shared deliveries, cargo bikes, dedicated off-street servicing and freight consolidation hubs.

Identification of key freight corridors
Stronger identification of suitable routes for major freight flow to distribution and warehousing locations with enhance signing.

Weight limits
Increased use of environmental weight limits to protect local communities.

Lorry parking
Provision of good quality overnight lorry parks to take vehicles off the highway and away from residential areas.

Shared deliveries
Local businesses collaborate to consolidate and share deliveries.

Cargo bikes / cargo e-bikes
Cargo bikes or cargo e-bikes used for deliveries of goods into town centre. Usually requires a site for offloading of goods from lorries and vans, in the town centre or nearby.

Dedicated off-street unloading facilities
At site where goods can be unloaded in the town centre and transferred to cargo bikes.

E-commerce lockers
Parcels can be placed in lockers and picked-up by residents, to reduce van traffic in local neighbourhoods.

Local freight hub
Could be combined with e-commerce lockers and cargo bikes to reduce goods vehicle traffic in local areas.

Freight consolidation centre - trategic freight hubs
Lorries entering Swindon use the centres, with goods transferred to small electric vans or cargo e-bikes for deliveries to the locations across Swindon.

Increased rail freight
Provision of increased rail freight paths on the railway, with increased utilisation of existing facilities.

Shift to zero emissions transport

Electrification of the vehicle fleet will be a critical component of the future decarbonised transport system. Action must be taken locally to enable the rapid roll-out of electric buses and cars, although more national action will be needed for the decarbonisation of freight.

Electric bus fleet
Introduction of new electric buses on all services in Swindon.

Electrification of taxi fleets
Replacement of all taxis with electric or ultra-low emissions vehicles.

Electric vehicle charging points in car parks
Large scale implementation of charging points in car parks to enable accelerated uptake of EVs in Swindon and the surrounding area.

On-street electric vehicle charging points
Provision of on-street charging points to meet the needs of drivers using on-street parking and people who do not have a private driveway (and therefore cannot charge a vehicle from their home).

Financial incentives
Provide financial incentives for EV or ULEV ownership and use - for example through differential charges in car parks and for Residents Parking permits.

Zero or low emission zones
Areas where the most polluting vehicles are regulated. Usually this means that vehicles with higher emissions cannot enter the area. In some cases tese are zones where only Zero Emission Vehicles are allowed in.

Road space reallocation and safety

Many parts of Swindon are dominated by traffic and local people have expressed concerns about the impacts of traffic on road safety. Options have therefore been developed for reallocating road space, including widening footways, reducing on-street parking, school safety zones and Low Traffic Neighbourhoods.

Widening of footways
On streets where footways are currently narrow (see also under walking measures).

Reduction of on-street parking and action on pavement parking
Focused on roads where this is a problem or needs to be reduced.

School Safety Zones

Programmes of measures to reduce traffic speeds and improve road safety for children outside schools.

Low Traffic Neighbourhoods

Measures to reduce through traffic, reduce traffic speeds and improve attractiveness of streets for walking and cycling in local neighbourhoods.

Speed reduction measures

Focused on areas where high traffic speeds have been observed. Investigation of areas where speeds are perceived to be high.

20mph speed limits and Zones

Reduce speed limit to 20mph across residential areas and areas with high numbers of vulnerable road users.

Reduced speed limits on major roads and rural roads

Reduce speed limits on major roads that are currently 70mph or 60mph.

Average speed cameras

To enforce speed limits across the town.

Integrated road corridor programmes

Many of the road corridors in Swindon are likely to need an integrated approach, which takes account of the needs of pedestrians, cyclists, cars, buses and goods traffic.
Route treatment Strategies – A "Link and Place" approach used to rebalance approach to treatment of corridors. Includes addressing current and future issues on a corridor – including future traffic growth, promoting mode shift and addressing impact of HGVs.

Major highway improvements

Major road schemes have previously been proposed, including the Thamesdown Drive to Barnfield link. The project team has also identified other potential improvements to the road network arising from major development sites and the cumulative impact of growth on the existing network.

Development of the schemes will require an integrated approach to maximise the benefits to the wider area. Further assessment will be required to establish how to maximise benefits from the schemes and minimise negative impacts from car usage.

This area will include potential congestion and delay mitigation schemes identified through Saturn Strategic Transport Model scenario testing through to 2036.

Increase operational efficiency and reliability of the existing network

Making sure that existing highway capacity is used in the most efficient way to reduce congestion and delays particularly at peak times. Improve the resilience of the network to events such as bad weather, climate change impacts, accidents/incidents, special events/ seasonal peaks. Sharing information with users to allow informed choices to be made on journey planning. Some of these projects would also be incorporated in any Integrated Road Corridor Programmes that were undertaken.

Traffic Signal technology
Upgrade our existing traffic signals to most modern and efficient systems – including linking and co-ordination of different junctions

Real time monitoring of network
Increased use of sensors to monitor network performance in real time.

Data sharing
Sharing of data on operation of network through internet, mobile phones and road side displays.

Resilient network
Maintain a network of key routes to a higher standard so that they are resilient in the event of bad weather, climate change impacts or other adverse events.

Direction signing reviews
Rolling programme to review key direction signing to ensure it remains up to date and serves its purpose in directing vehicles onto the correct routes for their destinations.

Lane arrangement reviews
Rolling programme to review layouts of lanes at key junctions to maximise efficiency of operation and take account of changing traffic patterns.

Streetworks permitting
Roll out Streetworks permitting system to reduce impact of utility works on the network.

Passive safety measures
Introducing passive safety measures on higher speed roads – to reduce the impact on network operations of collisions with road side infrastructure – ie reducing the severity of injuries and damage.

Demand management
Encouraging use of alternative modes at peak periods and encouraging spread of car journeys away from peak periods where possible.

Parking controls

Reviewing parking and loading/unloading controls on main routes to ensure appropriate con controls are in place to free up the network at peak times.

12. Shortlisting of options

The previous section described the process of developing a long list of potential transport options for Swindon. These options will be assessed based on their potential to tackle the challenges and meet the LTP objectives.

A tool is being developed for the assessment and shortlisting process. This comprises three steps:

Step 1– Strategic case: This assesses the extent to which each option would support the LTP objectives

Step 2 – Economic case: This assesses the extent to which each option would be likely to be an effective use of public funds

Step 3 – Delivery case: This assesses the issues related to the implementation and affordability of each option.

The assessment framework and the three steps are designed to provide a flexible tool to allow decision-makers to assess the strengths and weaknesses of different options. This will help to inform the approach to identifying schemes and/or packages to achieve the programme objectives. It will also provide evidence to inform the more detailed development of schemes as they are taken forward for future implementation.

All the options are at a very early stage of development. Designs have not been produced and detailed analyses have not been undertaken. The approach to assessment will therefore be based on expert judgement of the potential impacts based on evidence from other places.

The focus will be on prioritising schemes that have a relatively high level of deliverability and affordability. However, there is scope to consider larger, more complex schemes for a future longer-term pipeline.

13. Funding

The ability of the Council to deliver the strategy and policies set out in the LTP will be largely dependent on the availability of funding in future years. The selection of schemes for inclusion within the LTP Implementation Plan will therefore need to be driven by the availability of a suitable funding source – or the reasonable expectation that funding will be available in the future. This will necessary to ensure that the overall plan is sound, realistic and deliverable.

Most of the major highway infrastructure schemes delivered or commenced in recent years have been funded through specific one-off, or time limited funding streams usually on a competitive basis. This has included the Local Growth Fund, the Local Sustainable Transport Fund, the Pinchpoint Fund and funding from specific developer contributions.

Funding is available from a number of sources to implement the schemes within the Local Transport Plan.

Local Transport Plan Capital Grant - Department for Transport funding streams

An annual capital grant is received from the Department for Transport. This is in two parts – Maintenance and Integrated. The maintenance grant is to support ongoing upkeep of all highway assets including roads, footways, bridges and structures, local drainage, street lighting and traffic signals. Integrated schemes are everything else other than maintenance for example schemes related to road safety, cycling and walking, traffic management and public transport. The grant is allocated to local authorities according to a national formula taking into account lengths of roads, numbers of assets etc

In past years the Comprehensive Spending Review has provided a funding allocation for a period of 5 years – allowing for forward planning of schemes. In more recent times the forward funding period has dropped to three years and currently just one year at a time. At present there is no firm indication of the level of LTP grant funding that will be available to Swindon beyond March 2022. The results of the forthcoming Comprehensive Spending Review are awaited. Until future funding allocations are announced it is difficult to provide a detailed Implementation Plan that is realistic and deliverable.

In recent years an element of the Maintenance grant allocation has also been converted into reward funding of funding that must be bid for. While this encourages innovation from local authorities it does remove the certainty over the base level of funding that might be guaranteed in future.

Section 106 Developer Contributions

Developers may be required to make financial contributions to the Council to provide measures to mitigate the impact of their developments on the local highway network. Subject to the implications on the viability of developments it is therefore likely that funding will be available for specific measures to support transport initiatives connected to new developments. As well as measures such as traffic calming, parking controls, speed limits, pedestrian crossings, footpaths, cycleways the contributions may also be directed towards provision of additional bus services and measures to promote and encourage alternatives to car use.

The level of future contributions remains uncertain as it is dependent on the timescale of development proposals being brought forward and negotiations the planning process.

Community Infrastructure Levy

The Council could choose to allocate part of its Community Infrastructure Levy to the delivery of highways and transport projects under the Local Transport Plan. However this would be in competition with a range of other service areas for funding.

Council's own resources (Capital)

The Council could use its own resources to fund highways and transport infrastructure although this would likely require additional borrowing by the Council with long term implications of funding the interest charges.

Council's own resources (Revenue)

For revenue funded programmes the Council already funds a wide range of activity related to highway and transport through its core budget.

Future central government funding streams

As in previous years it is likely that central government will provide opportunities for local authorities to bid for funding for additional highways and transport schemes. These may be intended to address existing or future issues directly – or to bring forward wider objectives (such as growth and regeneration, or tackling climate change) by unlocking delays caused by lack of funding for the required transport infrastructure. The future availability of such calls for funding bids remains uncertain. However Swindon should carry out preparatory work on schemes in order to be in a position to submit bids as opportunities arise.

National bus strategy

In March 2021 the government issued its National Bus Strategy requiring local authorities to produced Bus Service Improvement plans by autumn 2021 and enter into enhance partnerships with local bus operators. The national strategy brings with it a commitment to provide £3bn funding to support a range of local initiatives. Work has commenced on plans for Swindon to maximise this funding opportunity to improve all aspects of bus service operation in Swindon. This will include both infrastructure and bus services themselves.

Cycling and Walking Investment Strategy

The government will deliver its Cycling and Walking Investment Strategy through Local Cycling and Walking Infrastructure Plans (LCWIP) currently being prepared by local authorities. In 2020 the government indicated that £2bn would be available to help local authorities reallocate road space for significantly-increased numbers of cyclists and pedestrians. Swindon's LCWIP proposes a range of strategic cycle route links which will be developed as the government brings forward funding opportunities under this investment strategy.

Other funding for transport

It should be recognised that significant private or voluntary sector involvement in transport provision also plays a crucial role above that provided by the public sector. Bus operators provide many of their services commercially and fund the purchase of new vehicles, most publicity and promotions along with a range of measures to provide a quality experience for their passengers.

The provision and operation of electric vehicle charging infrastructure is likely to be increasingly led by commercial suppliers as the numbers of electric vehicles increase.

14. Monitoring approaches for LTP4

LTP4's outcomes should also be underpinned by ambitious target performance metrics in order to support monitoring and assessment of achievement. Swindon Borough Council currently have access to a range of transport related data and monitoring systems, many of which are open source – such as data from the DfT and Census. However, there remain significant transport data gaps which mean that the council have been unable to monitor and assess our performance against LTP3 transport outcomes thoroughly. Unless these data gaps are addressed, this will continue be the case for LTP4.

Key data gaps identified through this study and discussions with council officers which are likely to have an impact on the council's ability to monitor performance against the LTP4 transport outcomes are shown below:

- Frequently updated, detailed counts for cars, pedestrians and cyclists
- Detailed bus journey time data
- Public opinion of the journey time reliability of specific routes
- Delivery of road safety education and cycle training
- Number of speeding cars
- Public opinion of road safety of specific areas and how road safety affects decision-making
- Bus and rail patronage data
- More frequently updated and detailed data on residents', employers' and visitors' travel choices, including those who work from home
- Land use and planning data – locations of residential and employment areas
- Frequently updated, detailed data on car ownership/availability
- Public transport routes and stops
- Resident, employer and visitor opinion of specific routes or services, including the ease of access for buses and the rail station
- Bus and rail origin-destination, journey time and journey time reliability data
- Walking and cycling flows and origin-destination data
- Car parking data

In summary, the key data gap themes are:

- Walking and cycling demand,
- Bus journey times and reliability;
- Origin-destination and routing data;
- Modal share and fleet composition; and
- More detailed public opinion specific to Swindon, including quality of services and routes, travel choices, safety, quality of life, working patterns and the local environment.

A range of potential new data sources and collection methods have been considered during the LTP refresh. In every case, their ability to increase the council's evidence base and contribute towards LTP4 achievement monitoring processes have been considered. The suitability of each solution has also been assessed in terms of the data quality / resolution, cost and input required from the council. A summary of this assessment is presented in the following pages.

Proposed data sources

Data source	Potential providers	Overall rating
Demographic / social behaviour data	Acorn	**Medium** as data could provide a more up-to-date and Swindon-specific source of demographic data which could contribute to policies regarding behavioural change and integrated planning.
GPS location data	INRIX, TomTom, EE, Telefonica	**High** due to the data's ability to contribute towards several policy areas, including those that are traditionally hard to quantify / measure (related to pedestrian and cycle movements). Potential draw-backs are the high cost of data and requirement to validate data using automatic traffic counters (ATCs).
Public transport data	Basemap, Tracsis	**High** ability to provide bus or rail specific insights.

Proposed data collection methods

Data collection method	Overall rating
Automatic Number Plate Recognition (ANPR)	High due to the range of potential data applications including ability to infer more detailed information about the origin and destinations of trips and vehicle types and models. However, there is a requirement to validate data using ATCs.
Data from smart infrastructure	Medium as this data could provide near to real-time insights at limited cost, however insights will be limited by the location and distribution of infrastructure.
Data from bus operators	High due to the range of potential data applications including ability to infer consistent, detailed information about travel choices, such as times of travel and the origin and destinations of trips made.
Public opinion surveys	High due to the potential of survey data to fill existing data gaps which would enable better monitoring of the council's performance against its policies.

Pavement scanning tools	Medium due to the potential improvement in efficiency and data reliability and quality when compared to the current footway network survey method. It would enable regular monitoring of footway and cycle path quality and contribute to the council's vision to provide safe routes, encouraging a greater uptake of active travel by Swindon's residents.

In order to maximise the value of the data sets and systems already used by the council (most notably Trafficmaster data, GIS systems and Power BI), it is recommended that the council begin to combine them into a single, interactive GIS system which will enable quick and meaningful analysis and visualisation of transport data and performance over time. Furthermore, there are numerous new data sources and collection methods that should be considered in more detail by the council, in particular use of GPS data which could be used to fill gaps in traffic knowledge between more formal automatic traffic count surveys (although ATCs data still be required to validate GPS flows).

Through LTP4, the council will identify and outline a comprehensive suite of data as well as a new set of specific and measurable performance indicators which are directly linked to the transport outcomes for LTP4.

Economy & Development

Swindon Borough Council
Wat Tyler House
Beckhampton Street
Swindon
SN1 2JH

www.swindon.gov.uk

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or other accessible formats by emailing:

customerservices@swindon.gov.uk

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