

Fourth Local Transport Plan (LTP4)

2021 - 2030



March 2021

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Foreword

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DRAFT

Foreword

SCC to draft and add

To cover ambitions, aspirations, step change in approach from previous LTPs. To become the ambition statement for LTP4.

DRAFT

Executive summary

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DRAFT

Executive summary

The way we think about travel and its impact on the environment has changed. Climate change caused by greenhouse gas emissions, including carbon emissions from transport, requires urgent global action. The Government has a legal requirement for the UK to achieve net zero carbon by 2050. That's why Surrey County Council declared a climate emergency in 2019 and is producing a Climate Change Strategy committing us to take action, to play our part in turning the tide on climate change.

We have committed Surrey to being carbon-neutral by 2050. This means a significant step-change in how we think about, plan and deliver transport, as 46% of carbon emissions in the county are produced by transport.

This transformational, ambitious fourth Local Transport Plan (LTP4) sets out our roadmap for transport to 2030 and beyond, to achieve this ambitious and challenging target. The LTP4 is focussed on reducing carbon emissions, whilst maintaining a focus on other essential outcomes such as the economy and health & wellbeing of our residents. It therefore provides an unprecedented opportunity for us to rethink transport across Surrey and look to meet these challenges, whilst enhancing our local environment, economy and quality of life for residents.

The LTP4 has been developed using a strong evidence base, compiled by reviewing local policies and datasets to get to the crux of the issues in Surrey and identify the key priorities and opportunities for transport across the county. This evidence base also sets out the key drivers for change in the transport system, citing the challenges we need to address head on over the next ten years (and beyond).

The LTP4 provides an opportunity to develop and enhance safe, new, cleaner, greener ways of travelling and accessing services and opportunities. In order to achieve this ambition, we will adopt approaches which will:

- **Avoid or reduce** the need to travel, and distance travelled by improving the efficiency of the land use and transport systems;
- **Shift** to lower energy consumption travel, and more efficient modes: public transport, walking and cycling; and
- **Improve** the energy efficiency of modes, operational efficiency of networks, and reducing vehicle emissions using technology.

A focus on behaviour change, alongside innovation and use of technology such as electric vehicles, will be an integral part of achieving these challenging yet exciting aspirations for our county.

Alongside the focus on reducing carbon, the LTP4 will provide the transport roadmap to support achievement of Surrey's Community Vision by 2030 and Surrey's Health & Wellbeing Strategy, with LTP objectives focussed on delivering these priority local policies. The LTP4 also aligns to Surrey's Place Ambition and the recognition that more effective land use and digital connectivity planning is essential to achieving the shift in transport trends required to achieve carbon net zero by 2050.

As well as setting ourselves ambitious goals for carbon, the economy, opportunity and quality of life, we recognise the importance of protecting Surrey's unique natural and built environment. As such, this is the first LTP to commit to striving to deliver net improvements in our environment and protect our most precious resources in every project we deliver and, where this isn't possible, minimise environmental impacts as far as possible. Sustainability has been a guiding principle in developing the LTP4 and identifying how it will affect the three dimensions of environment, economy and society. This includes improving air quality, delivering environmental net gain and a commitment to ensuring that any new measures delivered by LTP4 minimise embodied carbon and are resilient to levels of climate change that are now considered inevitable.

The LTP4 is being developed at a time of uncertainty due to the COVID-19 Pandemic, which brings both opportunities and challenges for the LTP, which have been addressed throughout the document.

Background and context

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1 Background and context

1.1 Introduction

This document sets out Surrey County Councils (SCC's) fourth Local Transport Plan (LTP4) Core Strategy. The LTP4 covers the period of **April 2021 – March 2030** and is a statutory document, meaning it has to be properly considered as part of other planning processes. An LTP4 Implementation Plan is also being developed and will be published later in 2021, as a live document that will be regularly updated.

The LTP4 consists of:

Page 200	Foreword	• Illustrates our commitment to, and senior support for, the LTP4 going forward
	Executive Summary	• Provides a summary of the LTP
	Background and Context	• Provides a summary of the evidence base and wider context for the LTP4, including key drivers for change
	Vision and Objectives	• Details LTP4's vision and objectives
	Policy Areas	• Sets out the nine policy areas we will work across to achieve LTP4 objectives and in particular meet the 2050 carbon net zero challenge and the policies to ensure any new transport schemes contribute to sustainability
	Impact Strategies	• Sets out how each of the four LTP4 objectives will be achieved
	Delivering the LTP4	• Covers phasing, responsibilities and funding
	Monitoring the LTP4	• Discusses how the performance of LTP4 will be measured going forward
	Next Steps and Further Information	• Provides links to further useful documents including the LTP4 evidence base and Integrated Sustainability Appraisal

The LTP4 has been prepared in parallel with an Integrated Sustainability Appraisal (ISA) of the plan. This has assessed the potential impacts of the LTP4 on sustainability in Surrey and has helped to shape and inform the plan, resulting in the LTP4 being developed with sustainability as a guiding principle. This has included careful consideration of the three elements of sustainability (environment, economy and society) throughout the plan and in particular in the four Impact Strategies set out in **Section 4**.

The remainder of this section sets out a summary of the evidence base used to develop the LTP. This includes a thorough policy review and summary of key data and statistics for Surrey, that come together to identify the challenges and opportunities for LTP4.

To view the full LTP4 evidence base, [click here](#).

1.2 Surrey context

The key characteristics of Surrey that have provided important context for the development of the LTP4 are summarised below, considered in terms of: key geographical characteristics, the carbon challenge, economy, communities, quality of life, impacts of COVID-19 and Surrey's transport system.

To access the Full Evidence Base [click here](#).

1.2.1 Key characteristics

The county of Surrey covers an area of 1,660 square kilometres, comprising eleven districts and boroughs. The county shares borders with a number of other authorities including London to the north east.

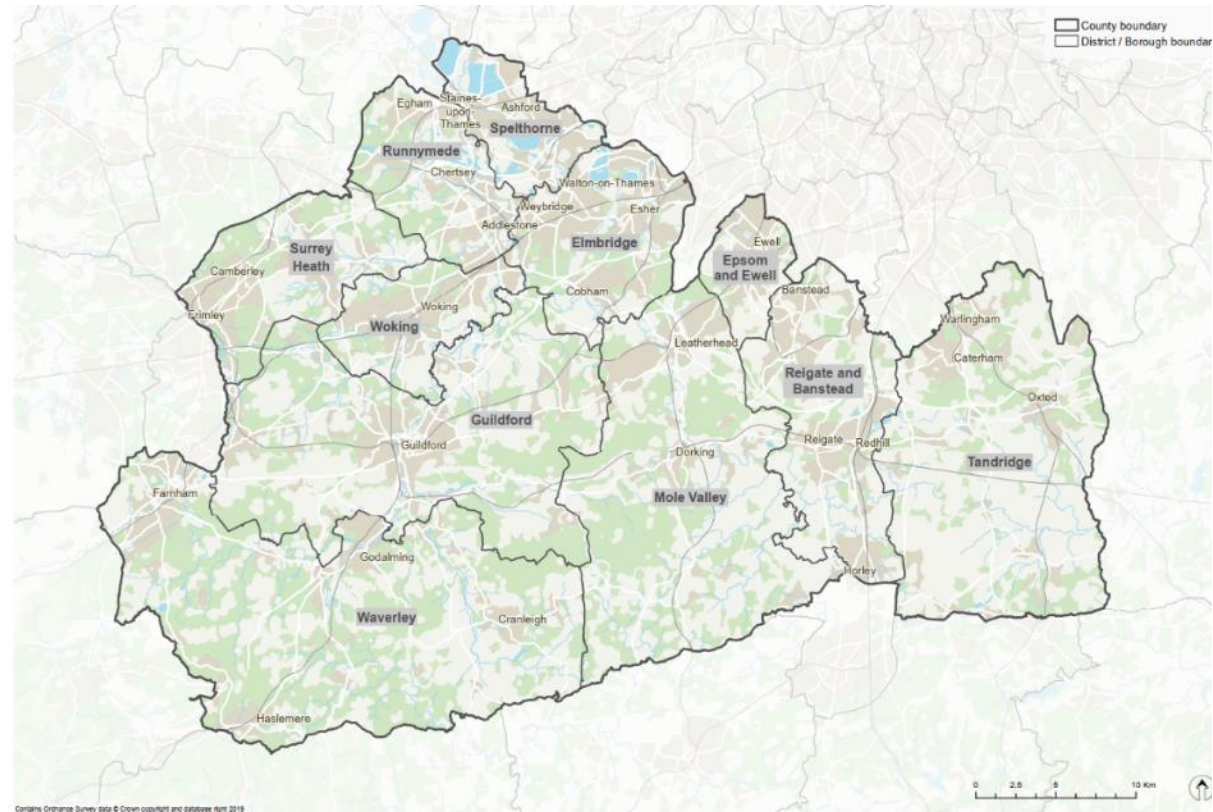
Surrey is polycentric, with no dominant centre, but instead a number of towns that are strongly interconnected, both between themselves and to differing extents to London.

Surrey is one of the most densely populated counties in England with a total resident population of 1.19 million (2018).

87% of the population of the county live within urban areas, but over 70% of the area of the county is identified as being rural. The county therefore has a significant range of environments with differences between rural, heritage, and agricultural land and urban towns such as Guildford, Woking, and Epsom.

Surrey's physical environment is diverse with a wide range of well known, high quality landscapes, biodiversity, and cultural assets. Over 70% of the county falls within one or more national or international designations (such as Areas of Outstanding Natural Beauty).

Figure 1-1 – Surrey's districts and boroughs



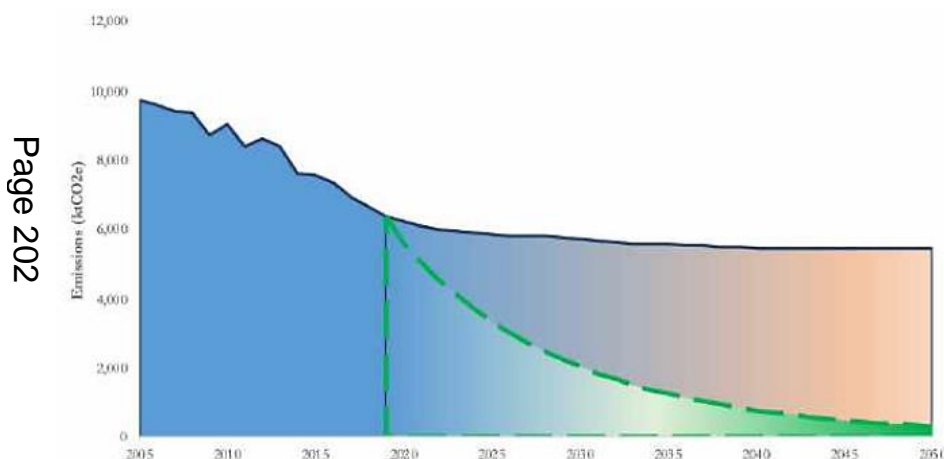
Source: Surrey Infrastructure Plan, Baseline Report, 2020

1.2.2 Surrey's carbon challenge



Surrey County Council declared a climate emergency in July 2019 and committed Surrey to achieving net zero carbon emissions by 2050, in line with the national legal commitment. In 2020 we also published a Climate Change Strategy which identifies Surrey's decarbonisation pathway (Figure 1-2). This shows the carbon emissions reductions needed to achieve net zero and to make a fair contribution to the reductions that are needed nationally and internationally to avoid dangerous climate change.

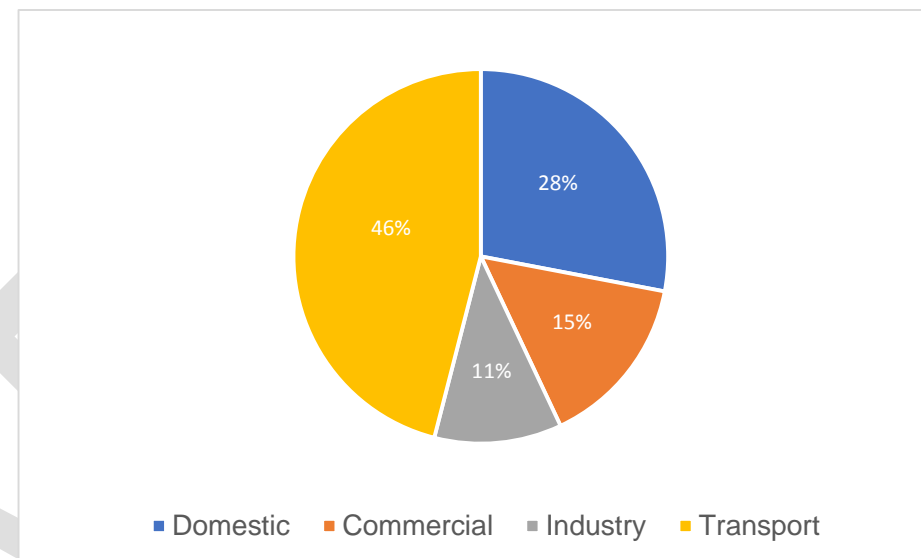
Figure 1-2 – Surrey's pathway to net zero carbon



Source: Surrey Climate Change Strategy, 2020

Reducing carbon from travel and transport will have a critical role to play in achieving Surrey's decarbonisation pathway as it generated about 46% of the carbon emissions from Surrey in 2019 (Figure 1-3).

Figure 1-3 – Surrey's carbon emissions by sector, 2019

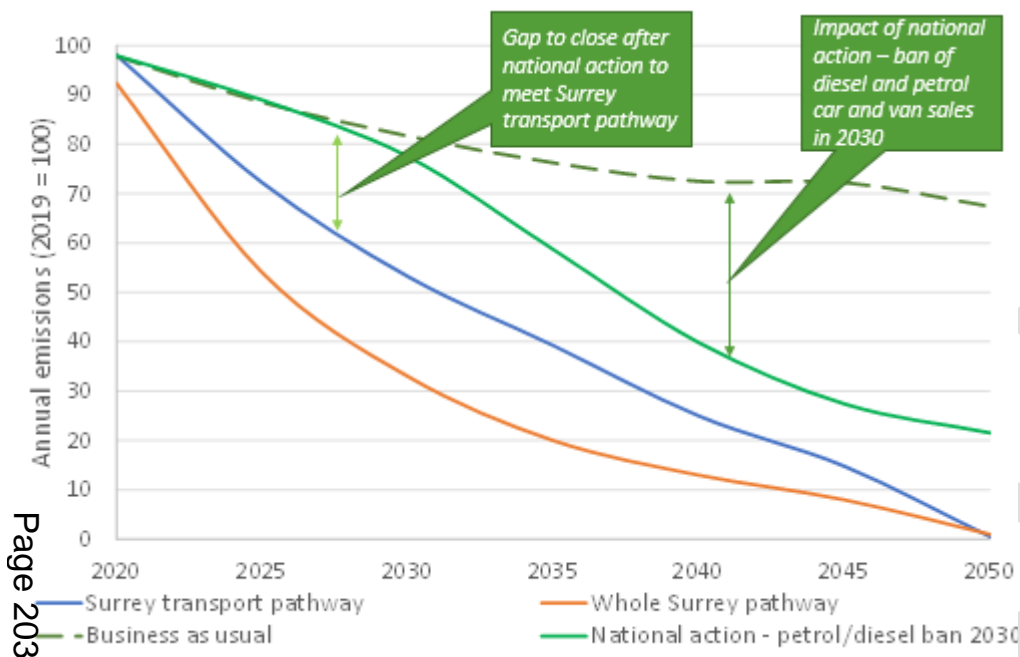


Source: Surrey Climate Change Strategy, 2020

Carbon emissions from the transport sector are particularly challenging to reduce and have remained high over recent decades whilst emissions have reduced in other sectors. The Climate Change Strategy recognises the scale of the challenge and allocates a slower target rate of emissions reduction for transport than for other sectors (Figure 1-4), with a target of a 60% reduction in emissions by 2035 (compared to business as usual).

This target will still be very challenging to achieve. National government action will play a key role in reducing emissions. In particular the ban on the sale of petrol and diesel cars and vans from 2030 announced in November, 2020 will make a significant contribution to closing the gap between the business as usual emissions for transport and the decarbonisation pathway needed to meet Surrey's targets (as shown in Figure 1-4).

Figure 1-4 – Transport carbon emissions forecasts for Surrey (DRAFT)



However, Figure 1-4 shows that there is still a large gap between Surrey's anticipated transport emissions and the target pathway, even with government action as described. Closing this gap will require changes in where and how people and businesses travel and their use of online opportunities.

1.2.3 Surrey's economy



Surrey currently has a very strong and productive economy, contributing over £40 billion per year to the national economy. A key contributor to this success is Surrey's unique strategic position, bordering the two major international airports of Heathrow and Gatwick, with proximity to London and other economically successful areas such as the M3 corridor, as well as access to the south coast with nationally significant roads routing through the county.

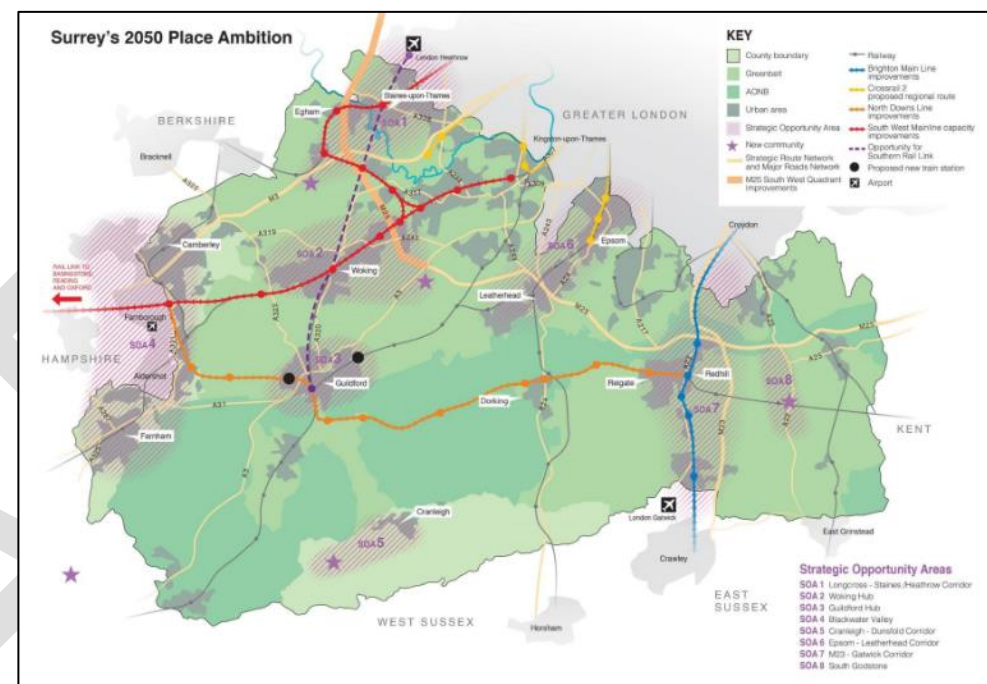
Although historic and current performance is strong, complacency is seen as a threat. The latest data shows that performance is weakening and there is evidence that Surrey is becoming a less attractive place for companies to do business. Disparities are becoming more apparent at a local level, with the gap in competitiveness and productivity between east and west Surrey widening.

The economy is not reliant on one dominant industry, rather there are local areas where there are sector strengths and world-class specialisms. Whilst major employers are significant in the county, the 'micro' business size band is critical due to the high portion of Surrey's businesses in this band.

The presence of small and micro businesses strongly aligns with Surrey's goals regarding employment creation and place ambition. Moreover, small and micro scale businesses are key to driving innovation and productivity in the county in periods of high growth.

Surrey County Council will focus investment in eight Strategic Opportunity Areas identified in the Place Ambition document (Figure 1-5) to support priority industrial sectors and improvements to connectivity. Developments in these areas need to be planned for in conjunction with the key economic corridors as identified by Transport for the South East.

Figure 1-5 – Strategic Opportunity Areas



Source: Surrey's 2050 Place Ambition

There is a need within Surrey for inclusive growth alongside recognition of the different travel needs across the county. Any development of the transport system needs to reflect what is suitable for rural areas of Surrey which have traditionally been serviced by low frequency bus services, meaning that many residents have become reliant on private car use.



1.2.4 Surrey's communities

Surrey is a densely populated and polycentric county, with a population of over 1.1 million. The population is forecast to grow significantly by 2041, including a 25% increase in those aged over 65. Surrey's dependency ratio is forecast to reach 80% by 2041.

Surrey's population is highly skilled, educated, and well remunerated when compared to south east regional and national averages. Over half of the population of the county is educated to degree level.

Surrey is a largely affluent county. There are, however, pockets of deprivation across the county (notably in the larger towns of Guildford and Epsom, in Spelthorne, and in rural areas), and issues of inequality also affect the population. Broadly, it can be said that there are two divides in Surrey:

- between the more affluent built-up areas and some less affluent rural areas; and
- between the far east of the county and the remainder.

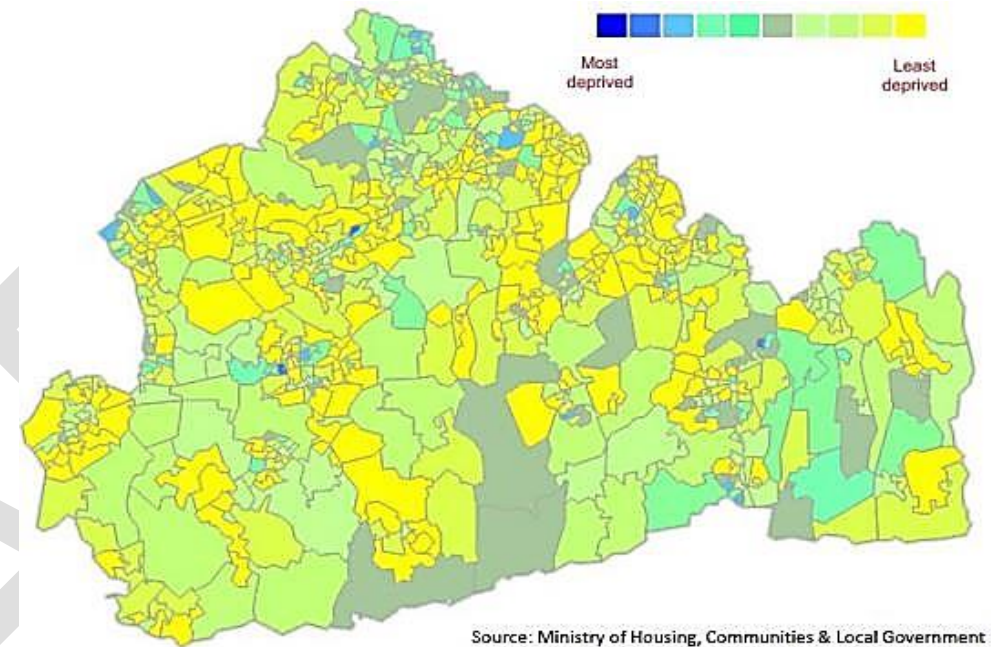
The majority of neighbourhoods in Surrey rank amongst the top 50% least deprived in the country, of which several are in the top 10%.

By comparison, the 25 most-deprived neighbourhoods in 2015 were within the most deprived third of areas in the country. Areas bordering London (Spelthorne), larger towns (Guildford and Epsom) and rural areas are significantly less affluent than most of the county.

Furthermore, food bank usage and homelessness have both increased in recent years. Foodbank usage across the county increased 111% between 2013/14 and 2016/17, a far higher increase than other counties in the south east.

In 2019, an estimated 23,000 children in Surrey were living in poverty.

Figure 1-6 – Surrey deprivation index



There are 687,000 cars available to Surrey households, with nearly half (46%) of households having two or more cars. Only 13% of households have no car available. Surrey Heath has the highest car ownership levels in Surrey with 1.7 cars per household and only 10% with no car, while Epsom and Ewell has the lowest number of cars per household at 1.4 and the lowest proportion of households with 2 or more cars at 41%.



1.2.5 Surrey's quality of life

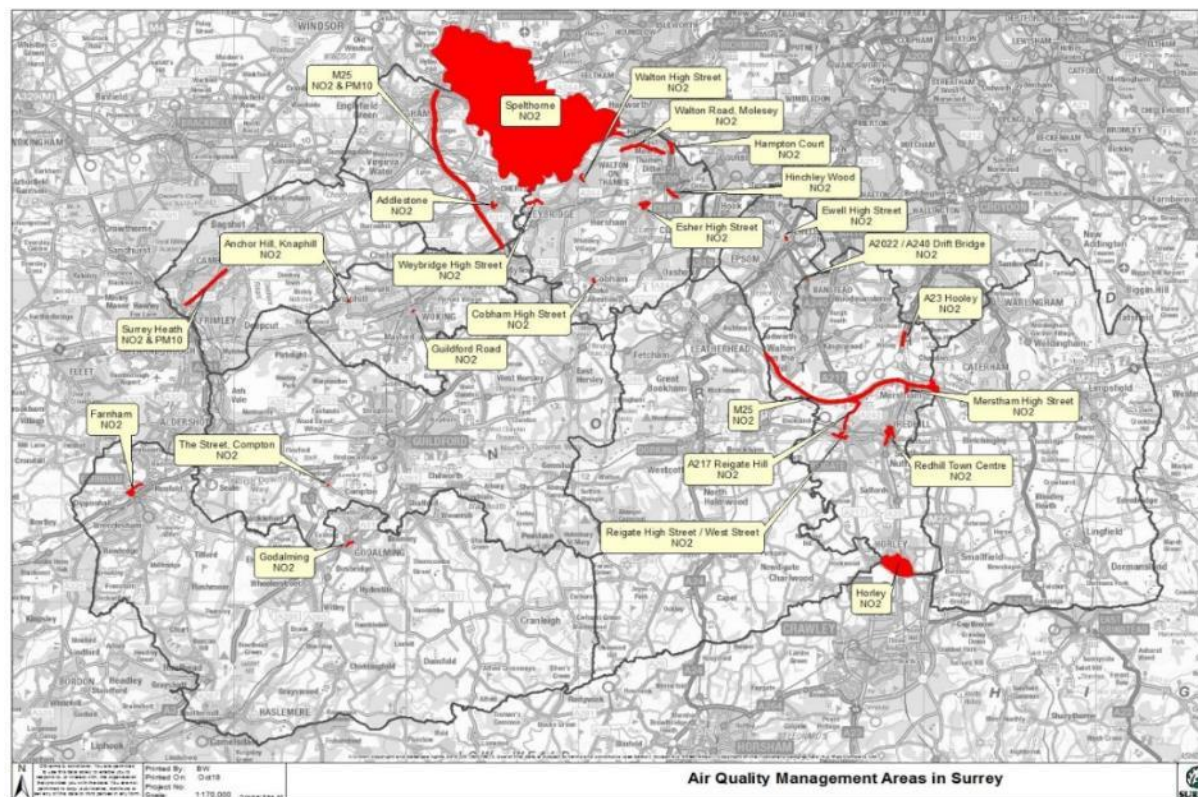
Surrey is a healthy county. The life expectancy and healthy life expectancy for those in the county is higher than south east regional and national averages. This could partly be due to the affluence of the county, positive early-years health indicators, low levels of smoking and high levels of physical activity:

- in 2016/17 the percentage of physically active adults (150+ minutes of activity per week) in Surrey was 70%, higher than the regional and national averages at 69% and 66% respectively
- In 2016/17 the percentage of physically inactive adults (less than 30 minutes of activity per week) in Surrey was 18.6%, less than the regional and national averages at 19.3% and 22.2% respectively

Looking specifically at the health impacts of road transport, road transport is the main source for NO_x emissions and a significant source of emissions of particulate matter. Both of these have a significant negative impact on people within the 27 Air Quality Management Areas identified across Surrey.

Particulate emissions were estimated to account for 5.7% of mortality in Surrey in 2018. Road transport also contributes to the 380 Noise Important Areas required throughout the county, and the associated negative impacts on the health and wellbeing on Surrey's people.

Figure 1-7 – Air Quality Management Areas



Source: Surrey Low Emissions Transport Strategy, 2018



1.2.6 COVID-19 response

Whilst the COVID-19 pandemic is ongoing at the time of writing, several observations have been drawn as to how it has impacted upon travel habits.

Initially, the national and regional lockdowns and travel restrictions imposed throughout 2020 resulted in a significant reduction in travel. By early July 2020, vehicle traffic had returned to ~80% of the equivalent levels in 2019. In contrast to this, public transport use remained very low when compared to 2019 (~15% of rail journeys and ~25% of bus journeys). There is still considerable uncertainty regarding future traffic trends as COVID-19 related restrictions continue into 2021. Potential impacts could include:

- fewer commuting and business trips due to increased levels of remote working; and
- more flexible working hours that allow people to avoid rush hour traffic; and
- a reluctance to return to public transport.

The shorter-term effects, and the responses to these, could have long lasting ramifications. The decisions made over the remainder of the COVID-19 pandemic could shape the economy, society and the transport system for the next decade and beyond.

On the positive side, the events of 2020 and 2021 provide an opportunity to rethink the way we travel in the future and 'lock in' the positive behaviours and impacts of reduced travel. In doing so we will help to address the challenges presented by the climate emergency and bring wider benefits of improved quality of life and local environment for Surrey's people.

Consideration of the impacts of COVID-19 and the rapidly altering economic and social landscape have been made in developing the LTP. For instance, a key consideration has been ensuring resilience is built into Surrey's transport network to help mitigate the effects of factors like COVID-19 in the future, to enable effective, sustainable, and safe travel for all.



1.2.7 Surrey's transport networks

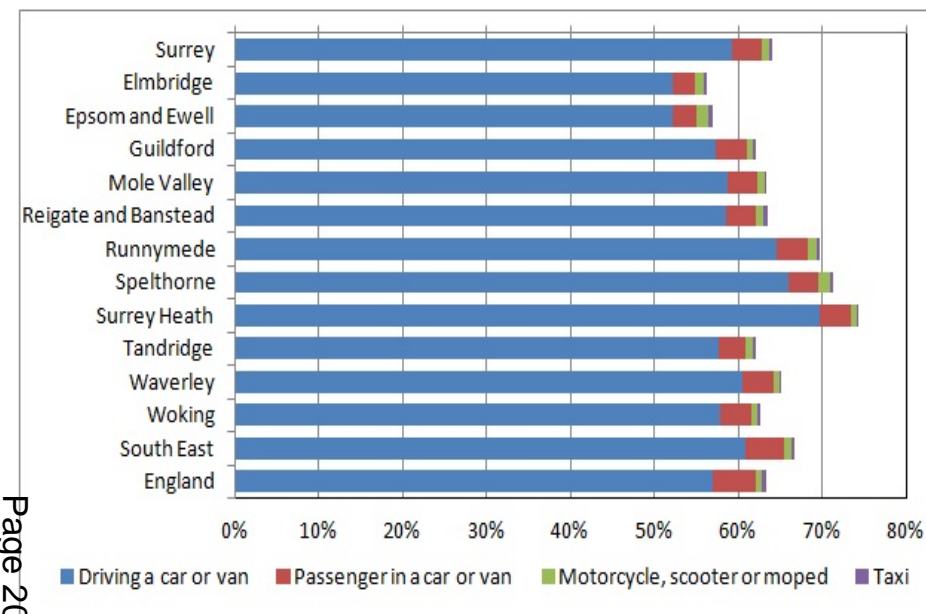
Due to Surrey's location, our transport networks are important both regionally and nationally. The close proximity to London, the major airports of Heathrow and Gatwick, and connections from the ports of Portsmouth and Southampton mean that Surrey's infrastructure contributes to connectivity at a national and international level.

There are several nationally important roads in Surrey, such as the M25, M23, A3, and M3. However, the road network is not without its issues. There are high congestion levels across the county and Surrey's roads are carrying almost double the national average amount of traffic. Before COVID-19, around 60% of Surrey's working population commuted by car, many for a distance of less than 10 kilometres, contributing to this congestion.

The 2011 Census shows that, of the working age population (people aged 16 to 74):

- over 60% of Surrey residents in employment travelled to work by car or van;
- 17% used public transport; and
- 11% walked or cycled to work.

Figure 1-8 – Mode of travel to work 2011



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Source: Surrey-i

In terms of active travel, Surrey's residents walk and cycle to work less than the national or regional averages, with 10.8% (8.6% walking & 2.2% cycling) of working adults walking and cycling to work compared with 13.7% and 13.9% respectively. The borough with the highest proportion travelling to work by walking and cycling is Guildford with 14.6% whilst the borough with the lowest proportion of residents travelling to work by walking and cycling is Tandridge with just 7.8%.

Public transport services in Surrey connect populated areas and towns well, although the more rural areas experience poor connectivity and a low frequency of bus services. In terms of the rail network, there are 84 railway stations in the county. Many are on routes that connect north east Surrey to the main London termini of London Waterloo, London Victoria, and London Bridge, as well as down to the south coast of Brighton and Portsmouth. However, pre-COVID-19 levels of use caused issues with capacity at peak times.

Surrey's Public Rights of Way extend to nearly 3,500 km, mostly concentrated in rural areas. These take advantage of the physical landscape of the county, in areas across the AONBs of Surrey Hills and High Weald.

1.2.8 Future transport trends

Demand for travel is currently closely linked to population growth and the UK's population is forecast to grow by four million by 2030 to have a total population of 70.4 million. This is likely to add further pressure on existing transport systems. London is expected to account for 22% of this increase with the south-east region representing 18%.

Furthermore, Surrey has an ageing population, those over the age of 70 are expected to increase from 13% in 2016 to 17% by 2031. Travel demand from this growing age group is set to increase with a trend towards a more active retirement. For rural areas especially, this means greater use of the private car.

Car ownership in Surrey is 86% compared to the national average of 73% and continues to rise.

There is evidence of remote working increasing over the last decade with the amount of business space falling since 2008. Once the full impact of COVID-19 is felt, it is expected remote working will increase even further.

Congestion on the motorways and major 'A' roads in Surrey is a major economic, social and environmental issue, which is likely to increase with projected population growth.

1.3 Policy review summary

A review of relevant national, sub-regional and local policies has identified a number of clear imperatives for this LTP as follows:

- setting a clear transport carbon pathway towards net zero carbon emissions by 2050 (and intermediate 60% reduction by 2035) to achieve Surrey's transport commitments set out in our Climate Change Strategy;
- providing an overarching roadmap for how transport can support achievement of the Council's other policies including those in:
 - Surrey's Community Vision by 2030;
 - Surrey's Health & Wellbeing Strategy;
- aligning the LTP4 to Surrey's Place Ambition in recognition that effective strategic/spatial and land use planning and place making is an essential tool in achieving the LTP objectives, particularly the shift in transport trends required to achieve net zero carbon emissions by 2050;
- using measures in all three parts of the Avoid, Shift & Improve framework to achieve our goals; and
- referencing the ongoing COVID-19 pandemic and the challenges and opportunities this brings for the LTP4 period.

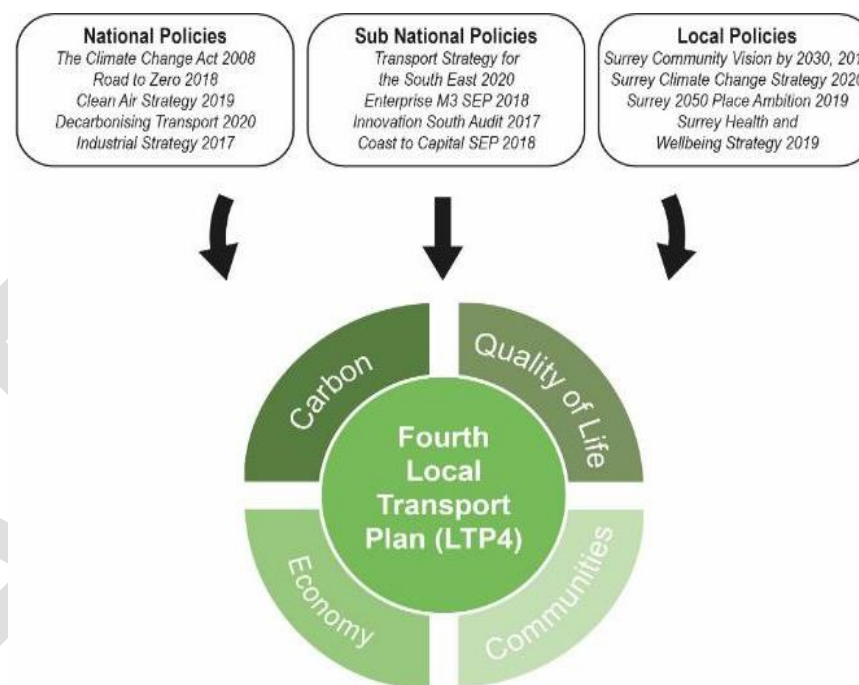
These focus areas have guided the development of this LTP4 and its vision and objectives of LTP4 as described in **Section 2**.

The review also highlighted the need for development of LTP4 to reflect the unique qualities of Surrey as a place and its people, identifying transport measures that suit the county and its setting.

Finally, as Surrey seeks to grow economically and develop over the period of this LTP4, we will focus on ensuring this growth is sustainable and takes full consideration of Surrey's people and environment. New and regenerative developments of Surrey's land will be place-based.

Numerous policies were reviewed, including those summarised in Figure 1-9,

Figure 1-9 – Summary of Policy Review



1.4 LTP4 challenges

Four key challenges which this LTP must respond to have been identified to achieve our ambitions for Surrey:

- an urgent need for action to respond to the Climate Emergency and meet SCC's commitment to net zero carbon in 2050;
- an aspiration to achieve "Good Growth" in line with population projections and local policy ambitions;
- a responsibility to address areas of inequality in social mobility and pockets of deprivation experiences across the county; and
- an ambition to further improve the health, wellbeing, and quality of life of residents.

These challenges are summarised in the table below alongside examples of where these challenges have been identified.

Table 1-1 - LTP4 Key challenges and policy drivers

Challenge	Drivers
An urgent need for action to respond to the Climate Emergency and meet SCC's commitment to net zero carbon in 2050	As defined in the 2019 SCC Climate Emergency Declaration.
	SCC's Climate Change Strategy: <ul style="list-style-type: none"> Surrey is committed to delivering net zero carbon emissions by 2050; Surrey has a target for 60% emissions reduction in the Transport sector by 2035, relative to business as usual; and If Surrey does nothing, at the current rate of emissions Surrey would use up its carbon budget in just over eight years.
	SCC's Community Vision for 2030: "Residents live in clean, safe, and green communities, where people and organisations embrace their environmental responsibilities".
An aspiration to achieve "Good Growth" in line with population projections and local policy ambitions	SCC's Community Vision for 2030, and associated evidence base: <ul style="list-style-type: none"> Surrey's population of 1,194,500 is expected to grow to 1,264,000 by 2030; A key objective is for businesses in Surrey to thrive; and Well-connected communities, with effective infrastructure, that grow sustainably
	SCC's 2050 Place Ambition: <ul style="list-style-type: none"> SCC's commitment to three strategic priorities: <ul style="list-style-type: none"> Improve connectivity both within Surrey and between strategically important hubs Enhance the place offer of Surrey's towns Maximise the potential of our strategic economic assets. Good growth is a desired output of the Place Ambition; Links between schools, colleges, and employers need to be strengthened to ensure young people are workplace ready, to enable Surrey to retain young people in order to boost the economy and enhance future productivity; and Road congestion and associated delays cost the local economy £550 million each year.
	SCC's Economic Development Strategy Statement: Embedding the principles of good growth within the strategic planning framework for new development is essential.

Challenge	Drivers
A responsibility to address areas of inequality in social mobility and pockets of deprivation experiences across the county	<p>SCC's Community Vision for 2030, and associated evidence base:</p> <ul style="list-style-type: none"> • By 2030 Surrey will be a uniquely special place where everyone has a great start to life, people live healthy and fulfilling lives, are enabled to achieve their full potential and contribute to their community, and no one is left behind; • Everyone benefits from education, skills and employment opportunities that help them succeed in life; • Regarding the most deprived areas of Surrey, the 25 most deprived in 2015 ranked within the most deprived 1/3 of areas in the country; and • Foodbank usage across the county increased 111% between 2013/14 and 2016/17, a far higher increase than other counties in the south east.
	<p>SCC's Health and Wellbeing Strategy: Address the root causes of poor health and wellbeing, address inequality of life expectancy, and improve quality of life.</p>
	<p>SCC's Place Ambition: In 2019, 23,000 children in Surrey are living in poverty, and 10,600 children aged 5 to 15 have a mental health disorder.</p>
	<p>SCC's Infrastructure Plan, Baseline Report: The gap between east and west Surrey is widening in terms of competitiveness and productivity.</p>
An ambition to further improve the health, wellbeing, and quality of life of residents	<p>SCC's Community Vision for 2030: Everyone lives healthy, active, and fulfilling lives, and makes good choices about their wellbeing.</p>
	<p>SCC's Health and Wellbeing Strategy:</p> <ul style="list-style-type: none"> • The strategy represents collaborative working to address the root causes of poor health and wellbeing, address inequality of life expectancy, and improve quality of life; and • Supporting people to become healthy and proactive and take ownership of their health.
	<p>SCC's Infrastructure Plan, Baseline Report: Forecasts an increase in the dependency ratio in Surrey from 64% to 80% by 2041.</p>
	<p>SCC's Climate Change Strategy: Priorities will also bring about significant improvements in air quality and health of residents.</p>
	<p>SCC's Low Emissions Transport Strategy: Surrey had 24 declared AQMAs in 2018, all of which have been declared in relation to excessive NO₂.</p>

1.5 Scope of the LTP

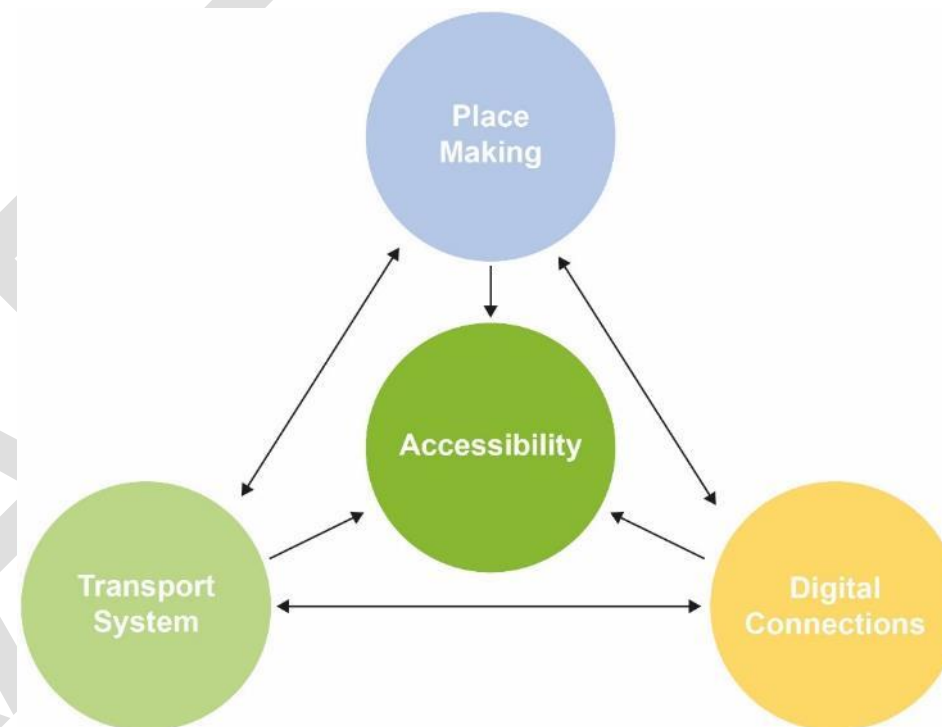
The LTP4 has been developed at a time of increased interest in sustainable transport. National policy is evolving to meet challenging environmental targets, with increasing recognition of the importance of place making, and technologies are being developed that make transport greener.

The main role of transport is to provide access to opportunities and activities such as working, shopping, and socialising. The LTP4 aims to improve Surrey's transport system to improve accessibility and meet other objectives, but also recognises that accessibility can also be improved (see Figure 1-10), through:

- place making: Bringing activities and opportunities closer to people through land use planning; and
- digital connectivity: Broadband and mobile connections to allow online accessibility

This LTP considers measures to improve accessibility in all of these ways, accounting for rapid development in technologies and the opportunities that they provide. This means that it is wider reaching than previous transport plans.

Figure 1-10 - Three ways to improve accessibility (based on Triple Access System, Glenn Lyons & Cody Davidson, 2016)



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Vision and objectives

2 Vision and objectives

The vision and objectives which this LTP seeks to achieve are derived from the four challenges identified from the review of evidence and policy and our county aspirations (see Section 1).

2.1 Vision

LTP4 marks a step change for transport in Surrey, providing an opportunity to refocus and realign our transport policy to a unifying vision.

The vision sets out our aspiration for the transport system in Surrey in 2030 and beyond.

“A future-ready transport system that allows Surrey to lead the UK in achieving a low-carbon, economically prosperous, healthy and inclusive county with excellent quality of life for all residents, whilst seeking to enhance the built and natural environments.”

2.2 Outcome objectives

We have identified four ‘outcome objectives’ to help guide the LTP4 in delivering the vision. The objectives summarise the higher-order outcomes which investment in transport in Surrey can help to achieve.

These objectives each focus on one key challenge identified from our evidence base set out in Section 1, providing a structure for the LTP4 that follows our priority areas as a county.

Figure 2-1 – Drivers and Objectives

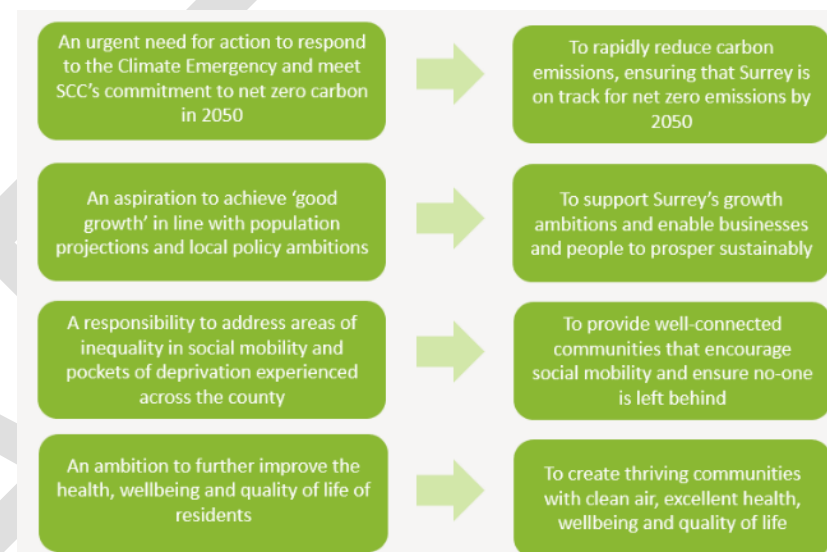


Figure 2-2 – LTP4 Objectives

- 1 { • To rapidly reduce carbon emissions, ensuring that Surrey is on track for net zero emissions by 2050
- 2 { • To support Surrey's growth ambitions and enable businesses and people to prosper sustainably
- 3 { • To provide well-connected communities that encourage social mobility and ensure no-one is left behind
- 4 { • To create thriving communities with clean air, excellent health, wellbeing and quality of life

2.3 Our strategic priorities

The LTP4 outcome objectives also align closely with Surrey County Council's strategic priorities for the next five years, as shown in Figure 2-3.

Figure 2-3 – SCC Strategic Priorities and corresponding LTP4 Objectives



Policy areas

3 Policy areas

3.1 Policy areas to achieve decarbonisation

Given the scale of challenge we face in meeting our county commitment to reducing carbon, rapid decarbonisation has been prioritised as the most important objective of LTP4.

Achieving this goal will require a broad mix of policies and projects. This LTP groups those interventions under nine Policy Areas. The Policy Areas will reduce carbon emissions by reducing the amount of travel by vehicles and the emissions produced by every kilometre travelled. The Policy Areas cover interventions which Avoid, Shift and Improve travel (see box) as shown in

Figure 3-1 and **Error! Reference source not found.** Figure 3-2 and support improvements in all three types of accessibility (as shown in Figure 1-10).

Avoid, Shift, Improve framework of emissions reductions measures




Category	Emissions reduction approach
Avoid 	Reduce overall travel (through reduced trips or length – logistics, land use planning, online activities)
Shift 	Increase the proportion of travel by the most efficient modes
Improve 	Increase vehicle energy efficiency Move to alternative, less carbon intensive fuel/energy sources

Figure 3-1 – LTP4 Policy areas

Accessibility	Policy Area	Category
Place making	Planning for place (localisation)	Avoid
Digital connections	Digital connectivity	Avoid
Transport system	Active travel/personal mobility	Shift
	Public/shared transport	Shift
	Demand management for cars/light vehicles	Shift
	Demand management for goods vehicles	Shift
	Efficient network management	Improve
	Promoting ultra-low emission vehicles	Improve
	Supporting behaviour change	All

The carbon reduction potential of each Policy Area is described in the Carbon Reduction Strategy.

All nine Policy Areas are required to reduce carbon emissions across Surrey at the pace and scale required to achieve carbon Net Zero by 2050.

3.2 Contribution of policy areas to LTP objectives

Each of the nine Policy Areas also contribute to Surrey's other outcome objectives: sustainable growth, communities & social mobility and quality of life.

'Logic maps' have been used to show how each Policy Area will impact on each objective. The process of logic mapping was undertaken in line with the Tavistock Institute definitions¹. These definitions were produced for the Department for Transport in 2010 and are a best practice method used in the evaluation of transport policy and interventions.

Each logic map shows the routes through which the Policy Areas are expected to deliver one objective. The logic maps are reproduced below:

- carbon reduction is shown in Figure 3-3
- sustainable growth is shown in Figure 3-4;
- community & social mobility is shown in
- Figure 3-5; and
- quality of life is shown in Figure 3-6.

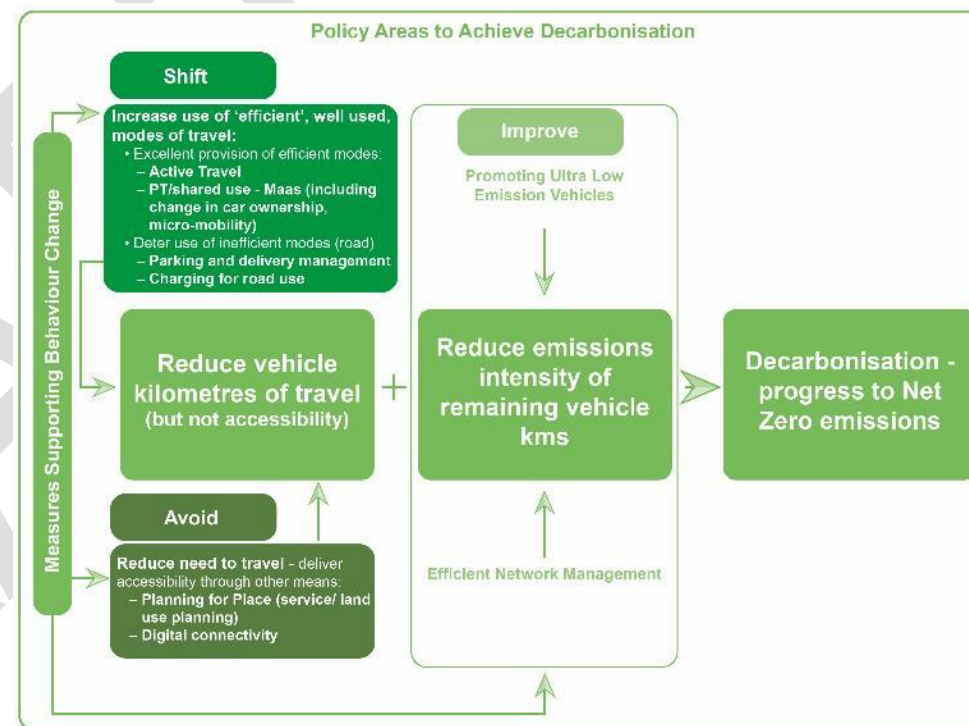
3.3 Policies to ensure sustainability in the delivery of the LTP

Better transport is at the core of delivering sustainability in Surrey. The four LTP objectives reflect how our objectives can be achieved through:

- minimising carbon and local pollutant emissions from vehicles
- supporting strong and equitable economic growth and access to jobs and skills, helping to improve equality in the community;
- supporting social mobility and connected communities;
- improving quality of life through improved air quality, health and accessibility; and

- co-ordinating land use and transport planning to deliver accessibility through transport, digital and spatial connectivity.

Figure 3-2 – Policy areas to achieve decarbonisation



The nine Policy Areas have been identified to achieve the objectives and improve sustainability by improving the travel and accessibility options available in Surrey and their delivery on a day to day basis.

¹ <https://www.tavinstitute.org/projects/report-guide-to-logic-mapping/>

Implementing projects under most of the Policy Areas will require construction of new infrastructure. Wherever new infrastructure is required, we will have a presumption in favour of making net improvements to the local environment and, as a minimum, always follow our environmental policies to take every opportunity to protect and enhance the environment. We will always seek to reduce or avoid adverse environmental, economic or social impact where possible and this will be a key consideration from the earliest development of any transport intervention or maintenance protocols.

Therefore, all new and upgraded infrastructure will be designed and specified to:

- **reduce embodied carbon emissions**, including through choice of materials and treatment of waste more generally, partly through use of recycled materials;
- **improve air quality**, including through green infrastructure;
- **build in resilience to climate change**, particularly flooding and temperature extremes;
- **protect and enhance valued places**, including those biodiversity, landscape and townscape and historic environment; and
- **protect and enhance natural resources**, including protecting soil and land and water and promoting circular economy principles for resource use and waste.

Further details are provided in Section 3.14

Figure 3-3 - Logic map for Objective 1 (carbon)

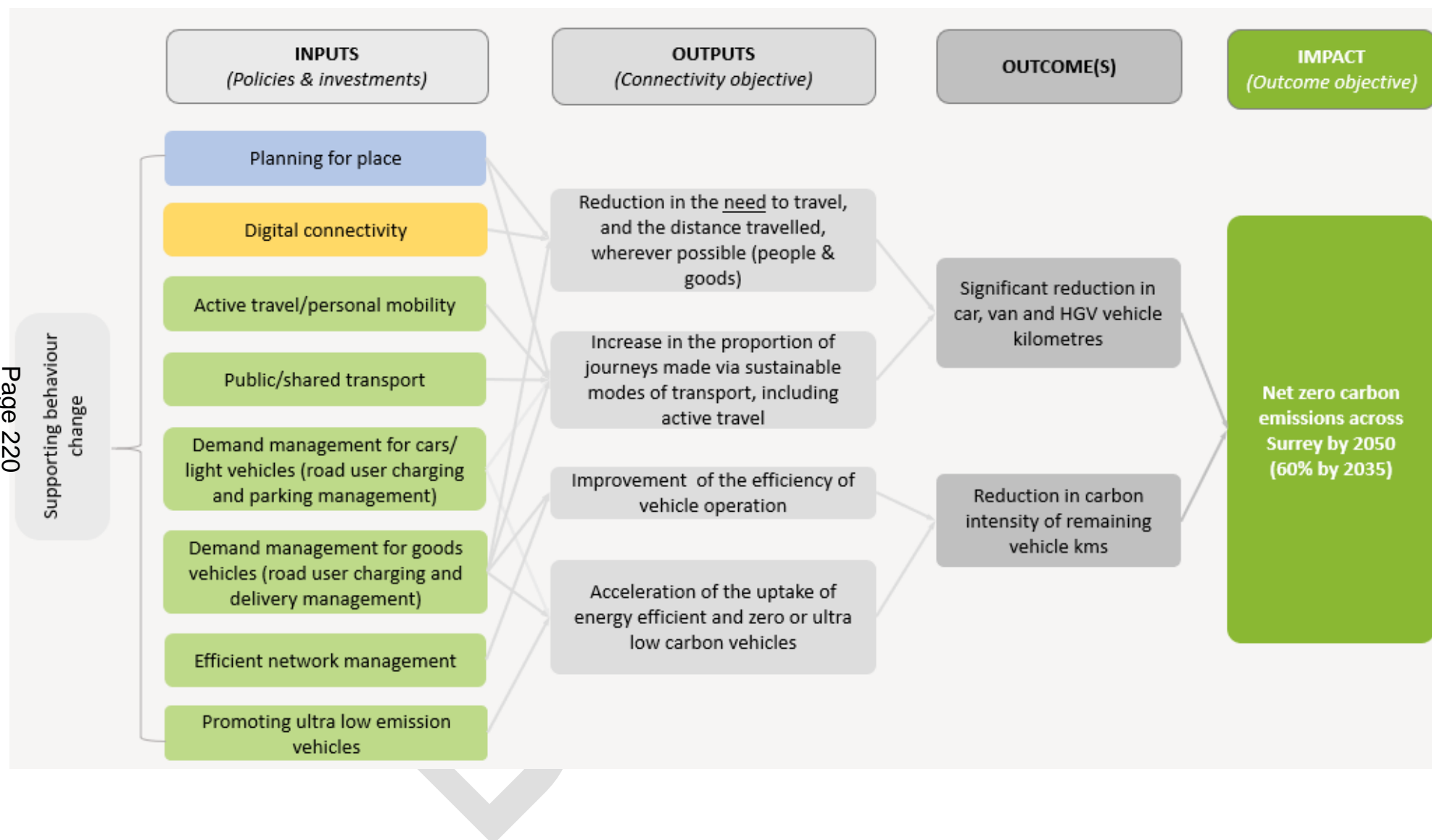


Figure 3-4 - Logic map for Objective 2 (economic growth)

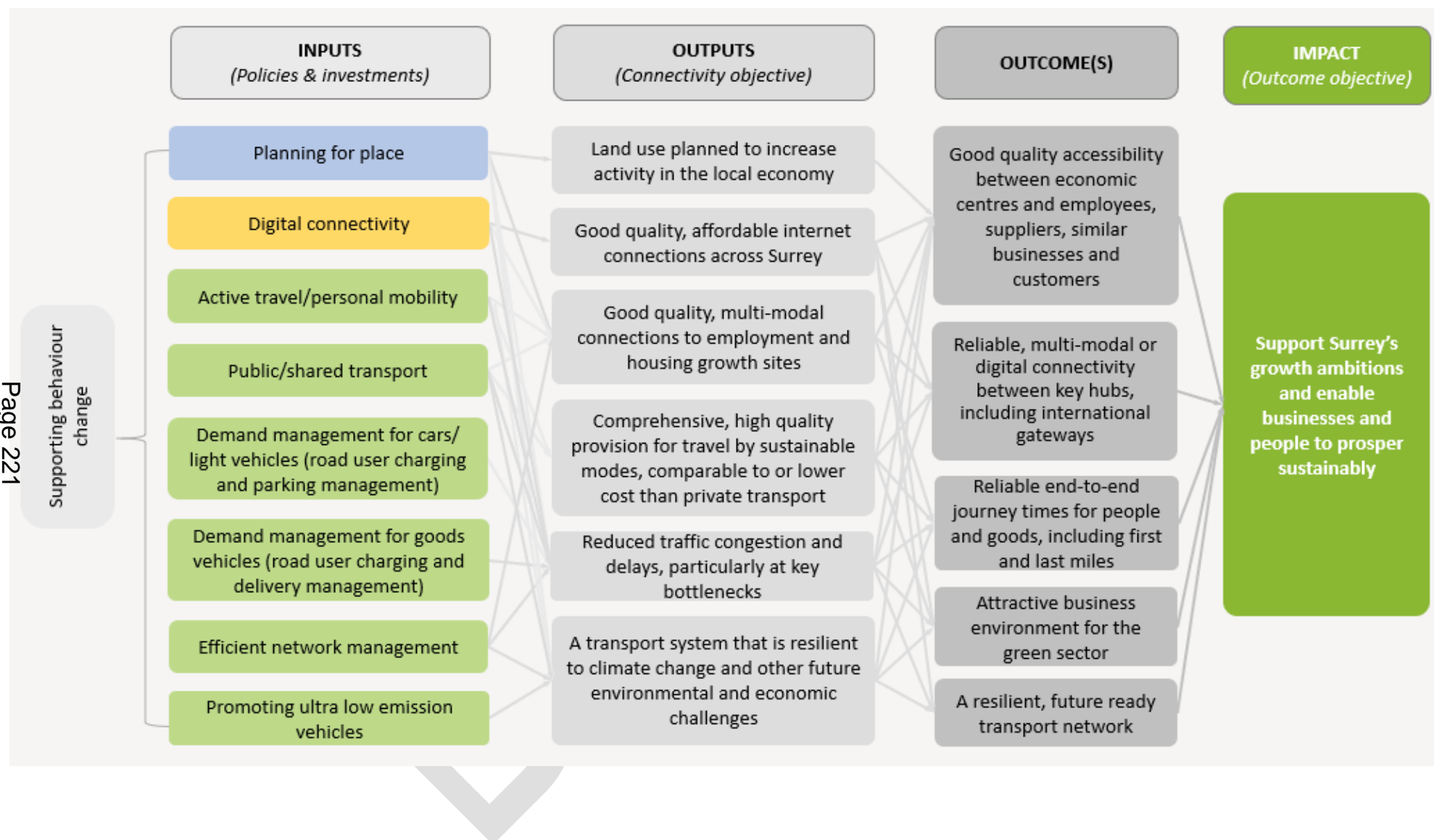


Figure 3-5 - Logic map for Objective 3 (social mobility)

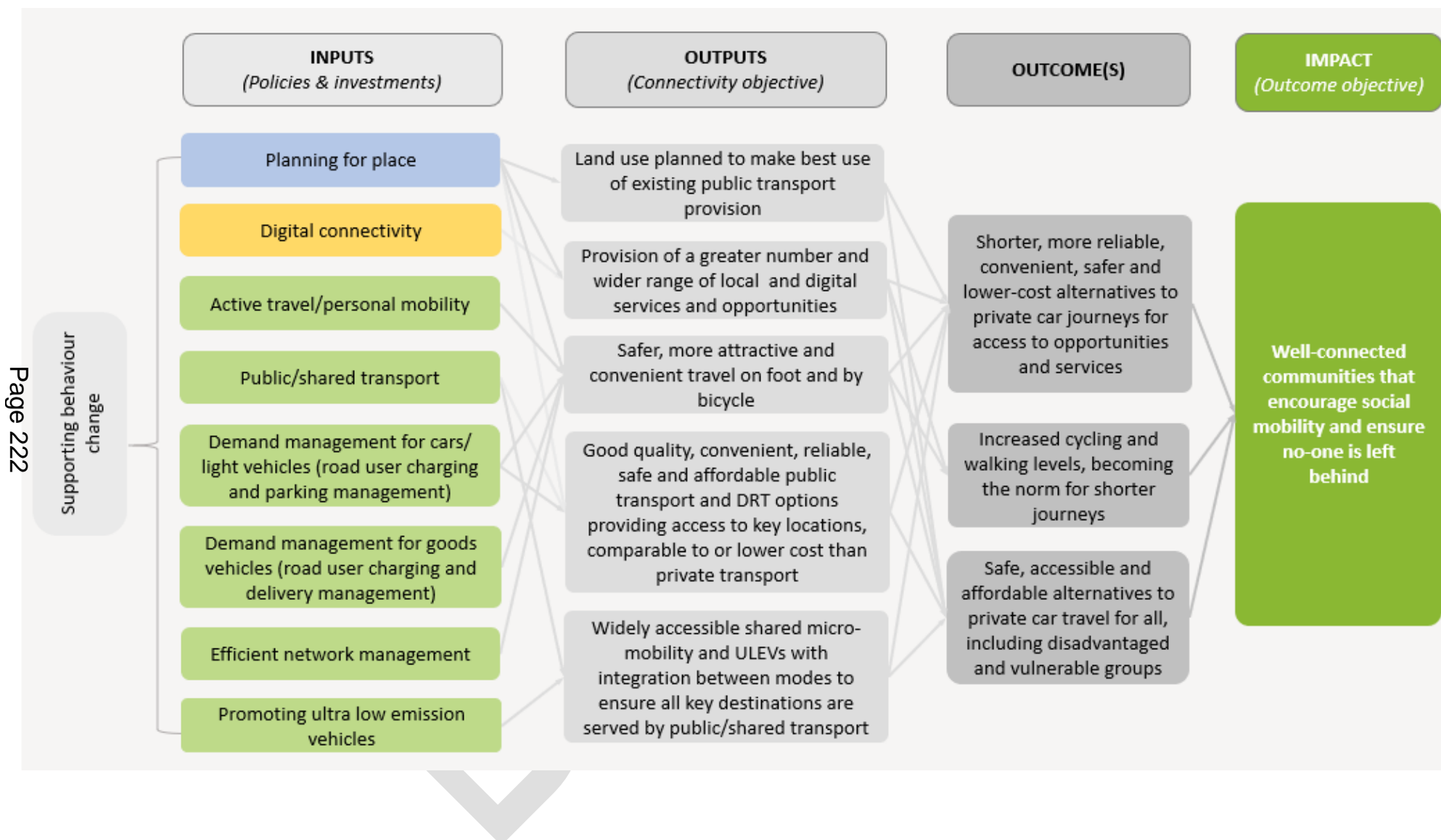
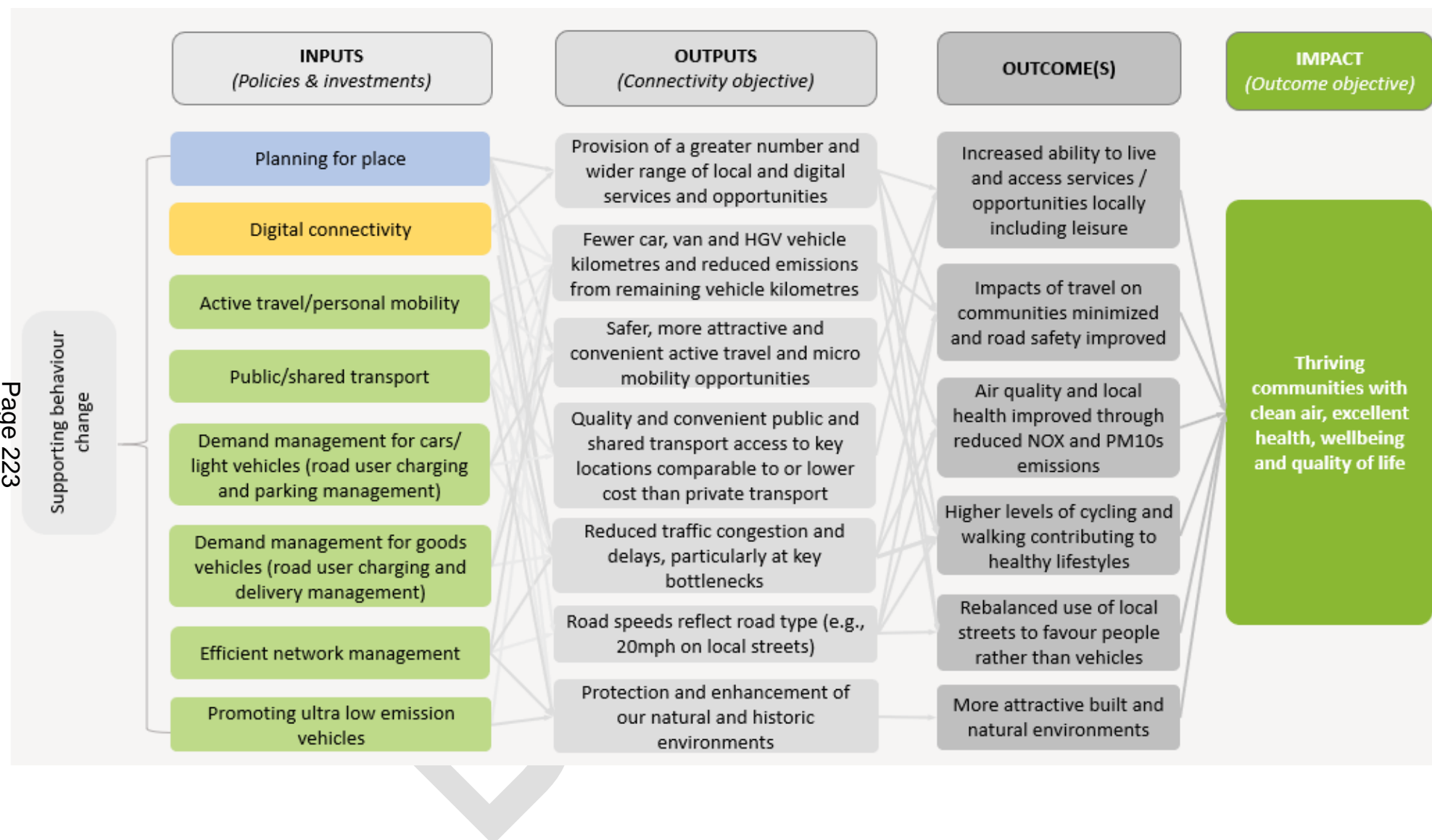


Figure 3-6 - Logic map for Objective 4 (healthy communities)



3.4 Policy Area summary

Figure 3-7 summarises how the nine Policy Areas to deliver the four LTP objectives sit within the Avoid, Shift, Improve framework and policies to ensure sustainability in the delivery of new or improved infrastructure or operations.

Table 3-1 provides a brief description of each policy area and the impacts measures in each area can have. For further information, please click on the Policy Area name hyperlink, which will take you to an individual webpage for each of the nine areas.

Following the table, sections for each Policy Area describe typical measures within that area, and the likely benefits arising.

Figure 3-7 - Summary of LTP Policy Areas, objectives and sustainability



Table 3-1 - Policy areas

Policy Area	Description	Explanation
<u>1) Planning for Place</u>	Promote planning of service provision and developments/land use to support significant localisation of activity in attractive local communities, supported by high quality connectivity based on provision for public/shared/active travel.	Based on the 20-minute neighbourhood concept of residents being able to meet their needs/access services and opportunities within a 20-minute walk or cycle ride – leading to less overall travel and reinvigoration of local communities with social and economic benefits, including increase in active travel with associated health benefits. This should be supported with planning to improve accessibility by shared/public/active transport (Policy Areas 3 and 4).
<u>2) Digital connectivity</u>	Support access to high quality digital connectivity for all supplemented with provision of appropriate services and activities online	Reliable broadband and mobile connection to support localisation of activity and ease of local/home based access to digital services/opportunities for all.
<u>3) Active travel/personal mobility</u>	Develop countywide dense, integrated network of high quality, cycle routes and foot paths, segregated where possible, focused on serving and linking urban areas and public transport connections, with supporting cycling infrastructure (changing, parking, charging for e-bikes). Rebalance the use of streets away from motorised vehicles including a potential 20mph limit on appropriate residential roads.	Provision of high-quality network to support increased walking/cycling uptake and complement localisation and public transport provision. Potentially linked to Mobility as a Service (MaaS) through provision of access to PT/shared transport and hire of e-bikes. The 20mph limit supports rebalance between cars and goods vehicles and other vehicle types and an improved environment for walking/cycling. Increased road journey times for car may also encourage mode shift to active travel.
<u>4) Public/shared transport</u>	Develop countywide high quality, reliable, integrated, affordable public transport system and supporting shared transport (including EV car clubs) with access through an accessible/easy to use MaaS arrangement.	Provision of high levels of accessibility across the county, providing a strong alternative to private car use and ownership.
<u>5) Demand management for cars/light vehicles</u>	Charge or Eco levy for road use and parking for cars, rising steeply with emissions (based on vehicle fuel and size and occupancy) to reflect the environmental implications of car use, Supplemented by parking space restraint and relocation.	<p>To level up the cost of travel by different modes by taking better account of the environmental and social impacts of road use. Intended to support other policy areas i.e. upgrade of fleet, use of smaller vehicles and move away from car ownership and use with low occupancy. To minimise equity implications, it is important that is combined with access to shared EV cars through MaaS (so that lower income groups that cannot afford to upgrade cars to EVs are not penalised with lack of access). Road user charge would be more effective than parking charges which target a limited subset of trips.</p> <p>Ideally charging would be linked with a wider regional or national scheme. If not, potentially the most successful approach would be to focus on urban centres for which alternative route options are greater. Design would need to avoid rerouting.</p>

Policy Area	Description	Explanation
<u>6) Demand management for goods vehicles</u>	Charge for road use and deliveries for goods vehicles, rising with emissions intensity of vehicle.	As above, to level up cost of travel by different modes by taking better account of environmental impacts of road use. Intended to encourage efficiency of operations (freight planning/consolidation), fleet upgrade, use of consolidation centres and last mile solutions (e.g. e-cargo bikes). Important that the measure is combined with support for consolidation centres to provide alternatives for firms that can't afford to upgrade. Ideally charging would be linked with wider regional or national scheme. If not, potentially a focus on urban centres (equivalent to CAZ) for which alternative route options are greater. Design would need to avoid rerouting.
<u>7) Efficient network management</u>	Focus on smooth, efficient flow of traffic through traffic management including speed limits and targeted relief of congestion bottlenecks, or to address serious environmental impacts on local communities, or to enable release of roadspace for other uses. Otherwise, presume highway capacity increases are only for provision for active and public transport modes	Transport for Quality of Life, UKERC and other bodies highlight the tendency for additional road capacity to increase traffic and emissions which increases the scale of the decarbonisation challenge. These measures are intended to improve efficiency of vehicle operation (high speeds increase emissions), particularly any speed limit to 50mph or 60mph. Measures to relieve congestion should increase speeds above inefficient low levels
<u>8) Promoting ultra-low emission vehicles</u>	Promote rapid uptake of EVs (and hydrogen vehicles where appropriate), for all vehicle types (including public transport) through provision of comprehensive charging infrastructure serving all use types, leading by example with public and supplier fleets and awareness raising. Promoting EV car clubs to accelerate access to lower emissions vehicles.	EVs and other low emissions vehicles are an essential part of decarbonisation. Whilst largely driven by measures at national level, local action can accelerate uptake through charging infrastructure provision and action on the council's own fleet and those that it can influence. The parking and charging measures would also contribute.
<u>9) Supporting behaviour change</u>	Awareness campaigns to support other policy areas, explain their interaction and purpose and promote change in travel behaviour to ensure the measures work effectively.	Behaviour change is required to support each of the other policy areas (from changing type of vehicle or mode of travel to destination of trip). An overarching campaign is required to explain the interactions between measures and their intended benefits (e.g. road user and parking charging revenue to support active and public transport and digital connectivity) and to support planning of travel to make best use of the changing system. Campaigns would need to be supported by action to improve awareness including reward apps and work with organisations to improve travel planning.

3.5 Policy Area 1: Planning for Place

Contribution of Planning for Place to LTP4 Objectives

See *Impact Strategies* for more detail.

Carbon reduction	++
Sustainable growth	+
Community and social mobility	++
Quality of life	++

3.5.1 20-minute neighbourhood

Planning for Place involves developing new areas and redeveloping existing towns and villages to provide attractive local neighbourhoods, often termed '**20-minute neighbourhoods**' which are planned so that people can meet the majority of their needs locally, within a 20-minute walk or cycle ride. A greater number and wider range of local services and opportunities will be provided locally than are currently typically available, including retail, education, healthcare, jobs and local work hubs (providing high quality remote access to work further afield). This will provide accessibility through the place-making route (Figure 2.1)

20-minute neighbourhoods can bring a **wide range of benefits**, including reduced emissions, reinvigorated local centres and economies and improved quality of life. Benefits include improved local environments, health and community strength and reduced inequality, as transport costs for accessing services and opportunities fall, meaning increased access for all residents.

Successful delivery of 20-minute neighbourhoods require **strong links with other policy areas**, particularly provision of Digital Connectivity and support for Active Travel and Demand Management.

Successful 20-minute neighbourhoods often achieve:

- **A strong sense of place** with a range of services, opportunities and attractions providing several reasons to visit and dwell in the local centre.

- **Attractive environment** including green space and areas for interaction.
- **Ease of access to the centre by non-car modes:** Ensuring safe and attractive routes to and within the centre, particularly for active modes
- **Reduced dominance of cars and goods vehicle on the roads** to encourage walking, cycling and social interactions.
- **Focus of development around public transport hubs** to ensure that longer movements to access less frequently required services and opportunities are well served by the public transport network.

Definition of a 20-minute neighbourhood. The ability to meet most of your daily needs within a 20-minute walk or cycle ride. Key features include local shopping and health facilities, education, green spaces, affordable and diverse housing, safe streets, active travel and public transport, and employment.



Source: Department of Environment, Land, Water and Planning, Australia

3.5.2 Quick Wins in delivering 20-minute neighbourhood principles

Delivering 20-minute neighbourhoods fully will require several land use changes that are likely to take several years to develop in full. However, there are some Quick Wins that can make a significant difference to a location, increasing the sense of a local community and level of activity. In particular, it is important to 'lock-in' the increased trend for living locally caused by COVID-19. Rapid action would also have the benefit that the measures would help to support recovery in the high street economy, the ongoing decline of which has been accelerated by the pandemic.

Potential 'Quick Wins' overlap with other policy areas and include:

- **Making land use changes to increase the range of activities** in existing central buildings, making them more flexible, for instance, introducing:
 - Work hubs to support remote working;
 - Delivery hubs to centralise home deliveries, reducing the number of trips, with individuals picking deliveries up or potentially having them delivered by e-cargo bike; and
 - New types of experience and entertainment.
- **Establishing mobility hubs**, a clearly distinguished, attractive focus for public and shared transport provision and other services (such as remote working facilities), focussed round a rail or bus station or stop where possible and providing easily accessible information on travel options (discussed further under Public/Shared Transport below).
- **Implementing well developed walking and cycling schemes** that are forecast to be well used.
- **Introducing 20 mph zones combined with traffic management** on road links identified to have a strong 'place' function in the road use categorisation (described further under Active Travel below) to alter the balance from the dominance of motorised vehicle use.

- **Making public realm improvements** – introducing parklets and pedestrian priority to make the area more attractive for spending time and to provide a clear indication of intentions to create the neighbourhood.

3.5.3 Wider Land Use Planning Links

Where local centres and hubs can't be provided, or in addition to these, land use planning should also prioritise making the best use of existing public transport provision, to enable residents to utilise this mode to access opportunities including employment and education.

3.6 Policy Area 2: Digital Connectivity

Contribution of Digital Connectivity to LTP4 Objectives

See Impact Strategies for more detail.

Carbon reduction	++
Sustainable growth	+
Community and social mobility	++
Quality of life	+

Digital connectivity provides one of the three types of accessibility described in Figure 1-10. High quality digital connections provide significant potential in terms of avoiding physical access to activities and replacing it with digital connections, such as virtual work meetings or online doctor’s appointments or training.

In 2020 and 2021, responses to COVID-19 have caused a step change in levels of digital access, the range of opportunities offered online and people’s familiarity with the options available, providing a clear understanding of the potential to reduce carbon emissions through this route.

Successful delivery of this policy area will require **extensive rollout of fibre broadband and 5G mobile coverage** to provide excellent connectivity for homes, businesses and public organisations such as healthcare providers, Surrey-wide.

With the presence of the world-leading 5G Innovation Centre in Surrey, county-wide digital connectivity can be achieved through the support of digital knowledge and local investment. The county has good coverage of fixed broadband connectivity in high-density population areas and ultrafast broadband coverage is higher than the national and regional averages. However, full fibre availability is low across Surrey and digital connectivity is much lower in rural areas in boroughs such as Mole Valley which has a significant proportion of self-employed people.

It will also be important to develop clear plans to support **development of opportunities and services to take advantage of the digital connections**, including services provided by the County Council. Surrey’s Digital Strategy is intended to move the county forward rapidly in the field of digital provision and use over the next 5 years, including their provision of services to residents.

COVID-19 and digital access

The Office for National Statistics showed that 47% of the working UK population did some level of homeworking during the first COVID-19 lockdown in April 2020. A recent study by the University of Chicago, quoted in the CCC’s 6th Carbon Budget has estimated that 43% of UK jobs can be done entirely from home.

3.7 Policy Area 3: Active travel and personal mobility

Contribution of Active Travel/Personal Mobility provision to LTP4 Objectives See *Impact Strategies* for more detail.

Carbon reduction	++
Sustainable growth	+
Community and social mobility	++
Quality of life	++

3.7.1 The benefits of active travel

Active travel (walking and cycling) is the most sustainable form of transport as shown in the travel hierarchy and it will be important to prioritise measures to increase levels across Surrey, including walking, cycling, e-bike use and potentially the use of scooters and e-scooters (dependent on on-going trials). As more people travel in this way, car use can be reduced, bringing reductions in carbon emissions and improvements in local air quality, local environment and physical health.

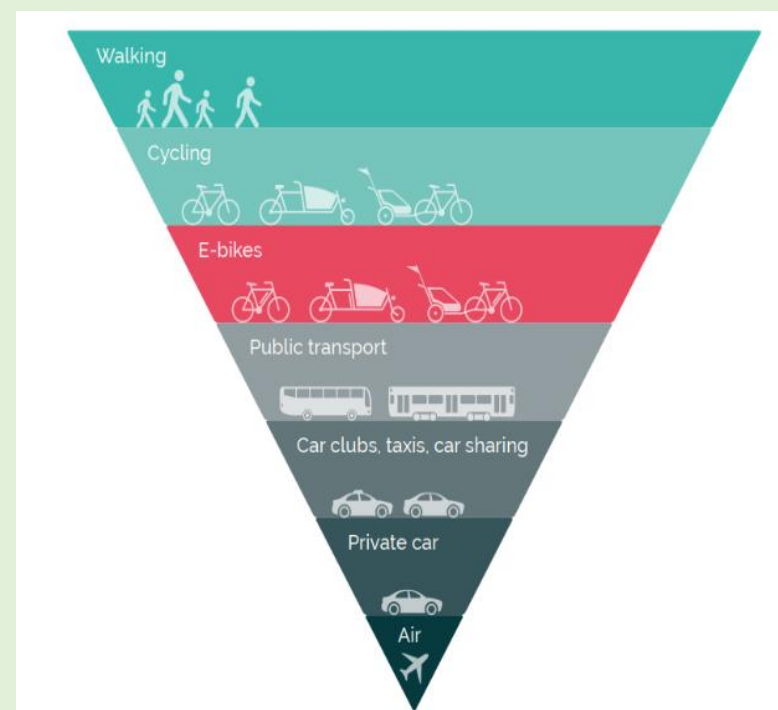
3.7.2 Improving conditions for walking and cycling

Evidence shows that the most effective way to achieve uptake of active modes is to provide safe, connected, attractive routes, segregated from other traffic or on low speed routes directly serving key desire lines for travel, making active travel a safer and more attractive option. Improving access by active modes to high streets and local centres is essential.

Active travel provision in Surrey will include the following measures:

- **Segregation of active modes from traffic on key routes.** Provision of **high-quality segregated cycle lanes** on high demand routes, linking key destinations such as high streets and local centres, building on existing examples such as the sustainable movement corridor between the Royal Surrey Hospital and Surrey University in Guildford.

Sustainable travel hierarchy

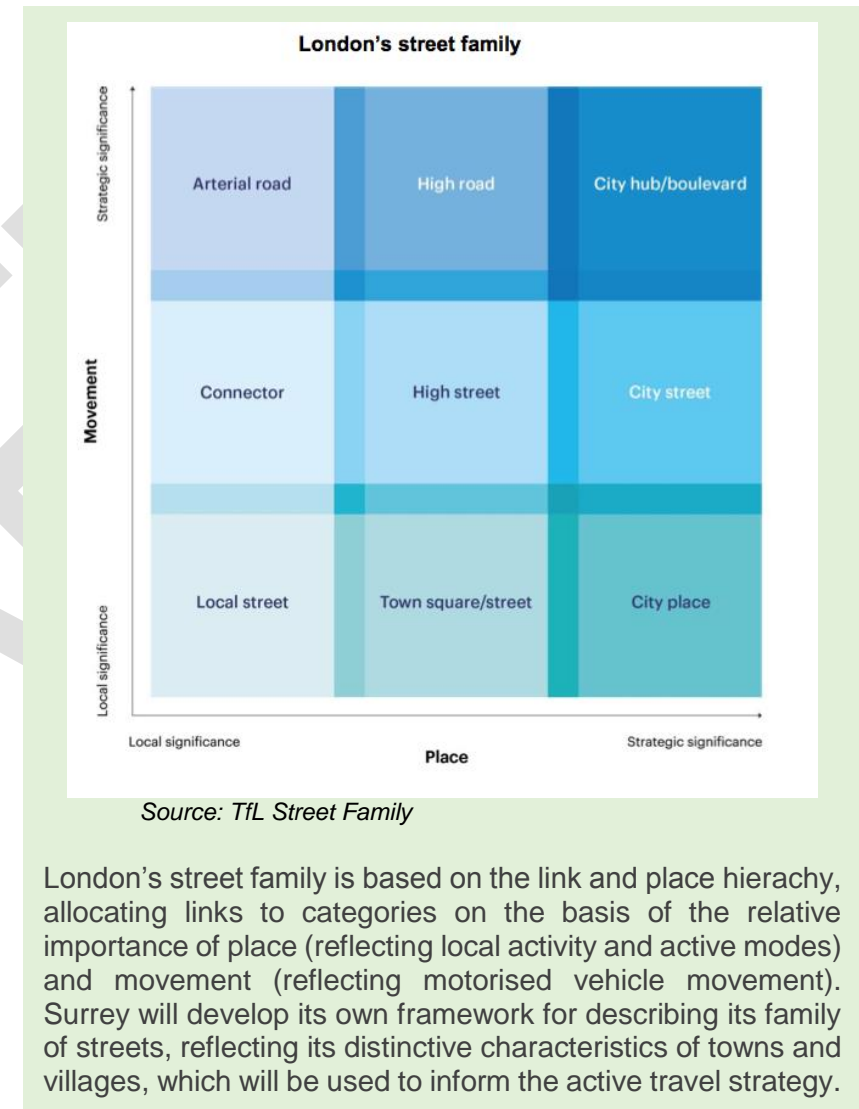


(Source: Decarbonising Transport: Growing cycle use, Local Government Association, 2020)

The sustainable travel hierarchy, ranging from walking as the most sustainable travel mode, through to air travel as the least sustainable.

Where appropriate, space for segregation could be achieved through removing on street parking, providing a synergy with demand management measures (described further below). Elsewhere, wholly new high-quality cycle lanes will be built. Where segregation is achieved through reallocating existing road space to active modes, we will make sure that this does not result in increased carbon emissions from traffic due to additional congestion.

- **Development of road use categories**, similar to the London Street Families to move away from the priority given to the flow of motorised vehicles on most roads and recognise that other types of movement and place based activity (cycling, walking, social interactions) are more important on many roads, particularly in urban centres.
- Introduction of **low traffic neighbourhoods** on appropriate roads from the categorisation, with measures to minimise car access and prioritise active travel (and public transport) over car use.
- Application of **20-mph speed limits** on other roads with a high place function in the categorisation (see the street family diagram to the right), where walking and cycling demand will be high but traffic throughflow needs to be maintained, relevant roads will be identified in line with the road use categorisation.
- **Adaptation of junctions to improve active travel provision**, including early release for cyclists and low signals, two stage right turns, and increased capacity.
- **Widening and improving quality of footways**, including surface quality, width and continuity, with segregation from cyclists, in line with Guidance.
- Provision of **convenient crossing facilities**, reflecting desire lines.
- Implementation of **good practice design standards** throughout, in line with the government's 2020 Gear Change cycle design guidance.
- **Integration of provision** to provide a complete **connected network** linking residential areas to key destinations such as high streets and local centres, employment centres, healthcare and public transport hubs.
- Provision of **excellent cycling support services** in residential areas and at cycle destinations, including parking facilities, storage, changing and charging for e-bikes.
- Establishment of **clear signage with clear branding** to facilitate way finding.
- Implementation of a **good quality maintenance regime** to maintain the quality of provision.



Major improvements to walking and cycling across Surrey will be delivered through Local Walking and Cycling Improvement Plans (LCWIPs).

3.7.3 Encouraging change on longer journeys

To maximise the shift to active modes and reduced traffic, LTP4 measures will ensure that active travel options cater for, or can replace, longer journeys by:

- Providing **active travel access to public transport** so that it provides the first and last leg in longer journeys that may previously have been completed by car (including journeys to and from train stations across the county).
- **Integrating active travel measures with Planning for Place measures**, promoting 20-minute neighbourhoods and increasing the number of trips occurring within walking and cycling distance range, replacing previous longer distance trips.
- The **use of e-bikes** and potentially e-scooters (dependent on the result of ongoing trials) to extend the range and the routes for which cycling is appropriate.

Measures to support the uptake of walking and cycling will form a key component of the behavioural change measures (as described under the Behaviour Change policy area), including provision of accessible, reliable information on available routes and incentives and rewards for reaching certain levels of walking and cycling activity.

3.7.4 E-bike hire

E-bike hire and potentially e-scooter hire (dependent on current trial outcomes), **integrated with a multi-modal Mobility as a Service (MaaS)** framework (discussed under the Public/Shared Transport policy area) will also form part of an integrated active alternative to travel by car. For instance, bikes could provide the means to cross an urban centre or the transport for the first or last leg of a journey on the public transport network.

3.7.5 Cargo-bikes

There is also **a role for active travel in decarbonising freight**. Cargo-bikes used in conjunction with the HGV measures described under the Demand Management for Goods Vehicles policy area, will help to minimise emissions on the last leg of journeys to distribute goods

E bikes are increasingly popular, accounting for over 30% of bike sales in Europe. They transform the potential for active modes to replace car travel by expanding:

The distance travelled (with average distances potentially over 50% greater than conventional cycles) and

The pool of potential cyclists, enabling use amongst the less physically fit and in areas with gradients.

Transport for Quality of Life Briefing, 2019.

3.8 Policy Area 4: Public/shared transport

Contribution of Public and Shared Travel provision to LTP4 Objectives See *Impact Strategies for more detail.*

Carbon reduction	++
Sustainable growth	+
Community and social mobility	++
Quality of life	++

3.8.1 Mobility as a Service

Public and shared transport follows active travel on the sustainable transport hierarchy (Section 3.7). Providing attractive, high quality, reliable, well planned, affordable services across the county will play a key role in Surrey's transport system, providing an alternative to the car for longer distance trips.

Effective integration of public transport services with each other and with shared transport will be key to encouraging mode shift on a significant scale. This can be helped by developing a **Mobility as a Service (MaaS)** system. MaaS brings together information on transport modes and services for instance in a smartphone application with features such as end-to-end journey planning, multi-modal ticket purchasing and the ability to earn and spend rewards. It provides a unified framework for accessing shared travel alongside timetabled public transport, reducing complexity and cost and making the options more attractive to users

Improvements made to digital connectivity will be key to unlocking the potential of MaaS solutions across Surrey.

A **Mobility Credits** system linked into the MaaS application will also be explored. Further detail on Mobility Credits is provided in the Behaviour Change policy area.

Mobility as a Service (MaaS) system brings together information on different modes and services into one integrated system, accessed through a single application. It improves and simplifies the travel experience for passengers, providing information, multi-modal end to end journey planning and payment, regardless of the number and range of modes used.

MaaS Capabilities



Benefits of MaaS

- Ensuring that residents can travel safely, confidently and sustainably
- Supporting convenient journey planning and payment by bringing together different modes of transport and payment into one platform
- Supporting and enabling accessible travel (information about accessibility ramps, lifts, booking travel assistance)
- Offering a service that is time-saving and cost-effective
- Providing accurate real-time information.

3.8.2 Public transport

Much of Surrey is well served by rail which provides a good quality service for routes into London and journeys between locations such as Woking and Guildford. The 2021 Rail Strategy sets out measures that would further enhance provision.

The focus of this LTP is providing bus-based public transport services that serve routes that are not covered by rail or that link wider catchments into the rail services provided, allowing passengers to continue their journey on rail.

A **review of the support provided to bus services** against the objectives to be achieved (including carbon reduction) will provide the opportunity to refocus funding. To maximise coverage, timetabled services could be focussed on **high demand routes** with lower demand routes then being served by Community Transport and demand responsive options (as described further below).

As a first step we must seek to **overcome the decline in use driven by COVID-19** and associated social distancing requirements and health concerns. This is likely to involve communications and visible safety related measures on board.

As demand recovers, key measures to improve bus services to promote mode shift will include:

Surrey's Rail Strategy, 2021

Has similar objectives to the LTP, including 'decarbonising transport'. A range of measures to improve Surrey's provision have been identified including services along the North Downs Line between Guildford and Dorking and a new station west of Guildford.

- **Improved frequencies** on routes with high demand
- **Improved connections** between services, both in terms of physical connections and timetable alignment for both bus and rail services. This will include the development of **Mobility Hubs**, clearly distinguished, attractive foci for public and shared transport provision and connections, focussed round a rail or bus station or stop where possible and providing easily accessible information on travel options (see box).
- **Reduced and simplified fares**, providing consistency of fares across operators. This would build on the approach used for the ACORN tickets used for different services in North Surrey and would use the MaaS system to provide passengers with simple fares across networks and all transport types. A daily or weekly cap on total fares paid across modes could form one element of the simplification. Mobility Credits and other approaches for incentivising public transport use could also be built into the MaaS.

Mobility Hub - space designed specifically to house public transport alongside, active and shared mobility modes with high quality public realm.



Source: What - CoMoUK

- **Improved service reliability**, achieved through **bus priority measures**, including junction adaptations and bus lane provision. Where this involves road space reallocation, careful design will be required to avoid increasing congestion and therefore increasing emissions.
- Requirements for **new developments to be served by good quality bus services** that integrate with existing public transport services, supported by developer contributions. This will require co-ordination with the county's development control function, District Councils as planning authorities and developers themselves. The integration of high quality Fastrack bus services with new development in Kent Thameside provides a good example of what can be achieved.
- **Expansion of park and ride**, building on the success of provision in Guildford. This would work in conjunction with rationalisation of parking provision (discussed under [Demand Management](#) below) but would need to be carefully planned to avoid the risk of increasing traffic.
- **Improved bus image and quality** through measures such as branding and wifi provision on board.
- **Improved information provision** with a central source of reliable information, available through apps (as part of the MaaS system), on board buses and at bus stops.

3.8.3 Shared transport

- **Shared transport** Promoting use of efficient, well integrated shared transport to support public transport provision is a key component of the LTP. Shared transport options are improving as a result of increased availability and accessibility of data on travel patterns to operators and flexibility of booking apps for users. Key components of shared transport include **lift share schemes, demand responsive transport and car clubs** as well as **hire bikes, e-bikes and potentially e-scooters**.

Demand Responsive Transport

In low-density rural areas, DRT can provide both better services to passengers and efficiency savings for local authorities.

There are a number of successful examples. For instance, Tees Valley Combined Authority launched the "Tees Flex" on-demand bus service in February 2020, in partnership with Stagecoach and Via, to reconnect isolated rural communities. Operating in Darlington, Stockton, Hartlepool, and Redcar & Cleveland, it was expanded in September 2020 due to the popularity of the service amongst local residents.

- **Demand responsive transport** services typically serve an identified route and timetable but only run if passengers pre-book and only serve those parts of the routes required by the booking. If well designed, they can provide an efficient and flexible service. However, a number of risks need to be avoided such as the reduced visibility of the service (as it is no longer visible at identified bus stops at identified times), reducing its use and viability.
- **Car clubs** have the potential to provide a key role in the transformation of travel in Surrey. They provide flexibility of access to cars for those journeys for which alternatives do not work well but help to deter car ownership and use by putting car use on a pay per use basis like other types of travel. Car owners pay much of their car ownership costs up front, making each additional journey in the year relatively low cost. For those using cars relatively little each year, car clubs can save considerable costs as well as removing the responsibility of maintenance and updates. Environmentally, the expansion of car clubs will provide a route to introduce electric vehicles rapidly and ensuring each vehicle is well used. This has important equity implications as it provides a route for lower income households to access cars that will meet the more stringent emissions standards proposed for parking charging (discussed further under [Demand Management](#)).

3.9 Policy Area 5: Demand management for cars/light vehicles

Contribution of Demand Management for cars to LTP4 Objectives

See *Impact Strategies* for more detail.

Carbon reduction	++
Sustainable growth	-
Community and social mobility	--
Quality of life	+

Economic growth and community impacts will be mixed. Some businesses and people with a reliance on car trips will be affected by the reduced convenience and increased cost of car use, leading to the negative impact shown.

However, other businesses and people will benefit from the reduced congestion and improved reliability and the release of central urban space from parking. The measures will also be implemented as part of the wider strategy from across the policy areas with a net positive impact on economic growth and community and social mobility. The revenue from demand management will fund some of the beneficial measures discussed under other policy areas, such as provision for active modes and public transport.

3.9.1 The need for demand management

In order to achieve our carbon target, and support the other three objectives, we will ensure that **sustainable modes are treated fairly** and **reducing the priority given to car use** in preference to other modes and to environmental and health considerations.

Transport and urban design have generated car dependency by prioritising making car use convenient and attractive over other considerations for several decades. This has resulted in dominance of motorised traffic on all roads, making them less attractive for other uses, as well as a significant proportion of central space in settlements of all sizes being allocated to parked cars, preventing and disrupting use of the surrounding space for other purposes.

The prioritisation of the convenience of car use has had negative implications for wider society in terms of carbon emissions, local air quality, quality of public realm, physical fitness and equality of access for those without a car.

An important part of the change in direction set out in this LTP is to change this balance, moving to a situation where different transport modes are treated more equally and the wider negative implications of car use on our communities and environment are recognised and reflected in the costs and convenience of using them.

Benefits of reduced car use with reduced ownership:

- Air quality
- Physical health
- Central space freed up for other purposes
- Reinvigoration of local centres
- Equality of accessibility (low income households)
- Safety
- Carbon emissions reductions
- Less resources in car construction

3.9.2 Parking supply and charges

Parking supply and charges provide a direct route to changing the attractiveness of using different modes of travel. Reducing the area of urban centres allocated to parking and increasing the charges will put car travel on a more even footing with other modes, moving away from the current situation where costs (such as insurance) are largely paid up front annually and at each fill up of fuel, meaning the cost of each new trip is perceived to be relatively low. The change in balance will encourage mode shift and more efficient travel planning.

Key elements of the change in provision of parking will include:

- **Reducing the amount of parking available and relocating it to less-central locations** (retaining some provision for those with accessibility needs), freeing up significant areas in the centre for more varied and attractive uses.

- **Increasing parking charges significantly with tariffs reflecting emissions impacts** based on fuel type, vehicle size and ownership (private or car club). The charges provide the opportunity to give the important message that driving certain types of cars, including larger cars, is environmentally damaging. This change would need to be combined with widespread access to car clubs including small electric vehicles (EVs) to ensure low cost access to low emissions vehicles for those on low incomes (who are more likely to have older less efficient cars).
- **Introducing charges in new areas**, including:
 - **Workplace parking levy** – requiring larger organisations to pay a fee for the number of parking places provided for employees (or students). If the charge is passed on to employees, it helps to put the cost of workplace parking on an even footing with public car parks.
 - **Local shopping centres** – possibly with an allowance of a limited number of daily or weekly free visits to avoid deterring use of local facilities.
 - **Residential parking** – although social equity concerns will need to be addressed as charges are likely to apply to those without off street parking and therefore to lower income households.

Parking tariffs could be incorporated within the MaaS framework, helping to make the cost comparison between modes and the differentiation of fees for car club vehicles more visible to users.

3.9.3 Traffic calming

Measures in other policy areas will also have a demand management effect. In particular the **20-mph speed limits and low traffic neighbourhoods** associated with active mode provision will further reduce the relative advantage of car use in local areas.

Workplace Parking Levy is a charge on employers and educational organisations for the number of parking places they provide that are regularly used by employees, students or others. The intention is to put the parking resource on an even footing with paid car parks. The policy has been successfully in place in Nottingham since 2012.

The current charge is £428 per space per year p.a. and the scheme has reduced parking spaces provided in the affected area by 25%. It has also contributed to mode shift away from car.

Much of this change is attributed to the fact that the levy generates about £10 million per year p.a. which has been invested in significant improvements in the public transport network. Key improvements include Lines 2 and 3 of the NET tram network, the city's subsidised electric Link Buses and refurbishment of the rail station. There is evidence that these substantial improvements are encouraging investment in the city as well as mode shift.

3.9.4 Eco-levy (road user charging)

A further option would be to supplement the demand management measures with an **eco-levy (or road user charging)**. This would further offset the bias towards the car by reflecting the polluter pays principle, causing car users to pay a charge for the environmental damage each kilometre of travel causes, rather than the costs being absorbed by wider society as they are now. The approach would also help increase the pay per use element of car costs.

Charging would be most effective if applied across all roads which would be most successful if applied as a regional or national system, avoiding rerouting effects. At the county level, the most feasible approach would be likely to be to charge entry to urban and sensitive areas, based on number plate recognition.

Any revenue from parking charges or road user charges/eco-levies would provide an important source of revenue to fund the other policy areas set out in the LTP, strengthening the alternatives to car use, increasing the benefits of reduced car use for the environment, economy and physical health. **Articulating this link will form an important part of the communication around behaviour change associated with the LTP.**

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3.10 Policy Area 6: Demand management for goods vehicles

Contribution of Demand Management for HGVs to LTP4 Objectives

See *Impact Strategies* for more detail.

Carbon reduction	++
Sustainable growth	-
Community and social mobility	
Quality of life	+

Economic impacts will be mixed. Businesses reliant on freight will be affected by the increased cost of HGV use, leading to the negative impact shown.

However, other businesses will benefit from the reduced congestion and improved reliability. The measures will also be implemented as part of the wider strategy from across the policy areas with a net positive impact on economic growth. The revenue from demand management will fund some of the beneficial measures discussed under other policy areas, such as provision for active modes and public transport.

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Rebalancing the use of road space for different modes will also look to **reduce goods vehicle movements**.

Action at a national level will have the biggest impacts here, in particular on the types of heavy goods vehicles on our roads in the future. Within Surrey, measures to reduce the negative impacts of goods vehicles will include the following (these tend to overlap with measures in other policy areas):

- **Low traffic neighbourhoods and 20-mph zones** to deter large vehicles in residential areas and encourage use of consolidation options provided.
- **Delivery bans or timed deliveries** in delivery bays in central urban areas with the potential to charge for permits.
- **Consolidation of loads**, through consolidation centres established near to towns, allowing deliveries from different sources to be combined for onward delivery

- Use of **smaller, more efficient vehicles** such as electric vans or e-cargo bikes, portering or potentially drones for the **last leg of journeys** (from consolidation centres)
- **Consolidation of procurement** amongst organisations that are located close together to reduce delivery trips.
- **Delivery hubs** in community centres (e.g. at mobility hubs) to consolidate home deliveries, potentially combined with e-cargo bikes for the last leg
- **HGV Weight Restriction Enforcement Policy ‘Surrey HGV Watch’** that will empower local communities to undertake monitoring compliance of existing HGV restrictions and make the best use of the resources available for this task within the police and council services.

E-cargo bikes can carry loads of up to 250kg, compared with a typical van that carries 600–1000kg. Lower carrying capacity is made up for by the cycle's flexibility, and far lower costs of purchase and operation.



An **ecolevy** is a possible further measure to achieve demand management. The approach would be more effectively applied at a regional or national level but local charges (for instance on cordons around key urban centres) could be applied at a county level. This would reduce carbon emissions and contribute to other objectives by reducing HGV travel, by increasing the cost, encouraging mode shift and more efficient logistics planning.

Again, any revenue from the approach would supplement car-based parking and provide revenue for funding improvements for other policy areas.

3.11 Policy Area 7: Efficient network management

Contribution of Efficient Network Management to LTP4 Objectives

See *Impact Strategies* for more detail.

Carbon reduction	+
Sustainable growth	+
Community and social mobility	+
Quality of life	+

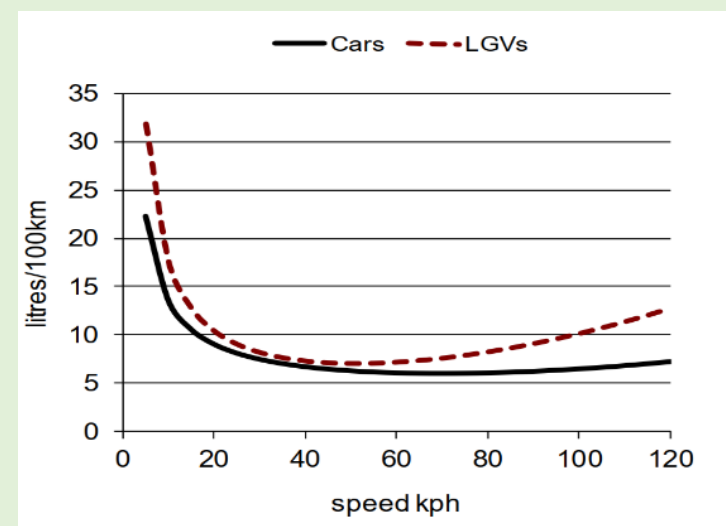
Meeting the LTP's carbon objective will require a marked reduction in road traffic and therefore in most cases there will not be a case for investing in new road capacity, as past evidence shows this would increase traffic levels and emissions (Transport for Quality of Life, TQOL, 2020). Instead the focus needs to be on ensuring efficient use of the existing network without encouraging additional traffic.

This will help to reduce emissions as vehicles in slow congested conditions are inefficient producing very high rates of emission per kilometre travelled. As speeds increase emissions per kilometre reduce until a point of about 50 mph when increase speed causes rates to rise again (see box).

Efficient network management may require some minor road capacity increases to alleviate congestion hotspots (such as the level crossing at Ash) or to provide connections to new developments, that are well designed to reduce travel distances and encourage multi-modal travel, such as in West Guildford at Park Barn. In some limited locations, there may be a case for new links to enable the removal of traffic from sensitive communities. In these limited number of cases, this would be integrated with significant reallocation of road space within the community to support walking and cycling, with no significant increase in total highway capacity.

Emissions and speed

Emissions per kilometre are higher in congested conditions and at high speeds than in free-flowing conditions at moderate speeds (up to 50 mph).



Source: TAG Unit A1.3

A key component will be to **make best use of available data** on network conditions from the growing range of available sources to **ensure efficient management of traffic conditions**.

New technologies can help to gather and disseminate information on conditions on the road network effectively to enable effective management. Other technologies can actively influence driver behaviour to reduce emissions, such as the GLOSA system which provides information on whether a driver will pass through the next green light at a signal .

A key component will be ongoing work to ensure that **traffic signal patterns are optimised for changing conditions**, particularly along key corridors and in central areas to minimise queueing.

On a day to day basis, **efficient network management** will involve establishing systems to **use information gained from a range of sources** to:

- allow **network managers to respond quickly and effectively** to provide a co-ordinated response to incidents and changing traffic conditions; and
- provide appropriate **information to drivers** to inform route and timing choice.

Information will be gained from **available and developing technology** and by developing **strong joint-working relationships** with neighbouring authorities and Highways England and major trip generators to share data.

Maintenance of the network is a key consideration within this Policy Area, which will be provided through an efficient asset management strategy. This is important to create the conditions that support our ambitions, roads must be in good condition to encourage walking and cycling.

Speed limit reductions on the fastest roads will provide a further option to significantly reduce emissions on the most heavily trafficked roads by reducing speeds from inefficient levels to more efficient levels of 50mph to 60mph. Transport for Quality of Life suggest that reducing speed limits from 70mph to between 50mph and 60 mph can reduce emissions by 15% (TQOL, 2021)

Within urban areas, **good quality, readily available information** for drivers **on parking locations and availability** can help efficient use of the road network by avoiding circulation of drivers searching for parking spaces. The impact would be particularly effective if combined with measures to consolidate parking spaces to less central locations – as outlined under Demand Management above.



Collaborative Traffic Management

Surrey works with Highways England and neighbouring authorities to share data and coordinate management of the road network at the boundary between the Highways England network and local authority networks. The programme has led to benefits including improved monitoring of the network, improved coordination and operation of signals and response to incidents, reducing delay and improving journey time reliability.

3.12 Policy Area 8: Promoting ultra-low emission vehicles

Contribution of Promoting ULEV uptake to LTP4 Objectives See Impact Strategies for more detail.

Carbon reduction	++
Sustainable growth	+
Community and social mobility	
Quality of life	+

3.12.1 SCC's role in ULEV uptake

A key target of this LTP is to change **the vehicle fleet** to significantly increase the proportion of road vehicles are Low Emissions Vehicles and ultimately Zero Emissions Vehicles. Much of the change will depend on action at a national level (critically the government's petrol and diesel car/van sales ban in 2030 and the automobile industry's response).

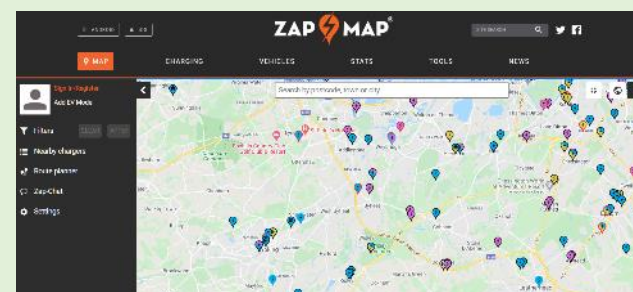
However, Surrey County Council has a key role in supporting and enabling a shift to Low and Zero Emissions Vehicles as rapidly and equitably as possible. Our approach will be set by our Electric Vehicles (EV) Strategy, and will involve two key components:

- planning and enabling **charging infrastructure**; and
- **accelerating the take-up of electric or hydrogen vehicles** amongst the fleets over which the council has direct influence

3.12.2 Planning and enabling charging infrastructure

Planning and delivering **well-positioned public charging infrastructure** for electric vehicles (including e-bikes and e-scooters) will include providing on street charging in residential areas without off street parking and charging at destinations such as retail and leisure centres. This is important for ensuring all sectors of the community have access to charging and to increase confidence in the ability to charge vehicles widely, helping to overcome issues of range anxiety. We will provide easy and convenient access to a mix of rapid chargers and slower chargers.

Existing Surrey charging infrastructure



Source: Map of charging points for electric car drivers in UK: Zap-Map (zap-map.com)

Roll out of charging infrastructure will draw upon lessons learned from the pilot between November 2019 and November 2021, funded by the Enterprise M3 Local Enterprise Partnership, to install 80 on-street fast (2kW) charging points across the boroughs of Guildford, Woking, Spelthorne and Waverley.

3.12.3 Accelerating uptake amongst council and wider fleets

Another key role will be **accelerating the take-up of electric or hydrogen vehicles** amongst the fleets over which the council has influence:

- **The taxi fleet**, upgrading taxi licencing regulations to require taxis to be electric. This could be supplemented by a loan or grant to help taxi drivers with the hurdle of high upfront costs, combined with provision of charging at relevant locations and clear communication on the likely operating cost savings of using electricity rather than petrol or diesel. Converting the taxi fleet to EV brings a number of benefits, the vehicles are well used, maximising lifetime emissions savings, are visible on the roads, increasing public awareness and experience of EV use and much of their travel distance is in urban areas where air quality benefits will be particularly valuable.

- **The bus and community transport fleet**, through bidding for available funds such as the DfT Electric Bus towns fund. Conversion of the bus and community transport fleet to electric or hydrogen would bring benefits as they are large, well-used vehicles, maximising lifetime emissions savings and again are visible to the public, helping to normalise EV use. They also undertake much of their mileage in urban areas, increasing air quality benefits.

Nine fully electric buses have operated on the Guildford park and ride service since 2019, introduced by Surrey County Council and Stagecoach in partnership and built by Guildford based manufacturer Alexander Dennis



Source: Electric buses set to hit Guildford's roads | Surrey News (surreycc.gov.uk)

- **Car club fleets** – establishing and expanding car club fleets providing access to EV, focussing particularly on small vehicles through the pricing structure, could make an important contribution to a number of the LTP's objectives.

The fleets would build on the 30 Enterprise Car Clubs already provided across seven towns in Surrey and would be part of the shared transport described above and accessed through the MaaS system. They would provide lower cost access to EVs, feasible for those unable to afford a new car. This is important in combination with the demand management measure of differentiating parking charges by vehicle size and emissions. The aim would also be to reduce individual car ownership by providing a low emission option for car use when essential, integrated with others within the MaaS.

- **Supplier fleets** – procurement contracts provide the opportunity for the Council to set minimum standards for emissions rates for the vehicles used by suppliers. This would help to accelerate uptake of ULEVs.

We will also provide a **helpline/website support service** to help those upgrading their fleets with the practicalities of vehicle purchase, such as arranging charging facilities.

3.12.4 Reducing the size of vehicles and of fleets

In promoting the uptake of ULEVs, we will seek to **minimise the number and size of vehicles purchased** wherever possible. For national carbon reduction targets to be met, we should not simply replace the existing vehicle fleet with electric vehicles because of the lifecycle implications of vehicle manufacture. Although the manufacturing emissions are outside the scope of emissions covered by Surrey's Climate Change Strategy commitment, they will contribute to national totals. Producing fewer vehicles and smaller vehicles will reduce emissions from this source.

The car clubs will provide an important route for this in relation to the car fleet. The pricing structure of the car club hires would also provide the opportunity to highlight the **environmental benefits of using smaller rather than larger cars**. In addition, car club use would mean distance travelled was undertaken by fewer vehicles, rather than individually owned vehicles (which are typically stationary for at least 95% of their life).

3.13 Policy Area 9: Supporting behaviour change

Contribution of Supporting Behaviour Change to LTP4 Objectives

See Impact Strategies for more detail.

Carbon reduction	+
Sustainable growth	+
Community and social mobility	+
Quality of life	+

Behavioural change measures provide people with the information, awareness raising and incentivisation required for residents to make good, informed travel choices going forward in Surrey. Examples include changing habits to shop and live more locally, use online services more, cycle or walk more, use public transport, pay more to park or comply with lower speed limits.

Behaviour change measures will be required to a greater or lesser extent to **deliver each of the other eight policy areas**. Given the scale and rate of change required, extensive and effective campaigns will be required to encourage and support the change. A **variety of approaches will be required to influence different sectors of the community**. For instance, targeted campaigns may focus on raising awareness amongst those travelling to key destinations such as workplaces or retail centres, highlighting the travel options available.

The communications will need to convey key information such as the local and global benefits from reducing the use of cars, particularly large cars using petrol or diesel.

However, experience highlights that the more successful behaviour campaigns **focus on incentives and encouragement** rather than on telling people what ought to be done.

Mobility Credits provide a cost-effective way of delivering targeted transport behaviour change. They can take a number of forms. For example, owners of the most polluting vehicles can be asked to scrap their cars in return for a 'mobility credit' that can be used to pay for a range of public and shared transport modes, including buses, trains, bike share, car clubs and car rental. The aim is to reduce car ownership and encourage mode shift. If the Mobility Credits are linked to MaaS, the credits become part of the wallet people have on the app and can be used on selected modes.

It is also important to note that the period of recovery from the COVID-19 pandemic offers a one-off opportunity to achieve behaviour change as evidence shows that people are most willing to change behaviour during periods of change. As a 'new normal' emerges after COVID-19 restrictions there will be opportunities to influence the form it takes.

Technology provides a range of additional opportunities to influence behaviour, for instance **smartphone apps to incentivise particular forms of travel behaviour** with digital rewards or scores such as the Love to Ride, Betterpoints and Love Exploring Apps. We will explore the best use and application of these platforms to support the other LTP4 policy areas.

Case Study: Mobility Credits Trial

Coventry City Council is working with Transport for West Midlands on a 'Mobility Credits' trial.

In a national first, Coventry residents with an older, polluting car will be able to exchange their vehicle for mobility credits. The credits can be spent on public transport, as well as new transport modes such as car clubs, bikeshare or new bus services. Anyone taking part in the trial will be able to access their credits through a mobile app, which allows them to plan, book and pay for journeys using mobility credits.

3.14 Sustainability - environmental policies for infrastructure required by the LTP

Implementing projects under most of the Policy Areas will require construction of new infrastructure. Wherever new infrastructure is required, we will have a presumption in favour of working with partners to make net improvements to the local environment and, as a minimum, always follow our environmental policies to take every opportunity to protect and enhance the environment.

Environmental Management Plans (EMPs) will be prepared and implemented for all construction, refurbishment and maintenance contracts. The EMPs will consider material resource use, energy use, and other environmental issues relevant to the scheme, and will explain how risks and impacts will be managed and addressed.

Scheme design will proactively consider environmental protection from the earliest stage, designing schemes brought forward by the LTP to ensure that the processes of scheme construction and operation take all opportunities available to:

- Improve air quality:
 - Include 'designed in' green features which will increase absorption and dissipation of nitrogen dioxide and other pollutants, as well as reduce noise and light pollution.
 - Address issues uncovered by the Air Quality Action Plans for the Air Quality Management Areas have been declared due to transport emissions based on joint working with partner organisations, such as the Surrey District and Borough Councils.
- Reduce embodied carbon emissions:
 - Minimise the amount of embodied carbon 'designed in' to new infrastructure and reduce construction waste.
 - Minimise the amount of operational carbon 'designed in' to service delivery, including for example minimising energy use in traffic signals and street lighting.
 - Use the transport estate to generate low carbon energy.

- Help to transition to a 'circular economy', reducing resource use.
- Remove residual carbon emissions from the atmosphere, including by enhancing green infrastructure.
- Build in resilience to climate change:
 - Build in resilience to flooding, including measures such as Natural Flood Management or Sustainable Drainage Systems (SuDS) which will improve water quality.
 - Build in capacity to withstand extremes of temperature, with adequate heating or cooling systems on transport vehicles and in stations.
- Protect biodiversity, including Special Sites of Scientific Interest, National Nature Reserves, Special Areas of Conservation, Special Protection Areas and Ramsar sites, reflecting the ongoing ecological emergency:
 - Account for potential impacts on ecological networks and sites.
 - Integrate ecological principles based on work with partner organisations such as Natural England.
 - Account for the results of ecological surveys for schemes on previously undeveloped land, ensuring that the mitigation hierarchy (avoid – mitigate – compensate) is applied.
 - Account for legally required assessments (e.g. Habitat Regulations Assessment for works likely to give to significant effects on SPA or SACs), submitted to the relevant bodies for approval (e.g. Natural England).
 - Reflect a requirement that all schemes that need planning permission must demonstrate biodiversity net gain
 - Pursue opportunities to contribute to the development of Nature Recovery Networks, for example through the creation of new areas of key habitats (e.g. woodland, wetland, grassland, etc.) wherever possible.

- Protect Surrey's landscape and townscape
 - Respect and where possible enhance the character of the host landscape in which the scheme is located. drawing on the Surrey Landscape Character Assessment and accounting for the diversity and distinctiveness of the landscape, including AONBs.
 - Mitigate impacts on visual amenity through measures including screening.
 - Account for Surrey's townscape, drawing on local design guides and character appraisals where these have been prepared by the borough or district council.
- Protect the historic environment
 - Ensure that heritage assets are protected and where possible enhanced, designing schemes to respect the context and setting of historic buildings, structures and landscapes, working with partners and other bodies, including the County's Heritage Team and Historic England.
 - Reflect heritage assessments and/or archaeological investigations.
 - Where appropriate, take opportunities to protect and restore features of note from transport heritage such as old bridges.
- Protect natural resources
 - Protect soil and land resources (including high value agricultural land, safeguarded mineral resources, etc.).
 - Maximise opportunities to use previously developed land, including contaminated land that requires remediation.
 - Make addressing incidents (e.g. spills of potentially harmful substances) a matter of standard practice for the County Council and its contractors.
- Protect water environment:
 - Account for potential water impacts throughout the design process, informed by surface water, groundwater risk assessments and by flood risk assessments where relevant.
 - Establish processes to respond promptly to transport incidents that could cause pollution.
- Promote circular economy principles
 - Reduce the use of materials in design and increase use of recycled and renewable materials.
 - Use local suppliers of sustainably sourced and locally produce materials where possible.
 - Embed sustainable waste management practices in construction and operation.

Impact strategies

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4 Impact strategies

4.1 Approach

We have developed four Impact Strategies to identify how the LTP will deliver each of the four identified objectives:

1. To rapidly reduce carbon emissions, ensuring that Surrey is on track for net zero emissions by 2050.
2. To support Surrey's growth ambitions and enable businesses and people to prosper sustainably.
3. To provide well-connected communities that encourage social mobility and ensure no-one is left behind.
4. To create thriving communities with clean air, excellent health, wellbeing and quality of life.

Each strategy provides more detail on the types of measures under the nine Policy Areas which will support achievement of the relevant objective. The Impact Strategies also include case studies and visualisations of how measures could be applied in different types of location in Surrey.

4.2 Impact Strategy 1: To rapidly reduce carbon emissions, ensuring that Surrey is on track for net zero emissions by 2050

4.2.1 The need for a carbon reduction strategy

For the full evidence base that sits behind the LTP4 and this Impact Strategy, please click [here](#).

4.2.2 Achieving Success

Carbon emissions from transport are the result of two factors:

- the number of kilometres travelled by different vehicle types; and
- the carbon emissions produced per kilometre travelled by each vehicle type (carbon intensity of travel), which in turn depends on fuel type, vehicle design and factors such as driving speed.



At a high level, successfully delivering the objective of net zero transport carbon emissions by 2050 (with a 60% reduction in emissions by 2035) will therefore involve achieving a significant reduction in vehicle kilometres and reducing the carbon intensity of remaining vehicle kilometres.

Significant reduction in car, van and HGV vehicle kilometres to reduce transport's demand for energy by reducing trip numbers and trip lengths and achieving mode shift to less energy intensive modes, such as walking, cycling and public transport. This is an important step in achieving emissions reductions rapidly as changes in the vehicle fleet take time to feed through. Later the demand changes will be important in reducing the demand on limited supplies of zero emissions electricity.

Net zero carbon emissions across Surrey by 2050 (60% by 2035)



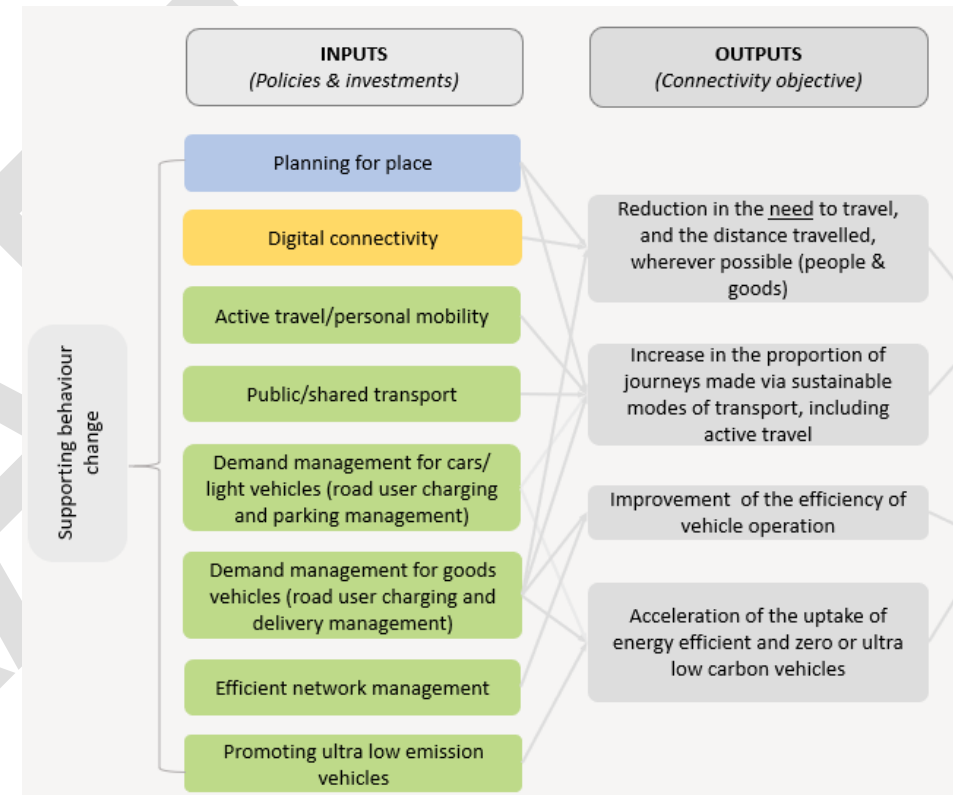
Reduction in the carbon intensity of vehicle kilometres travelled – ultimately to zero emissions per kilometre. Reductions in intensity will be achieved through improved vehicle efficiency, reduced vehicle size and the shift from petrol and diesel vehicles to electric (or in some cases, hydrogen) vehicles powered by zero emissions electricity.

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Action needs to be taken quickly to achieve both outcomes, as vehicles and transport systems typically have lifespans of ten or more years and therefore decisions made now will 'lock-in' the carbon intensity of travel over decades.

4.2.3 Relevant policy areas

All nine Policy Areas will play an important role in achieving our carbon objective as illustrated below. The types of measures which we intend to deliver under each Policy Area are described in the following sections.





Policies to ensure sustainability in delivering the strategy

New and upgraded infrastructure required to deliver the carbon reduction strategy will be designed to:

- **Reduce embodied carbon emissions**, including through choice of materials and treatment of waste more generally, partly through use of recycled materials.
- **Improve air quality**, including through green infrastructure
- **Build in resilience to climate change**, particularly flooding and temperature extremes
- **Protect and enhance valued places**, including those valued for biodiversity, landscape and townscape and historic environment
- **Protect and enhance natural resources**, including protecting soil and land and water and promoting circular economy principles for resource use and waste.

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Planning for place (Avoid)

- Increase the provision of local opportunities and services
- Develop '20-minute neighbourhoods'
- Plan land use to make best use of existing public transport.

The aim of Planning for Place will be to provide '20-minute neighbourhoods' in new and existing developments, which are planned so that people can meet the majority of their needs locally, within a 20-minute walk or cycle ride.

These are further described in the [Policy Area table](#) and on the separate [Planning for Place](#) webpage.

This local, focussed provision will reduce carbon emissions by:

- reducing the length and the number of trips that each person needs to make (avoiding some travel).

- providing the context for mode shift as the local trips will also be reasonable lengths for walking and cycling for a significant proportion of people, encouraging a move away from car travel.

Living locally in this way, will also bring other benefits including improved health and wellbeing of the community and performance of the local economy.

🔥 Carbon reduction potential (2030) ~ 5% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming intensive application across the county. Amplified if combined with roll out of high-quality walking/cycling provision.

Digital connectivity (Avoid)

- Support comprehensive coverage of fibre broadband and 5G;
- Support the move to online opportunity and service provision, including SCC's own digital transformation.
- Design measures to avoid 'rebound' effects

Improved digital connectivity has the potential to be highly effective at reducing emissions through avoided travel. However, it is important to note that there is a risk of a 'rebound effect', which could lead to increased emissions. People may use their increase in available time to travel for other reasons, or order increasing numbers of online deliveries and generate associated van movements. There may also be implications for the energy sector of increased daytime household energy use.

Measures therefore need to be carefully designed and applied in conjunction with other policy areas, particularly [Planning for Place](#). If people live within 20-minute neighbourhoods it is more likely that any 'rebound' trips will be short, reducing their emissions implications, particularly if made on foot or by bike. Additionally, the neighbourhood is likely to include local delivery hubs to reduce the implications of increased home deliveries.

Carbon reduction potential (2030) ~ 5% to 10% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming extensive improvements across the county.

Largely affecting passenger transport, and with the potential to increase emissions from freight transport unless home deliveries are carefully managed.

Active travel/personal mobility (Shift)

- Provide high quality integrated cycle and walking networks, through segregated cycle lanes and footpaths, Low Traffic Neighbourhoods and 20-mph zones, particularly serving high demand routes.
- Integrate network with the public transport network and neighbourhoods planned through Planning for Place measures.
- Support the use of e-bikes, e-cargo bikes and e-scooters (if approved) throughout Surrey.

To maximise the impact on carbon emissions, trips by active modes will need to replace longer car trips and therefore we will focus on:

- providing **active travel access to public transport** so that it provides the first and last leg in longer journeys that may previously have been completed by car;
- **integrating active travel measures with Planning for Place measures**, promoting 20-minute neighbourhoods and increasing the number of trips occurring within walking and cycling distance range, replacing previous longer distance trips; and
- the **use of e-bikes** and potentially e-scooters (dependent on the result of ongoing trials) to extend the range and the routes for which cycling is appropriate.

The key requirements for increasing active travel are well understood and include providing safe and attractive environments for walking and cycling, directly serving key desire lines for travel.

To encourage sufficient mode shift to contribute to decarbonisation, active travel provision will need to include the full range of measures, set out in the [Policy Area table](#) and on the separate [Active Travel](#) webpage, including:

- provision of **high-quality segregated cycle lanes** on high demand routes, linking key destinations;
- introduction of **low traffic neighbourhoods** on appropriate roads;
- application of **20-mph speed limits** on roads where walking and cycling demand will be high, but traffic through flow is needed;
- **adaption of junctions to improve active travel provision**;
- **improvements in the quality of footpaths**;
- provision of **convenient crossing facilities**, reflecting desire lines.
- implementation of **good practice design standards** throughout, in line with the government's 2020 cycle design guidance;
- **integration of provision** to provide a complete **connected network** linking residential areas to key destinations;
- provision of **excellent cycling support services**, including parking facilities, storage, changing and charging for e-bikes;
- establishment of **clear signage with clear branding**;
- implementation of a **good quality maintenance regime**; and
- **e-bike hire** and potentially e-scooter hire (dependent on current trial outcomes), **integrated with a multi-modal Mobility as a Service (MaaS)** framework (discussed under Public/Shared Transport below).

Measures to support the uptake of walking and cycling will form a key component of the behavioural change measures (as described under Behaviour Change below), including provision of accessible, reliable information on available routes and incentives and rewards for reaching certain levels of walking and cycling activity.

There is also **a role for active travel in decarbonising freight**. Cargo-bikes used in conjunction with the HGV measures described under Demand Management for Goods Vehicles below, will help to minimise emissions on the last leg of journeys to distribute goods



Carbon reduction potential (2030) ~ 5% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming extensive improvement across the county. Amplified if combined with demand management for car use and planning for place to bring more trips within range for walking and cycling.

Public and shared transport (Shift)

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- Integrate public and shared transport provision effectively
- Establish a MaaS platform providing access to information and simple ticketing across all modes used for a journey

Public and shared transport follow active travel on the sustainable transport hierarchy and the provision of attractive, high quality, reliable, well planned, affordable services will play a key role in decarbonising transport, delivering mode shift away from car for longer distance trips.

Effective integration of public transport services with each other and with shared transport will be key to encouraging mode shift on a significant scale. Developing a Mobility as a Service system will form an important part in improving integration, providing a unified framework for accessing shared travel alongside timetabled public transport, reducing complexity and cost and making the options more attractive.

For more detail on the measures below please refer to the [Policy Area table](#) and the separate [Public /Shared Transport](#) webpage.

Public transport

- Provide well integrated, high quality services focussed on routes with high demand
- Reduce and simplify fares
- Integrate with other modes through a MaaS system

Much of Surrey is well served by rail which provides a good quality service for routes into London and journeys between locations such as Woking and Guildford. The 2021 Rail Strategy sets out measures that would further enhance provision.

Surrey's Rail Strategy, 2021

The Rail Strategy has similar objectives to the LTP, including 'decarbonising transport'. The measures in the strategy to increase opportunities for rail travel, for instance a new rail station in West Guildford and increase their attractiveness, for instance improved services on the North Downs line. These measures should contribute to carbon reduction by attracting mode shift from car use for mid to long distance trips.

The focus of the LTP is on providing bus based public transport services that serve routes that are not covered by rail or that link wider catchments into the rail services provided, allowing passengers to continue their journey on rail.

A **review of the support provided to bus services** by the county council against the objectives to be achieved (including carbon reduction) will provide the opportunity to refocus funding. To maximise the carbon reduction impacts of bus measures, the focus of services will need to be on **high demand routes** with the potential to enable significant numbers or people to switch away from car use.

Lower demand routes would then be served by Community Transport and demand responsive options (as described further below).

To achieve the scale of mode shift required to deliver the decarbonisation objective, a wide range of measures to improve bus services to promote mode shift and bring emissions reductions will be required including:

- **improved frequencies** on routes with high demand;
- **improved connections** between services, both in terms of physical connections and timetable alignment for both bus and rail services, including the development of **Mobility Hubs**;
- **reduced and simplified fares**, providing consistency of fares across operators.
- **improved service reliability** achieved through **bus priority measures**. Where this involves road space reallocation, careful design will be required to avoid increasing congestion and therefore increasing emissions;
- requirements for **new developments to be served by good quality bus services** that integrate with existing public transport services, supported by developer contributions;
- **expansion of park and ride**. This would work in conjunction with rationalisation of parking provision (discussed under the Demand Management below) but would need to be carefully planned to avoid the risk of increasing traffic and associated emissions;
- **improved bus image and quality**; and
- **improved information provision** with a central source of reliable information, available through apps (as part of the MaaS system), onboard buses and at bus stops.

Shared transport

- Provide range of shared transport alternatives, including demand responsive transport, car clubs and hire bikes to provide viable alternatives to car ownership on routes not served by public transport

Promoting use of efficient, well integrated shared transport to support public transport provision is a key component of the LTP. Shared transport includes lift share schemes, demand responsive transport and car clubs as well as hire bikes, e-bikes and potentially e-scooters.

Increased shared transport use reduces carbon emissions by reducing car use, car dependency and car ownership by providing viable alternatives to private car use for journeys not served by public transport.

Shared transport also encourages **more efficient vehicle use**, both by improving occupancy of vehicles travelling and by encouraging use of smaller vehicles. For instance, vehicles for demand responsive routes can be selected to reflect demand on the route and pricing of car club vehicles can strongly encourage the use of a smaller vehicles.

Carbon reduction potential (2030) ~ 5%-10% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming extensive roll out across the county. Amplified if combined with demand management for car use.

Demand management for cars/light vehicles (Shift)

- Reduce parking provision and relocate away from prime central locations
- Increase parking charges, driven by vehicle size, emissions rates, including reduced rates for small, car club EVs
- Expand parking charging to cover local centres (potentially with free trip allowances)
- Introduce workplace parking levy
- Consider eco-levy, potentially focussed on trips to urban areas

Alongside the provision of attractive alternatives, the success of decarbonising transport will rely to a large extent on changing the balance between modes and **reducing the priority given to car use** in preference to other modes and to environmental and health considerations.

The prioritisation of the convenience of car use has had well understood negative implications for wider society in terms of carbon emissions, as well as local air quality, quality of public realm, physical fitness and equality of access for those without a car, amongst other things.

A review of parking provision and charging will form a key component of redressing the balance between cars and other modes, to support mode shift and decarbonisation. Each of the parking measures outlined in the Demand Management Policy Area will be relevant to support the scale of change needed for the decarbonisation objective, including:

- reducing the amounts of parking available and relocating it to more peripheral locations;
- increasing parking costs significantly with fees reflecting emissions impacts based on fuel type, vehicle size and ownership (private or car club);
- introducing charges in new areas, including: Workplace parking levy, local shopping centres, and residential parking.

Parking tariffs could be incorporated within the MaaS framework, helping to make the cost comparison between modes and the differentiation of fees for car club vehicles more visible to users. The charges provide the opportunity to give the important message that driving certain types of cars, including larger cars is particularly environmentally damaging. This change would need to be combined with widespread access to car clubs including small EVs to ensure low cost access to low emissions vehicles for those on lower incomes (who may be more likely to have older less efficient cars).

The revenue derived from the parking fees will provide an important source of revenue to fund the other policy areas set out in the LTP.

Measures in other policy areas will also have a demand management effect. In particular the **20-mph speed limits and low traffic neighbourhoods** associated with active mode provision will further reduce the relative advantage of car use in local areas, encouraging mode shift and reducing emissions.

A further option would be to supplement the demand management measures with an **eco-levy (or road user charging)**, either as part of a regional/national scheme or focussed on urban and sensitive areas. This would further offset the bias towards the car by reflecting the polluter pays principle, causing car users to pay a charge for the environmental damage each kilometre of travel causes, rather than it being absorbed by wider society as it is now. The approach would also help increase the pay per use element of car costs.

Any revenue from the approach would supplement parking revenue in funding improvements for other modes, strengthening the alternatives to car use, increasing the benefits of reduced car use for the environment, economy and physical health.



Carbon reduction potential (2030) ~ 10% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming extensive implementation across the county. Amplified if combined with high quality public transport and active mode provision.

Demand management for goods vehicles (Shift)

- Restrict deliveries to central areas – limited time windows and permits
- Introduce consolidation hubs
- Consider eco-levy, potentially focussed on trips to urban

In rebalancing the use of roads between modes to achieve decarbonisation, it will also be important to also **reduce goods vehicle movements** and move them towards **less carbon intensive vehicle types**, reducing carbon emissions.

National actions will have the greatest implications for the types of good vehicle used, particularly heavy good vehicles. At the county level, the full range of measures outlined in the Policy Area will be relevant in seeking to reduce the emissions impacts of goods vehicles, as follows:

- **Low traffic neighbourhoods and 20-mph zones** to deter large vehicles in central areas and encourage use of consolidation options provided
- **Delivery bans or timed deliveries** in delivery bays in central urban areas with the potential to charge for permits
- **Consolidation of loads**, through consolidation centres established near to towns, allowing deliveries from different sources to be combined for onward delivery
- Use of **smaller, more efficient vehicles** such as electric vans or e-cargo bikes, portering or potentially drones for the **last leg of journeys** (from consolidation)
- **Consolidation of procurement** amongst organisations that are located close together to reduce delivery trips.
- **Delivery hubs** in community centres (e.g. at mobility hubs) to consolidate home deliveries, potentially combined with e-cargo bikes for the last leg.

As with car use, an **eco-levy** is a possible further measure to achieve demand management. The approach would be more effective applied at a regional or national level but local charges (for instance on cordons around key urban centres) could be applied at a county level. This would reduce carbon emissions and contribute to other objectives by reducing HGV travel, by increasing the cost, encouraging mode shift and more efficient logistics planning.

Any revenue would supplement car-based parking and charge revenue in funding improvements for other policy areas.

Carbon reduction potential (2030) up to ~ 5% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming extensive implementation across the county.

Efficient network management (Improve)

- Make full use of available information from digital assets and co-ordination between bodies to optimise use of the network, through signal control and response to incidents
- Provide parking information to minimise circulation
- Deliver focussed capacity expansion to overcome hotspots without increasing congestion
- Provide new links to connect well designed new developments with multimodal connections
- Consider limiting speed to 50mph

For more detail on the measures below please refer to the [Policy Area table](#) and the separate [Efficient Network Management](#) webpage.

Meeting the LTP's carbon objective will require a marked reduction in road traffic and therefore in most cases there will not be a case for investing in new road capacity, as past evidence shows this would increase traffic levels and emissions (TQOL, 2020). Instead the focus will be on ensuring **efficient use of the existing network without encouraging additional traffic**.

This will help to reduce carbon emissions as vehicles in slow **congested conditions are inefficient** producing very high rates of emission per kilometre travelled. As speeds increase, emissions per kilometre reduce until a point of about 50mph when increase speed causes rates to rise again.

Efficient network management may require some **minor road capacity increases to alleviate congestion hotspots**.

However, a key component will be to **make best use of available data** on network conditions from the growing range of available sources to **ensure efficient management of traffic conditions**.

A key component will be ongoing work to ensure that **traffic signal patterns are optimised for changing conditions**, particularly along key corridors and in central areas to minimise queueing.

On a day to day basis, we will achieve **efficient network management** by establishing systems to **use information gained from a range of sources** (including virtual VMS, GLOSA, connected infrastructure and collaboration with neighbouring road authorities) to:

- allow **network managers to respond quickly and effectively** to provide a co-ordinated response to incidents and changing traffic conditions; and
- provide appropriate **information to drivers** to inform route and timing choice.

We will explore reductions to **speed limits on the fastest and busiest roads** to reduce emissions. Transport for Quality of Life suggests that reducing speed limits from 70mph to between 50mph and 60 mph can reduce emissions by 15% (TQOL, 2021)

Within urban areas, **good quality, readily available information** for drivers **on parking locations and availability** can help efficient use of the road network by avoiding circulation of drivers searching for parking spaces. The impact would be particularly effective if combined with measures to consolidate parking spaces to more peripheral locations – as outlined under Demand Management above.

Carbon reduction potential (2030) up to ~ 5% (draft)

Relative to the baseline, with impacts increasing towards 2050, assuming improvements at major congestion hotspots across the county.

Promoting ultra-low emission vehicles (Improve)

- Rollout charging infrastructure, on-street and in public locations
- Promote EV uptake amongst fleets influenced by Surrey County Council, including roll out of EV car clubs

For more detail on the measures below please refer to the [Policy Area table](#) and the separate [Ultra-low Emission Vehicles](#) webpage.

Changing the vehicle fleet so that all remaining vehicle kilometres are by Low and ultimately **Zero Emissions Vehicles** will be a core component of achieving the decarbonisation objectives. Much of the change will depend on national action (such as the government's petrol and diesel car/van sales ban in 2030 and the automobile industry's response). However, Surrey County Council has a key role in **driving the change forward rapidly and in an equitable manner** that maximises emission impacts. This will be guided by the Council's EV Strategy, and will involve two key components:

Firstly, planning and enabling **well positioned public charging infrastructure** for electric vehicles (including e-bikes and e-scooters) on street and at destinations such as retail and leisure centres. Secondly to **accelerate the take-up of electric or hydrogen vehicles** amongst the fleets over which the council has direct influence including the following (described further in the ULEV policy area):

- our own fleet;
- the taxi fleet;
- the bus and community transport fleet;
- car club fleets;
- our suppliers' fleets.

In promoting the uptake of ULEVs, a guiding principle will be **minimising the number and size of vehicles purchased** wherever possible. For national carbon reduction targets to be met, we shouldn't simply replace the existing vehicle fleet with an electric one because of the lifecycle implications of vehicle manufacture. Although the manufacturing emissions are outside the scope of emissions covered by Surrey's Climate Change Strategy commitment, they will contribute to national totals. Producing fewer vehicles and smaller vehicles will reduce emissions from this source.

The car clubs will provide an important route for this in relation to the car fleet. The pricing structure of the car club hires would also provide the opportunity to highlight the **environmental benefits of using smaller rather than larger cars**. In addition, car club use would mean distance travelled was undertaken by fewer vehicles, rather than individually owned vehicles (which are typically stationary for at least 95% of their life).

Carbon reduction potential (2030) ~ 10% (draft)

Relative to the baseline, with impacts increasing towards 2050. Assumes ambitious measures to further accelerate EV uptake and encourage use of smaller vehicles in addition above the impacts of government ban on petrol/diesel car and van sales in 2030.

Supporting behaviour change (All)

- Maximise the opportunity provided by the changes in behaviour caused by COVID-19
- Focus on reducing car dependency and car use
- Support with MaaS and Mobility Credits

Behaviour change measures will be required to a greater or lesser extent to **deliver each of the other eight policy areas**.

To achieve decarbonisation, measures will need to focus on reducing the amount and decarbonisation of travel through each element of the Avoid, Shift and Improve framework. A key component will be ensuring that people are aware of the no travel and low carbon travel options available and the environmental benefits to be gained from changing behaviour.

Messaging could focus around the benefits of the sustainable transport hierarchy, including the merits of smaller rather than larger cars both at the shared and owned transport stage. Gaming technology or reward apps to incentivise the lower carbon travel option would help to accelerate change, as would a mobility credit system focussed on sustainable transport use.

Technology provides a range of additional opportunities to influence behaviour, for instance **smartphone apps to incentivise particular forms of travel behaviour** with digital rewards or scores such as the Love to Ride, Betterpoints and Love Exploring Apps.

Carbon reduction potential (2030) up to ~5% (draft)

Relative to the baseline, with impacts increasing towards 2050, Assumes an extensive programme to encourage and support behaviour change, across each of the other policy areas, noting that it is typically difficult to distinguish the impacts of behaviour change measures from the measures they are supporting.

Overall decarbonisation impact – All Nine Policy Areas



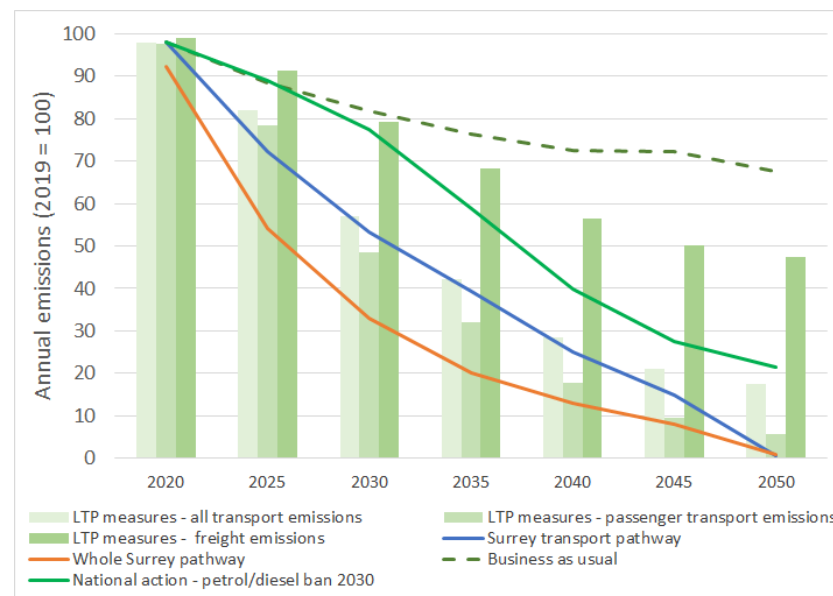
Overall carbon reduction potential (2030)

If all of the nine policy areas are implemented to an ambitious scale across Surrey, they would reinforce each other to provide a large-scale change in transport patterns and a shift away from long distance, carbon intensive travel. Combined, the measures have the potential to reduce transport emissions by approximately 50% (*draft figure*) by 2030, with impacts increasing towards 2050.

So, if they are applied at an ambitious scale, combined with the ambitious national action to stop sales of petrol and diesel cars and vans from 2030, the LTP4 policy areas have the potential to bring emissions from passenger transport in line with Surrey's transport carbon pathway. However, the impact on freight emissions is relatively limited meaning that the projected freight pathway and therefore total transport emissions pathway remains considerably above Surrey's transport decarbonisation pathway.

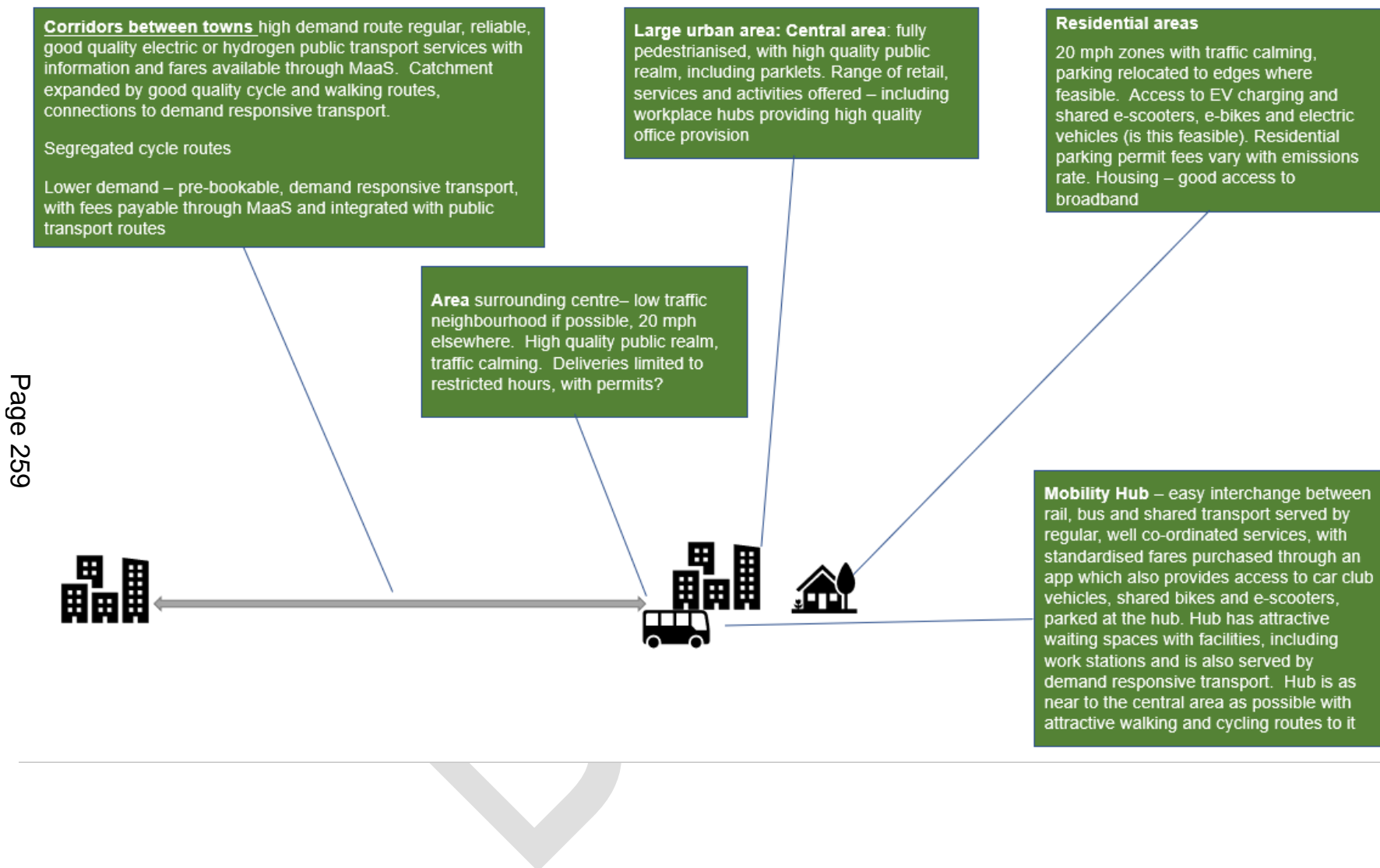
Reduction in freight emissions is likely to require coordinated national action to identify the preferred route to decarbonising HGVs (e.g. hydrogen or electric roads). It is also important to note that the Climate Change Strategy's decarbonisation pathway for transport is considerably less ambitious than the all-sector pathway.

Indicative carbon emissions impact of ambitious implementation of LTP4 measures *DRAFT*



Passenger transport emissions may therefore need to be further reduced to offset the additional emissions produced by freight.

Visualisation



4.3 Impact Strategy 2: To support Surrey's growth ambitions and enable businesses and people to prosper sustainably

4.3.1 The need for a sustainable growth strategy

For the full evidence base that sits behind the LTP4 and this Impact Strategy, please click [here](#).

4.3.2 Achieving Success

The LTP4 will contribute to Surrey's growth ambitions by providing and enhancing connectivity for businesses, building on the existing connections which are already recognised as an important asset to Surrey's economy.

Surrey is one of the best-connected areas in the country, both nationally and internationally. Proximity to London is an important strength, as is Surrey's position at the heart of the South East, which provides easy access to jobs and markets in other economically successful areas, such as the Thames Valley and the M3 Corridor.

In addition, the county has strong international connectivity due to its access to London's two main airports at Heathrow and Gatwick. Although just outside the county boundaries, they have been important drivers of business location decisions within the county.

Transport and connectivity influence all businesses to some extent with both direct and indirect effects on their costs, inputs and sales (see box).

To support businesses and economic growth, the LTP4 will need to improve transport and connectivity for both freight trips and trips by individuals, across five main categories as shown below.

LTP4 measures to improve accessibility (whether physical, spatial or digital) will contribute to economic performance through improvements to these trips/connections by increasing reliability, improving the range and quality of connections, reducing congestion in key areas and improving transport resilience, as summarised below.



The effects of transport/connectivity on business

The transport/connectivity characteristics of an area have both direct and indirect effects on businesses.

Effects of transport/connectivity on business

Direct:

- Cost of travel (time and £)
- Reliability of travel
- Range of connections
- Range of travel alternatives

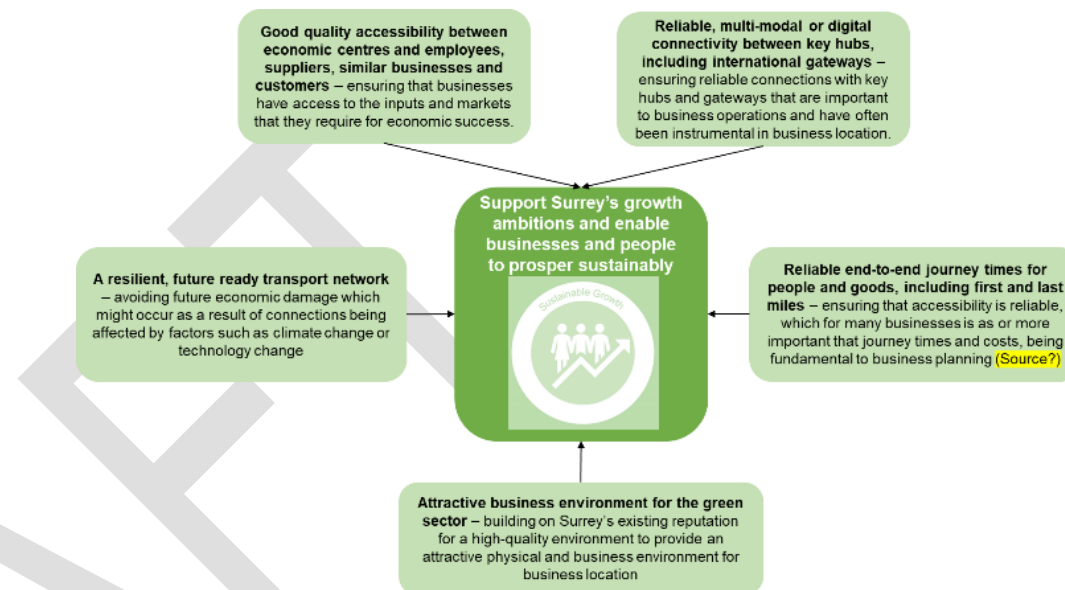
Indirect:

- Physical health and productivity of employees
- Quality of environment

Direct effects of transport on business relate to the cost of travel, reliability of travel, range of modal alternatives for key journeys and extent of the areas to which each business is connected by good quality links.

Indirect effects include:

- Improving the health and productivity of employees, especially through increased cycling: and
- Attracting more customers, particularly from the general public, where the local environment is made more attractive due to low or no traffic neighbourhoods or priority for walking and cycling.



Surrey's Place Ambition identifies a number of ways that improved connectivity could support 'Good growth' for the county (see box), including rail enhancements, improvements to strategic movement corridors and enhanced digital connectivity. The ambition document highlights that to maximise the economic benefit achieved, investment in transport infrastructure should be focussed in areas that offer the greatest potential to support long term sustainable growth and increased productivity and maximise the value of Surrey's strategic assets (e.g. universities, transport hubs and strategic employment sites).

The Place Ambition will be refreshed in 2021 to consider potential changes in light of the Covid-19 pandemic and the UK transition including taking into account the changing relationship between London and Surrey, the need for a renewed emphasis on towns/urban areas and the work underway to produce a Surrey wide Green Infrastructure Strategy.

Eight Strategic Opportunity Areas (SOAs) have been identified (see map) as locations where connectivity improvements would support priority industrial sectors and improvements to connectivity both within Surrey and between other strategically important economic areas.

The Place Ambition also highlights the importance of Surrey's town centres to the county's economy and the role of transport in enhancing the offer of Surrey's towns, making them more attractive places to live and work, including measures to improve accessibility by public and active transport.

Surrey Place Ambition: Good growth for Surrey:

- Is proportionate and sustainable, focusing on the places where people both live and work.
- Supports overall improvements to the health and well-being of our residents
- Is supported by the necessary infrastructure investment - including green infrastructure.
- Delivers high quality design in our buildings and public realm.
- Increases resilience and flexibility in the local economy.
- Builds resilience to the impacts of climate change and flooding.
- Is planned and delivered at a local level while recognising that this will inevitably extend at times across administrative boundaries.

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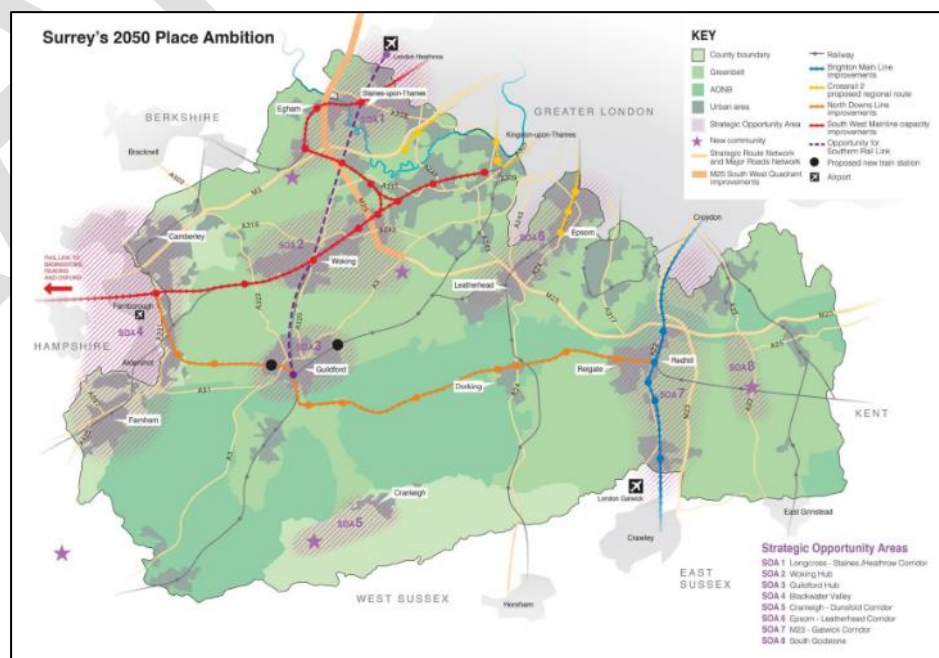
Wider economic context and the need for trade-offs

Whilst the LTP4 will bring considerable benefits for businesses, it is important to note that connectivity is just one of a complex combination of factors that contribute to Surrey's successful economy. Other necessary factors include workforce skills, local environment and economic history. Surrey's Economic Strategy Statement highlights that measures will be needed across a range of areas to support economic growth, including increasing skills levels in the county.

In considering overall economic impacts of change there is an important distinction between impacts experienced by individual businesses and net impacts on the overall economic performance of the county, taking account of growth and developments in new sectors and possible contraction in other businesses that fit less well with changes in technology and society.

Given the scale and pace of change anticipated in the transport sector and other sectors in the future, particularly in response to the pursuit of net zero, there will inevitably be some trade-offs. Some businesses will experience a net benefit as a result of the change and others will experience a net disbenefit.

The LTP4 measures are intended to help to maximise the net benefits to Surrey's economy in the context of county, regional and national economies that will need to change rapidly to meet the national commitment to net zero by 2050 and intermediate carbon budgets. In this context, there is advantage to be gained by those businesses that act early to respond to new requirements in an economy in which the costs of environmental damage from business are better recognised. Surrey's Economic Strategy Statement recognises that it is important to the county's resilience and future prosperity that businesses are at the 'leading edge' of carbon reduction.





Policies to ensure sustainability in delivering the strategy

New and upgraded infrastructure required to deliver the sustainable growth strategy will be designed to:

- **Reduce embodied carbon emissions**, including through choice of materials and treatment of waste more generally, partly through use of recycled materials.
- **Improve air quality**, including through green infrastructure.
- **Build in resilience to climate change**, particularly flooding and temperature extremes.
- **Protect and enhance valued places**, including those valued for biodiversity, landscape and townscape and historic environment.
- **Protect and enhance natural resources**, including protecting soil and land and water and promoting circular economy principles for resource use and waste.

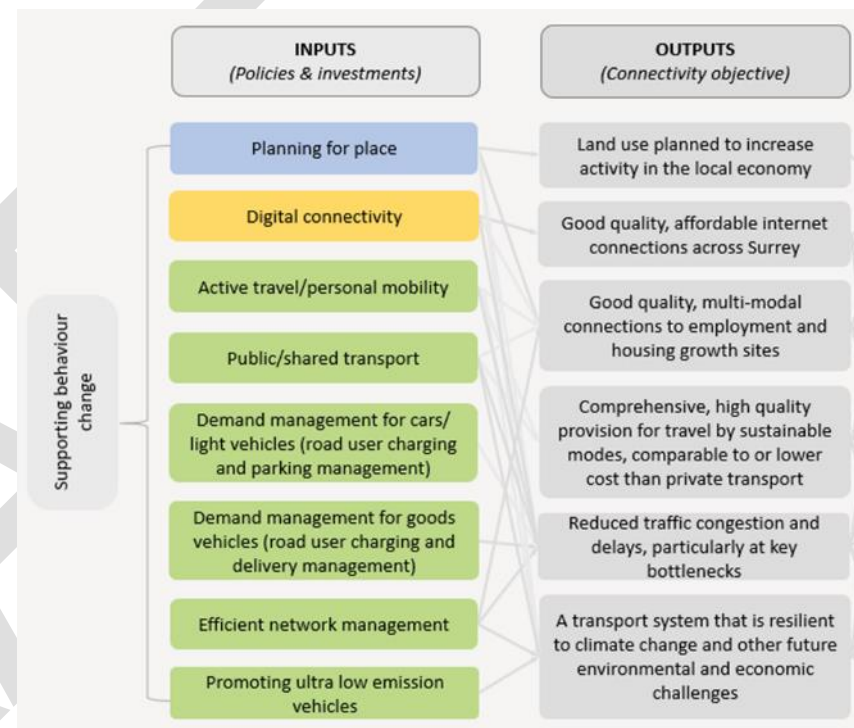
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This LTP4 has been written during a period of uncertainty caused by the COVID-19 pandemic. The medium and long-term impacts on travel behaviour are not yet clear, for example commuting patterns to London. The Economic Strategy Statement highlights that in the short to medium term there will be the need to recover and rebalance from the substantial rise in unemployment (243% between February and September 2020) and weakening of sectors such as retail and hospitality.

In the longer term the economy will need to adjust to changes such as potential structural change in the aviation sector and long-term changes in commuting patterns and the use of local centres. Some of the changes will provide opportunities, for instance increasing the amount of economic activity retained in Surrey and the policy areas identified in the LTP4 will provide the transport and connectivity required to maximise the gain from the opportunities.

4.3.3 Relevant policy areas

All nine Policy Areas will contribute to delivering the sustainable growth strategy as illustrated below.



All nine policy areas have a role in supporting economic performance in Surrey through the direct and indirect impacts of transport and connectivity on businesses. However, they also work together so that the combined package of policy areas achieves more than the individual policy areas alone. Therefore, although some of the policy areas contribute more directly to economic performance, they all contribute in some way to the objective.

For more detail on all the measures below please refer to the [Policy Area table](#) and the separate individual [Policy Area webpages](#).

Planning for place (Avoid)

- Increase the provision of local opportunities and services
- Develop '20-minute neighbourhoods' with thriving economic centres
- Support development of economic clusters

The development of 'hyperlocal' living and activity, i.e. 20-minute neighbourhoods is identified in Surrey's Economic Strategy Statement as a key growth proposition.

There is growing evidence that localisation of activity in 20-minute neighbourhoods can provide a significant boost to certain economic sectors, particularly those relying on the general public as customers.

The move to more local journeys associated with 20-minute neighbourhoods will have a positive impact on several aspects of travel for customers and employees accessing businesses within the neighbourhood:

- travel costs will be reduced by journeys being shorter and there being more scope to use the cheapest modes of walking and cycling;
- journey reliability will be improved by journeys being shorter and fewer being by car, instead using more reliable modes such as walking and cycling and reducing congestion and improving reliability for other trips; and
- the range of alternatives will be increased by the ability to use active modes for the shorter journeys.

In addition, improved public realm in a 20-minute neighbourhood may be more attractive to customers from the general public, making visits more likely and there is also evidence that they are likely to dwell longer.

20-minute neighbourhoods can support strong economic growth in the neighbourhood centre. The number of visits by residents in the neighbourhood provides a consistent customer base that is sufficient to support a range of retail, service and leisure businesses.

As the range of opportunities and offerings expands, the number of visits increases, further increasing the customer base and the case for new businesses to be established.

This virtuous circle is reinforced by the fact that a high proportion of visits will be on foot or by bicycle and evidence suggests that those arriving by active modes will be likely to spend longer in the centre and visit more outlets than those arriving by car (Living Streets, 2019.) *(Further details are provided in Appendix A)*

Planning for place will also support economic growth by facilitating the ongoing growth of the county's economic clusters, particularly the Guildford Science Retail park, ensuring for instance that land and capacity for expansion are made available.

Digital connectivity (Avoid)

- Support comprehensive coverage of fibre broadband and 5G.
- Support the move to online opportunity and service provision including SCC's own digital transformation.

Strong digital connectivity can bring significant economic benefits by:

- reducing travel costs and time for businesses where online alternative actions such as video meetings are possible; and
- widening the pool of potential employees and customers where online working and sales are possible.

The scale of homeworking during 2020 and 2021 as a result of COVID-19 has highlighted the extent to which **businesses can save money by encouraging homeworking**. American studies suggest that firms save at least \$11,000 p.a. per employee working fully or partly at home through reduced overheads such as office space (X). Whilst measures will be needed to ensure that changed working patterns do not reduce productivity, there is increasing evidence of businesses reducing their office space ahead of the return to 'normality' post COVID, reflecting an intention to continue to support homeworking, with most talking of a hybrid model of home and office working (KPMG, 2021). *(More detail in Appendix A)*

Active travel/personal mobility (Shift)

- Provide high quality integrated cycle and walking networks to economic centres and public transport interchanges.
- Support the use of e-cargo bikes throughout Surrey

Strong provision of walking and cycling connections between residential areas and key economic hubs and public transport connections has the potential to support economic growth by widening the potential pool of employees and consumer customers for business. The health and productivity of those undertaking active travel may also be improved with economic productivity benefits for their employers.

Where cycling and walking provision serves local retail and economic hubs (for instance in a 20-minute neighbourhood) it helps to support the development and economic success of the centre, by increasing trips to the centre and potentially increasing spend (see box).

Active travel may also deliver freight benefits for some firms through the use of e-cargo bikes to fulfil last mile deliveries, reducing costs, particularly in areas with delivery restrictions

The Institute of Transport Studies, Leeds identify that **bus provision generates economic benefits in urban areas** in the following ways:

- Enabling large numbers of people to commute. Particularly in certain population sectors including females, younger age groups, part-time workers and those on low incomes.
- Facilitating better matching between people and jobs and increasing labour market participation.
- Improving the accessibility to education and training,
- Supporting the viability and vitality of urban centres.
- Acting as a form of social insurance for those who don't regularly use bus

(Further detail and sources in Appendix A)

Over 80% of Business Improvement Districts identified that **improved walking and cycling facilities attract more visitors to economic centres** in a recent survey. It is increasingly recognised that improved active mode provision can support the viability of local economic centres in a number of ways. In particular evidence from bodies such as TfL and Living Streets suggests that those arriving on foot or by bike make more trips than those arriving by car and tend to dwell longer, spending more over an average month. This is reinforced by the fact that reducing the dominance of cars makes the urban centres more attractive places to spend time. As visits increase, more businesses are attracted to the centre making them more attractive to visit and generating a virtuous circle of improvement.

(Further detail and sources in Appendix A)

Public/Shared transport

- Integrate public and shared transport provision effectively
- Establish a MaaS providing access to information and simple ticketing across all modes used for a journey
- Reliable, high quality public transport focussed particularly on providing connections within and between the Strategic Opportunity Areas identified in the Place Ambition

Public transport plays an important role in the economy, generating a number of recognised economic impacts (see box), such as providing an efficient means of moving people to key destinations such as urban centres, reducing congestion and emissions.

Improving the quality and coverage of public transport, particularly on key corridors in the Strategic Opportunity Areas will support economic development in Surrey by widening the pool of potential employees and consumer customers for businesses and improving travel choice and reliability as well as improving access to education and training opportunities.

We will carefully plan public transport, such as the proposed West Guildford station, so that it also supports growth by enabling new development for homes and jobs, easing a key constraint of availability of suitable land.

Demand management for cars/light vehicles (Shift)

- Relocate parking away from prime central locations
- Increase parking charges, differentiating on size and emissions
- Consider eco-levy, potentially focussed on trips to urban areas

The introduction of demand management for cars will have a range of impacts on the economy. Some businesses will benefit from the reduction in traffic and congestion and improved journey times and reliability, particularly for freight.

The release of central urban space from parking and reduction in traffic in central urban areas will also bring a boost for central economic activity by providing space for additional activities and improving the physical environment.

The trade-off will be that some businesses with a reliance on car trips will be affected by the reduced convenience and increased cost of car use which may reduce customer numbers or increase business overheads, particularly if a WPL is introduced.

However, demand management measures will be implemented as part of the wider package of measures from across the policy areas. An important part of the package development is that the revenue from demand management will fund some of the beneficial measures discussed under other policy areas, such as provision for active modes and public transport.

Evidence from successful implementation of measures in places such as Nottingham (see box) shows that the economic benefits of the measures funded by the revenue from charges more than offsets the direct impacts of the charges, particularly for high street economies.

Nottingham introduced the first European Workplace Parking Levy (WPL) in 2012, charging for workplace parking except for fleets and delivery vehicles and small businesses. Subsequent reviews have shown that the levy has not discouraged companies from basing themselves in the city and not impacted on investment in the city, with no sign of significant negative economic impacts. In fact, there is evidence that Nottingham's strong public transport infrastructure (funded through the levy) is instrumental in leading to businesses locating into Nottingham. *(Further details and sources in Appendix A)*

Demand management for goods vehicles (Shift)

- Restrict deliveries to central areas – limited time windows and permits
- Introduce consolidation hubs
- Consider eco-levy, potentially focussed on trips to urban areas

As for demand management for cars, demand and delivery management for goods vehicles will have a varied impact on Surrey's businesses. Benefits will be experienced by businesses that benefit from the reduction in congestion and improvements in reliability and journey time and by those located in areas that are made more attractive by the reduction in goods vehicle travel. Businesses using consolidation centres may also benefit from efficiency improvements.

However, for some businesses the costs of any charging and the disruption caused by delivery management such as consolidation centres will bring a net disbenefit.

As for measures for car, demand management is best seen in the context of the full package of measures with the revenue raised used to support other measures with positive economic impacts such as public transport provision.

Efficient network management (Improve)

- Make full use of available information from digital assets and co-ordination between bodies to optimise use of the network, through signal control and response to incidents
- Deliver focussed capacity expansion to overcome hotspots without increasing congestion
- Provide new links to provide well located new developments with multimodal connections
- Undertake measures to build resilience to climate change and other future changes

Improving the efficiency of network management through improved use of information on network conditions and targeted relief of hotspots will bring journey cost benefits for Surrey's businesses through reduced congestion and associated improvements in reliability and journey times.

Network management will also deliver economic benefits through targeted additions to the network to allow land to be used for housing, economic development, alleviating a constraint, particularly where it allows the expansion of existing economic clusters such as the Surrey Research park.

We will focus the measures on routes within or between the eight Strategic Opportunity Areas identified as core to Surrey's economy in Surrey's Place Ambition. Improving connectivity on strategic corridors within these opportunity areas, as highlighted as an objective of the Place Ambition.

Future economic benefits will be delivered through ensuring that network management is resilient and is developed to take account of future changes such as the predicted temperature rises and increased flooding that are associated with the level of climate change that is already inevitable, avoiding future disruption and associated economic losses.

Promoting ultra-low emission vehicles (Improve)

- Support ULEV uptake in businesses through provision of ULEV charging infrastructure and potentially purchase loans
- Promote EV uptake through roll out of EV car clubs with business access

Businesses that upgrade to a ULEV fleet will benefit from operating cost savings, once they have overcome the higher upfront costs of purchase. Loans to firms to support purchase would help to overcome this hurdle and charging infrastructure provision will help to provide confidence in vehicle purchase.

Rolling out EV car clubs which allow business use will also bring benefits for relevant businesses which will achieve cost savings through cost effective access to efficient car use for businesses.

Supporting behaviour change (All)

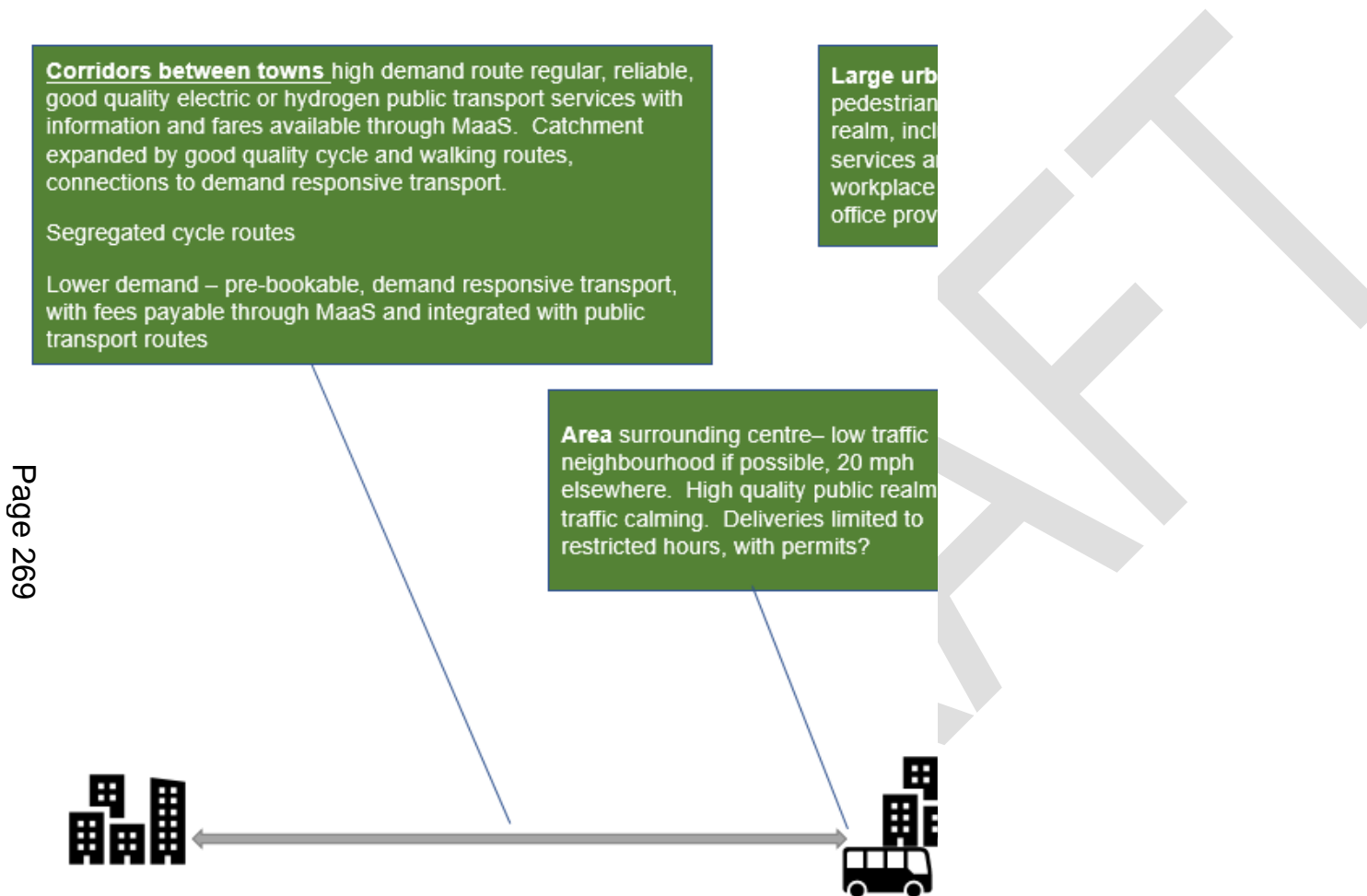
- Measures to encourage reduced travel
- Planning and incentives to change modes

Behaviour change measures will be required to a greater or lesser extent to **deliver each of the other 8 policy areas**.

For businesses focus will be particularly on measures to encourage:

- recognition the environmental and economic costs of travel and planning to reduce it wherever possible, for instance through more careful route planning or use of online alternatives to travel;
- adoption of less-polluting modes for business travel and freight wherever possible and encouraging their employees to do so, for instance through workplace travel planning, potentially integrated with incentives delivered through Apps or the MaaS system; and
- conversion of commercial fleets to electric vehicles or moving over to using car club vehicles.

Visualisation



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4.4 Impact Strategy 3: To provide well-connected communities that encourage social mobility and ensure no-one is left behind

4.4.1 The need for a community and social mobility strategy

For the full evidence base that sits behind the LTP4 and this Impact Strategy, please click [here](#).

4.4.2 Achieving success

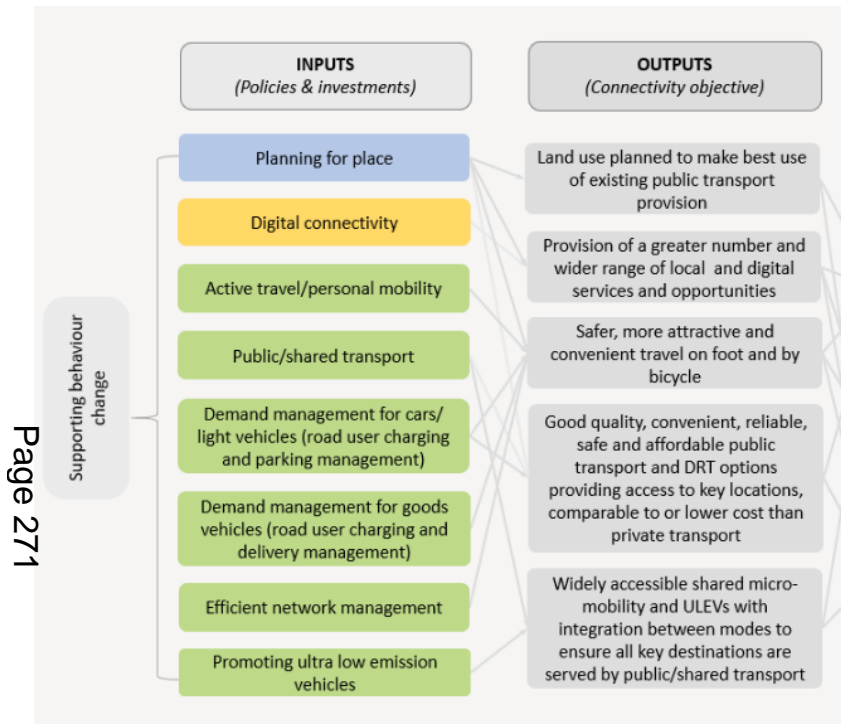
This LTP provides the transport roadmap to achieving the Surrey 2030 Community Vision of Surrey being a place where people are 'enabled to achieve their full potential and contribute to their community, and no one is left behind'. Although Surrey is overall an affluent, healthy county, pockets of deprivation exist, with the 25 most deprived areas ranking within the most deprived 1/3 of areas in the country. This Impact Strategy aims to address these inequalities across Surrey, to ensure communities and, in particular, vulnerable or disadvantaged groups, are provided with safe, accessible and affordable alternatives to the private car for travel and trips across the county.

The outcomes being sought to reach this Impact are set out below, along with the role the LTP4 has in achieving these.



Relevant Policy Areas

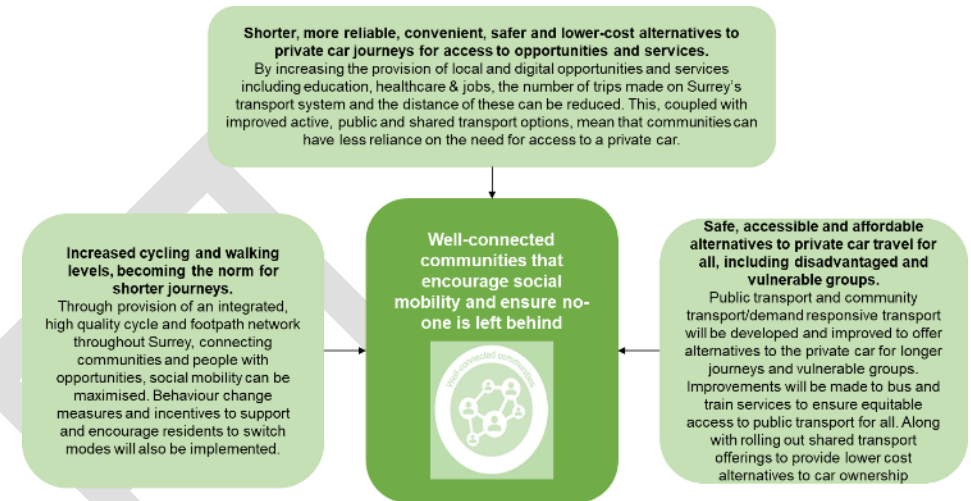
All nine Policy Areas are relevant to achieving this objective as illustrated below.



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The measures most critical to achieving this objective are described in the following sections. It is important to note that there are crossovers between measures and benefits between all four Impact Strategies and other measures will also have some benefit. Therefore, measures have been included and focussed on within the Impact Strategy they most directly affect.

For more detail on all the measures below please refer to the [Policy Area table](#) and the separate individual [Policy Area webpages](#).





Policies to ensure sustainability in delivering the strategy

New and upgraded infrastructure required to deliver the communities and social mobility strategy will be designed to:

- **Reduce embodied carbon emissions**, including through choice of materials and treatment of waste more generally, partly through use of recycled materials.
- **Improve air quality**, including through green infrastructure.
- **Build in resilience to climate change**, particularly flooding and temperature extremes.
- **Protect and enhance valued places**, including those valued for biodiversity, landscape and townscape and historic environment.
- **Protect and enhance natural resources**, including protecting soil and land and water and promoting circular economy principles for resource use and waste.

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Planning for place (Avoid)

- Increase the provision of local opportunities and services
- Develop '20-minute neighbourhoods'
- Land use planned to make best use of existing public transport.

Through increasing the provision of local opportunities and services including education, healthcare & jobs, the number of trips made on Surrey's transport system and the distance of these can be reduced.

Local services and opportunities remove/avoid the need for members of communities to travel. Meaning that communities can have less reliance on the need for access to a private car.

The aim will be to provide attractive local areas, often termed '20-minute neighbourhoods' which are planned so that people can meet the majority of their needs locally, within a 20-minute walk or cycle ride.

Provision of a greater number and wider range of local services and opportunities including providing community hubs with workspace and hot desking facilities will open up opportunities for employment to those without means to access existing employment sites. Thereby reducing the need to travel for work and connecting communities and people with opportunities, to maximise social mobility.

Where local centres and hubs can't be provided, or in addition to these, land use planning should also prioritise making the best use of existing public transport provision, to enable residents to utilise this mode to access opportunities including employment and education.

Digital connectivity (Avoid)

- Increase the provision of digital opportunities and services
- Support digital connectivity developments throughout Surrey

Provision of a greater number and wider range of digital services and opportunities can remove/avoid the need for members of communities to travel, therefore removing a potential barrier to accessing opportunities and the need for access to a car.

SCC will enable good digital connectivity throughout Surrey by:

- supporting comprehensive coverage of fibre broadband and affordable provision to homes, businesses and public sector organisations;
- supporting comprehensive coverage of 5G; and
- supporting the move to online opportunity and service provision including SCC's own digital transformation.

Through improving access to digital and work from home opportunities, the potential for social mobility can be increased, particularly through the reduced need for car ownership or commuting travel fares.

The improved provision of other digital services such as online healthcare appointments and training sessions can also help to remove the travel barrier to provide equal access to opportunities for all residents across Surrey.

Active travel/personal mobility (Shift)

- Increasing access to bicycles through ownership schemes and bicycle share schemes
- Improving safety, attractiveness and convenience of active modes
- Providing an integrated, high quality cycle and footpath network throughout Surrey.

Lack of access to a bicycle is clearly a barrier for those wishing to cycle for some journeys. Therefore, increasing bicycle ownership and making this as affordable as possible will remove this barrier. SCC will support recycling and upcycling bike schemes and shops, or support grants for bicycle purchase.

We will also support the provision of free bicycle maintenance sessions, to reduce ongoing costs for users.

Bicycle share schemes can also help to encourage this mode, particularly for more one-off trips or sections of trips, without the need to own a bicycle. This is covered in the 'Shared Transport' section of this Impact Strategy.

In order to encourage a greater share of trips to be made on foot or by bicycle, and to be the norm for shorter journeys, the LTP4 we will deliver measures to ensure safer, more attractive and convenient travel on foot and by bicycle, as well as for those using scooters, e-scooters and e-bikes.

Measures will include those which provide extra space for active modes, through:

- reallocating road space to active travel modes;
- widening footways; and
- segregating active modes from cars, vans and goods vehicles.

This will empower communities to feel safer to use active modes to be able to access services and new opportunities.

Through the LTP, we will provide an integrated, high quality cycle and footpath network throughout Surrey, connecting communities and people with opportunities, so that social mobility can be maximised. This will include the measures set out below to improve active mode access:

- **primary routes into key urban areas** – re-allocating space to high-quality cycle infrastructure can increase the capacity of a corridor;
- **radial routes into urban areas** - improves accessibility and enables connectivity;
- **inter-urban rural routes** that provide access and connectivity between local centres for all users;
- **connected routes** to allow walking and cycling directly or as part of multi-modal trips to be made from where people live to their local centre, including connected routes to local rail stations or bus stops to access local centres;
- **clear wayfinding and network branding**. Route numbers should be reinforced through consistent design, signage, and branding. This improves the profile and legibility of the network to all users;
- realignment of routes to desire lines;
- improving crossing facilities;
- removing on street parking to provide cycle lanes; and
- increasing cycle parking.

Improving access for all to local centres and high streets opens more opportunities for more people to locally access everyday needs.

Public/shared transport (Shift)

We will develop a countywide high quality, reliable, integrated, affordable public transport system and supporting shared transport (including EV cars) with access through an accessible/easy to use Mobility as a Service (MaaS) arrangement.

Mobility as a Service (MaaS), to bring together different modes and services into one application to make planning and payment of trips easier for residents. To support equal access for all residents, MaaS can support and enable accessible travel (information about accessibility ramps, lifts, booking travel assistance)

The MaaS platform will be used to access all shared transport services set out in this section.

Public Transport

- Improve level of bus services on existing routes
- New developments to incorporate bus design and integration with existing bus network
- Fares to be reviewed to ensure affordability across the county
- Stations, stops and services to be reviewed for compliance with the Equality Act.

The focus of this LTP is on improving bus travel and enabling residents to sustainably access key interchanges and stations to continue their journey on rail. The recently developed Surrey Rail Strategy deals with rail station accessibility and onward rail journeys.

Well designed and improved bus services and facilities will enable buses to serve catchments and communities more effectively, thereby improving social mobility opportunities and increasing the potential for residents to participate in education and the economy.

Therefore, we will:

- improve level of bus services on existing routes
- ensure **new developments are designed for bus access** and integrated with existing public transport services; and
- evaluate SCC financial support for local bus services against council objectives and prioritise those services with the highest patronage and / or contribution to social mobility / levelling up agendas.

Surrey Rail Strategy, 2021

Access to the railway network can create opportunities for residents by opening up access to employment, amenities and improved wellbeing. Access for all can be ensured not only by providing level access to board trains but can also be supported with the provision of safe and secure walking and cycling facilities, and by addressing financial barriers to public transport use.

Only 18% of Surrey's stations are fully accessible and without this, the benefits of any improvements to trains cannot be maximised. Each increase in step free provision and station accessibility unlocks further journey opportunities.

Surrey Rail Strategy, 2021

Includes a strategic aim of 'Increasing access for all'

- Ensuring stations and trains are accessible to all, by increasing the number of step free stations and looking at wider accessibility
- Developing a ticketing structure that works for all
- Enabling access to the network by diverse modes, including increasing accessibility of stations to their local communities by walking, cycling, and other forms of public transport.

To serve more rural communities and those with particular mobility needs, we will develop a **Surrey Community Transport Strategy** and policy, to allow the community transport sector to provide more specialist public transport services.

We will also develop:

- **More reliable and quicker bus services** through the reallocation of roadspace on appropriate specific corridors, this will be carefully planned to not add congestion on to the network.
- We will work towards **consistent bus fares** on all services regardless of operator. This would help to reduce existing barriers to use in a multiple-operator environment.
- **Application of period (e.g. daily, weekly) caps on total fares paid**, regardless of operator or mode of travel should be introduced. Particularly in Surrey where the rail network is dense and services regular, reducing the price barrier would facilitate mode shift and enable more residents to participate in the economy.
- **Improvements to bus information:** e.g. on-bus next stop announcements; extending real-time information; and providing a single well-recognised source of bus service information.
- **Improve accessibility of stations, stops and services:** in order to ensure bus services are accessible to all users, bus stops across Surrey should be reviewed for compliance with Equality Act measures and vehicle configurations.

Hampshire County Council has utilised taxi-sharing legislation to introduce low-cost services on poorly-patronised bus services allowing resource to be directed elsewhere.

Shared Transport

- Access to a variety of shared modes including scooter, bike and car through individual sites and mobility hubs
- MaaS system to provide end-to-end journey planning, multi-modal ticket purchasing and ability to earn and spend rewards
- Mobility credits to favour use of sustainable modes, could be targeted at key groups to improve social mobility

An effective shared transport system will remove barriers to travel, particularly for vulnerable or disadvantaged groups, through provision of high levels of connectivity/accessibility across the county, providing a strong alternative to private car use and ownership.

We will investigate the following shared transport options set out below with the of offering accessible and affordable alternatives to car ownership, enhance social mobility and improve access to opportunities for all residents across Surrey:

- **Bike share schemes (bike hire), including e-bikes**, provide an alternate to private cars on short distance journeys and also provide the last mile connectivity when used in conjunction with public transport modes.
- **E-scooters share schemes (e-scooter hire)**, also provides an additional alternative for short journeys, or for completing the first/last mile of a longer trip. These are currently being trialled by the government and if successful hire schemes will be rolled out.
- **Electric vehicle car clubs** will help to remove the need for car ownership, with vehicles offered on a pay per use basis. The car clubs can also help to open up access to new, electric vehicles for all residents, which will prove particularly important for equity, if emissions-based charging is brought in across the county.

Electric vehicle car clubs will also provide another option for longer journeys, for example to access employment opportunities which are currently not possible without access to a private vehicle.

All the shared transport options set out here will be integrated with the proposed wider MaaS service. These multimodal, shared travel options mean that communities' benefit from improved social mobility and access to a wider range of opportunities.

In addition, **Mobility Hubs** will be developed, providing access to a variety of the shared transport modes as set out above. These will provide a multimodal interchange opportunity to help seamless door to door journeys.

A **Mobility Credits** system linked into the MaaS application will also be explored. Mobility Credits provide a cost-effective way of delivering targeted transport behaviour change.

Mobility Credits will provide the opportunity to support sustainable travel choices, for instance providing credits that can be used for public transport or shared transport use in return for giving up car ownership or supporting jobseekers with mobility credit allowances. This would open up opportunities to connect places and provide options other than private cars. These measures could potentially be linked with job centres and universities programmes to identify individuals in need and support their travel needs. This could be coupled with the travel training covered in the Behaviour Change policy section of this strategy and aim to broaden travel horizons for jobseekers and those not in education, employment or training (NEETs) in particular.

In addition, in place of providing car parking spaces in new developments, residents will be provided with monthly mobility credits to be used on shared modes such as uber, car clubs or public transport. The saved space could be used to develop communal spaces and bicycle parking.

Demand management for cars/light vehicles (Shift)

- Improved environment for walking and cycling through reduced vehicle use
- Revenue raised to be reinvested into providing alternatives to car travel (i.e. improved cycle network)
- Only affects those already using a car, shared car clubs to provide access to less polluting vehicles when needed.

Should an **ecolevy (road user charging scheme) or clean air zone** be introduced nationally, regionally or locally in Surrey and/or increased emissions-based parking charges, these will need to be carefully managed, to ensure that they don't disproportionately affect disadvantaged groups.

It is important to note that these measures will only affect those already using a car and that the revenue raised will be reinvested to fund active, shared, electric vehicle transport for all. Should charges be emissions based, then affordable access to shared electric vehicles will be key to negating charges against those without access to their own newer, less polluting vehicle.

In addition, by discouraging access by motorized vehicles and making routes by active modes safer and more direct, those without access to a car are better able to travel safely locally for their needs. Reduced vehicles will also have less of an impact on local communities in terms of air, noise and visual intrusion and improvements in safety, as covered in the Health and Wellbeing Impact Strategy.

Demand management for goods vehicles (Shift)

- Limited impact of this policy area on achieving this impact (outcome objective)
- Small improvements to local walking and cycling environments through reducing freight movements in these areas.

This policy area has a limited ability to support achievement of connected communities. There will be some benefits for achieving a safer, more attractive walking and cycling environment by removing larger delivery vehicles from communities and the local road network, but these won't directly achieve more connected communities with better social mobility.

The Local Government Association asserts that EVs will have lower running costs than traditional internal-combustion vehicles, making car use and ownership more cost effective for communities.

Efficient network management (Improve)

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- Improving reliability and convenience of active and public transport modes
- Prioritising these modes to enhance connectivity for communities

Measures under this policy area improve journey time reliability for non-car-based modes of travel, to enhance connectivity for communities to opportunities such as employment, education and training.

This will include:

- **Optimising traffic signal control** particularly coordinating control in town centres and corridors. Signal control validation can improve reliability for public transport and/or prioritise, pedestrians, cyclists and other users.

- **Integrated Networks**, through developing joint-working relationships, supported by network management technologies, with neighbouring authorities and trip generators to improve cross-boundary journeys. This could include data sharing, advanced driver information and coordinated traffic control. Providing end-to-end journey management, rather than the traditional authority-centric approach, will improve connections between communities in neighbouring authorities and provide greater reliability to journeys that cross boundaries.
- **Bus priority measures** through expanding and enhancing Surrey's existing bus priority facilities at junctions to improve bus journey reliability across the county, including the use of automatic vehicle location systems.

Promoting ultra-low emission vehicles (Improve)

- Support and facilitate uptake of ULEVs through provision and promotion of charging facilities

Promotion of ultra-low emission vehicles will help to connect communities, as described in the shared transport section. Those ULEV particular measures set out below would complement this shared transport network.

Provision and promotion of EV charging facilities will include in town centre locations and residential areas reliant on on-street parking and cover all ULEV types including e-scooters, e-bikes and electric vehicles. This would ensure individuals from all communities are able to access EV technology, for different vehicle types.

Supporting behaviour change (All)

- Focus on improving social mobility opportunities
- Travel training with hard to reach groups
- Removing travel barriers and broadening travel horizons.

Behaviour change measures provide people with the information, awareness raising and incentivisation required for residents to make informed travel choices. As such, they help to maximise the benefits arising from the other Policy Area measures described in this LTP. T

The behaviour change measures include more traditional targeted campaigns – by mode, theme (e.g. health, air quality, safety) or by travel audience (e.g. commute, school run, leisure). Along with technology platform-based measures including digital rewards campaigns and mobility credits, as discussed more in the Shared Transport section.

Within this strategy measures will also include a programme of travel training sessions with hard to reach/seldom heard groups, which may include those not in education, employment or training (NEETs), jobseekers and members of the BAME community. This will aim to improve social mobility opportunities, upskill the local population, remove travel barriers and broaden travel horizons.

The opportunities presented to lock-in positive behaviours seen during the COVID-19 pandemic and societal and technological changes to reduce demand (e.g. shared mobility and focus on broadband rather than road building) are also key enablers to achieving long-term behaviour change.

Map/plan-based infographic showing different interventions



A rural community, with limited public transport options e.g. XXXX

Map/plan-based infographic showing different interventions

A community-based, flexible work hub provides options for those residents looking for a work location whilst avoiding the need to travel outside of the local area. This work hub also provides local hospitality (café) facilities for workers and other members of the community and can be easily rearranged to provide community space for local clubs and parish council meetings.

Digital services and opportunities are supported through improved digital connections including comprehensive coverage of fibre broadband and affordable provision.

The improved community transport and DRT services provide travel options, along with the recently introduced taxishare system. All of which are bookable through the MaaS application and payable using mobility credits.

DRAFT

4.5 Impact Strategy 4: To create thriving communities with clean air, excellent health, wellbeing and quality of life.

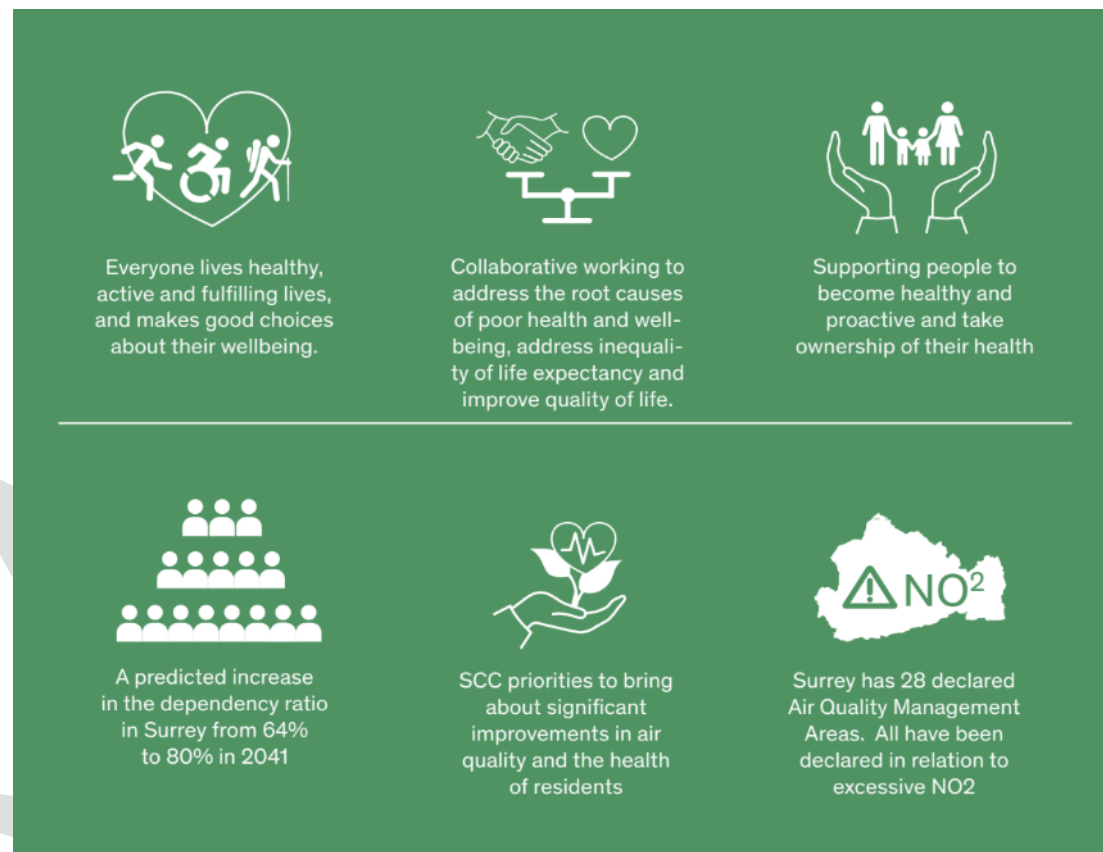
4.5.1 The need for a quality of life strategy

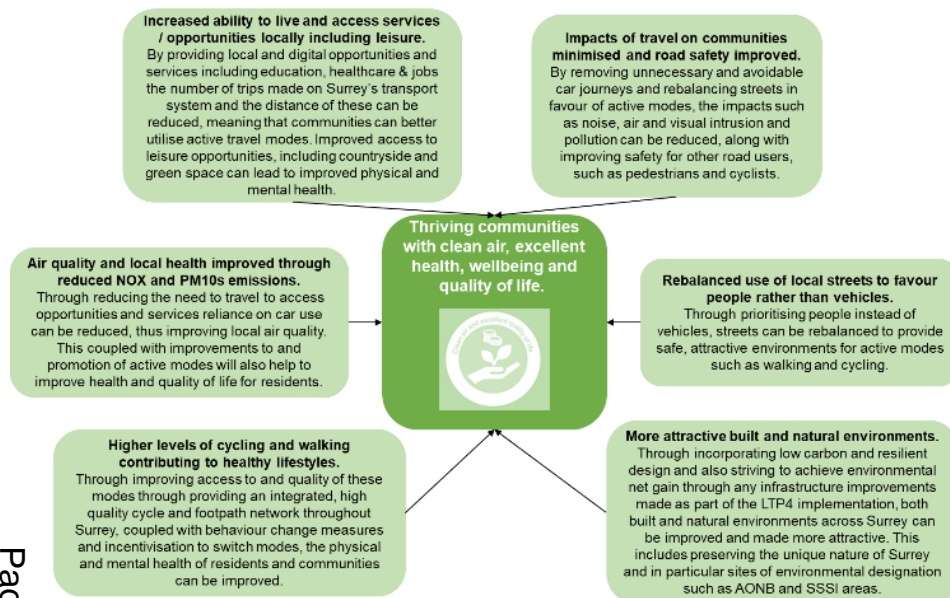
For the full evidence base that sits behind the LTP4 and this Impact Strategy, please click [here](#).

4.5.2 Achieving Success

Through measures in this impact strategy we aim to support our Community Vision of 'everyone lives healthy, active and fulfilling lives, and makes good choices about their wellbeing'. Along with our Health & Wellbeing Strategy aims of supporting people to become healthy and improve their quality of life. By reducing unnecessary car use and providing communities and residents with increased and improved active travel alternatives, residents will benefit from increased opportunities to improve their health, both physical and mental, as well as improve local air standards and quality of life.

The outcomes being sought to reach this Impact are set out below, along with the role the LTP4 has in achieving these.

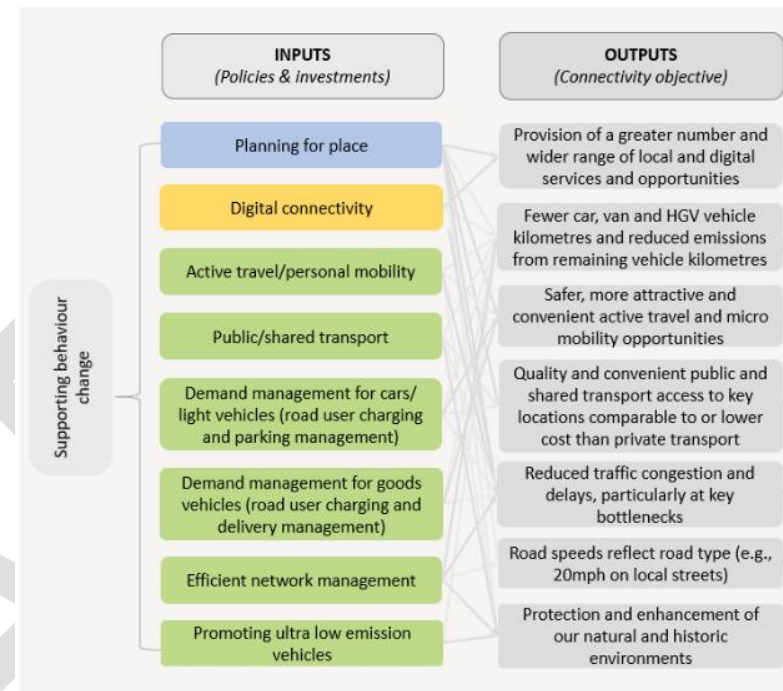




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Relevant policy areas

All nine Policy Areas will contribute to achievement of this outcome objective as illustrated below.



The key interventions and measures related to achieving this Impact have been included within this strategy. However, there are crossovers between measures and benefits between all four Impact Strategies and other measures will also have some benefit. Therefore, measures have been included and focussed on within the Impact Strategy they most directly affect.

For more detail on all the measures below please refer to the [Policy Area table](#) and the separate individual [Policy Area webpages](#).



Policies to ensure sustainability in delivering the strategy

New and upgraded infrastructure required to deliver the quality of life strategy will be designed to:

- **Reduce embodied carbon emissions**, including through choice of materials and treatment of waste more generally, partly through use of recycled materials.
- **Improve air quality**, including through green infrastructure.
- **Build in resilience to climate change**, particularly flooding and temperature extremes.
- **Protect and enhance valued places**, including those valued for biodiversity, landscape and townscape and historic environment.
- **Protect and enhance natural resources**, including protecting soil and land and water and promoting circular economy principles for resource use and waste.

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Planning for place (Avoid)

- Increase the provision of local opportunities and services
- Develop '20-minute neighbourhoods'
- Land use planned to maximise active travel options

Through increasing the provision of opportunities and services offered locally including education, healthcare & jobs, the number of trips made on Surrey's transport system and the distance of these can be reduced. This enables these more local trips to be made via active modes such as walking, scooting, or cycling, providing opportunities for improved health.

In addition, decreased reliance on car usage to access opportunities will result in reduced travel impacts on communities, improved road safety, reduced emissions and improved local air quality.

We will provide attractive local areas, often termed '20-minute neighbourhoods' which are planned so that people can meet the majority of their needs locally, within a 20-minute walk or cycle ride. The neighbourhood will provide a greater number and wider range of local services and opportunities than is typical currently, including retail, education, healthcare, jobs and community work hubs (providing high quality remote access to work further afield).

New developments should also be planned to maximise local leisure and exercise opportunities, including green space for improved mental health.

Effective planning for place can have a real impact on, and contribution to, overall improved quality of life for communities and residents. Local communities must be involved in schemes to improve local centres and high streets to increase support and success. This is part of our Organisation Strategy (2021-2026) priority objective, 'to empower communities and make it easier for everyone to play an active role in the decisions that will shape Surrey's future'.

Digital connectivity (Avoid)

- Increase the provision of digital opportunities and services
- Support digital connectivity developments throughout Surrey

Provision of a greater number and wider range of digital services and opportunities can remove/avoid the need for members of communities to travel, therefore lessening the need for access to a car.

SCC will support digital connectivity throughout Surrey by:

- supporting comprehensive coverage of fibre broadband and affordable provision to homes, businesses and public sector organisations;
- supporting comprehensive coverage of 5G; and
- supporting the move to online opportunity and service provision including SCC's own digital transformation.

Improving access to digital services and opportunities such as working from home, retail, healthcare appointments and online training sessions, results in a reduced need to travel, therefore reducing vehicular trips, emissions and the impact of travel on communities.

Active travel/personal mobility (Shift)

- Promoting the health and environmental benefits of active travel
- Providing an integrated, high quality cycle and footpath network throughout Surrey
- Creating communities where residents want to spend time and travel by active modes.

The uptake of active modes is key to achieving this Impact and improving health and wellbeing for all Surrey residents. To encourage a shift to walking and cycling, local streets will be rebalanced to favour people rather than vehicles. This will include measures to improve safety by increasing space for active modes, through:

- reallocating road space to active travel modes
- widening footways
- segregating active modes from traffic
- 20 mph limit for vehicles on local streets.

The LTP4 will look to provide an integrated, high quality cycle and footpath network throughout Surrey, providing an attractive, safer and more convenient environment for residents to use these modes of travel to improve their physical and mental health. This in turn will help to decrease the impact of travel on local communities and improve local air quality.

Through **creating low traffic neighbourhoods**, by supporting low traffic routes and streets, whilst enabling and encouraging direct access on foot and by bicycle, local streets can be rebalanced and a cleaner, quieter local environment achieved. This provides space for residents to live, work, play and move within their neighbourhood, creating thriving communities.

Improving access by active modes to high streets and local centres is essential. The most impactful thing that can be done to achieve mode shift to active modes is to provide safe, segregated, connected routes. This includes:

- **primary routes into key urban areas** – re-allocating space to high-quality cycle infrastructure can increase the capacity of or a corridor;
- **radial routes into urban areas** - improves accessibility and enables connectivity;
- **inter-urban rural routes** that provide access and connectivity between local centres for all users. Opportunities for leisure and exercise, access to countryside and green space, physical and mental health;
- **connected routes** to allow walking and cycling directly or as part of multi-modal trips made from where people live to their local centre, including connected routes to local rail stations or bus stops to access local centres;
- **clear wayfinding and network branding**. Route numbers should be reinforced through consistent design, signage, and branding. This improves the profile and legibility of the network to all users;
- realignment of routes to desire lines;
- improving crossing facilities; and
- removing on street parking to provide cycle lanes

Increasing cycle parking to meet needs at local centres, stations, key destinations and in residential areas. Includes cycle parking residential design standards. Ensures new development cater for sustainable modes.

Improving access for all to local centres and high streets opens more opportunities for more people to locally access everyday needs, helping local communities to thrive.

Public/shared transport (Shift)

This policy area aims to develop a countywide high quality, reliable, integrated, affordable public transport system and support shared transport (including EV cars) with access through an accessible/easy to use Mobility as a Service (MaaS) arrangement.

- **Mobility as a Service (MaaS)**, will be developed to bring together different modes and services into one application to make planning and payment of trips easier for residents.
 - E.g. an innovative smartphone application with features such as end-to-end journey planning, multi-modal ticket purchasing and the ability to earn and spend rewards.

The MaaS platform will be used to access all shared transport services set out in this section.

Public Transport

- Improving public transport to reduce reliance on private car use will reduce the impact of travel on communities
- Providing more travel options will help communities to thrive

The focus for the LTP4 is on improving bus travel alongside enabling residents to sustainably access key interchanges and stations to continue their journey on rail. The recently developed Surrey Rail Strategy also covers access to stations and onward rail journeys.

Fastrack in Kent has supported the redevelopment of the Kent Thameside area through integrating the provision of bus services with new development.

Well designed and improved bus services and facilities will enable buses to serve catchments and communities more effectively, thereby offering increased travel options and helping these areas to thrive. Walking to bus stops and interchanges will also contribute to healthy lifestyles for residents. Therefore, we will:

- improve level of bus services on existing routes;
- **design new developments for bus access** and integrate with existing public transport services to improve connections to and from developments;
- **Park and Ride services to large town centres** in conjunction with review of town centre car park provision and pricing. This can lead to significantly improved air quality for town centre communities. This measure can build on the successful park and ride scheme in Guildford.
- **More reliable and quicker bus services** through the reallocation of roadspace on appropriate corridors, this will be carefully planned to not add congestion on to the network.
- We will work towards **consistent bus fares** on all services regardless of operator.
- Application of period (e.g. daily, weekly) caps on total fares paid, regardless of operator or mode of travel should be introduced.

Surrey Rail Strategy, 2021

- A rail trip is only ever a component of a journey and passengers have to access stations by other modes of transport or by foot or bike. These linked trips create emissions and by encouraging access by low and zero emissions modes, not only public and active transport but also low and zero emissions vehicles, emissions can be lowered.
- This includes supporting interventions to increase accessibility of stations to their local communities by walking, cycling, and other forms of public transport.

- **Improvements to bus information:** e.g. on-bus next stop announcements; extending real-time information; and providing a single well-recognised source of bus service information.
- **Improve accessibility of stations, stops and services:** in order to ensure bus services are accessible to all users, bus stops across Surrey will be reviewed for compliance with Equality Act measures and vehicle configurations.

Shared Transport

- Access to a variety of shared modes including e-scooter, bike and car through individual sites and mobility hubs
- MaaS system to provide end-to-end journey planning, multi-modal ticket purchasing and ability to earn and spend rewards
- Mobility credits to favour use of sustainable modes, targeted to increase active travel

We will investigate models for implementation of a shared transport system to provide residents with improved travel options, including active modes such as e-scooters, bikes and e-bikes. Leading to increased opportunities to incorporate physical activity into journeys and for residents to benefit from the associated health benefits. Shared transport also provides a strong alternative to car ownership, therefore offering reduced impacts of travel on communities. The system could include:

- **bike share schemes (bike hire), including e-bikes,** provide an alternative to private cars on short distance journeys and also provide the last mile connectivity when used in conjunction with public transport modes;
- **e-scooters share schemes (e-scooter hire),** also provides an additional alternative for short journeys, or for completing the first/last mile of a longer trip. These are currently being trialled by the government and if successful hire schemes will be rolled out; and

- **electric vehicle car clubs** - this service will help to remove the need for car ownership, with vehicles offered on a pay per use basis. The ULEV car clubs will help to improve local air quality through reduced emissions.

All the shared transport options set out here should be integrated with the proposed wider MaaS service. These multimodal, shared travel options mean that communities' benefit from increased travel options, including active modes.

In addition, **Mobility Hubs** will be developed, providing access to a variety of the shared transport modes set out above. These will provide a multimodal interchange opportunity to help seamless door to door journeys.

A **Mobility Credits** system linked into the MaaS application will also be explored. Mobility Credits provide a cost-effective way of delivering targeted transport behaviour change and encourage active modes.

Additionally, in place of providing car parking spaces in new developments, residents could be provided with monthly mobility credits to be used on shared modes such as uber, car clubs or public transport. The saved space will be used to develop communal green spaces and bicycle parking.

Demand management for cars/light vehicles (Shift)

- Reducing reliance on car use to improve local air quality and safety for other road users and communities
- Rebalancing streets for all users
- Reducing the impact of travel on communities
- Revenue raised to be reinvested into providing alternatives to car travel (i.e. improved cycle network)

Should an **ecolevy (road user charging scheme) or clean air zone** be introduced nationally, regionally, or locally in Surrey, this will lead to reductions in unnecessary car use resulting in improved air quality, reduced impact of transport on communities and improved safety for other users.

An ecolevy would help to rebalance streets producing a cleaner, quieter local environment, with the revenue raised from this policy area reinvested to fund active, shared and electric vehicle transport for all.

We will **review Surrey's parking strategy** to review number and level of charging of spaces. This will aim to rebalance the cost and convenience of car use with alternative modes including public and shared transport.

Likely measures within this review include:

- **Consolidating car parks into a smaller number of strategic car parks** to manage car access to town centres – reducing town centre circulation, improving air quality, and enabling road space reallocation to other uses.
- **A review of parking restrictions**, area wide controls, and charges to ensure they promote most appropriate use of parking assets (demand management). This can prioritise the needs of local people in their neighbourhoods and reduce traffic in local streets creating better conditions for local travel / connections.
- **Develop increased emissions-based parking charges**, to rebalance the cost of car travel with other modes and improve local air quality.
- **Invest in technology** to improve user's knowledge of parking locations and availability, payment options, services offered etc. This can reduce town centre circulation in congested environments and therefore improve air quality.

Demand management - Goods Vehicles (Shift)

- Reducing freight movements on local roads to improve local air quality and safety for communities
- Reducing the impact of freight travel on communities

By decreasing freight movements through local streets, the impact of travel on communities can be reduced, improving local air quality and safety. Additionally, a more attractive local environment for walking and cycling is created to broaden travel choice and opportunities for residents to improve their health and wellbeing through active modes.

Measures within this policy area include:

- **Urban consolidation centre/s** to introduce an extra step of consolidating parcels prior to completing the last-mile of the delivery and reduce freight movements, representing a relevant improvement in air quality and reduction of noise pollution.
- **Develop specific freight/lorry routes**, by defining freight routes there is the opportunity to move freight traffic away from environmentally sensitive and residential areas, improving air quality and safety within these.
- **Pick-up and drop-off points / parcel lockers**, a delivery to a suitably located single location can reduce the number of trips and distance travelled by freight vehicles. Out of hours delivery can also be used to reduce congestion and potential conflict with other road users.
- **Cycle-based freight solutions** (cargo-bikes and micro-consolidation/transshipment depot). These can deliver environmental, and social improvements by using a zero-emissions mode on the last mile, reducing noise impacts and emissions to local communities.
- **Cargo bike services to distribute goods**. Removes LGVs from the transport network in Surrey, creating safer, cleaner streets.
- **Delivery using electric vans or HGV** (and hydrogen fuelled if more efficient/appropriate). Supports the reduction of CO₂ as well as air pollutants and noise.
- **Use of portering for last mile delivery**, environmentally friendly deliveries by portering reduce air and noise pollutions by reducing the number of LGVs and heavy vehicle movements in communities.

- **Collective and collaborative procurement.** This procurement led option aims to reduce freight movements by consolidating suppliers amongst businesses. Reducing the pool of suppliers serving neighbouring businesses, reducing the number of vehicles and trips accessing a local community. This option has a positive impact on air quality and reduces travel impacts on communities by removing duplicated trips into an area.
- **Monitoring compliance of existing HGV restrictions (Surrey HGV Watch)** to ensure compliance and improve safety and air quality on local streets for communities.

Efficient network management (Improve)

- Improving reliability and convenience of active and public transport modes
- Prioritising these modes to encourage their uptake
- Smoothing traffic flow to reduce congestion, idling and associated emissions

This policy area is focussed on improving reliability for non-car based modes of travel to encourage increased walking and cycling, along with smoothing traffic flow to reduce congestion and idling, therefore reducing emissions and improving local air quality.

This could include:

- **Optimising traffic signal control** particularly coordinating control in town centres and corridors. Signal control validation can improve reliability for public transport and/or prioritise, pedestrians, cyclists and other users.
- **Bus priority measures** through expanding and enhancing Surrey's existing bus priority facilities at junctions to improve bus journey reliability across the county, including the use of automatic vehicle location systems.

- **Effective use of ITS and VMS to smooth traffic flow** to reduce congestion, idling and associated emissions, particularly in town centres. This measure should ensure the efficient use of the existing network without encouraging additional traffic.

Promoting ultra-low emission vehicles (Improve)

- Support and facilitate uptake of ULEVs through provision and promotion of charging facilities
- Encourage uptake by provision of ULEV information on dedicated webpages
- County fleet conversion to ULEVs to reduce emissions impact on communities

Ultra-low emission vehicles (ULEVs) can lead to significant improvements in local air quality and decreased impacts of transport on local communities through reduced pollution (noise, air). These bring associated benefits to health, wellbeing & quality of life. We will develop:

- **Provision and promotion of EV charging facilities**, this would include in town centre locations and residential areas reliant on on-street parking and cover all ULEV types including e-scooters, e-bikes and electric vehicles. Pollution from vehicle emissions contributes to a range of health conditions, so reducing the volume of vehicles producing these emissions within communities can help to reduce the prevalence of these.
- Dedicated web presence for ULEV information, which is supplier agnostic
- **County fleet conversion to ULEVs** to reduce emissions impact on communities, SCC will work to convert our fleet to reach our organisational target of net zero emissions by 2030. We will also work with fleet operators to encourage them to adopt ULEVs across the county bus and taxi network, along with electric vehicle car club operators.

Supporting behaviour change (All)

- Focussing on the health and environmental benefits of active modes
- Intensive promotion of ULEVs to encourage uptake.

Behaviour change measures provide people with the information, awareness raising and incentivisation required for residents to make informed travel choices going forward in Surrey. As such they can support all other policy area measures within this strategy.

The behaviour change measures include more traditional targeted campaigns – by mode, theme (e.g. health, air quality, safety) or by travel audience (e.g. commute, school run, leisure). Along with technology platform-based measures including digital rewards campaigns and mobility credits, as discussed more in the Shared Transport section.

Within this strategy measures will focus on the health benefits associated with modal shift to active modes, along with intensive promotion of ULEVs to encourage uptake. The combination of these policy areas will enable communities to benefit from the reduced intrusion of vehicles and the associated health and air quality benefits.

The opportunities presented to lock-in positive behaviours seen during the COVID-19 pandemic and societal and technological changes to reduce demand (e.g. shared mobility and focus on broadband rather than road building) are also key enablers to achieving long-term behaviour change.

Visualisation

A suburban community, located on the outskirts of a large urban commuter town e.g. XXXX

Map/plan-based infographic showing different interventions

A low traffic neighbourhood provides an attractive local environment for active modes including walking, scooting and cycling. Residents use these modes to access local services within their 20-minute neighbourhood.

Local streets have been rebalanced to favour people in place of vehicles and walking and cycling have become the norm for shorter journeys.

There are less freight movements in the community which has led to improved safety for other road users, a reduced impact of travel on the local community and improved air quality.

People are able to better access their local services through active modes, with space to live, work, play and move within their neighbourhood, creating thriving communities.



Delivering the LTP4

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5 Delivering the LTP4

5.1 LTP Delivery

Roles, Responsibilities and Collaborative Working

Surrey County Council is keen to work collaboratively with districts and boroughs, stakeholders, partner organisations, local groups, businesses, communities and residents to deliver the LTP4 and jointly achieve our ambitious objectives.

We will lead on the delivery of the LTP4 going forward, as part of our statutory responsibility to maintain and develop transport and highways at a local level. However, many of the interventions identified within LTP4 will require the involvement of other organisations, particularly our district and borough authorities.

We will work collaboratively with our partners in order to achieve our vision for Surrey's transport system. Figure 5-1 illustrates some of the groups involved, however collaboration will be wide reaching, involving a wider range of local groups and organisations than those shown.

Working collaboratively with a range of stakeholders will enable us to progress measures that impact on land use planning and digital connectivity as well as transport and to develop a coordinated approach to reducing carbon across all of our transport initiatives going forward. It will also enable us to act more innovatively and develop resilience in Surrey's transport system.

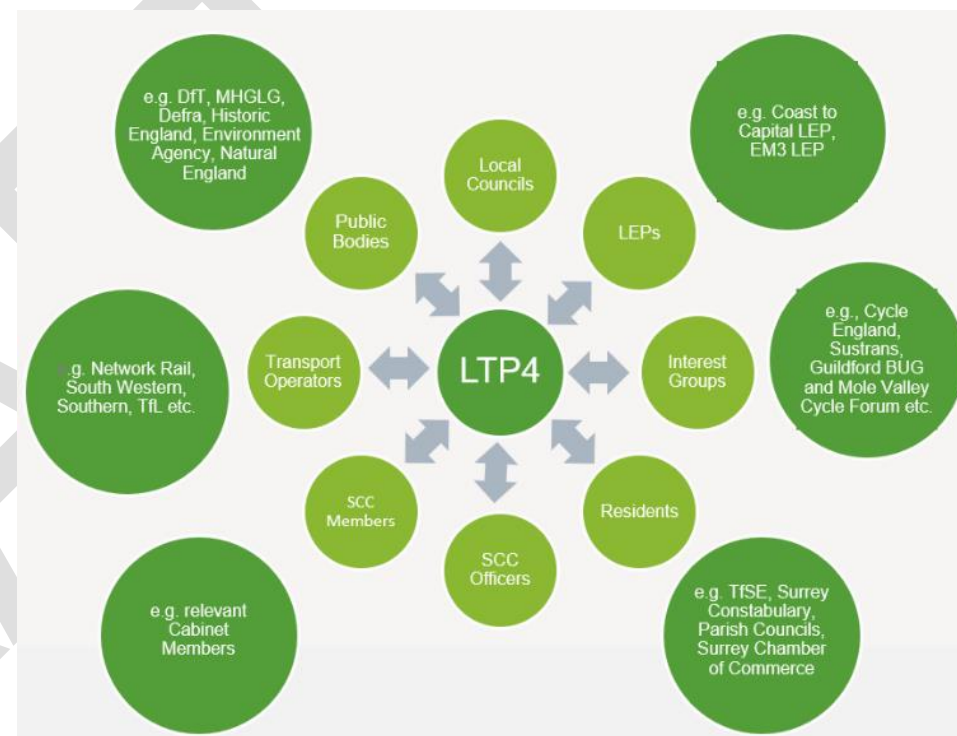


Figure 5-1 – Illustration of LTP4 Collaboration

LTP4 Funding

Delivery of the LTP measures will require revenue funding (for ongoing running costs and repairs) and capital funding (to deliver new assets and make improvements to existing infrastructure). The local government funding landscape is challenging, particularly in terms of availability of revenue funding. However, SCC has a secure financial position and agreed Medium Term Financial Strategy. The revenue budget for 2020/21 includes £62.9 million for highways and transport.

Capital funding for new and improved infrastructure has, in recent years, come from a number of sources including central government grants prioritised locally, developer contributions, and Council sources such as Council Tax. Capital funding for transport through competitive bidding processes regionally (through the Local Enterprise Partnership), or nationally (from various government departments), has become an increasingly large share of funding for transport in Surrey. We anticipate that this trend will continue, meaning that many of the projects in this LTP will be funded, at least in part, through competitive bidding aimed at achieving specific government priorities. Aligning our priorities with those of central government as far as possible, and remaining alert to funding opportunities will maximise the funding we can secure in this way. As funding becomes increasingly place or outcome-based, rather than transport-specific, this will require us to consider funding opportunities from a number of government departments, not just the Department for Transport (DfT).

Of course, the Council is not the only delivery or funding body for LTP policies and projects. As appropriate, we anticipate that the district and borough Councils, Network Rail, Highways England and other agencies will fund or part-fund projects in their areas or on their networks.

5.2 LTP Phasing

This section provides a roadmap for implementation of the nine policy areas identified. More detail on timings and delivery will be provided in the LTP4 Implementation Plan which will be published later in 2021. The Implementation Plan will be a live document that will be regularly updated going forward.

The LTP4 roadmap is separated into short, medium and long-term timescales and takes into account the scale of change needed to achieve the LTP objectives, particularly the rapid decarbonisation of our transport system.

In the short-term (to 2025) interventions are focused on achieving a 'green' and 'healthy' recovery from COVID-19 and accelerating the Avoid-Shift-Improve approach to carbon reduction. This involves capitalising on the increased focus on walking and cycling to start a 'shift' away from car dependency, rebuilding trust in public transport, continuing to build on existing good practice, and delivery of relevant already planned schemes.

The medium-term strategy (to 2030) is about embedding carbon-neutral travel behaviours and delivery of higher impact but harder to deliver interventions, greater uptake of technology solutions which will help meet the transport outcomes, and achieving the transition from traffic growth to traffic reduction.

The longer-term strategy (post 2030) is about consolidating travel behaviours in the context of significantly reduced car dependency and people-centric places; and managing the impacts of autonomous vehicle technology.

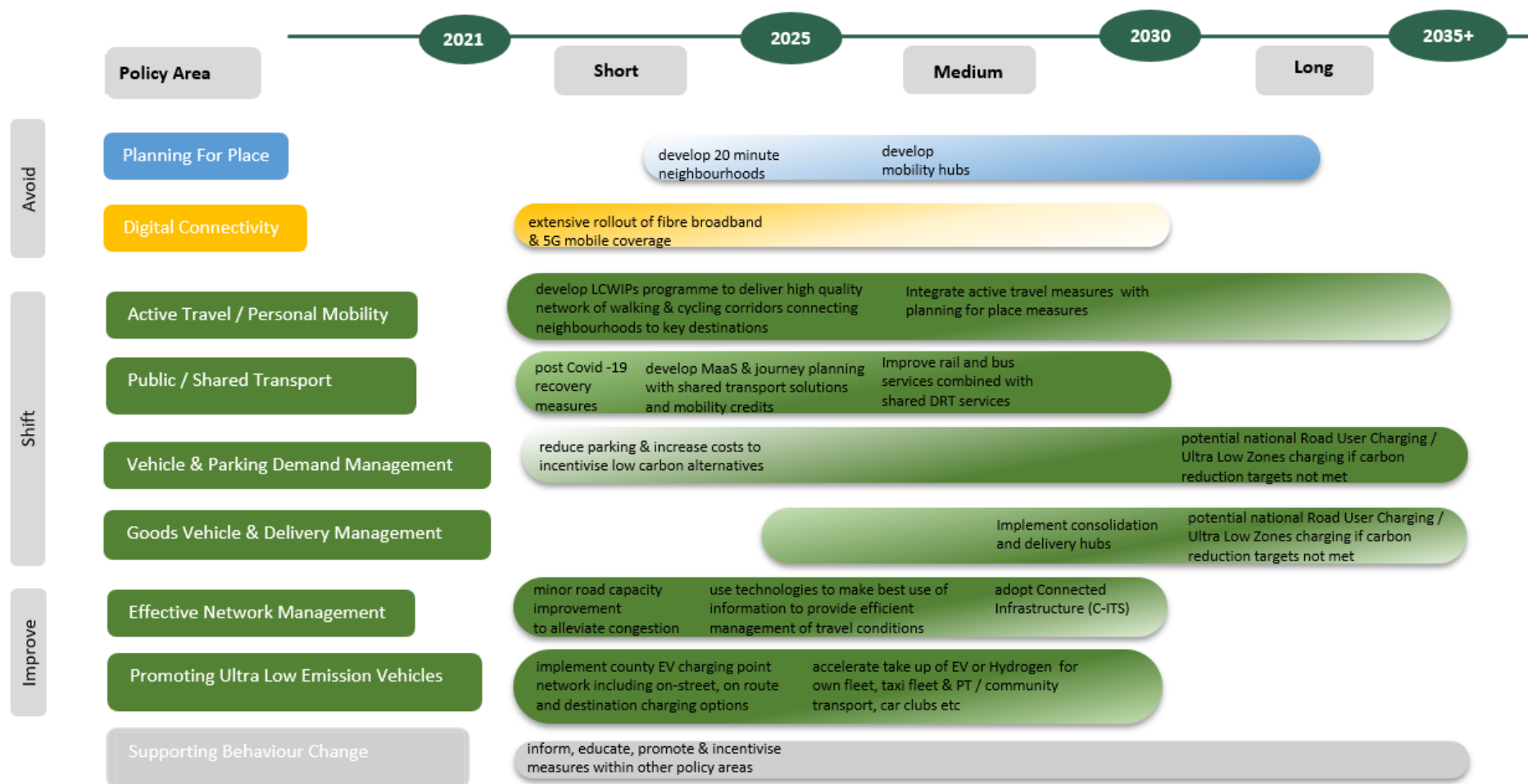


Figure 5-2 – LTP4 Roadmap

Monitoring the LTP4

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6 Monitoring the LTP4

This monitoring framework has been set out to monitor progress against the LTP4 objectives over the lifespan of the LTP4. Progress will be monitored and reported on an annual basis in an Annual Progress Report going forward.

Monitoring will also be closely linked to other SCC reporting, including that of the Climate Change Strategy, with similar metrics being collected for both strategies. Where possible, data that is already available and collected on a national, regional or local basis will be used to track progress of the LTP4 towards achieving its aspirational objectives.

6.1 Monitoring framework

Impact (Outcome Objective)	Outcome to be monitored	Indicator	Source	Frequency
Net zero carbon emissions across Surrey by 2050 (60% by 2035)	Significant reduction in car, van and HGV vehicle kilometres	Road Traffic Statistics (traffic volume kms by vehicle type and road class)	https://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra <ul style="list-style-type: none"> TRA8905: Motor vehicle traffic (vehicle kilometres) by local authority and selected vehicle type in Great Britain TRA8906: Motor vehicle traffic (vehicle kilometres) excluding trunk roads by local authority in England 	Annual
	Reduction in carbon intensity of remaining vehicle kms	UK local authority and regional carbon dioxide emissions national statistics: 2005 to 2018	https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018 <ul style="list-style-type: none"> I. Road Transport (A roads) J. Road Transport (Motorways) K. Road Transport (Minor roads) L. Diesel Railways M. Transport Other Transport Total 	Annual
		Data on all licensed and registered vehicles	https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01 <ul style="list-style-type: none"> VEH0132: Licensed ultra-low emission vehicles by local authority: United Kingdom VEH0105: Licensed vehicles by body type and local authority: United Kingdom 	Annual
		SCC and Surrey fleet <ul style="list-style-type: none"> Percentage of electric vehicles in SCC fleet Percentage of electric vehicles in Surrey bus fleet Percentage of electric vehicles in Surrey taxi fleet 	SCC to collect	Annual
Support Surrey’s growth ambitions and enable businesses and people to prosper sustainably	Good accessibility between economic centres and employees, suppliers, similar businesses and customers	Journey time statistics: data tables	Journey time statistics: data tables (JTS) - GOV.UK (www.gov.uk) <ul style="list-style-type: none"> JTS0104: Average minimum travel time to reach the nearest key services by mode of travel, local authority: England (<i>includes medium sized centres of employment (500-4999 jobs)</i>) JTS0401: Travel time, destination and origin indicators for Employment centres by mode of travel and local authority, England 	Annual
		NHT Public Satisfaction Survey - Level of public satisfaction <ul style="list-style-type: none"> Ease of access indicators, including to work by any mode Number of Bus Stops <i>Others to be added</i> 	Measuring Public Satisfaction Public Satisfaction Survey NHT (nhtnetwork.org)	
		Measuring digital connectivity – look at SCC Digital Strategy?		
	Reliable, multi-modal or digital connectivity between key hubs, including international gateways	Road congestion and travel time statistics table index	https://www.gov.uk/government/statistics/road-congestion-and-reliability-statistics-table-index <ul style="list-style-type: none"> CGN0402b Average delay on the Strategic Road Network in England: Annual average and year on year change by local authority CGN0501b Average speed on local 'A' roads: by local authority in England: annual from 2015 	Annual
		Journey time statistics: data tables	Journey time statistics: data tables (JTS) - GOV.UK (www.gov.uk)	

			<ul style="list-style-type: none"> JTS0901: Average minimum journey times to nearest of selected airports by local authority: England 	
		DfT Bus Reliability and Punctuality	https://www.gov.uk/government/statistical-data-sets/bus09-frequency-and-waiting-times <ul style="list-style-type: none"> BUS0902: Non-frequent bus services running on time, by local authority: England BUS0903: Average excess waiting time for frequent services, by local authority: England 	
		NHT Public Satisfaction Survey <ul style="list-style-type: none"> Ease of access indicators, including to work by any mode <i>Others to be added</i> 	Measuring Public Satisfaction Public Satisfaction Survey NHT (nhtnetwork.org)	
		Operator information (bus punctuality statistics)?		
		Measuring digital connectivity – look at SCC Digital Strategy?		
	Reliable end-to-end journey times for people and goods, including first and last miles	Road congestion and travel time statistics table index	https://www.gov.uk/government/statistics/road-congestion-and-reliability-statistics-table-index <ul style="list-style-type: none"> CGN0502b Average journey times (un-weighted) during the weekday morning peak on locally managed 'A' roads, by local authority in England: annually from 2015 	Annual
		DfT Bus Reliability and Punctuality	https://www.gov.uk/government/statistical-data-sets/bus09-frequency-and-waiting-times <ul style="list-style-type: none"> BUS0902: Non-frequent bus services running on time, by local authority: England BUS0903: Average excess waiting time for frequent services, by local authority: England 	
		NHT Public Satisfaction Survey <ul style="list-style-type: none"> Ease of access indicators, including to work by any mode <i>Others to be added</i> 	Measuring Public Satisfaction Public Satisfaction Survey NHT (nhtnetwork.org)	
	Attractive business environment for the green sector	DfT Energy and environment data tables <ul style="list-style-type: none"> Electric vehicle charging 	DfT ENV0601: Electric vehicle charging devices by local authority	Annual
		LEP data on business start-ups or employment/GVA by sector?		
		Climate Change Strategy – monitoring & metrics?		
		Measuring digital connectivity – look at SCC Digital Strategy?		
	A resilient, future ready transport network	DfT Energy and environment data tables <ul style="list-style-type: none"> Electric vehicle charging 	https://www.gov.uk/government/statistical-data-sets/energy-and-environment-data-tables-env <ul style="list-style-type: none"> DfT ENV0601: Electric vehicle charging devices by local authority 	Annual
		Asset management indicator <ul style="list-style-type: none"> e.g. average network age 	SCC to collect	
		Number of resilience related measures <ul style="list-style-type: none"> e.g. flood relief implemented in the year e.g. Proportion of transport interventions (new or improvements) incorporating best practice SuDS / Natural Flood Management 	SCC to collect	
		Climate Change Strategy – monitoring & metrics?		
	Shorter, more reliable, convenient, safer and lower-cost alternatives to private car journeys for access to opportunities and services	Journey time statistics: data tables	https://www.gov.uk/government/statistical-data-sets/journey-time-statistics-data-tables-jts <ul style="list-style-type: none"> JTS0104: Average minimum travel time to reach the nearest key services by mode of travel, local authority: England JTS0405: Travel time, destination and origin indicators for GPs by mode of travel and local authority, England JTS0407: Travel time, destination and origin indicators for Food stores by mode of travel and local authority, England 	Annual
		Local bus passenger journeys	https://www.gov.uk/government/statistical-data-sets/bus01-local-bus-passenger-journeys <ul style="list-style-type: none"> BUS0109: Passenger journeys on local bus services by local authority: England 	

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Well-connected communities that encourage social mobility and ensure no-one is left behind	Increased cycling and walking levels, becoming the norm for shorter journeys	School Census?		
		Increase in length of cycleways and footways in Surrey?		
		Gov walking/cycling statistics	https://www.gov.uk/government/collections/walking-and-cycling-statistics	Annual
		Road Traffic Statistics - Pedal cycle traffic (TRA04)	https://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra	Annual
		Surrey cycle counts?		
	Safe, accessible and affordable alternatives to private car travel for all, including disadvantaged and vulnerable groups	Journey time statistics: data tables	Journey time statistics: data tables (JTS) - GOV.UK (www.gov.uk) <ul style="list-style-type: none"> JTS0104: Average minimum travel time to reach the nearest key services by mode of travel, local authority: England 	Annual
		Local bus passenger journeys <ul style="list-style-type: none"> Concessionary usage 	https://www.gov.uk/government/statistical-data-sets/bus01-local-bus-passenger-journeys <ul style="list-style-type: none"> BUS0113: Older and disabled concessionary passenger journeys on local bus services by local authority: England, annual 	Annual
		Safety - Personal security / crimes on public transport <ul style="list-style-type: none"> Accidents and crime incidents associated with transport network 	Crime Statistics and information supplied by British Transport Police	Annual
		Equity of access (compliance with Equality Act): <ul style="list-style-type: none"> Percentage of bus stops with RTPI, full physical accessibility Percentage of accessible/low level buses Percentage of accessible rail stations 	SCC to collect	
Thriving communities with clean air, excellent health, wellbeing and quality of life	Increased ability to live and access services / opportunities locally including leisure	Journey time statistics: data tables	Journey time statistics: data tables (JTS) - GOV.UK (www.gov.uk) <ul style="list-style-type: none"> JTS0104: Average minimum travel time to reach the nearest key services by mode of travel, local authority: England 	Annual
		Gov walking/cycling statistics	https://www.gov.uk/government/collections/walking-and-cycling-statistics	Annual
		Road Traffic Statistics - Pedal cycle traffic (TRA04)	https://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra	Annual
		NHT Public Satisfaction Survey?		
	Impacts of travel on communities minimised and road safety improved	Road Traffic Statistics (traffic volume kms by vehicle type and road class)	https://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra	Annual
		DfT Road accident and casualty figures	https://roadtraffic.dft.gov.uk/custom-downloads/road-accidents <ul style="list-style-type: none"> DfT RAS30038: Reported casualties by severity, region and local authority: England RAS30040: Reported casualty rate per billion vehicle miles and kilometres by local authority: England RAS30043: Reported casualties by severity, region, local authority and road user type: England 	Annual
		Drive SMART Road Safety Strategy for 2019-2022 – monitoring Reduction in KSi	SCC already monitoring	Annual
		NHT Survey <ul style="list-style-type: none"> TCBI 13 Net satisfaction/dissatisfaction with the routes taken by heavy goods vehicles in Surrey 	Measuring Public Satisfaction Public Satisfaction Survey NHT (nhtnetwork.org)	Annual
		Community HGV Watch <ul style="list-style-type: none"> No. of recorded incidents 	SCC already collecting	??
	Air quality and local health improved through reduced NOX and PM10s emissions	<ul style="list-style-type: none"> Total no. of AQMAs No. of AQMAs declared No. of AQMAs revoked No. residents living within an AQMA. 	Low Emissions Transport Strategy – monitoring? Surrey Air Alliance (SCC, districts & boroughs) – monitoring? AQMA Air Quality Action Plans	Annual
		Traffic counts by vehicle type in AQMAs	SCC to collect	

	Higher levels of cycling and walking contributing to healthy lifestyles	Gov walking/cycling statistics	https://www.gov.uk/government/collections/walking-and-cycling-statistics	Annual
		Road Traffic Statistics - Pedal cycle traffic (TRA04)	https://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra	Annual
		Surrey cycle counts?	SCC to collect	
	Rebalanced use of local streets to favour people rather than vehicles	<ul style="list-style-type: none">Length of streets which are pedestrianised, or in low traffic neighbourhoodsLength of 20mph / LTN	SCC to collect	
	More attractive built and natural environments	NHT Public Satisfaction Survey?		
		ISA Indicators: <ul style="list-style-type: none">Biodiversity – Area / Length of Green Infrastructure developed (Greenways etc.)Net Gain in Biodiversity due to transport interventions (using Defra metric)Number of transport interventions directly impacting on designated areasTownscape - Percentage area of transport schemes that incorporate improvements to public realm and sympathetic designLandscape - Area covered by transport schemes within or in close proximity to AONB / National Park designated areasCultural heritage – Number of heritage assets impacted by transport schemes	SCC to collect SCC to collect SCC to collect SCC to collect Natural England and Parks Authorities Historic England	

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Next steps and further information

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7 Next steps and further Information

7.1 Next Steps

As set out in Section 5, our LTP4 Core Strategy aims to address current challenges whilst working towards our longer-term vision and objectives. Our LTP4 Implementation Plan, will be published later in 2021 and will set out our forward programme for delivery of LTP4 in more detail.

In terms of next steps, the process for further refining and developing the LTP4 is shown below in Figure 7-1. This includes public consultation on the draft Core Strategy with feedback received to be carefully analysed and considered in the development of the final version of the strategy. Our indicative programme is shown below.

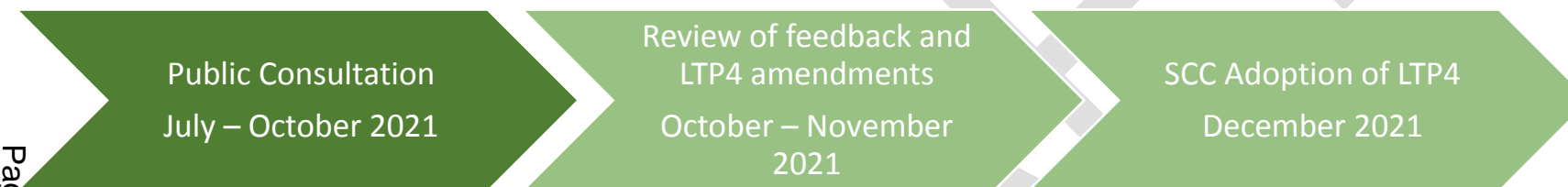


Figure 7-1 – Indicative Timeline for LTP4 Core Strategy Review and Adoption

7.2 Further Information

To access the full LTP4 evidence base [click here](#).

To access the full LTP4 Integrated Sustainability Appraisal (ISA) [click here](#).

Glossary

20 Minute Neighbourhood – an attractive local area, planned so that people can get what they need locally, within a 20-minute walk or cycle ride

A

Accessibility – all people being able to access the things they need e.g. work, education and leisure, at reasonable cost, in reasonable time and reasonably easily

Active Travel – journeys made in a physically active way e.g. walking and cycling

Air Quality – term used to describe the levels of harmful substances in the air

Air Quality Management Areas (AQMA) – an area where the local air quality exceeds national acceptable levels set by Government. An AQMA must have a plan to improve the air quality

Autonomous Vehicle – a vehicle that can sense its surroundings and drive without the need for a human (also known as self-driving or driverless vehicles)

B

Behaviour Change - a change in the way humans behave

C

Carbon Net Zero – an international movement to stabilise global climate change, by a rapid reduction in carbon emissions, and balancing any remaining carbon emissions that cannot be avoided, with carbon that can be removed from the atmosphere e.g. absorbed by planting more trees (also known as carbon neutral)

Car Club – people and businesses can access a car without being required to own it

Cargo Bike – a cycle that is specially designed to carry more than just a cyclist, often children, deliveries or heavy equipment

Clean Air Zone (CAZ) – an area where targeted action is taken to improve air quality e.g. encouraging greater uptake of Ultra Low Emission Vehicles (ULEVs) and walking and cycling

Climate Change – a change in global or regional climate, caused by increased levels of greenhouse gases in the atmosphere

Connected Infrastructure (C-ITS) – transport technology that can communicate with each other to help improve traffic conditions e.g. messages sent from cars on the road about journey time which helps to show where there are traffic hot spots, allowing alerts to be sent to other drivers to consider taking a different route

Connectivity – in relation to transport, this means the effectiveness of the transport network at getting people from one location to another

Consolidation centre/hub – a place where many suppliers can have goods delivered, are stored and then when needed are combined into a single fuller load on one vehicle for the last leg of the journey e.g. into the city centre

D

Decarbonisation – removing or reducing the carbon dioxide produced by the economy

Delivery Management – planning deliveries made by multiple companies to reduce their impact on congestion and the environment e.g. through consolidation centres

Demand Management – putting in place measures to reduce the demand for travel e.g. working from home

Demand Responsive Transport – a flexible form of shared transport where vehicles alter their routes based on where the people travelling at that time wish to go, rather than a fixed route or timetable

Deprivation – when people lack basic things considered necessary e.g. access to healthy food or jobs

Digital Connectivity – the ability to access services or activities without needing to travel e.g. virtual work meetings or online doctor's appointments

E

E-bike – a cycle with an electric battery that makes it easier to pedal

E-scooters – a scooter with an electric battery that propels it forward

Ecolevy – also known as a road user charging scheme, is where people travelling into an urban area by private car/van are charged a fee

Embodied carbon – the carbon footprint of a material or product. It considers how many greenhouse gases are released throughout the entire supply chain and sometimes up until the end of its lifecycle

Environmental net gain – environmental benefits over and above those required to balance out the negative impact of something

G

Global warming – the gradual increase in the overall temperature of the earth's atmosphere, caused by increased levels of greenhouse gases

Good Growth – development that benefits everyone in the local area, not just certain groups of people. It is also environmentally sustainable and physically accessible

H

Healthy Streets approach – putting people and their health at the heart of decision making around transport. This leads to a healthier city where people are able to and choose to and walk, cycle and use public transport

I

Intelligent Transport Systems (ITS) – technology that shares transport information to ease congestion and improve passenger journeys e.g. traffic light signals adapting to longer queues on certain arms of a roundabout

L

Last Mile – the last leg of a journey, either for a person or goods being delivered

Lift Share – an arrangement where people travel together in one vehicle, sharing the costs

M

Mobility as a Service (MaaS) – people can access information, plan and pay for their journeys in one simple place e.g. on a mobile app. This app covers multiple different ways to travel e.g. bus, rail, cycling and car share

Mobility – the ability to move freely and easily get to where you need to go

Mobility Credits – when someone exchanges their vehicle for credits, which can be spent on certain forms of shared transport e.g. bus, rail, car club. The incentive is created by the credits being greater than the market value of the car

Mobility Hub – a high quality space specially designed to bring together different modes of transport e.g. bus, walking, cycling and e-scooter rental

Mode Shift – changing the way people travel e.g. from driving to cycling or from the bus to walking

Multi-Modal – more than one mode (type) of travelling e.g. bus and train

N

Network Management – looking after the highway network so that people can move around easily

Noise Important Areas – areas where people living are affected by the highest noise levels from major roads

P

Parking Management – looking after all the parking in an area e.g. public car parks and on street parking within a town. This may involve changing the number of spaces available and the cost to park, to influence the number of people driving into an area and hence traffic levels

Public Transport – transport available for use by the public e.g. bus, train and coach

R

Reward Apps – smartphone app which gives points and rewards to encourage people to travel in ways which are either healthier or more sustainable

Road User Charging – charging drivers of vehicles each time they use a road

S

Segregated Cycle Lanes – a path for cyclists that is separate to motor traffic and pedestrians

Shared Transport – sharing forms of transport with others e.g. cycle, car, scooter. It could be shared at the same time (lift sharing in a car) or separate times (car rental)

Social Mobility – the ability to move from one level of society to another

Strategic Opportunity Area – an area earmarked for significant economic growth and investment

Sustainable Transport – forms of transport that have a low impact on the environment and do not rely on dwindling natural resources e.g. walking and cycling

T

Triple Access System – Coined by Lyons and Davidson. This theory states that being able to access the things you need is a result of three things, (1) being able to physically reach them e.g. using transport, (2) being connected to them digitally e.g. through the internet and telephone, and (3) being connected to them spatially e.g. living near a school, shop and park.

U

Ultra-Low Emission Vehicle (ULEVs) - Vehicle that uses low carbon technologies, emits less than 75g of CO₂/km from the tailpipe and/or is capable of producing zero tailpipe emissions for at least ten miles

V

Variable Messaging Sign (VMS) – electronic signs used at the roadside to share information and key messages to road users

W

Workplace Parking Levy - is a charge on employers and education organisations for the number of parking places they provide that are regularly used by employees or students

Z

Zero Emission Vehicle – a vehicle which has the potential to produce no direct tailpipe emissions.

DRAFT

Appendix A – Supporting Evidence on Policy Areas

This Appendix provides further details on the ways in which the Policy Areas will contribute to each of the LTP objectives including links to sources providing further evidence and information on examples of successful implementation.

Policy Area	Impacts	Examples

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