TRANSPORT FOR THE
South East

Transport Strategy for the South East

Consultation Draft
October 2019

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Foreword

I'm incredibly proud to present this draft transport strategy for the South East for public consultation. It sets out our partnership's shared vision for the South East and how a better integrated and more sustainable transport network can help us achieve that together.

Cllr Keith Glazier
Chair, Transport for the South East

In little more than two years, Transport for the South East has emerged as a powerful and effective partnership for our region. Speaking with one voice on the South East's strategic transport needs, we have successfully influenced how, where and when government money is spent on our major roads, railways and other transport infrastructure.

The publication of this draft strategy marks the next step in the organisation's development and is the result of a truly collaborative effort from Transport for the South East and its partners. By setting out the strategic goals and priorities underpinning our vision for the region, this document provides a clear framework for future decision-making which will help us create a more productive, healthier, happier and more sustainable South East.

We already have the second largest regional economy in the UK, second only to London. Our strategy would help the South East's economy more than double over the next thirty years, providing new jobs, new homes and new opportunities – all supported by a modern, integrated transport network. A prosperous, confident South East where people want to live, work, study, visit and do business.

We are clear that it cannot be growth at any cost and that new approaches are needed to achieve our vision. Transport is the single biggest contributor to UK greenhouse gas emissions and the majority of those come from private cars. And transport is the only sector whose contribution continues to grow while others reduce theirs. That needs to change.

The first step on this journey is a simple one; we must make better use of what we already have. Our road and rail networks in the South East may be congested but we know that, in the short-term, targeted investment to relieve pinch-points alongside new technology like digital railway signalling are the best and most effective ways to address short-term capacity and connectivity challenges.

Beyond that, the strategy is clear that catering for forecast road traffic growth in the long term is not sustainable – so we must turn our focus towards large-scale investment in public transport. We need to ensure that new and emerging technology is used to its full potential to boost connectivity. We need to make the case for policy changes which enable more joined up planning, particularly between transport and housing, to help build more sustainable communities.

And we know we will need to make some tough decisions about how, not if, we manage demand on the busiest parts of our transport networks as we cannot continue to simply build our way to growth.

This is a thirty-year strategy. The changes we want to see will not all happen overnight, and in some instances, there are policy challenges and other hurdles which stand in our way. But I am confident in the ability of our partnership to make the case for doing things differently.

I'm also convinced that the big issues we face in our communities – improving air quality, investing in better public transport, supporting the switch to green vehicles, encouraging active travel and more sustainable employment and housing growth – require a bigger picture view. That's why Transport for the South East is so important, bringing together local authorities, local enterprise partnerships and organisations like Network Rail and Highways England to plan for the future we want.

If we get this right, the prize is huge – for government, for taxpayers, for businesses and for everyone who lives and works in the South East. But it must work for everyone. That's why I want as many people as possible to take part in the consultation and have their say on this draft strategy.

Executive Summary

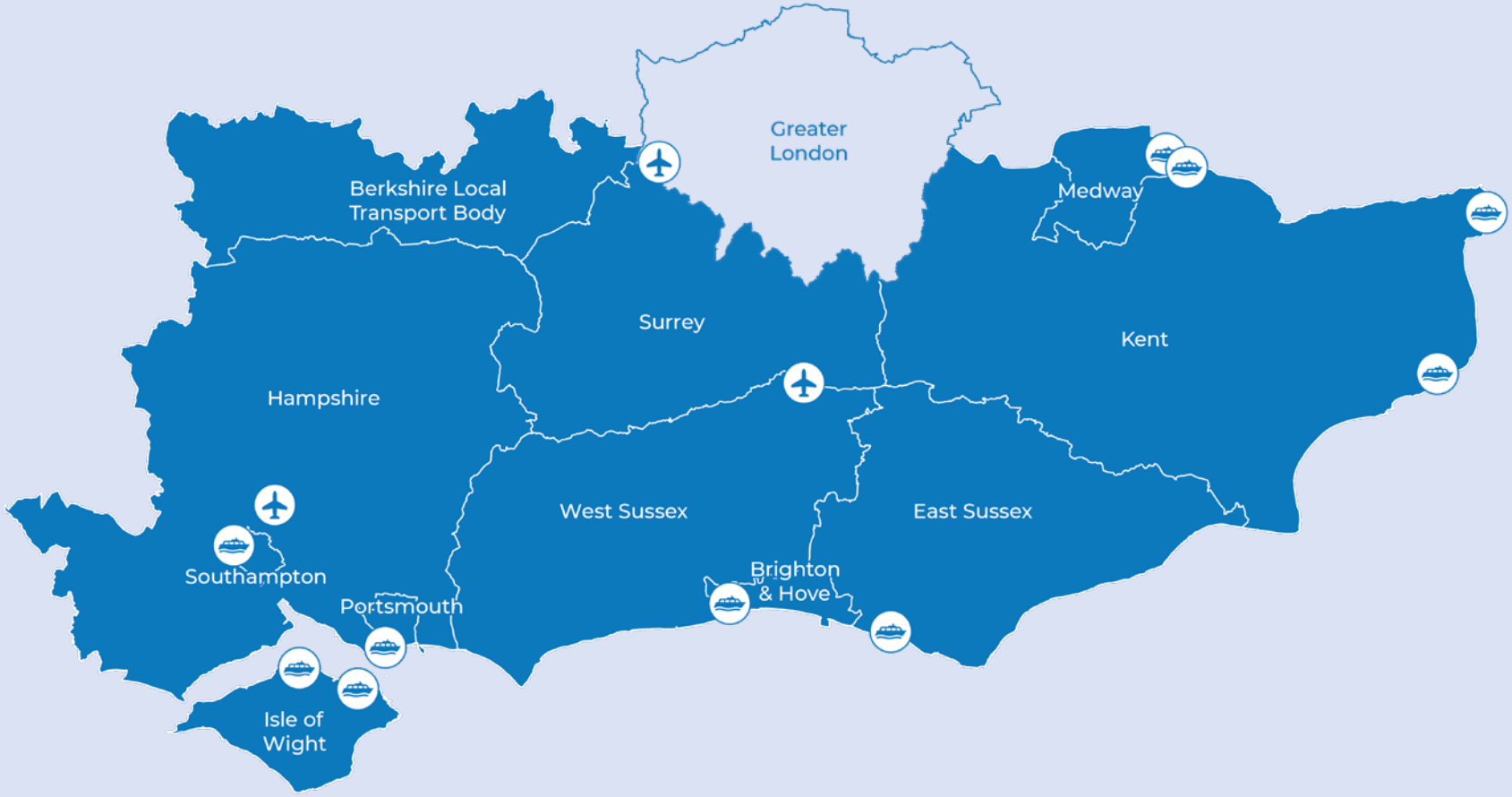
Introduction

This document is the draft of the **Transport Strategy for South East England**. It has been prepared by Transport for the South East, the Sub-National Transport Body for the South East of England (see Figure i), with the support of its 16 Constituent Local Transport Authorities, 5 Local Enterprise Partnerships, 46 district and borough authorities and wider key stakeholders.

Transport for the South East's mission is to grow the South East's economy by delivering a safe, sustainable, and integrated transport system that makes the South East more productive and competitive, improves the quality of life for all residents, and protects and enhances its natural and built environment. Its ambition is to transform the quality of transport and door-to-door journeys for the South East's residents, businesses and visitors.

In economic terms, we have identified the potential to grow the number of jobs in the region from 3.3 million today to 4.2 million and increase productivity from £183 billion to between £450 and £500 billion Gross Value Added a year. This is almost 500,000 more jobs and at least £50 billion more per year than without investing in the opportunities identified within the Transport Strategy.

Figure i The Transport for the South East area



Overarching approach – planning for people and places

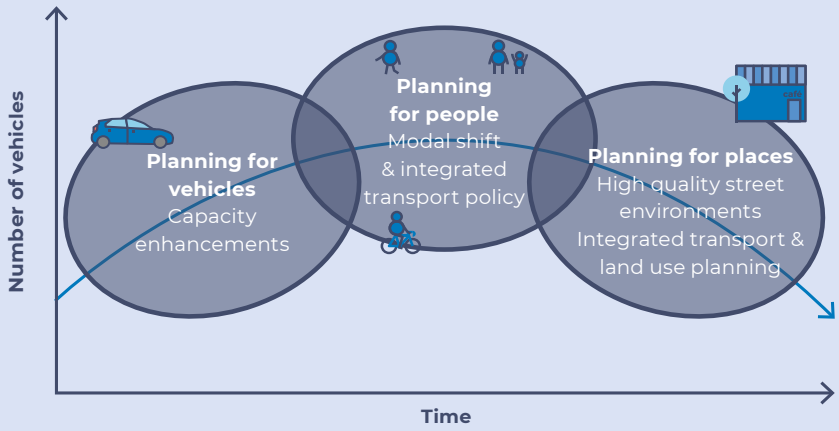
This Transport Strategy presents a shift away from traditional approaches of transport planning – one based on planning for a future based on recent trends and forecasts – to an approach of actively choosing a preferred future and setting out a plan of how we can get there together.

The traditional approach, one that is akin to '**planning for vehicles**' with extensive highway capacity enhancements for cars, is not sustainable in the longer term. Instead, there needs to be a transition from the current focus towards more '**planning for people**' and more '**planning for places**' (see **Figure ii**).

The Transport Strategy has utilised modelling to understand how and where the transport network will see future strain. However, instead of simply expanding the network where strain will be most acute, the Transport Strategy sets out how this congestion could be alleviated by investing in attractive public transport alternatives and developing integrated land use planning policies to reduce the need to travel, adopting emerging transport technologies, and implementing more significant demand management policies (e.g. paying for the mobility consumed on a 'Pay as you Go' basis using pricing mechanism and tariff structures across modes to incentivise those using all vehicle types to travel at less busy times or by more sustainable modes).

Currently, many parts of the South East are in the first stage of the process focussed on 'planning for vehicles', however, every place is different and there are exemplars in the South East, and around the UK and internationally that are in the second and third stages, that we can learn from.

Figure ii Evolution of Transport Planning policy



Our Vision

Vision Statement

Transport for the South East's vision for the South East area is:

The vision statement forms the basis of the strategic goals and priorities that underpin it. These goals and priorities help to translate the vision into more targeted and tangible actions.

By 2050, the South East of England will be a leading global region for net-zero carbon, sustainable economic growth where integrated transport, digital and energy networks have delivered a step-change in connectivity and environmental quality.

A high-quality, reliable, safe and accessible transport network will offer seamless door-to-door journeys enabling our businesses to compete and trade more effectively in the global marketplace and giving our residents and visitors the highest quality of life.

Strategic Goals

The strategic goals, aligned to the pillars of sustainability, are:

Economy: improve productivity and attract investment to grow our economy and better compete in the global marketplace.

Society: improve health, safety, wellbeing, quality of life, and access to opportunities for everyone.

Environment: protect and enhance the South East's unique natural and historic environment.

Strategic Priorities

Beneath each of the strategic goals lies a set of fifteen strategic priorities. These priorities narrow the scope of the goals to mechanisms and outcomes that will be most important to effectively deliver its vision. They are designed to be narrow enough to give clear direction but also broad enough to meet multiple goals.

The Strategic priorities are as follows:

Economic priorities:

- Better connectivity between our major economic hubs, international gateways (ports, airports and rail terminals) and their markets.
- More reliable journeys for people and goods travelling between the South East's major economic hubs and to and from international gateways.
- A more resilient transport network to incidents, extreme weather and the impacts of a changing climate.
- More integrated land use and transport planning that helps our partners across the South East meet future housing, employment and regeneration needs sustainably.
- A 'smart' transport network that uses digital technology to manage transport demand, encourage shared transport and make more efficient use of our roads and railways.

Social priorities:

- A network that promotes active travel and active lifestyles to improve our health and wellbeing.
- Improved air quality supported by initiatives to reduce congestion and encourage further shifts to public transport.
- An affordable, accessible transport network for all that promotes social inclusion and reduces barriers to employment, learning, social, leisure, physical and cultural activity.
- A seamless, integrated transport network with passengers at its heart, making journey planning, paying for, using and interchanging between different forms of transport simpler and easier.
- A safely planned, delivered and operated transport network with no fatalities or serious injuries among transport users, workforce or the wider public.

Environmental priorities:

- A reduction in carbon emissions to net zero by 2050 to minimise the contribution of transport and travel to climate change.
- A reduction in the need to travel, particularly by private car, to reduce the impact of transport on people and the environment.
- A transport network that protects and enhances our natural, built and historic environments.
- Use of the principle of 'biodiversity net gain' in all transport initiatives.
- Minimisation of transport's consumption of resources and energy.

The lists above show each of the strategic priorities grouped beneath the strategic goals. This is useful for organising the principles and makes it easier to understand broadly where these priorities are focussed. In reality, many of the strategic priorities support more than one of the goals.

Key principles for achieving our vision

Transport for the South East has developed a framework that applies a set of principles to identify strategic issues and opportunities in the South East, in order to help achieve the vision of the Transport Strategy.

Supporting economic growth, but not at any cost

Economic growth, if properly managed, can significantly improve quality of life and wellbeing. However, without careful management, unconstrainted economic growth can have damaging consequences or side-effects. This Transport Strategy strongly supports sustainable economic growth which seeks to achieve a balance with social and environmental outcomes.

Achieving environmental sustainability

Transport for the South East strongly believes the South East must reach a point where future economic growth is decoupled from damaging environmental consequences. Attractive, sustainable alternatives to the car and road freight must be provided, coupled with demand management policies. Land use planning and transport planning (along with planning for digital and power technologies) must also become more closely integrated.

Planning for successful places

This Transport Strategy envisages a South East where villages, towns and cities thrive as successful places, where people can live and work with the highest quality of life. Transport networks that simply aim to provide the most efficient means of moving along a corridor have the potential to have a wide range of damaging consequences, particularly socially and environmentally.

The best way to ensure that this occurs is to develop a transport network that considers both 'place' and 'link' functions. Some parts of the transport network are designed to fulfil 'link' roles while other parts contribute more to a sense of 'place' (or both).

Putting the user at the heart of the transport system

This Transport Strategy envisages a transport network – particularly a local public transport and rail network – that places the passenger and freight user at the heart of it.

This approach seeks to understand why people make journeys and why they choose between different modes, routes, and times to travel. It also seeks to understand the whole-journey experience, from origin to destination rather than just a part of the whole journey.

This principle highlights the need for much better integration between modes. This is not just limited to physical interchanges (which are undoubtedly needed), but also integration in timetables, ticketing and fares, and information sharing.

Planning Regionally for the Short, Medium and Long Term

This Transport Strategy seeks to build on the excellent work of Transport for the South East's constituent authorities and other planning authorities in the South East. The Transport Strategy builds on transport plans set out by Local Transport Authorities, Local Plans issued by Local Planning Authorities, and the Strategic Economic Plans and Local Industrial Strategies created by Local Enterprise Partnerships.

This Transport Strategy adopts a larger scale perspective that looks across the South East area focussing on cross-boundary journeys, corridors, major economic hubs, issues and opportunities. As far as possible, it also seeks to align with the ambitions of the Greater London Authority and Transport for London, and other neighbouring Sub-national Transport Bodies.

This Transport Strategy also adopts a multi-modal approach. It views corridors as being served by different types and levels of infrastructure, from the Strategic Road Network to first and last mile, from intercity rail services through to rural bus operations. This Transport Strategy does not differentiate its approach to the future development of infrastructure

based on how this infrastructure is currently managed. Transport for the South East views the transport system as a holistic system, while acknowledging key interdependencies and interfaces between different owners and actors.

Our Strategy

The strategy applies the **principles** above to six **journey types** to help identify key **challenges** and **opportunities** (or 'responses'). These challenges and responses to challenges will be explored further through a programme of subsequent area and thematic studies.

Radial Journeys

Challenges

- Slow journey times to North East Kent, Maidstone and stations on the Reading – Waterloo line
- Poor A21/London to Hastings Line rail corridor connectivity
- Crowding on many rail routes, particularly on the Brighton Main Line and South Western Main Line, and particular issues with reliability / resilience on the Brighton Main Line
- Constraints on road corridors passing through urban areas (e.g. A3)

Responses

- Improve connectivity to Maidstone, North Kent, Reading – Waterloo and Hastings corridors
- Provide capacity on corridors such as Brighton Main Line and South Western Main Line rail corridors
- Improve resilience of Strategic Road Network
- Extend radial route public transport (e.g. Crossrail)
- Reduce human exposure to noise and poor air quality on radial corridors

Orbital and Coastal Journeys

Challenges

- M25 congestion
- Few long-distance orbital rail services
- Multiple issues and challenges on M27/A27/A259/Coastway Line rail corridor
- Connectivity gaps in Mid Sussex / Gatwick area
- Constraints on road corridors that pass through urban areas

Responses

- Holistic demand management initiatives that address road congestion while avoiding displacement effects from one part of the network to another
- Electrification and dual-mode rolling stock on orbital routes
- Enhancements where orbital rail routes cross radial rail routes
- Reinstate cross country services to the east of Guildford
- Build consensus on a way forward for M27/A27/A259 corridor
- Reduce people's exposure to major orbital roads

Inter-urban journeys

Challenges

- Some routes fall below standard
- Bus services face competition / congestion from car trips and reduced financial support
- Gaps in rail routes on inter-urban corridors
- Road safety hot-spots

Responses

- Support scheme proposed and prioritised locally for government's National Roads Fund for the Roads Investment Plan (2020 – 2025), Large Local Major Schemes, and for the Major Road Network
- Increase support for inter-urban bus services
- Deliver better inter-urban rail connectivity

Local journeys

Challenges

- Conflicts between different road user types
- Poor air quality in some urban areas and along some corridors
- Poor integration in some areas
- Pressure on bus services, particularly in rural areas
- Affordability of public transport

Responses

- Invest in infrastructure and subsidy for high quality public transport
- Improve air quality
- Prioritise vulnerable users, especially pedestrians and cyclists, over motorists
- Develop better integrated transport hubs
- Advocate for a real term freeze in public transport fares

Journeys to International Gateways and Freight Journeys

Challenges

- The potential impact on surface transport networks from the planned expansion of Heathrow Airport
- Access to Port of Dover
- Access to Port of Southampton (and proposed expansion)
- Dartford Crossing congestion
- Rail freight mode share is relatively low
- Freight disrupted by congestion on many strategic road corridors
- Difficulties decarbonising Heavy Goods Vehicles
- The UK leaving the European Union (i.e. "Brexit")

Responses

- Further investment in improved public transport access to Heathrow
- Improved road and rail access to international ports
- Lower Thames Crossing
- Demand management policies to improve the efficiency of the transport network for road freight and to invest in sustainable alternatives
- Rail freight schemes
- New technologies
- Freight Strategy and Action Plan

Journeys in the future

Challenges

- Gaps in electric and digital infrastructure
- Risk some parts of the South East will be 'left behind'
- Risk new technologies may undermine walking, cycling and public transport
- Risk new technologies may lead to further fragmentation
- Alternative fuel vehicles will not solve congestion

Responses

- Future proof electric and digital infrastructure (standards, etc)
- Incorporate Mobility as a Service into public transport networks
- Encourage consistency in roll out of smart ticketing systems
- Develop a Future Mobility Strategy for the South East

Implementation

Priorities for investment

In the course of developing the strategy, a wide range of partners and stakeholders have been asked for their priorities for schemes and interventions across the South East. The priorities for interventions and suggested timescales identified by partners and stakeholders are as follows:

- **Highway schemes** changing traffic flow patterns of the road network means there will always be a need for localised improvements to address issues that will continue to arise. New roads, improvements or extension of existing ones should be prioritised in the short term but become a lower priority in the longer term. Highways schemes should target port access, major development opportunities, and deprived communities.
- **Railway schemes** are high priority across all timelines – Brighton Main Line upgrades are prioritised for the short term, while new Crossrail lines are a longer-term goal.
- **Interchanges** – are a high priority across all timelines where these facilitate multi modal journeys and create opportunities for accessible development.
- **Urban transit schemes** (e.g. Bus Rapid Transit and Light Rail Transit schemes, where appropriate for the urban areas they serve), are high priority and generally medium- to long-term.
- **Public transport access to airports** is a high priority and, in the case of Heathrow Airport, must be delivered alongside airport expansion.
- **Road and public transport access to ports** is also high priority and improvements prioritised for delivery in the short-term.
- **Technology and innovation** in transport technology – vehicle, fuel and digital technologies – is supported, however the widespread roll-out of some beneficial technologies may only be realised in the medium- to long-term.
- **Planning policy interventions** are relatively high priority and short term.
- **More significant demand management policy interventions** are a longer-term goal.

Funding and financing

Funding sources and financing arrangements are an important consideration in the development of an implementation plan for schemes and interventions identified in the Transport Strategy.

A Funding and Financing Report has been developed that explores potential funding mechanisms for schemes and interventions. Multiple sources of funding and financing will be required to deliver the Transport Strategy.

Public finance is likely to remain the key source of funding for highway and railway infrastructure in the near future. Looking further ahead, in order to manage demand and invest in sustainable transport alternatives, new funding models will need to be pursued. This could include funding models, such as hypothecated transport charging schemes, as a means of both managing demand in a 'Pay as you Go' model or as part of a 'Mobility as a Service' package.

Monitoring and evaluation

A mechanism for monitoring delivery of prioritised interventions, as well as evaluating outcomes related to the strategic goals and priorities, will be developed.

Governance

Transport for the South East has put in place governance arrangements that will enable the development, oversight, and delivery of the Transport Strategy.

Powers and Functions

Transport for the South East proposes to become a statutory Sub-national Transport Body and take on the 'general functions' of a Sub-national Transport Body, as set out in legislation.

There are also a number of additional powers being sought relating to rail planning, highway investment programmes and construction, capital grants for public transport, bus provision, smart and integrated ticketing, and Clean Air Zones.

The powers which are additional to the general functions relating to Sub-national Transport Bodies will be requested in a way that means they will operate concurrently and with the consent of the constituent authorities.

The proposal for general and additional powers were consulted upon between 7 May 2019 and 31 July 2019, concurrently to the development of the draft Transport Strategy.

Next steps

The programme for the next steps for the consultation and the revisions to and adoption of the Transport Strategy, along with further studies to inform the development of the Strategic Investment Plan, before seeking formal statutory powers, is identified in **Figure iii**.

Public Consultation

A public consultation exercise is being undertaken on the draft Transport Strategy in the autumn of 2019. The purpose of the consultation is to seek the views of a wide range of stakeholders on the draft Transport Strategy. The aim is to ensure buy-in to the vision for the future set out in the Transport Strategy.

The consultation exercise is being undertaken over a twelve-week period. The Transport Strategy, an Integrated Sustainability Appraisal, and supporting evidence are being made available to the public and all consultees along with a consultation questionnaire. The consultation exercise will be publicised online, in the press and on social media. The online information for the public consultation is being supplemented by a series of engagement events.

At the end of the consultation period, Transport for the South East will produce a consultation report on the draft Transport Strategy that will summarise an analysis of the responses and how the final version of the Transport Strategy should evolve to reflect feedback provided.

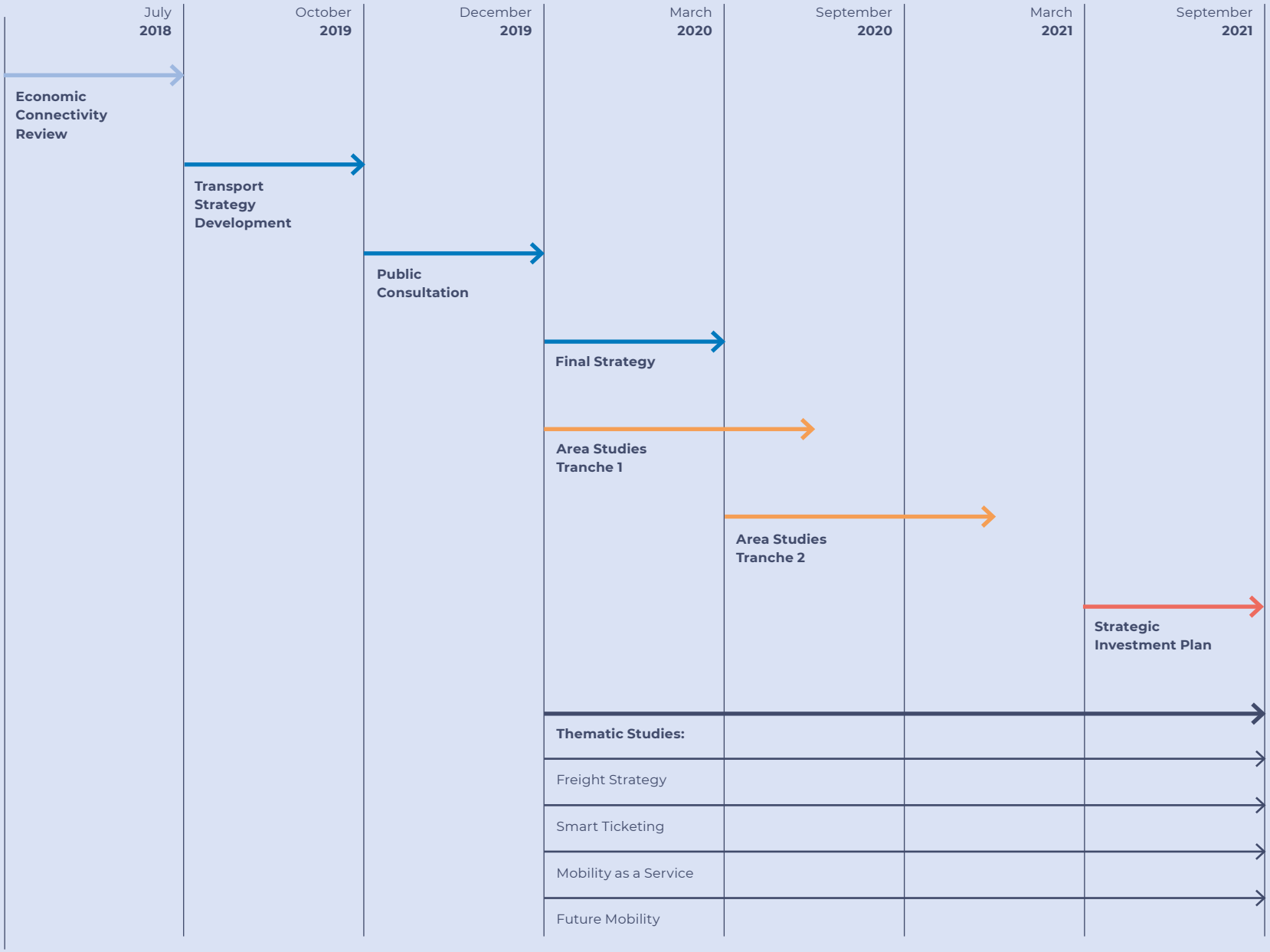
Revision and approval of the Transport Strategy

Following consideration of all feedback, the draft Transport Strategy will be revised, and a final version will be approved by the Shadow Partnership Board and published in spring 2020. This Transport Strategy will be reviewed updated every five years.

Future Programme of Studies

Transport for the South East is planning to commission a set of studies to explore some of the themes outlined in this Transport Strategy, which will include area studies that focus on types of corridors and journeys in the South East and further work on various thematic studies including freight and the future of mobility.

Figure iii Transport for the South East Road Map



Chapter 1

Context

A Transport Strategy for South East England

Introduction

1.1 This document is the draft of the Transport Strategy for South East England[1]. It has been prepared by Transport for the South East, the Sub-national Transport Body for the South East of England, with the support of its 16 Constituent Local Transport Authorities, 5 Local Enterprise Partnerships, 46 district and borough authorities and wider key stakeholders.

1.2 This Transport Strategy is supported by a significant body of evidence, much of which is published alongside this document. These documents include:

- Strategic Policy Context;
- The Relationship between the South East and London;
- Potential Impacts of Brexit;
- Scenario Forecasting Summary Report;
- Scenario Forecasting Technical Report;
- Funding and Financing Options;
- Integrated Sustainability Appraisal;
- Logistics and Gateway Review;
- Ticketing Options Study; and
- Future of Mobility Study Report.

The role of Transport for the South East

1.3 Transport for the South East's mission is to grow the South East's economy by delivering a safe, sustainable, and integrated transport system that makes the South East area more productive and competitive, improves the quality of life for all residents, and protects and enhances its natural and built environment. Its ambition is to transform the quality of transport and door-to-door journeys for the South East's residents, businesses and visitors.

1.4 Transport for the South East aspires to be a positive agent of change. It seeks to amplify and enhance the excellent work of its constituent authorities, Local Enterprise Partnerships, transport operators and stakeholders in its geography. It embraces new ways of doing things and seeks a more integrated approach to policy development. It aims to present a coherent, regional vision and set of priorities to Central Government, investors, operators, businesses, residents and other key influencers.

[1] The authorities represented by Transport for the South East are outlined in Section 2 (Paragraph 2.5). It should be noted that this definition of South East England excludes Buckinghamshire, Milton Keynes, and Oxfordshire (which are often included in the statistical region "South East").

[2] The legislation governing Sub-national Transport Bodies is set out in the Cities and Local Government Devolution Act (2016), which amended the Local Transport Act (2008).

The purpose of this Transport Strategy

1.5 One of the key roles of a Sub-national Transport Body, as set out in the Local Transport Act 2008 (as amended[2]), is to outline how it will deliver sustainable economic growth across the South East area it serves, whilst taking account of the social and environmental impacts of the proposals outlined in the strategy. This Transport Strategy represents a major step in the process of determining which policies, initiatives and schemes should be priorities for delivering sustainable growth across the South East area.

1.6 This Transport Strategy outlines a shared vision for the South East area. It expands this vision into three strategic goals that represent the three core pillars of sustainable development – economy environment and society, and It then describes the priorities and initiatives that will help achieve its vision. This will help guide future policy development and investment decisions in the short, medium, and long-term. This Transport Strategy will be followed by a number of area studies which will identify the interventions needed to deliver the strategy. Further details about the area studies are provided in Section 5.

1.7 This draft of the Transport Strategy is for public and stakeholder consultation. Transport for the South East welcomes all views to help improve the Transport Strategy and make it fully representative of the South East area.

This is our Transport Strategy for the South East – speaking with one voice to improve transport, travel, and mobility for everybody in our region.

How this Transport Strategy was developed

Working in partnership locally, regionally, and nationally

1.8 Transport for the South East started its mission to create a common vision for the South East in 2017, by establishing robust governance procedures and regular channels of communication with its partners and key stakeholders. A diagram showing the relationship between Transport for the South East and its key partners is shown in **Figure 1.1**. Key in this regard has been the involvement of the Transport Forum which consists of representatives from businesses, transport operators, borough and district councils, Local Economic Partnerships and user groups. Throughout 2019, Transport for the South East has held a number of workshops and meetings with its partners and stakeholders at each step of the Transport Strategy's development. This engagement has been invaluable in identifying the key issues, Challenges and opportunities that have been reflected in the development of the Transport Strategy.

1.9 The Transport Strategy has been designed to complement and build on national, regional, and local policies and strategies. A diagram showing the relationship between this document and the other key documents produced by Government, national agencies, local transport authorities, local economic partnerships and district and borough authorities is shown in **Figure 1.2**.

Building on the Economic Connectivity Review

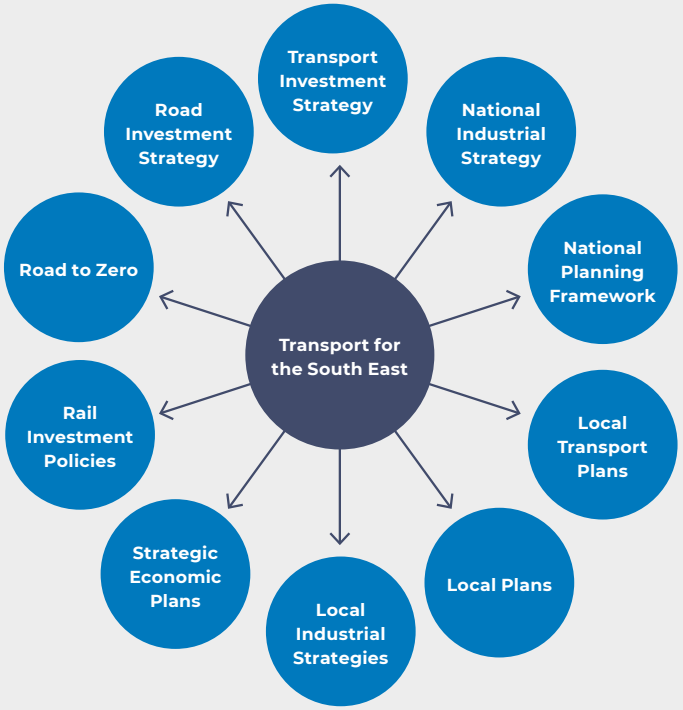
1.10 This Transport Strategy builds upon the evidence and analysis conducted in the Economic Connectivity Review for the South East. This study provided a detailed analysis of the underlying socioeconomic conditions in the South East. It identified 22 key corridors where the evidence suggests economic investment in transport infrastructure should be focussed to generate maximum future return. The analysis in the review, and the information which it provided, has been carried forward into this Transport Strategy.

1.11 The Economic Connectivity Review highlighted the potential of the South East to grow its economy to a value of approximately £500 billion in Gross Value Added Terms[3] (from a current day value of £183 billion). It should be stressed that this potential represents a theoretical outcome based on unconstrained growth with minimal environmental constraints.

[3] Transport for the South East / Steer "Economic Connectivity Review" (July 2018), page 2, https://transportforthesoutheast.org.uk/strategy/ecr/, accessed August 2019.

Figure 1.1 Relationship between Transport for the South East, its partners, and its stakeholders

Figure 1.2 Relationship of this Transport Strategy with the wider policy and planning framework



Building on the evidence base for multi-modal Corridors

1.12 This Transport Strategy is built upon a diverse evidence base of economic, social, environmental and transport network data. This data has been collated, interpreted and analysed from a wide range of sources and is presented in the documents listed in paragraph 1.2, which are published alongside the Transport Strategy.

1.13 The key areas explored in the evidence base are:

- corridors that are of strategic importance in the South East;
- places or major economic hubs where large amounts of future growth will be concentrated;
- places and/or supporting transport networks that are underperforming and constraining economic growth;
- modelling of possible future scenarios and their impacts on transport and travel; and
- the relationship between London and the South East.

1.14 Ultimately, the evidence base provides the analytical foundation of this strategy and ensures that the direction promoted in this document is supported by credible and appropriately referenced evidence.

1.15 Building on the work of the Economic Connectivity Review, Area Studies will be commissioned that will examine the key challenges and opportunities of groups of corridors in the South East area. These studies will identify a prioritised programme of interventions to feed into an investment plan for the South East.

Moving away from 'predict and provide'

1.16 Traditionally, transport planning has used a 'predict and provide' approach to justify the need for future investment. This approach involves using existing trends to forecast future demand and congestion on the transport network to make the case for the investment needed to alleviate that congestion.

1.17 In recent years, however, there has been a significant shift in thinking away from the 'predict and provide' approach. There is substantial evidence to suggest that providing additional road capacity and addressing bottlenecks in the highway network has the effect of generating additional demand for the road network, thus eroding or even eliminating any expected reductions in traffic congestion[4]. Furthermore, this approach, if followed in an unconstrained fashion, risks promoting urban sprawl, high dependency on car use, and significant degradation of the natural environment. In the long run, 'predict and provide' risks creating a transport network that is less efficient and damaging for the local communities and environment it passes through.

1.18 This Transport Strategy involves a shift towards a 'decide and provide' approach to transport provision. This means actively choosing a preferred future, with preferred transport outcomes as opposed to responding to existing trends and forecasts.

1.19 The Transport Strategy has utilised future demand modelling to understand how and where the transport network will see significant future strain. However, instead of simply expanding the network where strain will be most acute, the Transport Strategy sets out how this congestion could be alleviated through investing in public transport alternatives, developing integrated land use planning policies, adopting emerging transport technologies, and adopting demand management policies. The latter would involve users paying for more of their mobility they consume on a 'Pay as you Go' basis with the potential to better managing demand across the network – using pricing mechanism across all vehicular modes, including by car, van and Heavy Goods Vehicles to incentivise travel at less busy times or by more sustainable modes.

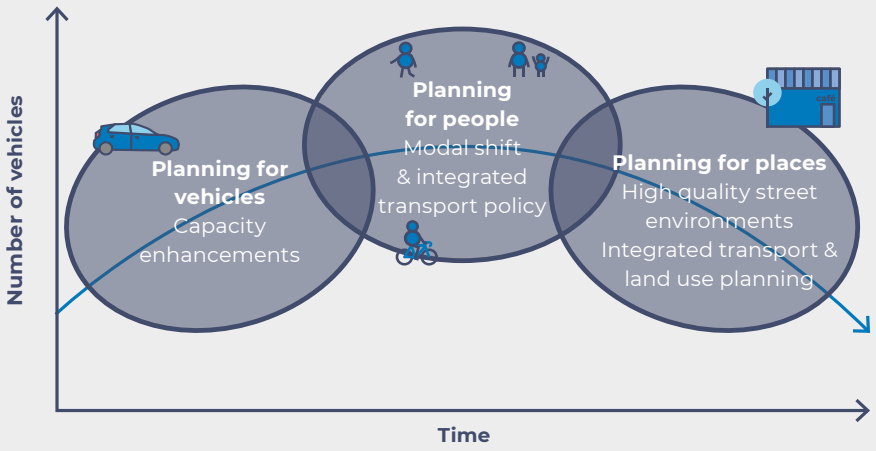
1.20 This proactive approach to transport planning will enable choices to be made about how the transport network will look in the future. For example, it will signal a shift towards making urban areas more 'people-friendly' by giving the car less precedence and by providing more space for sustainable transport modes.

[4] Lyons, G. and Davidson, C. "Guidance for transport planning and policymaking in the face of an uncertain future" (June 2016), Transportation Research Part A: Policy and Practice, Volume 88, June 2016, Pages 104-116.

It will also encourage investment in more sustainable modes of transport, including the rail network and potential future greener technologies.

[5] Jones, P. "Urban Mobility: Preparing for the Future, Learning from the Past" (2019), page 9, https://www.transportxtra.com/userfiles/brochures/CREATE_NEW2_web.pdf, accessed August 2019.

Figure 1.3 Evolution of Transport Planning policy



Planning for people and places

1.21 As discussed above, traditional transport planning has tended to focus on ensuring that adequate capacity is provided to accommodate future forecast demand. This approach is akin to 'planning for vehicles'. This approach is not sustainable in the longer term. Instead, there should be a shift from the current focus on 'planning for vehicles' towards 'planning for people' and, ultimately, 'planning for places'.

1.22 **Figure 1.3** shows the evolution of a transport policy process between the three different transport policy perspectives. It is based on an approach which has been developed by Professor Peter Jones of UCL through the CREATE EU Horizon 2020 and Civitas project[5], to help policy makers cut road congestion in cities by encouraging a switch from cars to sustainable modes of transport. However, it has a wider applicability to help guide transport and land use policy development at a regional scale.

1.23 Currently, the South East is in the first stage of the process focussed on 'planning for vehicles'. The second stage of this process illustrated in **Figure 1.3** – 'planning for people' – places modal shift at the heart of transport planning. This approach seeks to meet forecast future demand while minimising any adverse impacts on society and the environment by encouraging greater use of more efficient and more sustainable transport modes.

1.24 The third stage – 'planning for places' – goes further by encouraging integrated transport and land use planning to deliver spatial planning policies that both encourage sustainable travel choices but also minimise the need to travel at all (or, at the very least, minimise the need to travel far).

1.25 It is acknowledged that the impacts of these approaches will be applicable over different timeframes. Planning for vehicles may well prevail in the short term. Planning for people perhaps aligns better to medium term timelines. And planning for places, which requires integration with long term planning policy, is a much longer-term goal although every effort should be made to start the process of moving towards this approach.

Developing scenarios for different version of the future in 2050

1.26 The Economic Connectivity Review presented a projection for the economic potential for the South East. However, this is a theoretical 'maximum' that assumes minimal environmental constraints and is likely to result in unacceptable levels of environmental degradation. So, in order to develop a credible and more desirable vision of the future, Transport for the South East explored how different political, economic, social, technological and environmental trends might evolve to create different versions of the future in 2050. This was achieved by exploring how four future scenarios might affect the development of the South East's economy, population, and transport outcomes. Further details about the Scenario Forecasting work undertaken in support of the development of this Transport Strategy is provided in the "Scenario Forecasting Summary Report" and "Scenario Forecasting Technical Report"[6]. The four scenarios for 2050 were developed by combining 'axes of uncertainty', which describe the plausible outcomes of uncertain trends. These trends included the rate of adoption of emerging technology, changes in attitudes towards the environment, and the development of target business and industrial sectors in the economy. Each scenario was modelled using a Land Use and Transport Model. The outcomes of modelling each scenario were compared to a 'Central Case', which was developed by modelling the impacts of the Department for Transport's National Trip End Model on the South East's economy and transport networks. A description of the four scenarios that were developed and tested is provided in **Figure 1.4**. The key outputs generated by these scenarios are shown in **Table 1.1**.

1.27 The outputs of the modelling derived from the four scenarios were presented to a wide range of partners and key stakeholders. These stakeholders were asked to provide their feedback on each of the scenarios and identify elements that they felt were most plausible and desirable. The elements that were deemed by Transport for the South East's partners and stakeholders to be most desirable for the future were then drawn together to build a vision of a 'preferred future' – "A Sustainable Route to Growth".

1.28 The key features of the Sustainable Route to Growth are:

- The South East is less dependent on London and has developed successful economic hubs within its own geography, which provide high-quality, high-skilled jobs for residents. This in turn creates a future where GVA per capita is significantly higher than it is today.
- The benefits of emerging technology have been harnessed in an equitable way to improve the accessibility of the South East area without undermining the integrity of its transport networks. This also has the effect of boosting economic growth while minimising transport's impact on the natural and built environment.
- Concern for the environment has led to the widespread adoption of sustainable policies and practices, including integrated land-use and transport planning, as well as targeted demand management measures including users paying for more of their mobility on a 'pay as you go basis'. This in turn provides a shift away from the private car towards more sustainable travel modes. It also reduces the need to travel (or, at least, the need to travel far) and ultimately delivers a cleaner, safer environment for residents.

[6] Transport for the South East "Scenario Forecasting Summary Report" and "Scenario Forecasting Technical Report" (both October 2019)..

Figure 1.4 Summary of the scenarios developed for this Transport Strategy

Scenario 1:
The London Hub

- What if there is higher than expected growth in London and the South East becomes a dormitory for London?
- Higher population growth
- Increased housing stock
- Lower productivity growth
- Increased radial travel

Scenario 2:
Digital Future

- What if digital transformation happens at a much faster rate than anticipated?
- Convenience driven tech-solutions
- Highly productive economy
- Labour market disruption
- Less need for business travel
- Faster adoption of Connected and Autonomous Vehicles (CAVs)

Scenario 3:
Route to Growth

- What if the South East makes more of its unique assets, becoming more specialised and locally focussed?
- More local employment
- Growth of priority sectors
- Slightly higher population growth
- Increased cross-regional travel

Scenario 4:
Sustainable Future

- What if there is an increased focus on environmental sustainability?
- Lower levels of productivity-led growth
- Shift away from heavy industry
- Focus on protecting the environment
- Reduced inequality – focussing on
- Deprived communities
- National road user charging

1.29 As **Table 1.1** shows, the Sustainable Route to Growth outputs produce strong, regionally led economic growth akin to the results yield by the Route to Growth Scenario but deliver this growth in a more environmentally sustainable manner, more aligned to the Sustainable Future Scenario. This Scenario delivers the second highest growth in GVA of all the scenarios (including the Central Case).

Table 1.1: Summary of Scenario Modelling Results

Scenario	GVA (2050)	GVA Growth	Trips (2050)	Trips Growth
Central Case (based on DfT forecasts)	£399bn	**118%**	23.9m	**15%**
The London Hub	£430bn	**136%**	26.6m	**28%**
Digital Future	£411bn	**125%**	24.2m	**16%**
Our Route to Growth	£481bn	**164%**	26.4m	**27%**
Sustainable Future	£404bn	**121%**	23.1m	**11%**
Sustainable Route to Growth	£458bn	**151%**	24.8m	**19%**

1.30 This process has allowed Transport for the South East to develop a vision for 2050 that is forward looking, that accommodates and reflects the views of stakeholders, and that delivers a desired future for the South East's businesses, residents and visitors[7]. Further information about the methodology that was used to develop these future scenarios and model their impacts is contained in the "Scenario Forecasting Technical Report".

Prioritising initiatives

1.31 Transport for the South East worked with a wide group of stakeholders to identify their initial priorities for investment over the short, medium, and long term. The types of schemes that emerged as highest priority, that are best placed to deliver optimal outcomes (economic, social and environmental), and that best align with the Sustainable Route to Growth Scenario are presented in this Strategy. This work will be taken forward in subsequent area studies, which will identify specific schemes and interventions needed to deliver the Transport Strategy.

[7] Transport for the South East "Scenario Forecasting Technical Report" (October 2019).

Undertaking an Integrated Sustainability Appraisal

1.32 Alongside the development of the Transport Strategy, Transport for the South East commissioned Steer and WSP to prepare an Integrated Sustainability Appraisal. This document examines the potential impacts this Transport Strategy could have on a wide range of sustainable development indicators, including economic, social, and environmental aspects. These include, but are not limited to, health, equality of access to opportunities, and community safety. This document will be published alongside the Transport Strategy and will be subject to public consultation in parallel with the draft Transport Strategy.

Holding a public consultation

1.33 A public consultation exercise is being undertaken on this draft Transport Strategy in the autumn of 2019. The purpose of the consultation is to seek the views of a wide range of stakeholders on the draft Transport Strategy. The aim is to ensure buy-in to the vision for the future set out in the Transport Strategy. This consultation exercise is being undertaken over a twelve-week period. The Transport Strategy, Integrated Sustainability Appraisal, and supporting evidence are being made available to the public and all statutory consultees along with a consultation questionnaire. The consultation exercise is being publicised online, in the press and on social media. The online information for the public consultation is being supplemented by a series of engagement events arranged to serve different groups of stakeholders.

1.34 At the end of the consultation period, Transport for the South East will produce a consultation report on the draft Transport Strategy that will summarise an analysis of the responses and how the final version of the Transport Strategy should evolve to reflect feedback provided.

Publishing the final Transport Strategy

1.35 Following consideration of all feedback, Transport for the South East will revise the draft Transport Strategy to take account of the feedback received and publish a final version in Spring 2020. The Transport Strategy will be complemented by several area studies which will identify and prioritise the specific interventions required across the South East. The outputs from these area studies will be fed into an Investment Plan setting out the short, medium, and longer-term scheme priorities. Transport for the South East will then shift focus towards implementation, which is described in more detail in Section 5.

Conclusions

In this section we have set out the context to the Transport Strategy for the South East and described how we have worked with partners and stakeholders to develop this Transport Strategy. In the next section the key characteristics of the South East area are highlighted and some of the challenges it currently faces are described. In addition, the national, regional and local policy frameworks that currently govern and influence transport and planning policy in the South East area are described.

Chapter 2

Our Area

Introduction

Introduction

2.1 The South East is a diverse area, with different environmental, social and economic challenges and opportunities, which influence the way we travel, create their own transport challenges, as well as influencing the potential for improvements to our connectivity and accessibility.

2.2 This section introduces the South East area[1] and summarises its characteristics, challenges and opportunities. This section starts by describing the economic, social, and environmental characteristics of the South East area. It then explores the relationship between the South East and the rest of the United Kingdom, including London. It then sets out the policy context of this Transport Strategy and summarises the current transport corridors and patterns of movement in the South East area. This is followed by a description of the challenges facing the transport network, future opportunities, and conclusions to be considered in the Strategy.

Introducing the Transport for the South East area

2.3 The area covered by Transport for the South East comprises the counties and unitary authorities that make up the south east corner of Great Britain. The South East area borders the southern boundary of Greater London from Slough in the west to Dartford in the east and down to the Isle of Wight in the south. It is home to approximately 7.5 million residents[2]. The most populated boroughs and districts in the South East (as defined by local authority population) are Brighton and Hove (289,000), the Medway Towns (276,000), Southampton (254,000) and Portsmouth (215,000). The largest Built Up Areas in the South East, which cut across borough and district boundaries, are South Hampshire (over one million), Brighton and Hove (475,000) and Reading (318,000)[3]. A map showing the Constituent Authorities within the Transport for the South East area is provided in **Figure 2.1**.

2.4 The South East area has several of the United Kingdom's largest international gateways including the Port of Dover, the Port of Southampton, Eurotunnel and Gatwick Airport. Heathrow Airport lies just on the boundary of the Transport for the South East area. A map showing the key population centres, international gateways and transport networks in the Transport for the South East area is provided in **Figure 2.2**.

[1] The authorities represented by Transport for the South East are outlined in Section 2 (Paragraph 2.5). It should be noted that this definition of South East England excludes Buckinghamshire, Milton Keynes, and Oxfordshire (which are often included in the statistical region "South East").

[2] Office for National Statistics "Population Estimates" (2016), https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates, accessed August 2019.

[3] Office for National Statistics/Organisation for Economic Development and Co-operation/Wikipedia "List of urban areas in the United Kingdom" (2019) https://en.wikipedia.org/wiki/List_of_urban_areas_in_the_United_Kingdom, accessed September 2019. This data is less reliable than the Local Authority District population data and is therefore not used in the remainder of this document.

Figure 2.1 The Transport for the South East area

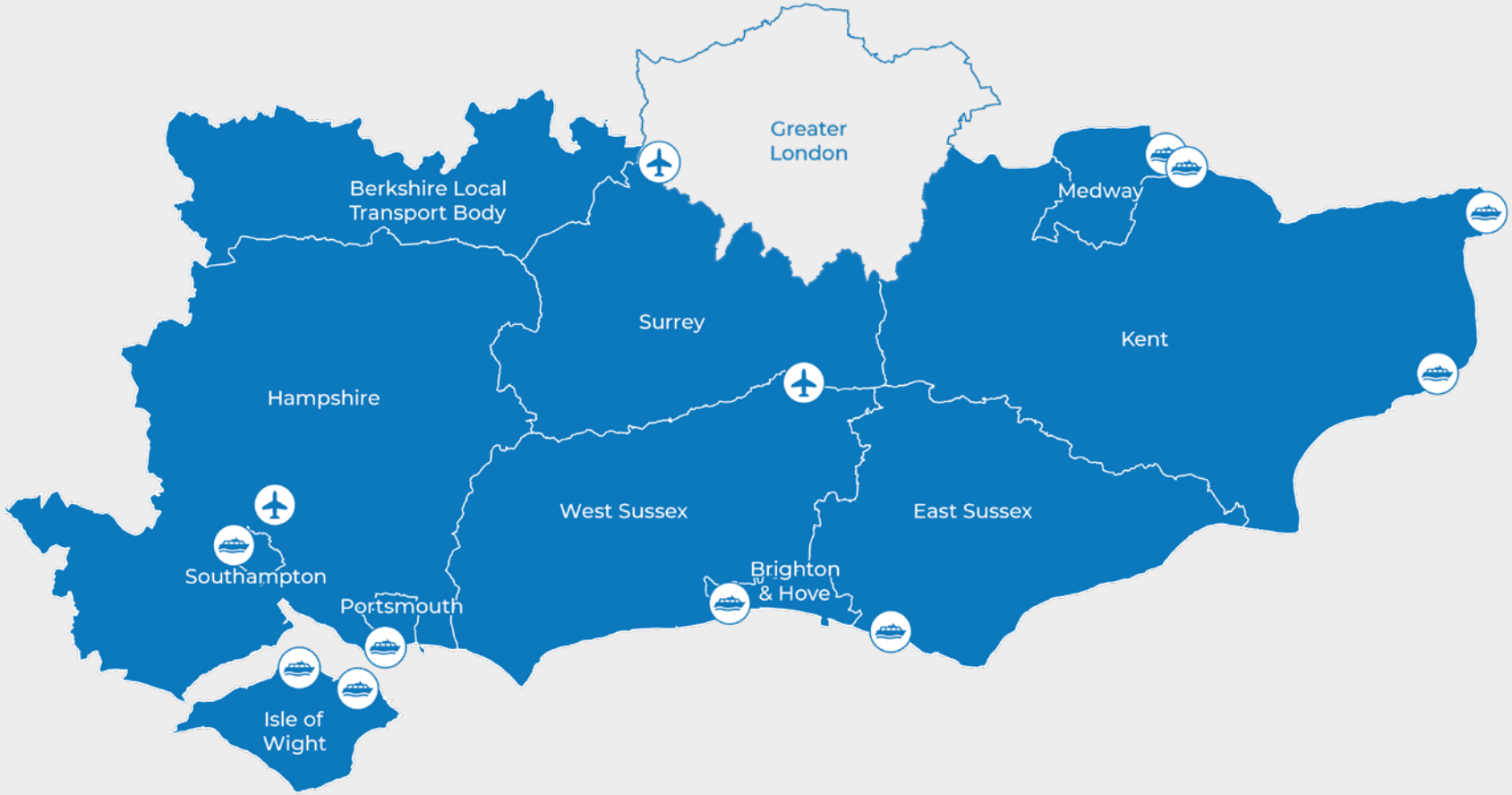
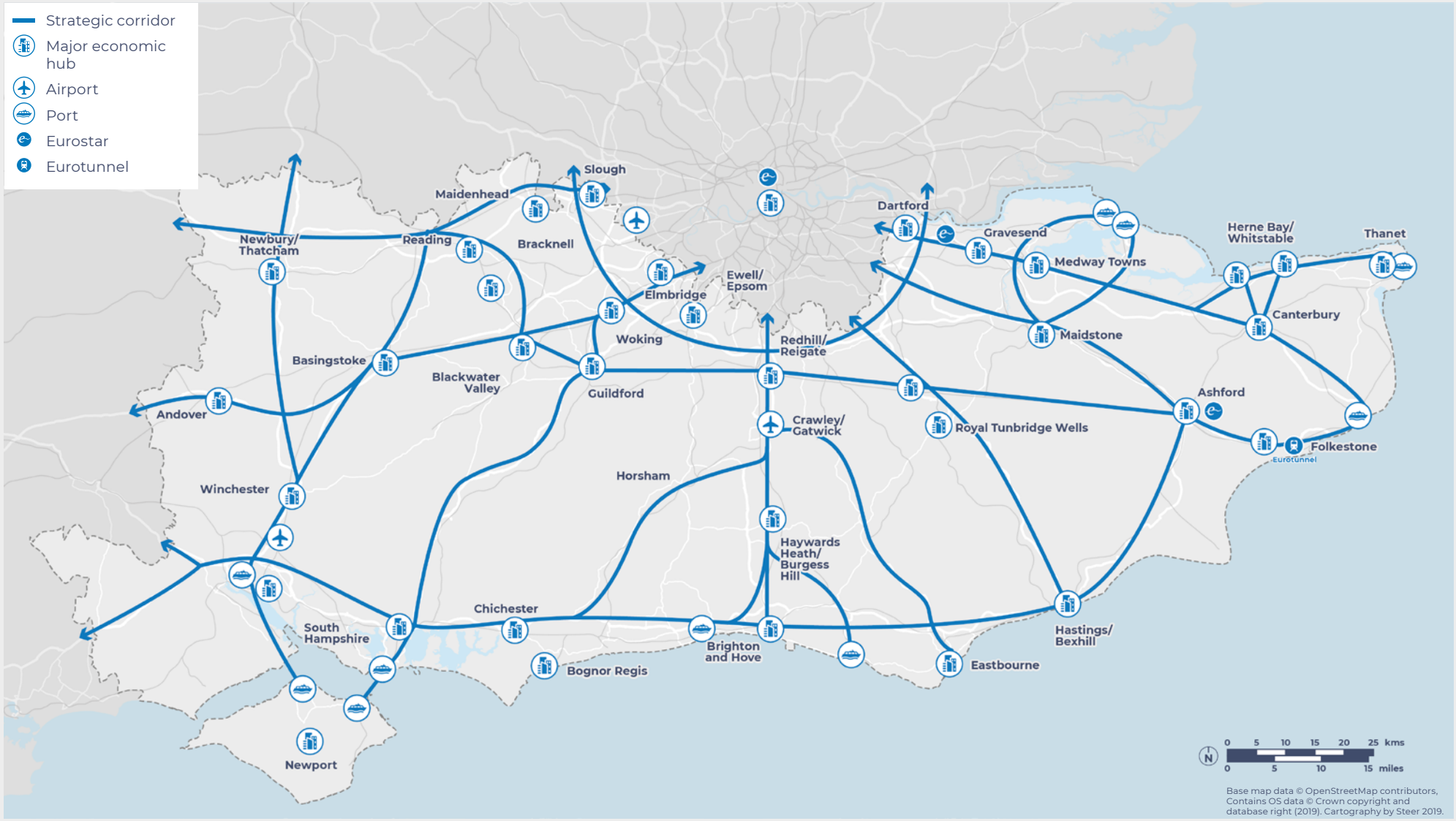


Figure 2.2 Key population centres, international gateways and transport corridors in the Transport for the South East area



2.5 The Transport for the South East area encompasses 16 Local Transport Authorities, as outlined below.

- Six unitary authorities in Berkshire represented through the Berkshire Local Transport Body: Slough Borough Council; Royal Borough of Windsor and Maidenhead Council; Reading Borough Council; Bracknell Forest Borough Council; Wokingham Borough Council; and West Berkshire Council.
- Brighton & Hove City Council;
- East Sussex County Council;
- Hampshire County Council;
- Isle of Wight Council;
- Kent County Council;
- Medway Council;
- Portsmouth City Council;
- Southampton City Council;
- Surrey County Council; and
- West Sussex County Council.

2.6 Several of these authorities are county councils, which operate a two-tiered system of local government. In these areas local spatial planning policies are determined by borough and district councils.

2.7 There are also five Local Enterprise Partnerships in the South East area, which lead economic planning in their respective areas:

- Berkshire Thames Valley;
- Coast to Capital;
- Enterprise M3;
- South East; and
- Solent.

2.8 The South East also has two National Parks, which work to their own spatial planning policies and governance arrangements, as well as several protected landscapes, coastlines and built areas.

2.9 The remainder of this section describes the South East area's economic, social, environmental characteristics and challenges. It then sets out the broader policy framework underpinning the Transport Strategy and describes the key transport corridors and patterns in the South East area. This section also describes the South East area's relationship with the rest of the country (and London), and explores key issues and opportunities affecting its transport networks.

Key characteristics of the South East area

Economic characteristics and challenges

2.10 The South East is a powerful motor of the national economy. It adds £183 billion a year to the UK economy [4]. It is home to over 7.5 million people (9% of the UK total)[5], 4 million workers (13% of the UK workforce)[6], and 320,000 companies[7]. It is also home to national and world leading universities (six in the UK Top 50 and world's top 350[8]) and research centres, which support a wide range of disciplines and sectors.

2.11 The South East is a relatively prosperous region. It has the second highest GVA per capita of all the UK regions and nations (second only to London)[9]. The average employment rate is also relatively high at 77%, above the UK average of 74%[10]. However, there are significant disparities in wealth and deprivation across the South East area. Many coastal communities in particular contain areas with high levels of deprivation.

2.12 The Economic Connectivity Review, published by Transport for the South East in July 2018, provided an overarching view of the South East area's current economic geography, its economic potential up to 2050, and the role of strategic transport interventions in achieving this potential.

2.13 The review identified the role of strategic transport connectivity in enabling economic growth through:

- improving business to business connectivity;
- improving access to international gateways;
- growing labour market catchments;
- enabling development; and,
- supporting deprived communities.

2.14 The Economic Connectivity Review identified the key priority industrial sectors of the South East, which are shown in **Figure 2.3**. These are sectors in the South East that:

- have national and international competitive advantage;
- are knowledge-intensive;
- have identified relationships with Higher Education and research and innovation bodies; and
- are forecast to grow.

2.15 A significant level of housing and employment development is planned for the South East area, but this development is not distributed evenly across the South East area.

[4] Cambridge Econometrics "Local Economic Forecasting Model" (2017).

[5] Office for National Statistics "Population Estimates" (2016), https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates, accessed August 2019.

[6] Cambridge Econometrics "Local Economic Forecasting Model" (2017).

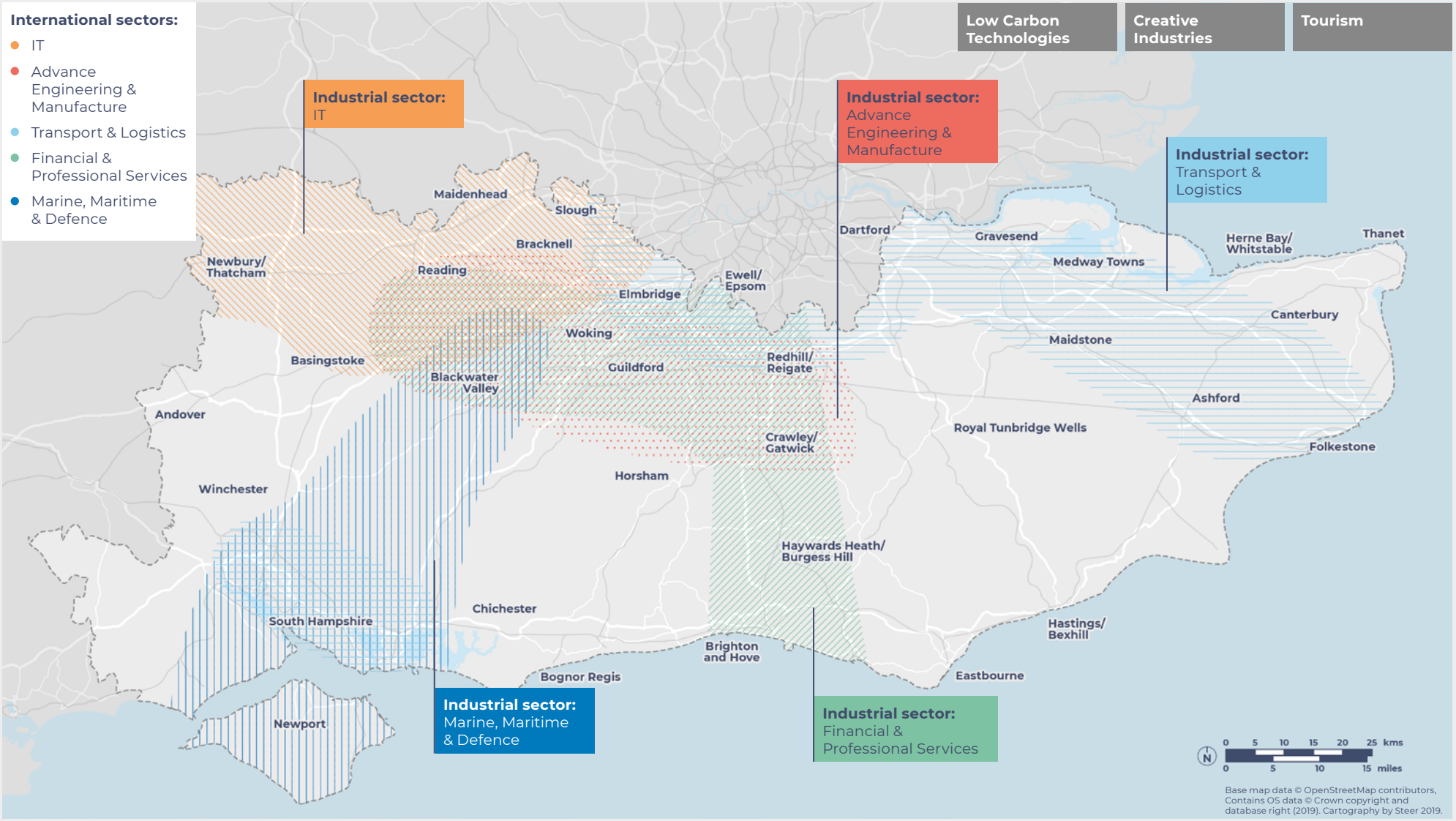
[7] Office for National Statistics "Enterprise/local units by Industry and GB Local Authority Districts (including UK total)" (2016), https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation, accessed September 2019.

[8] UKUni "UK University Rankings" (2019), https://www.ukuni.net/uk-ranking/overall, https://www.timeshighereducation.com/world-university-rankings/2018/, accessed August 2019

[9] Office for national Statistics "Regional economic activity by GVA" (2018) https://www.ons.gov.uk/economy/grossvalueaddedgva/bulletins/regionalgrossvalueaddedbalanceduk/1998to2017, accessed August 2019.

[10] Office for National Statistics "Business Register and Employment Survey" (2016).

Figure 2.3 Priority industrial sectors in the South East area



2.16 As shown in Figure 2.4, particularly high levels of housing development are planned for North Kent, the Thames Valley, and along the south coast. Employment development, on the other hand, will be more geographically concentrated than future housing development. As Figure 2.5 shows, future job growth will likely occur in the urban areas around Brighton and Hove, Southampton, Portsmouth, Gatwick Airport, and the Thames Valley. This presents a significant transport challenge as many people will be living and working in different places, which means the future transport network may need to provide for longer distance commuter trips within the South East area.

Social characteristics and challenges

2.17 The social geography of the South East is varied. The South East area is home to some of the most prosperous and productive areas of the country, but also contains significant areas of deprivation. The overall distribution of deprivation in the South East relative to other areas of England is shown in Figure 2.6. This appears to show a relationship between poor connectivity and higher levels of deprivation. For example, some of the least deprived areas of the South East are found around Guildford, the Blackwater Valley, Woking and Bracknell. These areas are economically productive and benefit from good connectivity to London, where there is a concentration of highly-paid jobs. In contrast, many coastal communities, which are less well connected to London and other key economic hubs, have significantly higher levels of deprivation than the England average.

2.18 While there appears to be a relationship between transport connectivity and prosperity, there are also some anomalies in the South East area. The areas around the Medway Towns and the Thames Estuary, for example, are relatively well connected to London yet have relatively high levels of deprivation. This may be due to characteristics of the local economies of these areas, which are still adjusting to structural changes in the national economy since deindustrialisation in the 1980s. It also may be because this high-level connectivity has only recently been unlocked by the launch of domestic high-speed rail services in 2009 and the impact of these services may not yet be showing in deprivation data. Either way, this example shows that, while transport connectivity is important for minimising the likelihood of deprivation, there are clearly other key factors which have a role to play. It should be noted that all the economic hubs in the South East area have some deprived areas, including those that are perceived to be relatively prosperous.

Environmental characteristics and challenges

2.19 The South East has a varied and highly valued natural environment. Significant parts of the South East area are designated as National Parks, Areas of Outstanding Natural Beauty and Sites of Special Scientific Interest. The South East area also has a long coastline. A map showing the location of key protected landscapes in the South East area is provided in Figure 2.7. The environmental assets of the South East help make the South East area an attractive place to live, work and visit. The future development of the South East area and its transport network will need to be managed to minimise any potential adverse impact and where possible enhance these natural assets.

2.20 The South East area faces several significant environmental challenges in the future. As shown in Figure 2.8, there is a significant number of Air Quality Management Areas in place across the South East area. These areas have been established to improve air quality and reduce the harmful impact of Nitrogen Oxides (NOx), Sulphur Oxides (SOx), and particulates on human health and the natural environment. Transport – particularly road transport – is one of the largest contributors to poor air quality in the South East area. Transport therefore has a significant role to play in improving air quality.

2.21 Noise pollution is also a significant issue, particularly for communities located close to the Strategic Road Network. As **Figure 2.9** shows, noise pollution is particularly high on the busiest road corridors of the South East area, notably around the M25.

2.22 The South East also has a significant role to play in tackling climate change. Today, the South East accounts for 12% of the United Kingdom's greenhouse gas emissions[11]. In 2018, transport accounted for a third of the United Kingdom's greenhouse gas emissions[12]. Several of the South East's local authorities have declared 'Climate Emergencies' and there is evidence of increasing support from politicians and residents for transport policies and interventions that help mitigate climate change and enhance the natural environment.

2.23 In conclusion, the South East's future Transport Strategy must seek to balance economic and social needs with the environmental constraints and challenges outlined above.

[11] Office for National Statistics "UK local authority and regional carbon dioxide emissions national statistics: 2005 to 2017" (2019) https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017, accessed August 2019.

[12] Department for Business, Energy and Industrial Strategy "UK Greenhouse Gas Emissions, Provisional Figures (2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790626/2018-provisional-emissions-statistics-report.pdf, accessed August 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790626/2018-provisional-emissions-statistics-report.pdf, accessed August 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790626/2018-provisional-emissions-statistics-report.pdf, accessed August 2019.

Figure 2.4 Employment growth planned in the South East area

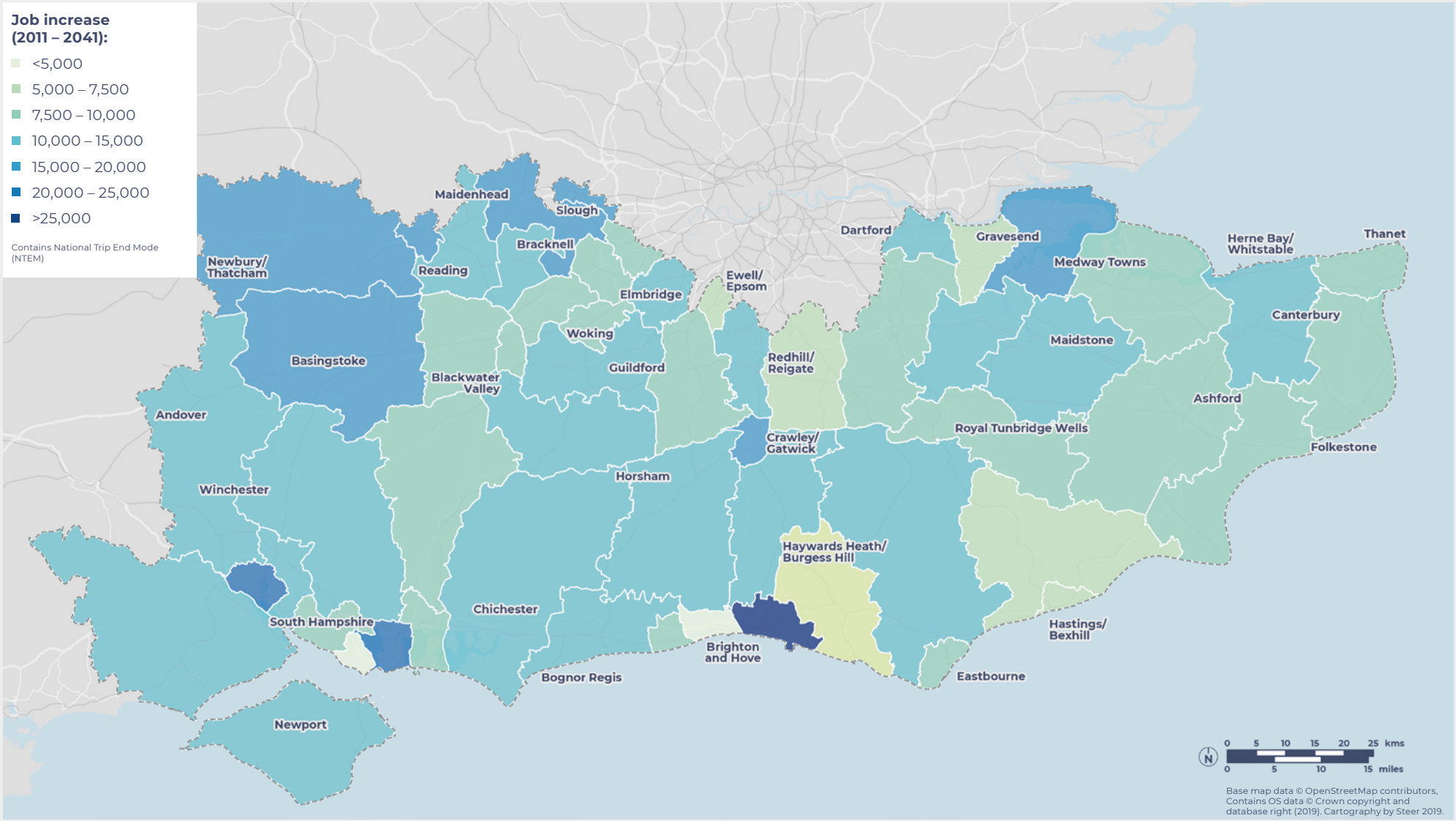


Figure 2.5 Housing growth planned in the South East area

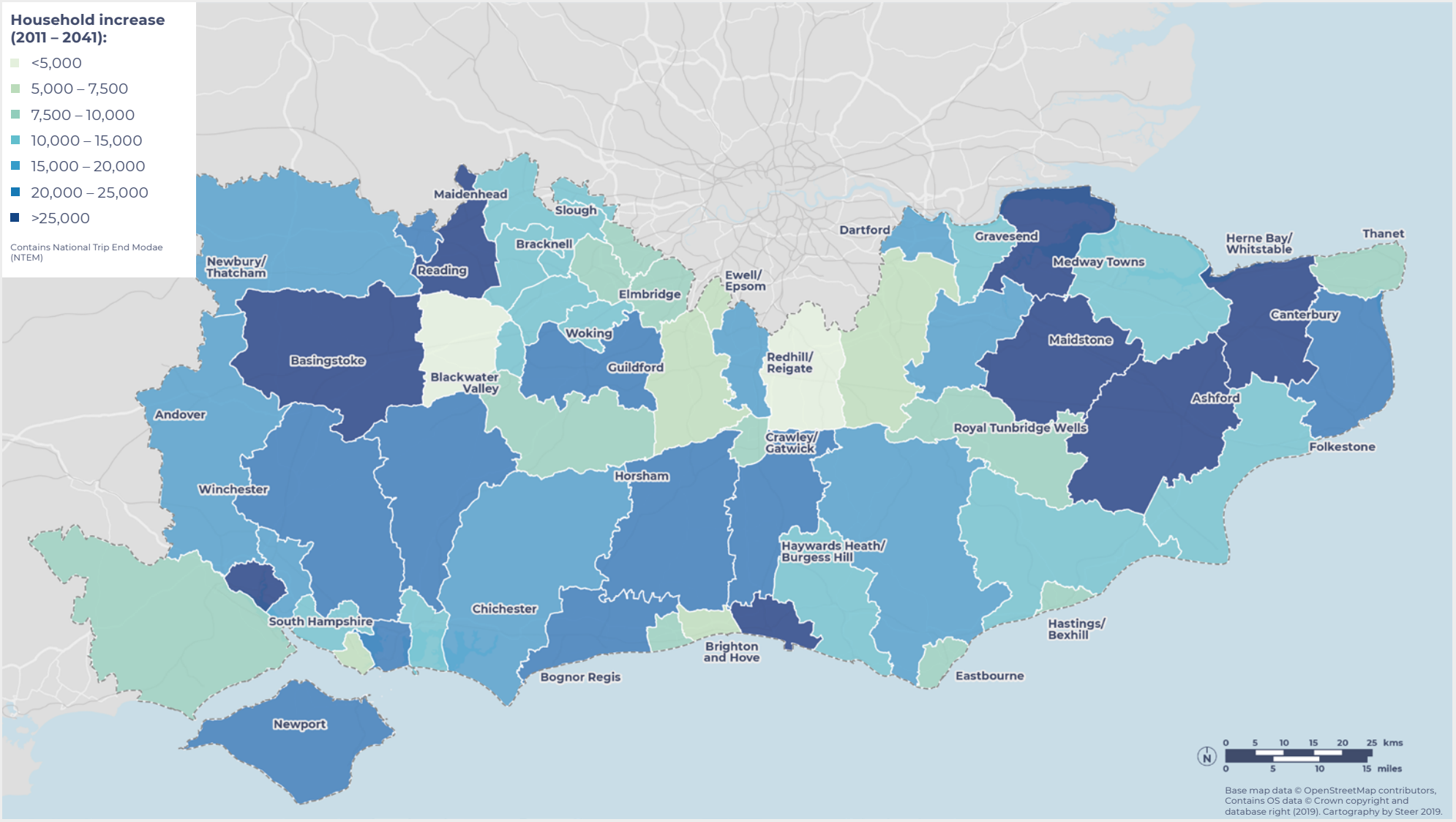


Figure 2.6 Deprived areas and journey times to London in the South East area

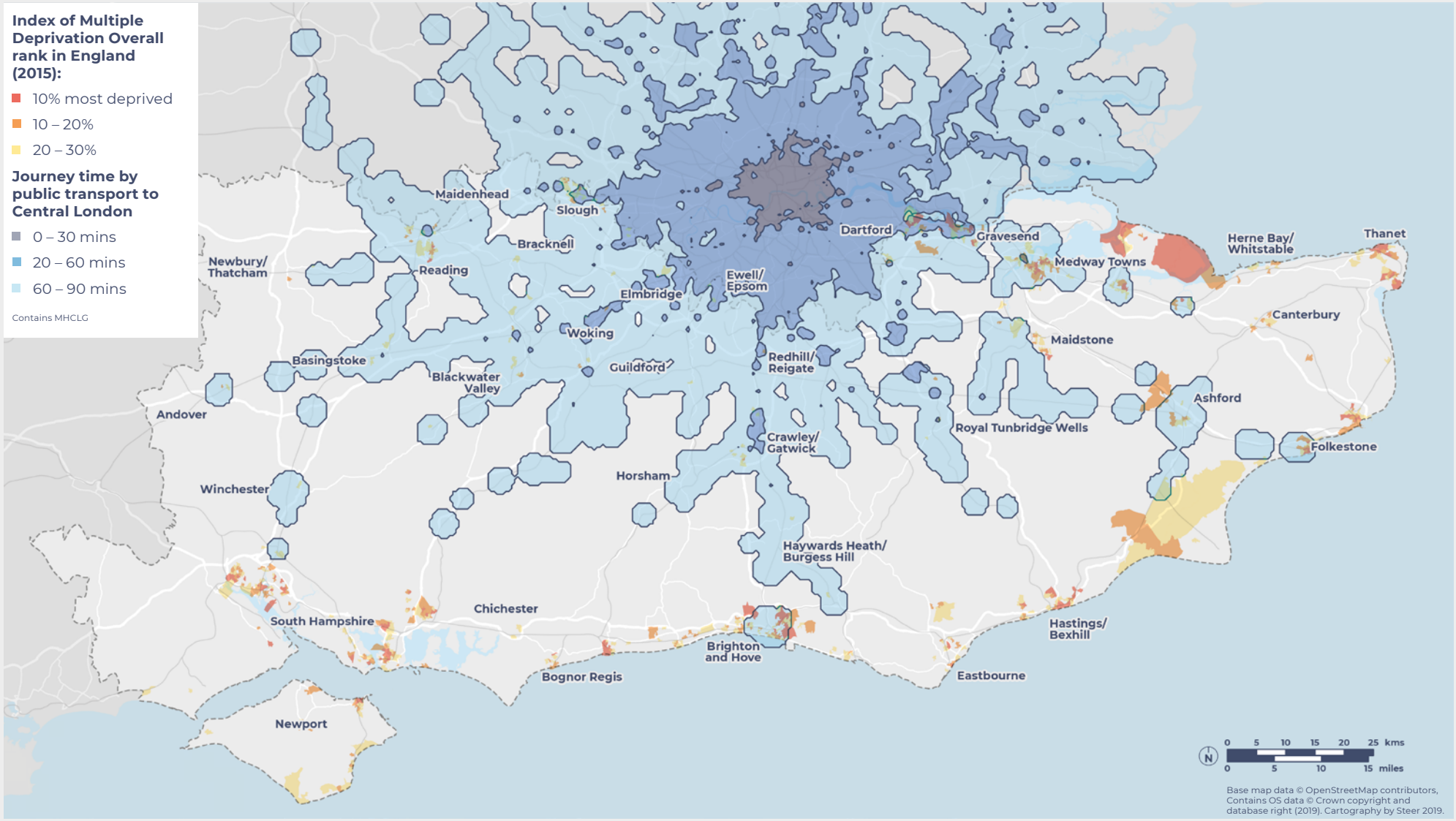


Figure 2.7 Protected landscapes in the South East area

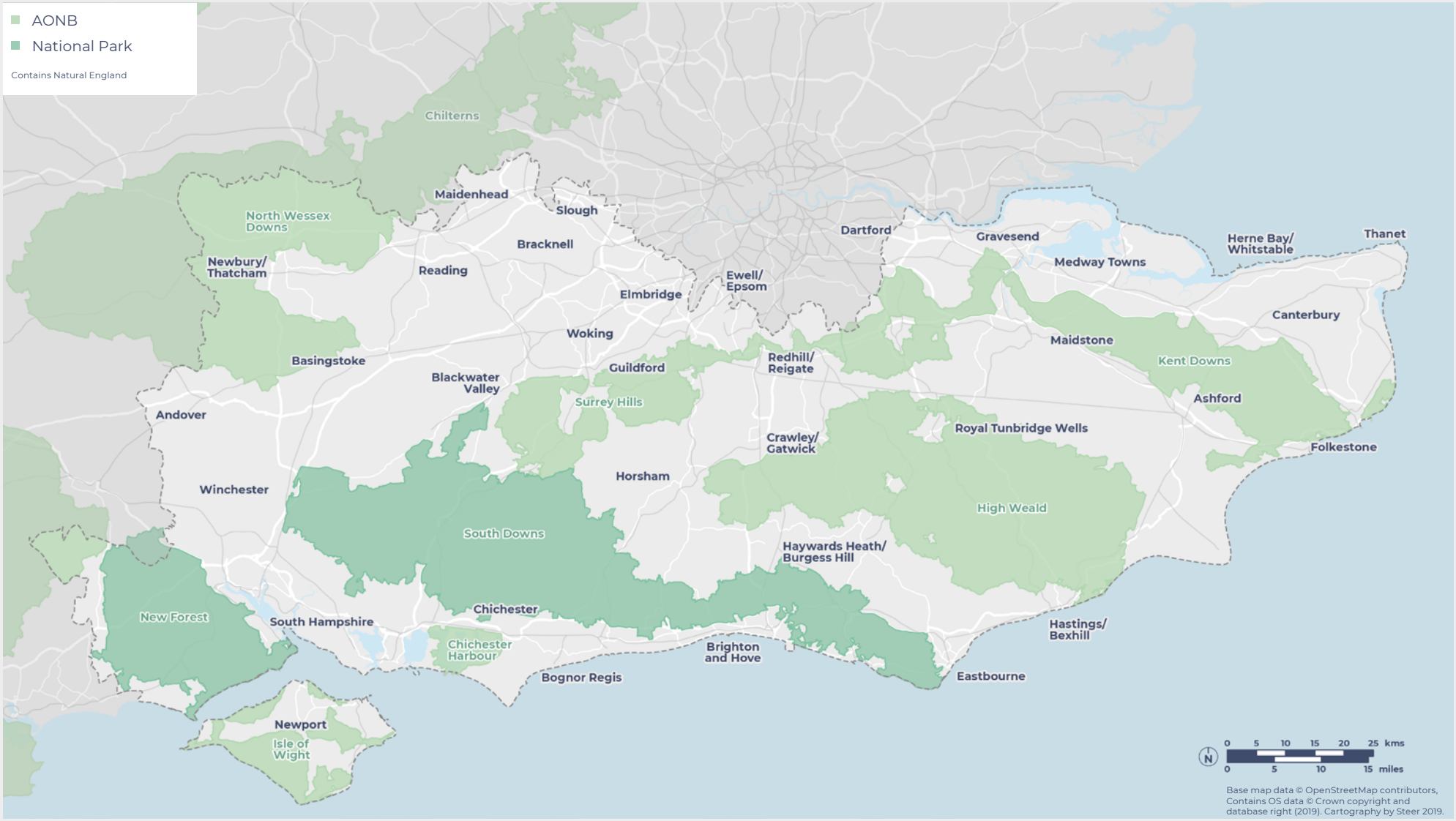
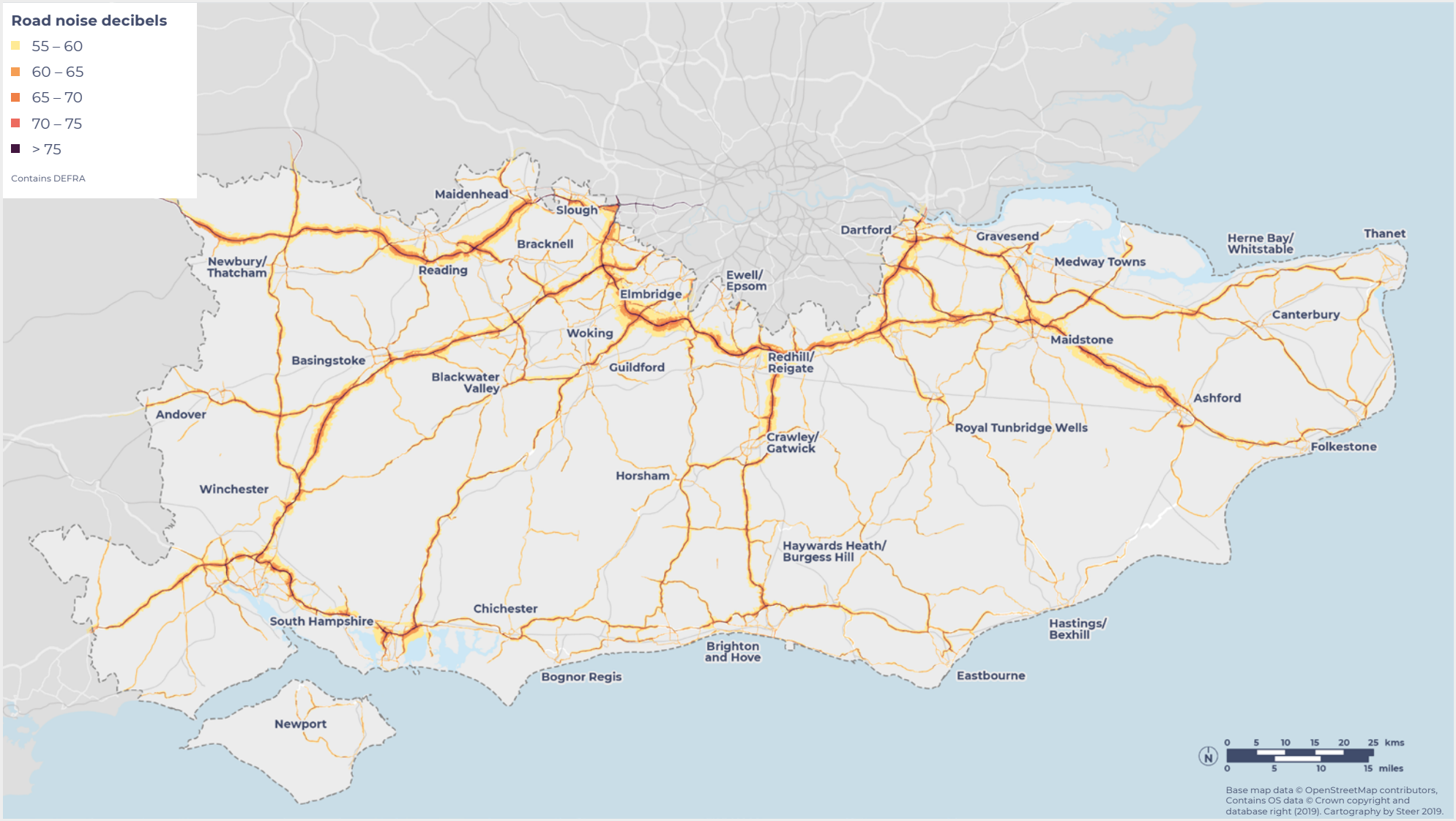


Figure 2.8 Air Quality Management Areas in the South East area

Figure 2.9 Road noise pollution in the South East area



The South East's relationship with the rest of the UK

The gateway to the British Isles

2.24 It is estimated that approximately 10% of trips in the South East area start or finish outside the South East and London.[13] The South East's geographical position as the closest part of the British Isles to continental Europe means it has a unique role in acting as the gateway to the United Kingdom. Significant business, freight and tourist flows pass through the South East area to reach London, the rest of the United Kingdom (and Ireland).

2.25 Much processing of freight in the UK occurs in the "Golden Triangle" – an area in the Midlands where there is a particularly high concentration of 'national distribution centres' (centres where freight is processed and distributed to regional networks). It is quite common for freight to arrive into the UK in the South East, be transported to the Midlands for processing, and then return to the South East for regional distribution.

2.26 This means that the road and rail routes that connect the South East to the Midlands and North of England are particularly important to freight. The key corridors for each mode are:

- **For road:** The M3/A34/M4 between Southampton and the Midlands/West of England and the M2/ M20/M25 between Dover and the Midlands/East of England.
- **For rail:** The South Western Main Line/ Basingstoke – Reading Line between Southampton and the Midlands and High Speed 1/North Kent Line/South Eastern Main Line between Dover/ Folkestone and London. Most rail freight in Kent needs to pass through inner London to reach the rest of the country.

2.27 The transport network in the South East has significant interfaces with schemes being pursued by neighbouring Sub-national Transport Bodies. This includes the Oxford – Milton Keynes – Cambridge expressway and East – West rail projects that are being advanced by England's Economic Heartland. There is an important freight interface with this Sub-national Transport Body on the A34 Corridor, which connects the Port of Southampton with the Midlands and North of England. There are also important interfaces with the Western Gateway emerging Sub-national Transport Body on the A36, A303/West of England Main Line, M4/Great Western Main Line and M25 corridors, as well as with Transport East at the Dartford Crossing.

[13] Transport for the South East / Steer "Scenario Forecasting Technical Report" (October 2019).

[14] Transport for the South East / Steer "The Relationship Between the South East and London" (October 2019).

[15] Ibid. page 10.

[16] Ibid. page 20.

[17] Ibid. page 16.

The South East's relationship with London

A key relationship

2.28 London's contribution to the UK economy is well in excess of the contribution of other regions in the UK. However, it does not function in isolation and its economic success relies on strong transport links with towns, cities and international gateways outside of London, including many locations within the South East. The relationship between London and the South East is reflected strongly in commuting patterns between both regions. Further analysis of this relationship is provided in "The Relationship between the South East and London" Report, which is published alongside this Transport Strategy.

Commuting from the South East to London

2.29 The number of residents commuting into Greater London from the South East is substantial (350k)[14]. While this is a sizeable figure, it should be noted that it represents just 13% of commuting trips in the South East[15]. Most (83%) trips into Central London are by rail[16]. Trips to Outer London, on the other hand, tend to be made by car (80%)[17]. As shown in **Figure 2.10**, the areas with the highest number of commuter journeys to London are those that are closest to the Greater London boundary.

2.30 As the distance from London increases, the number of residents travelling to Greater London decreases. However, there are areas further from London, such as Winchester, Haywards Heath/Burgess Hill and Royal Tunbridge Wells, where a higher number of people commute to Greater London compared to their surrounding rural areas. These locations are major economic hubs, and typically have good strategic connectivity with fast journey times into Central London.

Figure 2.10 Commuting from the South East area to Greater London

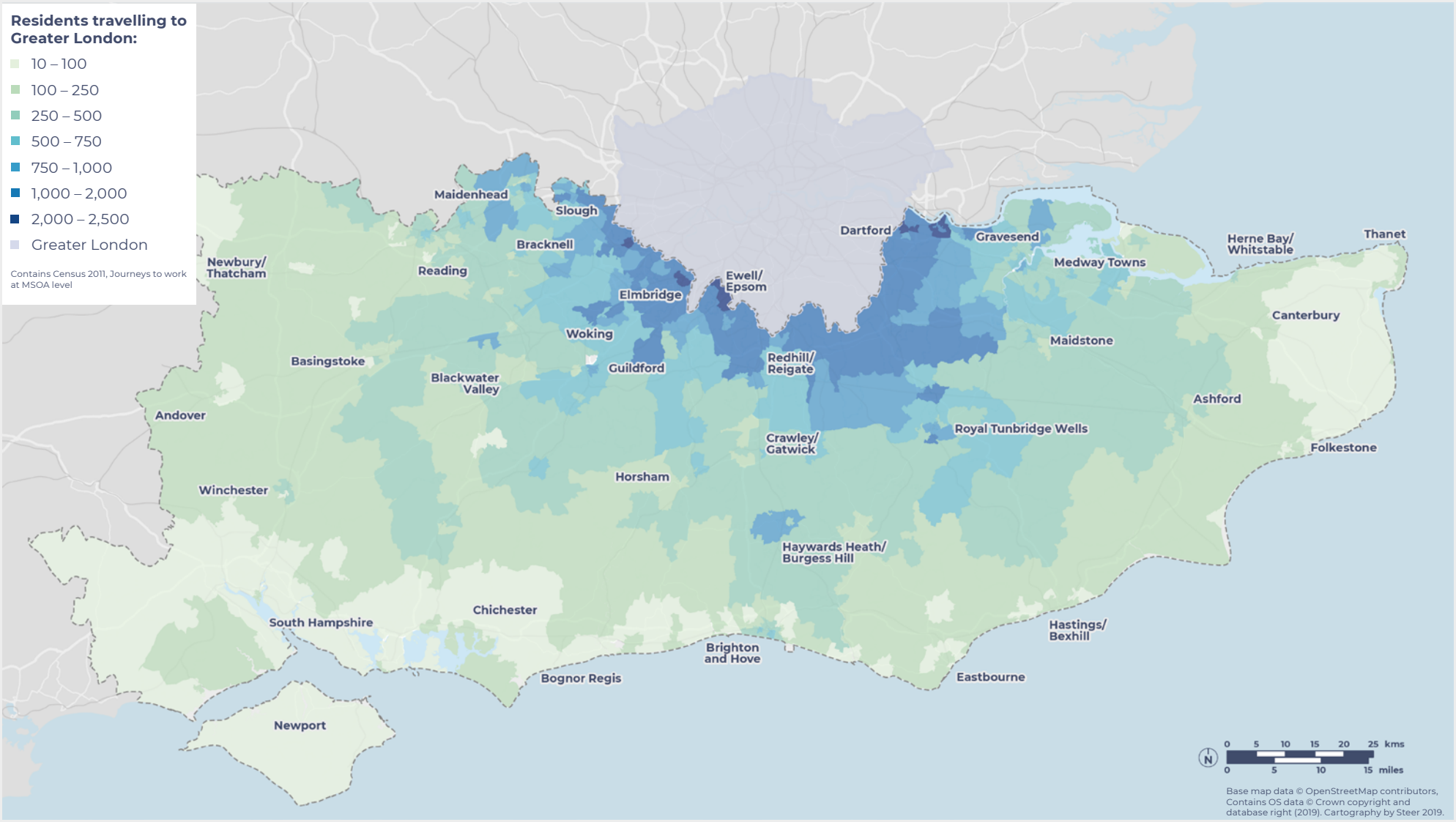
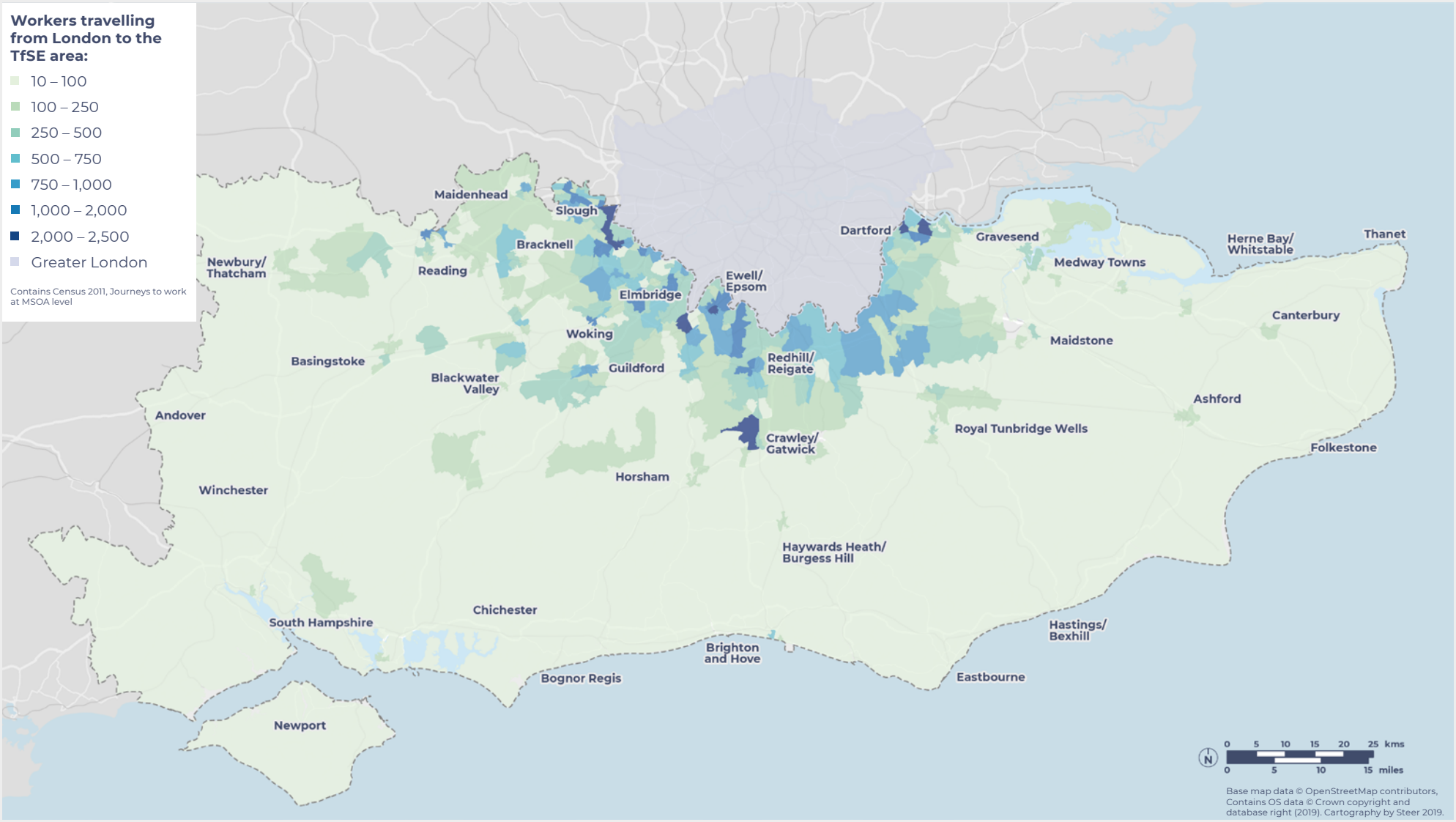


Figure 2.11 Commuting from Greater London to the South East area



Commuting from London to the South East

2.31 **Figure 2.11** shows the number of employees commuting from Greater London to the Transport for the South East area. Over two thirds of these trips are by car (67%). Generally, the areas within the Transport for the South East area with the highest number of employees commuting out from Greater London are located on the boundary with Outer London. These include Slough, Elmbridge, Epsom/ Ewell, Redhill/Reigate and Dartford. However, there are clusters further from the boundary with a higher number of employees commuting out from Greater London. Notably around Reading, Maidenhead, Bracknell, Blackwater Valley, Woking, Guilford, Crawley/Gatwick and Sevenoaks. These are locations where there is a concentration of economic activity sectors such as professional services, finance and IT. This may explain why these areas have high commuting levels from London.

Other Socio-economic Trends

2.32 In addition to commuting, there are strong socioeconomic ties between the South East and London that drives significant development in housing and employment on London's periphery.

2.33 London is a strong attractor of talent from across the whole country, meaning most areas in the country experience a net-migration flow towards London. In the South East, however, this trend is more complex. While many people are drawn from the South East to move to the capital, a significant number of people are moving in the opposite direction in search of more affordable housing and a better quality of life. This 'ripple effect' has been attributed to tight planning constraints in building new homes in outer London[18].

2.34 This trend is expected to continue for the foreseeable future as employment in London continues to grow faster than housing provision. Some targeted transport improvements – such as a Crossrail extension into Ebbsfleet – could further encourage Londoners to move to the South East and benefit from the high-quality transport links it offers.

[18] London School of Economics "Impact of outwards migration on the South East" (2018), http://www.lse.ac.uk/News/Latest-news-from-LSE/2018/01-January-2018/Ripple-effect-of-London-out-migration, Accessed August 2019.

Policy context

[19] Transport for the South East "Strategic Policy Context" (October 2019).

National policy context

2.35 Policy at a national level is developed by government departments and delivered by those departments or through government agencies and arms-length bodies. A more detailed exploration of the policy context for the draft Transport Strategy is contained in the "Strategic Policy Context" Report[19], which is published alongside this Transport Strategy. The key documents and considerations include:

National Transport Policy:

- Transport Investment Strategy (DfT, July 2017);
- The Draft Road Investment Strategy 2 (DfT, October 2018);
- High-Level Output Specification for Control Period 7 (Network Rail, July 2017); and
- Long-Term Planning Process Strategy documents (Network Rail).

National Planning Policy:

- The revised National Planning Policy Framework (MHCLG, February 2019);
- The NPS for National Networks (DfT, December 2014);
- The NPS for Ports (DfT, January 2012); and
- The NPS for Airports (DfT, June 2018).

National Economic Policy:

- The Industrial Strategy White Paper (BEIS, November 2017), including consideration of Industrial Strategy Sector Deals
- Clean Growth Strategy (HM Government, October 2017)

National Environmental Policy:

- The 25-Year Environmental Plan: A Green Future: Our 25 Year Plan to Improve the Environment (DEFRA, January 2018);
- Road to Zero Strategy (DfT, July 2018);
- Air Quality Plan (DEFRA, July 2017);
- Clean Air Strategy (DEFRA, January 2019); and
- The Climate Change Act 2008 (as amended in August 2019), which sets a national target of zero net carbon emissions by 2050.

National Social Policy:

- The Housing White Paper (MHCLG, February 2017), including the Housing Infrastructure Fund;
- The Coastal Communities Fund and Coastal Revival Fund; and
- The Inclusive Transport Strategy (DfT, July 2018).

Regional policy context

2.36 Responsibility for developing regional economic and transport policy is currently shared between:

- Highways England, which prioritises investment on the Strategic Road Network in the South East;
- Network Rail, which prioritises investment on the railway network in the South East; and
- Five Local Enterprise Partnerships (Enterprise M3, Coast to Capital, Solent, South East, and Thames Valley Berkshire), which set the strategic economic priorities for their areas.

2.37 It is envisaged that this Transport Strategy will form an important part of the regional policy framework for the South East.

2.38 The key documents published at a regional level include:

Regional Transport Policy:

- Highways England's Route Strategies (Highways England, April 2015);
- Network Rail Passenger Market Studies (Network Rail, various dates);
- Network Rail Freight Market Study (Network Rail, April 2017); and
- Network Rail Local Studies (Network Rail, various dates).

Regional Economic Policy:

- Strategic Economic Plans (Local Enterprise Partnerships, 2014); and
- Local Industrial Strategies (Local Enterprise Partnerships, under development).

Local Policy Context

2.39 Local Transport Policy is developed and delivered by the 16 Local Transport Authorities in the Transport for the South East area. Some of these authorities are Unitary Authorities, and, as such, are also Local Planning Authorities. In areas governed by County Councils, Local Plans are developed by 46 borough and district councils[20] which are Local Planning Authorities in their areas. The Local Plans developed by these planning authorities provide much of the development evidence base that has underpinned the development of the Transport Strategy.

2.40 The key documents published at a local level include:

- Local Transport Plans; and
- Local Plans.

[20] Borough and district councils also include two city councils (Canterbury and Winchester).

The South East's transport networks

[21] Transport for the South East / Steer "Scenario Forecasting Technical Report" (October 2019).

[22] Ibid.

[23] Rail passenger numbers and crowding on weekdays in major cities in England and Wales: 2017 (Department for Transport, 2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728526/rail-passengers-crowding-2017.pdf (Page 10) Termini included are London Bridge, London Victoria and London Waterloo. Accessed August 2019

[24] Transport for the South East / Steer "Scenario Forecasting Technical Report" (October 2019).

Key transport patterns

2.41 In 2018 it is estimated that there were 20.9 million trips each weekday in the South East. It is estimated that 80% of these trips started and finished within the South East area. The remaining trips start from or finish outside the South East (10% involve London and 10% involve other parts of the country).[21]

2.42 The split of trips by mode is estimated as follows:

- 70% of trips are by car (driver and passenger);
- 21% of trips are by foot or cycle;
- 5% of trips are by bus or taxi; and
- 4% of trips are by rail.

2.43 As walking and cycling trips tend to be much shorter than rail trips, the mode share by passenger kilometres is higher for rail and lower for foot and cycle.[21]

2.44 As **Figure 2.12** shows, current transport demand represents significant challenges for the transport network. Significant parts of the highway network experience severe congestion during peak hours, while 1 in 5 passengers travelling to London from the South East (and South London) are standing on arrival at termini stations (nearly 3 in 10 at Waterloo).[23]

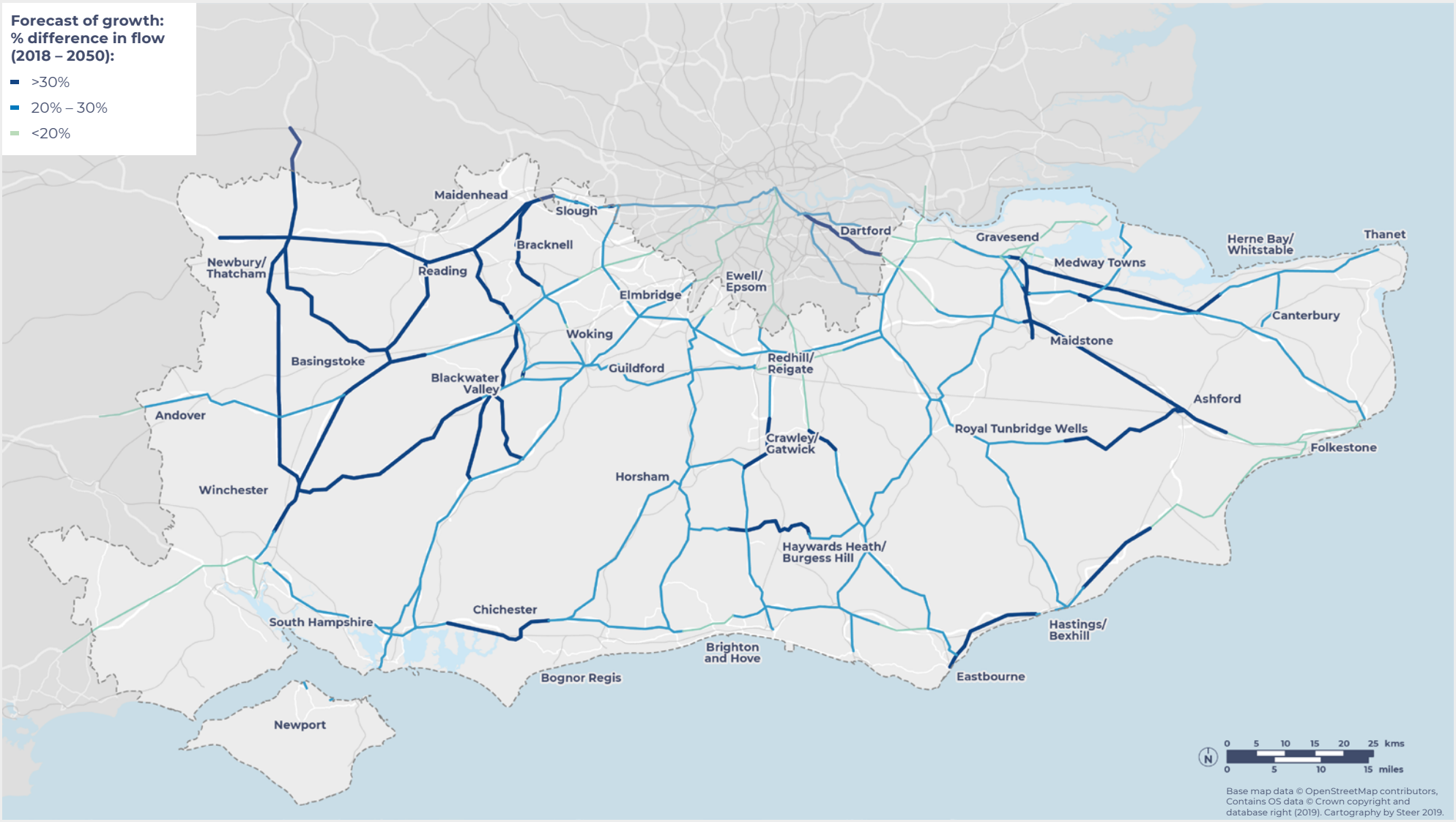
Future transport patterns

2.45 The Department for Transport's National Trip End Model forecasts that the number of weekday trips taking place in the South East will grow by approximately 15% to 24.0 million trips by 2050.[24] This is driven by a growing population (which is forecast to reach approximately 8.4 million by the same date) and growing productivity and wealth.

2.46 This growth in the number of trips represents an 'unconstrained' outcome and is neither realistic nor sustainable. As **Figure 2.13** shows, this growth would add pressure on some of the busiest corridors in the South East area and exacerbate congestion across the whole of the South East. These outcomes risk limiting the development and economic potential of the South East area. The Transport Strategy therefore focuses on alternative, more sustainable approaches to transport planning as a means of accommodating and, in the long-term, managing future demand. This is why a Scenario based approach has been adopted in designing this Transport Strategy.

Figure 2.12 Current congestion challenges in the South East area

Figure 2.13 Forecast growth in road traffic in the South East area (based on DfT forecasts up to 2050)



Key corridors

2.47 The South East is served by a relatively dense network of highways and railways. It is also home to some of the largest international gateways in the United Kingdom. This Transport Strategy is designed to focus on multi-modal strategic transport corridors, as shown in Figure 2.2.

2.48 The strategic corridors, which are grouped into five areas, are :

South East Radial Corridors

- M2/A2/Chatham Main Line (Dartford – Dover);
- A28/A299/Chatham Main Line (Faversham – Ramsgate);
- M20/A20/High Speed 1/South Eastern Main Line (Dover – Sidcup);
- A21/Hastings Line (Hastings – Sevenoaks);

South Central Radial Corridors

- A22/A264/Oxted Line (Crawley – Eastbourne);
- M23/A23/Brighton Main Line (Brighton – Coulsdon);
- A24/A264/A29/Arun Valley Line (Crawley – Fontwell);

South West Radial Corridors

- A3/A27/M275/Portsmouth Direct Line (Portsmouth – Surbiton);
- M3/M27/M271/A33/A326/South Western Main Line (Southampton – Sunbury);
- A33/Basingstoke – Reading Line (Basingstoke – Reading);
- A34/South Western Main Line/ Basingstoke – Reading Line (Reading – Winchester);
- A36/Wessex Main Line (New Forest);
- A303/West of England Main Line (Andover – Basingstoke);
- M4/Great Western Main Line/Reading – Taunton Line (Newbury – Slough);

Inner Orbital Corridors

- M25 (Dartford – Slough);
- A228/A249/A278/A289/Chatham Main Line/Sheerness Line (Medway Ports);
- A228/A229/Medway Valley Line (Maidstone – Medway Towns);
- Redhill – Tonbridge Line/South Eastern Main Line (Ashford – Redhill)
- A25/North Downs Line (Guildford – Redhill);
- A31/A322/A329/A331/North Downs Line (Reading – Redhill);

Outer Orbital Corridors

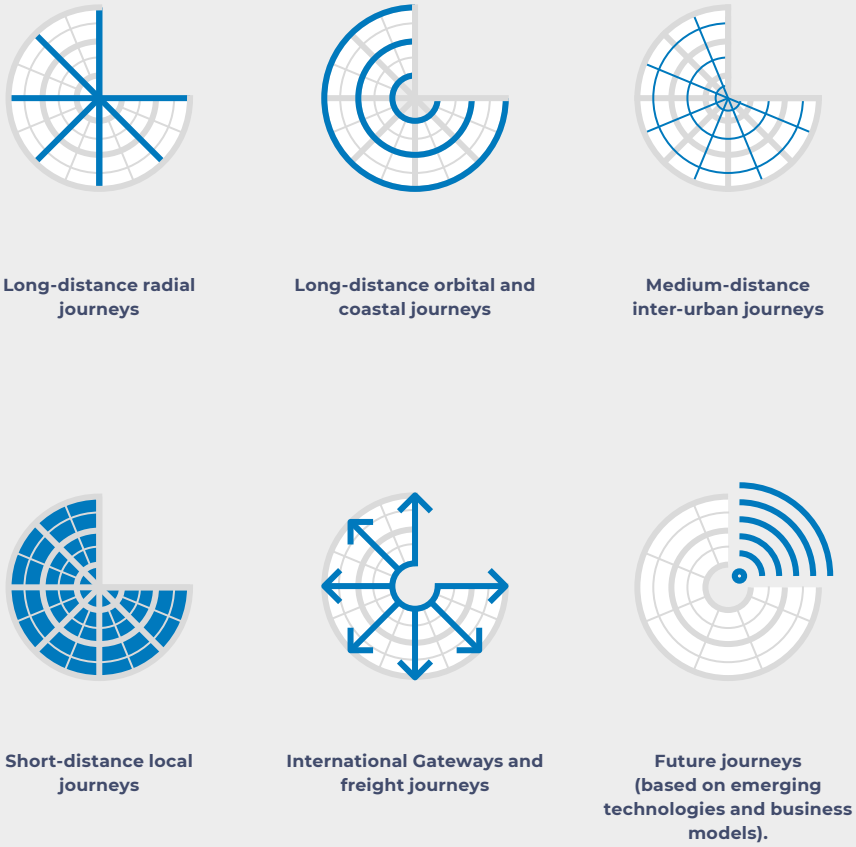
- A28/A290/A291 (Canterbury – Whitstable);
- A27/A259/A2070/East Coastway Line/ Marshlink Line (Ashford – Brighton); and
- M27/A27/A31/West Coastway Line/East Coastway Line (Brighton – Ringwood).

2.49 Alongside these corridors there is an important network of local roads (notably the Major Road Network, which is shown alongside the Strategic Road Network in Figure 2.14), that support inter-urban and local journeys. Each corridor and transport mode have diverse challenges and opportunities. This Transport Strategy does not seek to prescribe a solution to each individual corridor. However, it does examine thematic Journey Types, which are described in more detail in Section 3.

2.50 These Journey Types, which are shown in **Figure 2.15**, are illustrated right.

2.51 The remainder of this section describes the current configuration of the South East area's transport network and the challenges it faces. This is structured along the lines of transport mode.

Figure 2.15: The six journey types



Long-distance radial journeys

Long-distance orbital and coastal journeys

Medium-distance inter-urban journeys

Short-distance local journeys

International Gateways and freight journeys

Future journeys (based on emerging technologies and business models).

Highways

2.52 The South East is served by a mostly radial Strategic Road Network – managed by Highways England – that radiates from the M25 London Orbital motorway towards the coastline and West of England. These radial routes are complemented by two main orbital routes (the M25 and M27/A27). The A27, in particular, is built to a much lower specification than the M25 and most radial routes in the South East.

2.53 The Strategic Road Network is complemented by a Major Road Network, which is managed by the South East area's Local Transport Authorities. This network serves a wide range of journey types – from first/last mile to relatively long-distance trips. A map of the Strategic and Major Road Networks is provided in **Figure 2.14**.

2.54 The South East's radial Strategic Road Network generally provides an adequate level of connectivity (with a possible exception on the A21 corridor) but regularly suffers from congestion. As **Figure 2.12** shows, congestion is particularly acute on the M25 and routes close to London. There is limited scope to expand capacity on these corridors, which suggests a future Transport Strategy will need to consider a broader range of interventions – potentially including demand management policies – to accommodate future growth on these corridors.

2.55 The South East's orbital Strategic Road Network is much sparser than its radial routes, particularly between the M20 and A3 corridors. This places significant pressure on the parts of the M25 and A27 corridors that lie to the north and south of Gatwick Airport. The Major Road Network therefore supports a significant portion of inter-urban traffic on the South East area's east – west corridors. There are hotspots of congestion and poor reliability across these orbital corridors.

2.56 The highway network serves a very large portion of local journeys in the South East. These range from urban corridors that connect residents to economic hubs such as Brighton City Centre, through to rural roads that connect more remote communities to the wider economy and transport network. Each route faces unique challenges related to capacity, connectivity and reliability. There are opportunities for many of these routes, particularly those serving urban areas, to look again at the balance of road space provided to private cars, public transport, and active transport modes.

2.57 The highway network will be a key enabler for future mobility technologies such as ride sharing, connected and autonomous vehicles, and demand management systems. The Transport Strategy will need to balance the opportunities these technological advancements present with the social and environmental needs of the South East area and ensure that the benefits of new technology are shared equitably between prosperous and more deprived parts of the South East area, as well as between urban and more rural areas.

Figure 2.14 The Strategic Road Network and Major Road Network in the South East area

Railways

2.58 The South East has one of the densest railway networks in the United Kingdom outside London. In the main it provides good connectivity to Central London through relatively fast and regular radial routes, although some corridors (e.g. Hastings Line) do not perform as well as others. As with the highway network, orbital corridors are less well served by the railway network. A map of the railway network is shown in **Figure 2.16**.

2.59 The network was developed relatively early in the technological development of the railways. This means many routes were developed at a time when the economic geography of the South East area was different to how it is configured today. It also means many routes were developed to standards that fall short of modern expectations. Some cross-regional routes were closed when the railway network was rationalised in the 1960s.

2.60 The South East is home to the United Kingdom's first and (currently) only interoperable high-speed railway (as defined under EU regulations) – High Speed 1. This railway provides both domestic and international high-speed services that can theoretically operate at a maximum speed of 300kmph (186mph). Domestic high-speed services currently serve a significant number of communities in Kent. There is potential to expand these services further, potentially into East Sussex, in the longer term.

2.61 Most of the railway network is electrified using third rail traction. This offers many benefits, not least to the environment as electric railways typically generate lower carbon emissions and lower localised air pollution than diesel railways. However, it presents a barrier in other ways. There are gaps in the electrified network that prevent through running of electric train services on east – west routes. The third rail generally delivers lower acceleration and maximum speeds compared to Overhead Line Equipment. The third rail also presents a barrier to expansion, as safety regulations potentially limit the extent this technology can be used to 'in-fill' gaps in electrification on the current railway network. The Great Western Main Line has been recently upgraded to Overhead Line Equipment, which, along with new rolling stock on this route, has enabled a decrease in emissions and improvements in air quality and noise impacts on this corridor.

2.62 The most pressing challenge for the rail network in future years relates to capacity, especially on radial routes into London. More capacity is needed on most radial railway corridors in the South East area (some more so than others). Capacity can be delivered through investing in rolling stock, track, junctions, signalling, and platforms (particularly at London termini). All of these would require significant investment and long-term planning to deliver.

2.63 The Government has announced a review that will consider forms to the current governance of passenger rail services in Great Britain. Transport for the South East has participated in this review and looks forward to its outcomes, which may include greater involvement in the future planning for the development of the rail network in the South East.

Figure 2.16 The passenger railway network in the South East area

International gateways

2.64 The South East is the gateway to Mainland Europe. As such, it has some of the largest ports in the country, including:

The **Port of Southampton**, which is operated by Associated British Ports and handles the highest tonnage of freight in the South East. In 2018 around 34.5 million tonnes passed through this port[25]. Liquid bulk accounted for more than half of freight handled by this port in 2018[26]. Southampton also served 1.6 million cruise passengers in 2017.[27]

Portsmouth International Port, which is managed by Portsmouth City Council. In 2018 this port handled 3.4 million tonnes of freight[25] (three-quarters by Ro-Ro[26]) and 1.8 million passengers[29]. The Port also acts as an important military base for the Royal Navy.

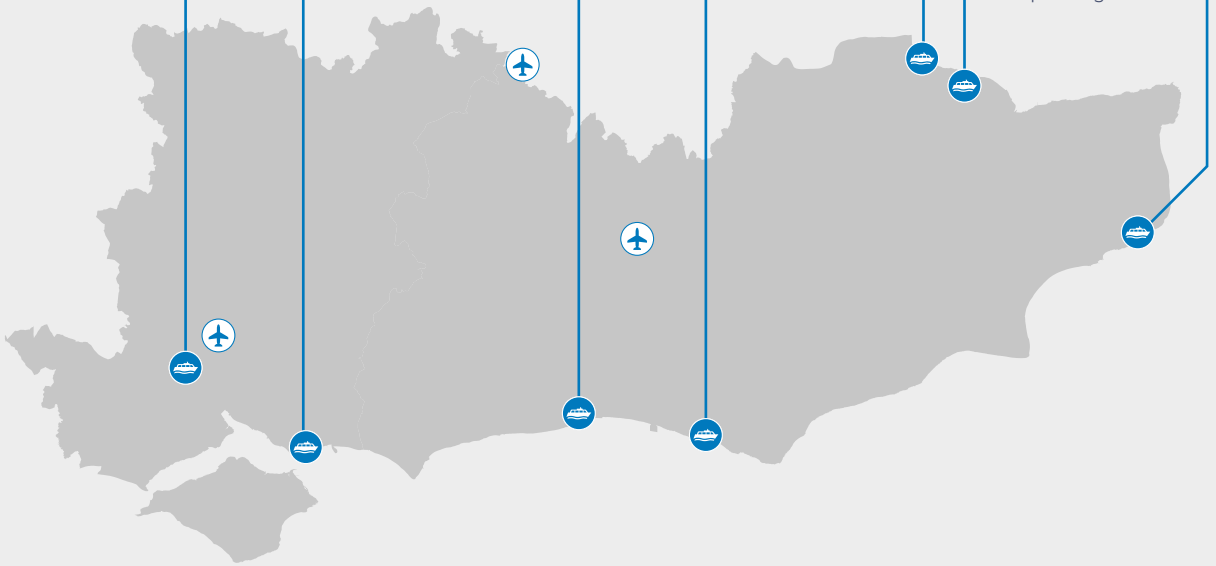
The **Port of Shoreham**, which is managed by the Shoreham Port Authority and, in 2018, handled 2.1 million tonnes of (mostly aggregate)[25], almost all by dry bulk.

The **Port of Newhaven**, which is operated by Newhaven Port and Properties Limited. In 2018, this port carried 0.7 million tonnes of freight[25] and 0.4 million passengers.[27]

London Thamesport, which is operated by the Hutchison Ports Group. This port has one of the UK's first automated container terminals. In 2017, this port carried approximately 4 million tonnes of freight[28]. This port does not serve passengers.

The **Medway Ports**. These include Sheerness Port, which is located on the eastern side of the Medway Estuary, and Chatham Port, which is located on the southern side. These ports are managed by Peel Ports. In 2018, 10.2 million tonnes26 passed through this port, mostly by dry and liquid bulk[25]. This port does not serve passengers.

The **Port of Dover**, which is managed by the Dover Harbour Board and is the largest Roll-on-Roll-off (Ro-Ro) port in the world. In 2018, 24.9 million tonnes[25] passed through this port, almost all by Ro-Ro[26]. 11.8 million passengers used the Port of Dover in 2018[27].



[25] Department for Transport, "UK Major Port Freight Traffic (Table PORT0301)", https://www.gov.uk/government/statistical-data-sets/port-and-domestic-waterborne-freight-statistics-port, accessed August 2019.

[26] Department for Transport, "UK Port Freight Statistics" (2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/826446/port-freight-statistics-2018.pdf, accessed September 2019.

[27] Department for Transport, "Sea Passenger Statistics (Table SPAS0101)" (2018), https://www.gov.uk/government/collections/maritime-and-shipping-statistics, accessed September 2019.

[28] Thamesport "UK Ports statistics" (2019), http://uk-ports.org/thamesport/, accessed August 2019.

[29] Department for Transport "Channel Tunnel: traffic to and from Europe, annual from 1994 (Table TSGB0607)", (2018), accessed September 2019

[30] Civil Aviation Authority "Airport Data (Table 01 – Size of UK Airports)" (2018) https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/Airport-data-2018/, accessed September 2019.

[31] Gatwick Airport, "Gatwick Airport Masterplan" (2019) https://www.gatwickairport.com/globalassets/business--community/growing-gatwick/master-plan-2019/gatwick-master-plan-2019.pdf, accessed August 2019.

[32] Source: Southampton Airport Statistics (Southampton Airport, 2018) https://www.southamptonairport.com/about-us/facts-figures/, accessed August 2019.

[33] AIN Online "Farnborough Airport Sets Traffic Record in 2018", https://www.ainonline.com/aviation-news/business-aviation/2019-01-19/farnborough-airport-sets-traffic-record-2018, accessed September 2019.

2.65 The South East is the home of the country's only rail link to the continent – the Channel Tunnel. This key international gateway can be accessed by road at the **Eurotunnel Folkestone Terminal** and by accessing international passenger rail services at Ashford International, Ebbsfleet International, and St Pancras International railway stations (the latter being in London). This international gateway is technically a land border between the United Kingdom and France. In 2017, the Channel Tunnel carried 20.7 million passengers, 4.2 million vehicles, and 1.2 million freight tonnes (by through train)[34].

2.66 The South East is home to some of the busiest airports in the country. These include:

Southampton Airport, which carried just under 2 million passengers in 2018 and serves over 40 destinations[32].

Farnborough Airport, which is one of the largest General Aviation airports in the country, with reportedly over 30,000 air traffic movements in 2018[33].

London Heathrow Airport, which is the second busiest international airport in the world, with over 80 million passengers in 2018[30]. This airport lies on the border of Greater London and the South East. It is set to grow significantly as a third runway is developed to the north west of the current site. This airport will therefore continue to have a significant impact on the economy of the South East.

Gatwick Airport, which is the second busiest airport in the country and the busiest single-runway airport in the world, with over 46 million passengers in 2018[30]. This airport supports a cluster of businesses in the "Gatwick Diamond". It serves as a particularly important gateway to continental Europe. The airport has recently published a Masterplan, which seeks to use its emergency runway to increase the number of flights[31].

*Other airports, including Biggin Hill and Shoreham Airports, which also serve the general aviation market.

2.67 The South East's highways and railways provide important connectivity to these international gateways, not just for residents and businesses in the South East, but also for London and the rest of the United Kingdom (and, indeed, Ireland). At times, the South East area's highways network can be adversely affected by border and transport operations on both sides of the English Channel.

2.68 It is therefore critically important that Transport for the South East ensures the South East's transport network continues to serve these gateways as best as possible and facilitate trade and tourism. This is particularly important as the country moves to new trading relationships with the European Union.

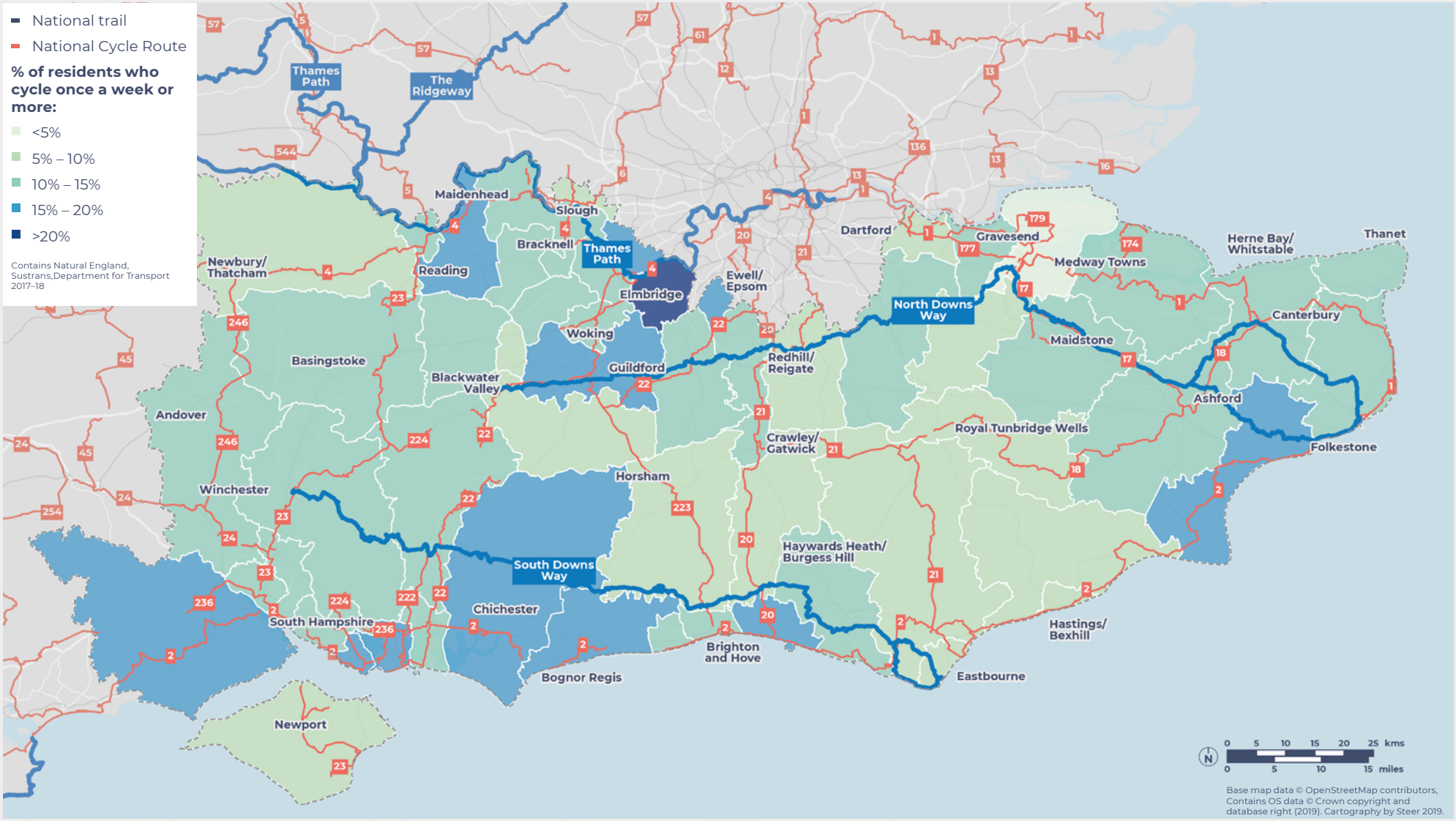
Walking and Cycling

2.69 The South East is a popular location for leisure walking and cycling. It is home to several nationally important long-distance footpaths and many National Cycle Network routes, which are shown in **Figure 2.17**. Its cycle network also includes the London – Paris "Avenue Verte" international cycle route.

2.70 It is estimated that more than a fifth of journeys in the South East area are currently undertaken by walking and cycling. Most urban areas in the South East are well served by footpaths and (increasingly) cycleways that are designed to support these journeys. However, as **Figure 2.17** shows, the proportion of people cycling by local authority district varies significantly across the South East area. In general, cycling rates are higher in Brighton and Hove, West Sussex and Surrey (particularly Elmbridge) and lower in East Sussex, the Isle of Wight, western parts of Kent, and Medway. Walking rates are generally more consistent across the South East area.

2.71 In general, many of the long distance footpath and cycle routes in the South East appear to be better suited to supporting leisure journeys (e.g. longer coastal routes) rather than connecting large population centres together. There are some notable gaps in the National Cycle Network (e.g. West Kent and Thanet) and the quality of cycle routes varies enormously across the network. While some sections are well surfaced and clearly lit, many other sections are unsuitable for night-time journeys and/or would be hazardous to use in poor weather. Furthermore, some Major Economic Hubs are not served by the National Cycle Network at all (for example, the Blackwater Valley). This suggests there is scope to further expand walking and cycling infrastructure to encourage more sustainable forms of transport, particularly within and between the larger urban areas in the South East.

Figure 2.17 The walking and cycling network in the South East area



Integration

2.72 The South East's transport network and transport planning framework faces several integration challenges. These challenges are driven by the current lack of integration between road and rail investment programmes, the fragmentation of public transport provision, and limitations that competition law place on the ability for independent operators to collaborate. In some places, particularly historic centres, there are also physical constraints preventing the creation of high-quality integrated public transport hubs. The consequences of these barriers mean:

- There are difficulties in providing multimodal interchanges that support housing and employment development;
- it is difficult for transport operators to provide multi-modal/multi-operator tickets for passengers travelling across operational boundaries and different modes;
- it is difficult for transport operators to co-ordinate timetables and share information to provide a consistent travel experience for passengers; and
- there are several examples where bus hubs are located some distance from rail hubs, which undermines the quality of interchange between different public transport modes.

2.73 The South East's planning framework is also relatively complex and fragmented. Most of the South East area is governed through two-tier structures where transport planning responsibilities are delivered through County Councils and spatial planning responsibilities are exercised by borough and district councils[34]. The five Local Enterprise Partnerships are also responsible for promoting economic development. This fragmented arrangement presents a significant barrier to developing coherent, integrated, long-term plans in the South East. Looking further ahead, there may be opportunities for better alignment of transport planning with the energy and digital sectors. This Transport Strategy seeks to set out the benefits of better integrated economic, spatial and transport planning for the South East.

[34] There are also 11 Unitary Authorities in the South East, which are single-tier authorities that are responsible for both transport and spatial planning in their areas.

Conclusions

In this section we have highlighted the key characteristics of the South East area and described some of the challenges it currently faces. This has provided a compelling case for the need for this Transport Strategy and long-term investment plan for the area. In the following section we set out our vision, goals and priorities for the South East and describe the five key principles we have adopted to develop this Transport Strategy.


cinema
tickets

Chapter 3

Our Vision, Goals and Priorities

Introduction

Introduction

3.1 This section describes the outcomes that Transport for the South East and its partners and stakeholders wish to realise by 2050. It is structured as follows;

- First, it sets a Vision Statement for the South East in 2050. This vision, which has been developed by Transport for the South East in partnership with constituent authorities and key stakeholders, articulates a 'Preferred Future' for the South East area.
- Second, it outlines three Strategic Goals for the South East area. These align with the three pillars of Sustainable Development: economic, social and environmental.
- Third, it describes fifteen Strategic Priorities that will help the South East area to achieve the Strategic Goals.

3.2 The relationship between the vision, the strategic goals, and the strategic priorities is shown in **Figure 3.1**. The next part of this section describes each of these in more detail.

Strategic Vision, Goals and Priorities

Vision Statement

3.3 The vision statement, which sets out the overall direction of the Transport Strategy, forms the basis of the goals and priorities that underpin it. These goals and priorities help to translate the vision into more targeted and tangible actions.

3.4 Transport for the South East's 2050 vision for the South East area is:

By 2050, the South East of England will be a leading global region for net-zero carbon, sustainable economic growth where integrated transport, digital and energy networks have delivered a step-change in connectivity and environmental quality.

A high-quality, reliable, safe and accessible transport network will offer seamless door-to-door journeys enabling our businesses to compete and trade more effectively in the global marketplace and giving our residents and visitors the highest quality of life.

Figure 3.1 Transport for the South East's Vision, Strategic Goals and Strategic Priorities

Strategic Vision

By 2050, the South East of England will be a leading global region for net-zero carbon, sustainable economic growth where integrated transport, digital and energy networks have delivered a step-change in connectivity and environmental quality.

A high-quality, reliable, safe and accessible transport network will offer seamless door-to-door journeys enabling our businesses to compete and trade more effectively in the global marketplace and giving our residents and visitors the highest quality of life.

Strategic Goals

Economic

Improve productivity and attract investment to grow our economy and better compete in the global marketplace.

Social

Improve health, safety, wellbeing, quality of life, and access to opportunities for everyone.

Environmental

Protect and enhance the South East's unique natural and historic environment.

Strategic Priorities

- Better **connectivity** between our major economic hubs, international gateways (ports, airports and rail terminals) and their markets.
- More **reliable** journeys for people and goods travelling between the South East's major economic hubs and to and from international gateways .
- A transport network that is more **resilient** to incidents, extreme weather and the impacts of a changing climate.
- A new **approach to planning** that helps our partners across the South East meet future housing, employment and regeneration needs sustainably.
- A 'smart' transport network that uses digital technology to **manage transport demand**, encourage shared transport and make more efficient use of our roads and railways.

- A network that promotes active travel and active lifestyles to improve our **health and wellbeing**.
- **Improved air quality** supported by initiatives to reduce congestion and encourage further shifts to public transport.
- An **affordable, accessible transport network** for all that promotes social inclusion and reduces barriers to employment, learning, social, leisure, physical and cultural activity.
- A **seamless, integrated transport network** with passengers at its heart, making journey planning, paying for, using and interchanging between different forms of transport simpler and easier.
- A **safely planned, delivered and operated transport network** with no fatalities or serious injuries among transport users, workforce or the wider public.

- A **reduction in carbon emissions** to net zero by 2050 and minimise the contribution of transport and travel to climate change.
- A **reduction in the need to travel**, particularly by private car, to reduce the impact of transport on people and the environment.
- A transport network that **protects and enhances our natural, built and historic environments.**
- Use of the principle of **'biodiversity net gain'** in all transport initiatives.
- **Minimisation of transport's consumption** of resources and energy.

Strategic Goals

3.5 The vision statement is underpinned by three strategic goals, which align to the three pillars of sustainable development and are shown in **Figure 3.2**:

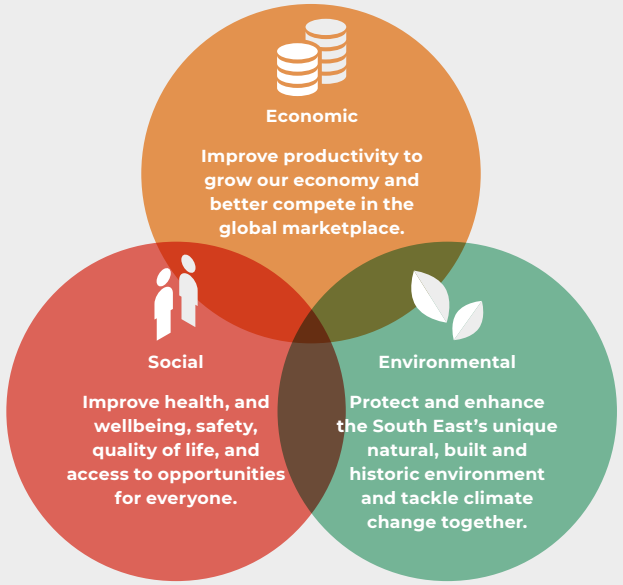
- Economic: Improve productivity and attract investment to grow our economy and better compete in the global marketplace;
- Social: Improve health, safety, wellbeing, quality of life, and access to opportunities for everyone; and
- Environmental: Protect and enhance the South East's unique natural and historic environment.

3.6 The three pillars of sustainable development should be viewed in the context of the South East's existing characteristics set out in Section 2:

- The area is perhaps best known for its strong economic foundations. This is the most easily quantifiable of these goals to measure. However, future economic growth must not come at the expense of the natural environment.
- Despite this prosperity, the South East area faces many social challenges. It is home to some of the most deprived areas of the country, particularly in coastal regions. Addressing this issue will be challenging, but possible if future development is carefully managed. The South East area also suffers from unsustainably high house prices in many areas, which limits access to high-quality, affordable homes. Ultimately, addressing these will lead to a higher quality of life for all residents of the South East area.
- The South East area has many rich environmental assets. The South East is home to two National Parks, seven Areas of Outstanding Natural Beauty, an environmentally sensitive coastline, and multiple historic monuments and conservation areas. Any intervention in the South East area's transport networks must ensure this environment is protected and, where possible, enhanced.

3.7 In some cases, these goals are mutually supportive. For example, improving the environment through focussing on air quality will also have the social benefit of improving health outcomes for residents. In other instances, however, these goals are often in conflict. For example, unconstrained economic growth has the potential to harm the environment by allowing growth in emissions and the degradation of environmentally sensitive areas.

Figure 3.2 Strategic Goals



Strategic Priorities

3.8 Beneath each of the strategic goals lies a set of fifteen strategic priorities. These priorities narrow the scope of the goals to mechanisms and outcomes that will be most important to effectively deliver its vision. They are designed to be narrow enough to give clear direction but also broad enough to meet multiple goals.

3.9 The Strategic priorities are as follows:

Economic Strategic priorities:

- Better connectivity between our major economic hubs, international gateways (ports, airports and rail terminals) and their markets.
- More reliable journeys for people and goods travelling between the South East's major economic hubs and to and from international gateways.
- A more resilient transport network to incidents, extreme weather and the impacts of a changing climate.
- More integrated land use and transport planning that helps our partners across the South East meet future housing, employment and regeneration needs sustainably.
- A 'smart' transport network that uses digital technology to manage transport demand, encourage shared transport and make more efficient use of our roads and railways.

Social Strategic priorities:

- A network that promotes active travel and active lifestyles to improve our health and wellbeing.
- Improved air quality supported by initiatives to reduce congestion and encourage further shifts to public transport.
- An affordable, accessible transport network for all that promotes social inclusion and reduces barriers to employment, learning, social, leisure, physical and cultural activity.
- A seamless, integrated transport network with passengers at its heart, making journey planning, paying for, using and interchanging between different forms of transport simpler and easier.
- A safely planned, delivered and operated transport network with no fatalities or serious injuries among transport users, workforce or the wider public.

Environmental Strategic priorities:

- A reduction in carbon emissions to net zero by 2050 to minimise the contribution of transport and travel to climate change.
- A reduction in the need to travel, particularly by private car, to reduce the impact of transport on people and the environment.
- A transport network that protects and enhances our natural, built and historic environments.
- Use of the principle of 'biodiversity net gain' in all transport initiatives.
- Minimisation of transport's consumption of resources and energy.

3.10 **Figure 3.1** shows each of the strategic priorities grouped beneath the strategic goals. This is a useful organising principle and makes it easier to understand broadly where these priorities are focussed. That said, the reality is that many of the strategic priorities address several of the goals. For example, the strategic priority to build "a network that promotes active travel and active lifestyles to improve our health and wellbeing" clearly supports the social goal through improved healthcare outcomes and will also help to achieve the environmental goal by encouraging people to walk and cycle.

Applying the Vision, Goals and Priorities

Achieving key outcomes

3.11 The Vision Statement, Strategic Goals and Strategic Priorities outlined above describe the outcomes that Transport for the South East and its partners and stakeholders wish to realise by 2050. The remaining part of this Transport Strategy sets out how these outcomes will be delivered.

3.12 As described in Section 2 (paragraph 2.50), Transport for the South East has identified six thematic journey types, which are shown in **Figure 2.15**.

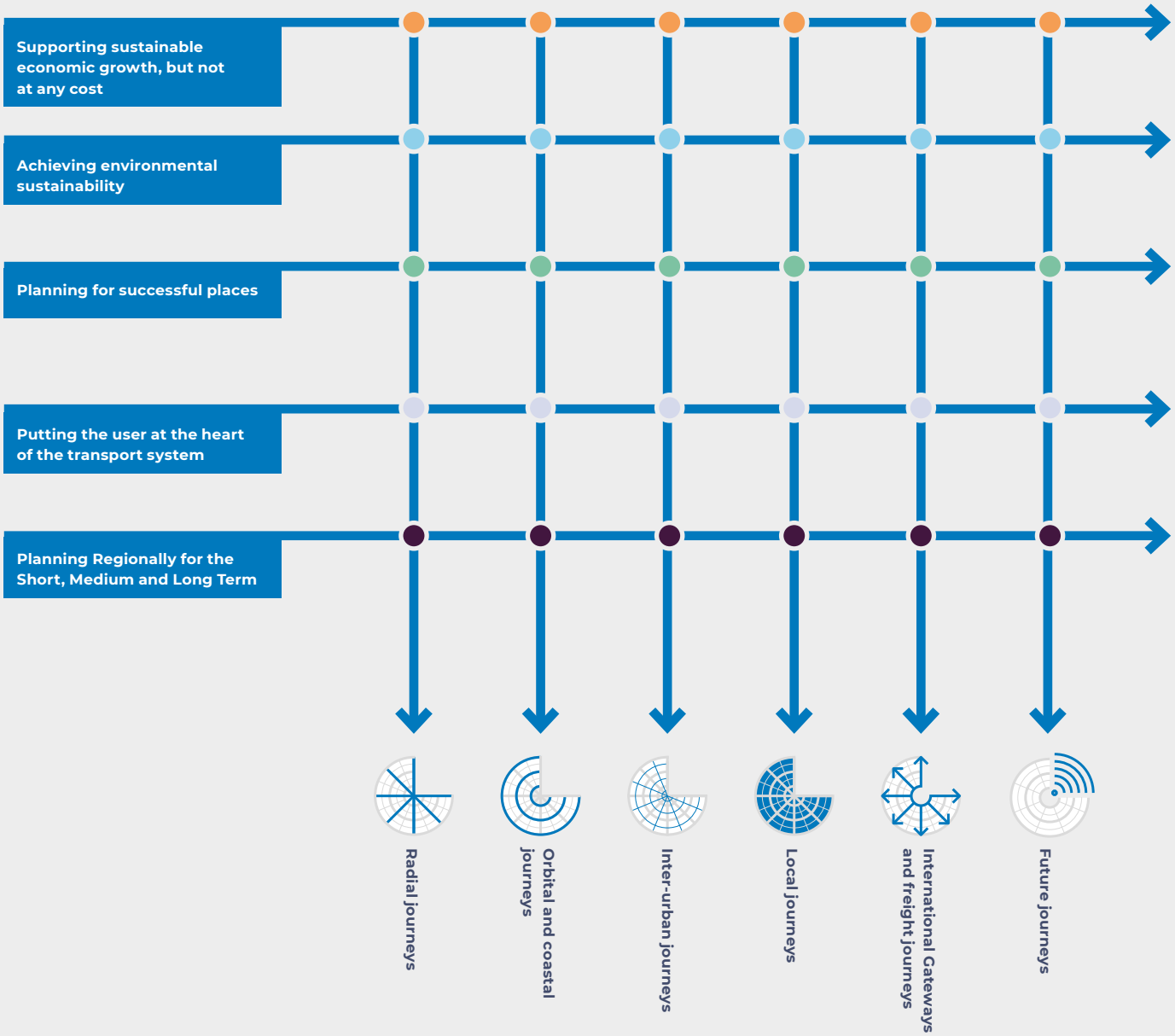
3.13 Transport for the South East has developed a framework that applies a set of principles to identify strategic issues and opportunities for each journey type in the South East.

3.14 The key principles that have applied in this process are as follows:

- supporting sustainable economic growth, but not at any cost;
- achieving environmental sustainability;
- planning for successful places;
- putting the user at the heart of the transport system; and
- planning regionally for the short, medium and long term.

3.15 Each principle is described in detail in the next part of this section. The relationship between these principles and the journey types is shown in **Figure 3.3**.

Figure 3.3 Five principles and six journey types



Supporting sustainable economic growth, but not at any cost

3.16 Economic growth, if properly managed, can significantly improve quality of life and wellbeing. Stronger economic growth means more jobs, wider prosperity, better opportunities and services, and a higher quality of life for residents. It delivers much needed additional housing and employment opportunities and helps improve the productivity and well-being of the South East. Much of this new housing and employment development is directly dependent on the delivery of adequate transport networks and services. This is why an integrated approach to spatial and transport planning is essential to achieve sustainable economic growth.

3.17 However, without careful management, unconstrainted economic growth can have damaging consequences or side-effects. For example, increases in trade flows can lead to a rise in traffic congestion and associated emissions of greenhouse gasses and a decrease in local air quality, with significant adverse impacts on climate change and human health.

3.18 This Transport Strategy strongly supports sustainable economic growth which seeks to achieve a balance with social and environmental outcomes. This means economic growth must be viewed as a means to improving the long-term quality of life for residents of the South East, rather than an end in itself. There are areas of the Transport Strategy that focus explicitly on encouraging economic growth. However, where it does so, it also considers the potential social and environmental consequences this may bring. Ultimately this reflects the overall vision of this document, and the strategic goals which lie beneath it.

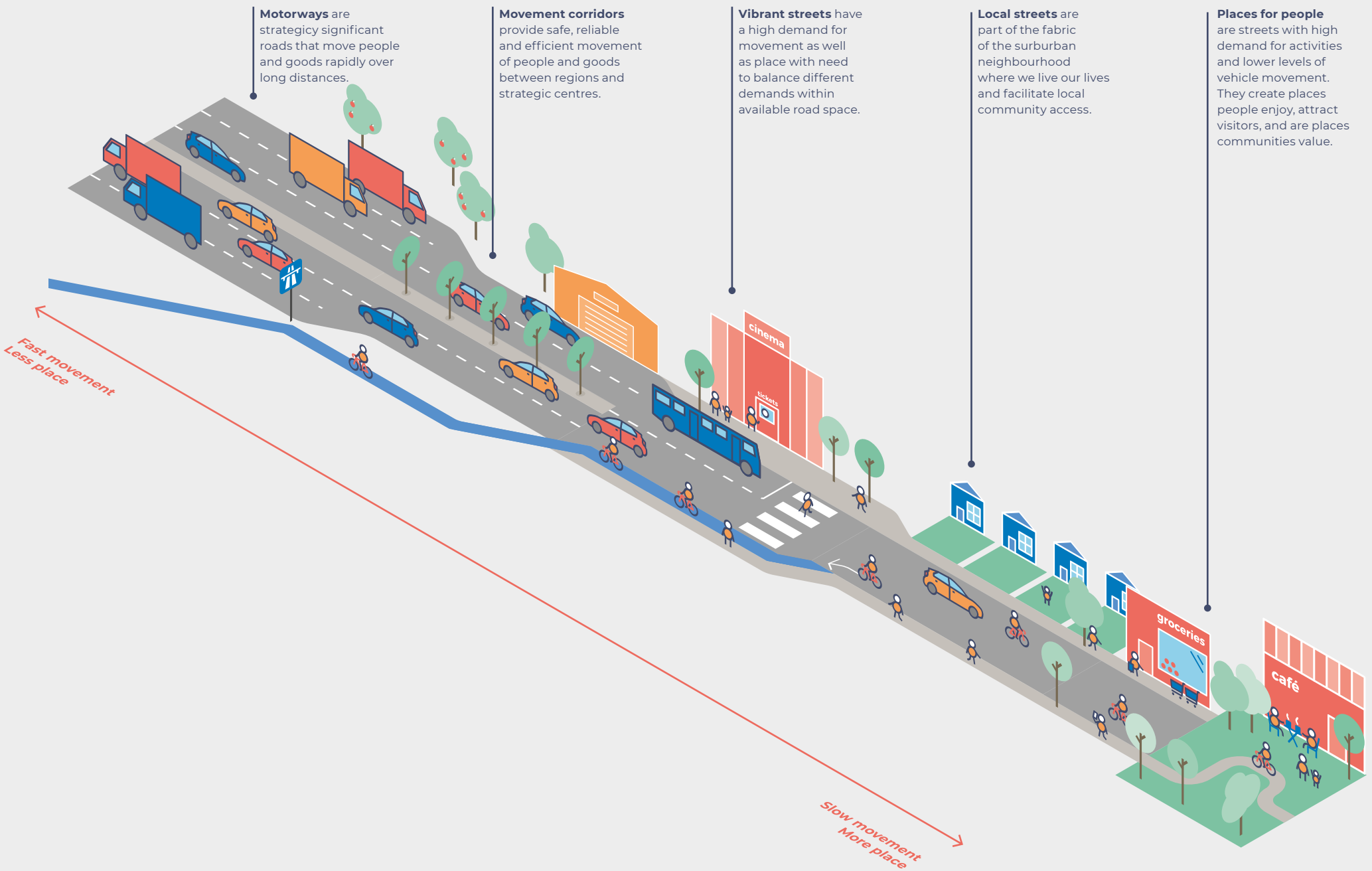
Achieving environmental sustainability

3.19 Transport for the South East strongly believes the South East must reach a point where future economic growth is decoupled from damaging environmental consequences. This will be challenging, but against a background of global climate change and worsening local environmental quality (as evidenced, for instance, by Air Quality Management Areas within the South East), this goal is nonetheless critical.

3.20 There are several clear and practical ramifications of this approach. For example, spatial planning and transport planning must become more closely integrated, ensuring that future development occurs in locations close to jobs and opportunities. This approach ensures that people are able to travel shorter distances to reach economic opportunities, which helps lower the environmental impacts of doing so. Where people still need to travel longer distances, better provision of sustainable transport options should be provided to encourage less dependency on the private car. Better integration of different transport modes (for example, through initiatives such as 'Park and Ride') will help people easily make multi-modal journeys and access economic hubs, such as city centres, without needing to rely on the private car.

3.21 All these approaches will help ensure that the Transport Strategy provides a transport network that is more sustainable but does not limit future economic growth.

Figure 3.4 The Movement and Place Framework



Planning for successful places

3.22 This Transport Strategy envisages a South East where villages, towns and cities thrive as successful places, where people can live and work with the highest quality of life. Transport networks that simply aim to provide the most efficient means of moving along a corridor have the potential to have a wide range of damaging consequences, particularly socially and environmentally. The transport network therefore has competing, dual priorities. On the one hand it must ensure that people can efficiently and easily move from one place to another. On the other hand, however, it must also ensure that 'places' are protected and even enhanced.

3.23 The best way to ensure that this occurs is to develop a transport network that considers both 'place' and 'link' functions. Some parts of the transport network are designed to fulfil 'link' roles while other parts contribute more to a sense of 'place'. A diagram illustrating the difference between these functions is provided in **Figure 3.4**.

3.24 Areas with high 'place' functions are areas such as town and city centres where 'active' modes, such as walking and cycling, should be prioritised over faster modes of transport. This will help to preserve the environmental quality of these places, ultimately ensuring that they fulfil their role as the focus of their communities.

3.25 By contrast, sections of the transport network with a high 'link' function must allow journeys to move as efficiently as possible down them. Motorways are the best example of this function, as these roads enable high volumes of traffic to move through corridors as quickly as possible while minimising contact with vulnerable users such as pedestrians and cyclists.

3.26 In an ideal transport network, high speed and low speed components of the network should be clearly segregated from each other. For example, it is more appropriate for long distance rail services to use high speed railways (such as High Speed 1) while stopping services should focus on slower corridors. Similarly, pedestrians and cyclists should be kept far away from the Strategic Road Network and other high-volume roads.

3.27 The most optimal transport network is one where traffic flows are aligned to their link function, and where conflicts between user types are minimised to ensure the efficient and safe operation of the transport network.

3.28 Putting the user at the heart of the transport system

3.29 This Transport Strategy envisages a transport network – particularly a public transport and rail network – that places the passenger and freight user at the heart of it. This approach mirrors the philosophy adopted by the Williams Rail Review, which seeks to place the passenger at the heart of the passenger rail industry.

3.30 This approach seeks to understand why people make journeys and why they choose between different modes, routes, and times to travel. It also seeks to understand the whole-journey experience, from origin to destination rather than just a part of the whole journey.

3.31 This principle highlights the need for much better integration between modes. This is not just limited to physical interchanges (which are undoubtedly needed), but also integration in timetables, ticketing and fares, and information sharing. Similarly, there is more that can be done to better integrate highways traffic management and information systems between the Strategic Road Network and other roads in the South East area.

3.32 It is recognised that, in a highly fragmented industry, there are significant barriers to promoting integration. However, one of the roles a Sub-national Transport Body can undertake is to support the development of pan-regional smart-card systems (as is currently being developed by Transport for the North). While this specific initiative may not be the right solution for the South East, it demonstrates the role a regional body such as Transport for the South East can play in fostering better integration between transport geographies and modes. 'Mobility as a Service' is, however, one such option – a model whereby consumers have a 'bundle' of travel or 'mobility' across multiple modes of transport (much like a mobile phone plan with call minutes, messages, and data) or on a 'Pay as you Go' basis.

3.33 Mobility as a Service could incorporate travel by car, as well as public transport and shared mobility options such as bike hire. This has the ability to ensure we only pay for the travel or mobility we 'consume', while also having the potential to better manage demand across the network.

3.34 Pricing mechanism could be used to incentivise travel at less busy times or by more sustainable modes, or there is the potential to charge a premium if you travel at busier 'peak' times (e.g. similar to train travel, flights, and Uber), on more congested routes, by yourself, by more heavily polluting means, with options for road freight.

3.35 Planning Regionally for the Short, Medium and Long Term

3.36 This Transport Strategy seeks to build on the excellent work of Transport for the South East's constituent authorities and other planning authorities in the South East. The Transport Strategy builds on transport plans set out by Local Transport Authorities, Local Plans issued by Local Planning Authorities, and the Strategic Economic Plans and Local Industrial Strategies created by Local Enterprise Partnerships.

3.37 This Transport Strategy adopts a larger scale perspective that looks across the South East area focussing on cross-boundary journeys, corridors, issues and opportunities. As far as possible, it also seeks to align with the ambitions of Greater London Authority and Transport for London, and other neighbouring Sub-national Transport Bodies.

3.38 This Transport Strategy also adopts a multi-modal approach. It views corridors as being served by different types and levels of infrastructure, from the Strategic Road Network to first and last mile, from intercity rail services through to rural bus operations. This Transport Strategy does not differentiate its approach to the future development of infrastructure based on how this infrastructure is currently managed. High Speed 1 and Highways England's infrastructure is seen as important along the M20/A20/ High Speed 1/South Eastern Main Line Corridor as Network Rail and Kent County Council's infrastructure. Transport for the South East views the transport system as a holistic system, while acknowledging key interdependencies and interfaces between different owners and actors.

Conclusions

In this section we have described our vision for the South East as a leading global region for net-zero carbon, sustainable economic growth.
This vision is supported by a set of economic, social, and environment goals and priorities for the South East area, which have also been outlined in this section. We have also described the five key principles that we have drawn upon to develop our Transport Strategy, which are:

- Supporting sustainable economic growth, but not at any cost;
- Achieving environmental sustainability;
- Planning for successful places;
- Putting the user at the heart of the transport system; and
- Planning regionally for the short, medium and long term.

In the following section we focus on the six Journey Types that, together, describe the way people and goods move in the South East. We also highlight the key challenges facing each of these movement types and describe our proposed responses to these challenges.

Chapter 4

Our Strategy

Introduction

Introduction

4.1 This section outlines how Transport for the South East proposes to deliver its vision for the South East in 2050. It will do so by applying the Principles introduced in Section 3 (paragraph 3.14) to the each of the six Journey Types described in Section 2 (paragraph 2.50). This process will help identify key issues and opportunities, which will be explored further in subsequent area studies. A diagram illustrating this approach is shown in **Figure 3.3**.

4.2 The linkages between the Principles and Journey Types have helped identify several key issues and opportunities. For example, applying the 'Planning for Successful Places' Principle to orbital and coastal journeys highlights significant issues relating to the mix of traffic passing through urban areas on the M27/A27 corridor, which is currently contributing to poor local air quality and conflicts between users. Similarly, applying the 'Achieving Environmental Sustainability' Principle to 'inter-urban' routes points towards a need for better allocation of space on urban corridors to public transport, cycling and walking.

4.3 The rest of this chapter summarises the context, challenges and opportunities relevant to each of these six journey types. It also indicates the types of initiatives (schemes and/or policies) that the evidence suggests will help the South East area to address the challenges described below.

Radial journeys

Context

4.4 Radial journeys are longer distance passenger journeys between the South East and Greater London area and, in the case of Berkshire and Hampshire, between the South East and the South West / South Midlands. These journeys typically use the Strategic Road Network that radiates from the M25 towards the South Coast and West of England and/or Main Line railways that terminate in Central London. A map showing the key radial corridors serving the South East, which also highlights key issues and opportunities affecting these corridors, is provided in **Figure 4.1**.

4.5 Most radial corridors are served by frequent and, in many cases, fast rail services that terminate in Central London. Most radial journeys into Central London are undertaken by rail (83%)[1]. This is unlikely to change as UK government and GLA policy strongly encourages high public transport mode share for trips to and from Central London[2].

4.6 In contrast, a significant number of trips in Outer London are made by car (44%)[3]. This perhaps reflects the relatively low level of public transport interchanges that support trips between the South East and Outer London compared to Central London.

4.7 There is a significant imbalance in jobs and homes in London. For every four jobs created in Greater London, just one additional dwelling is delivered[4]. In 2017, more than 1.2 million people entered Central London on a typical weekday[5]. This imbalance in housing supply and demand gives rise to high levels of commuting to the capital.

4.8 London is expected to continue to grow and generate employment opportunities for the foreseeable future[6]. While TfSE supports the development of employment at economic hubs within its region, it acknowledges many people who live in the South East will continue to work in London. In general terms, commuting to London is highest in local authority areas that are closest to the Greater London boundary. Some areas with fast rail links, such as Brighton and Hove, also have relatively high levels of commuting to London[7].

[1] Department for Transport "People entering London during morning peak (Table TSGB0106)" (2018), https://www.gov.uk/government/statistical-data-sets/tsgb01-modal-comparisons, accessed September 2019.

[2] Greater London Authority "Mayor's Transport Strategy" (2018), page 22 (Policy 1), https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf, accessed September 2019

[3] Transport for the South East "Transport Strategy for the South East: The Relationship between the South East and London" (October 2019)

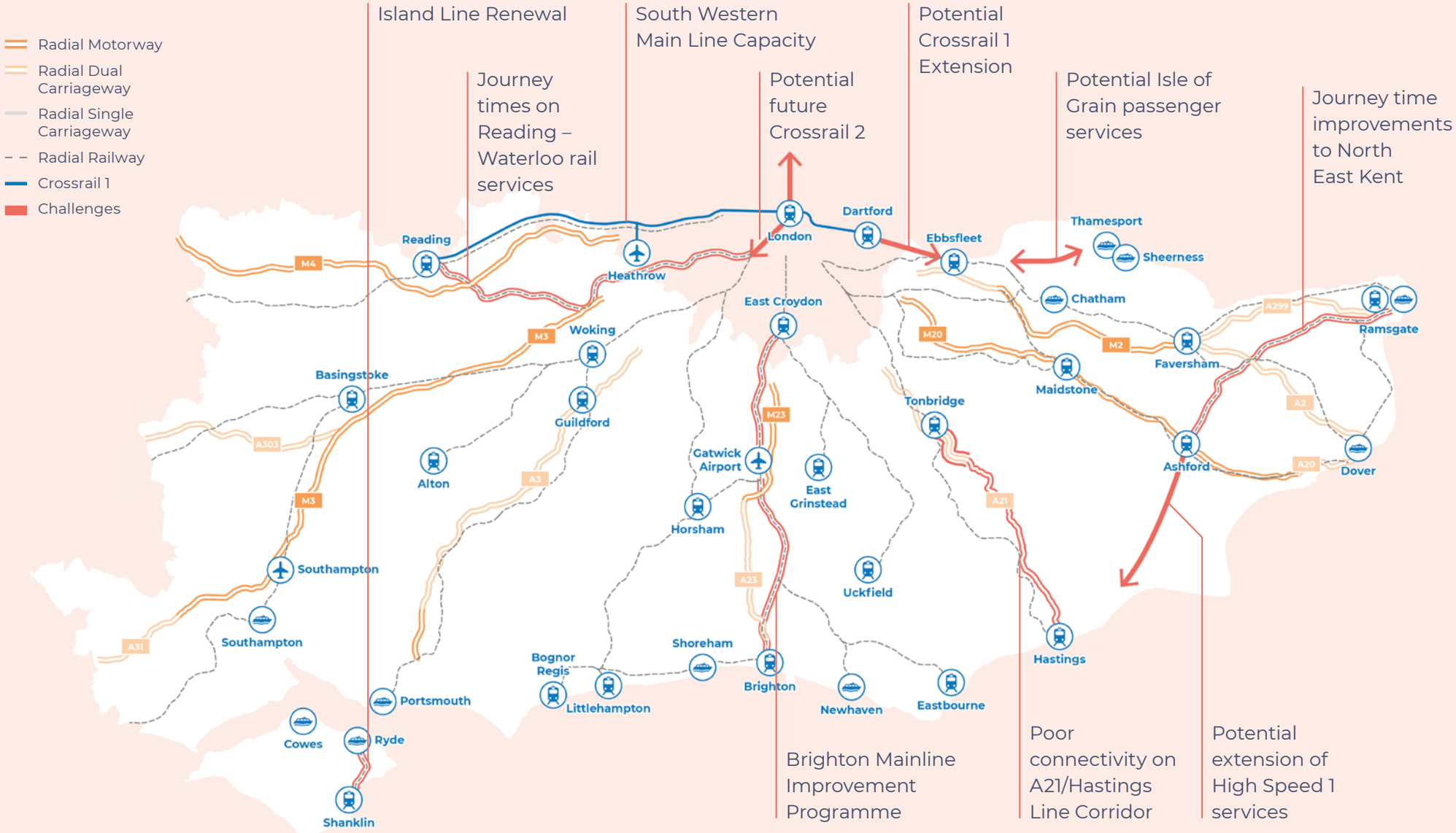
[4] In 2018/19 the number of jobs in London increased by over 120,000 (see https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/regionallabourmarket/latest) while the number of dwellings completed over 2017/18 was 30,000 dwellings (see https://www.gov.uk/government/statistical-data-sets/live-tables-on-net-supply-of-housing).

[5] Transport for London "Travel in London Report 11" (2018), page 225, http://content.tfl.gov.uk/travel-in-london-report-11.pdf, accessed August 2019.

[6] Ibid. page 42.

[7] **Figure 2.10** shows London commuting patterns.

Figure 4.1 Radial journey challenges and opportunities



Challenges and opportunities

4.9 In general terms, the radial routes to London from the South East have evolved to accommodate the high demand for employees to service the London economy, and are historic in nature rather than strategically planned. Virtually all major settlements and economic hubs have good access to a radial road on the Strategic Road Network and/or a radial railway. There is no obvious need to create a new radial corridor on the Strategic Road Network or rail network. However, these radial corridors face several challenges. In particular:

Challenge 1

While Kent has benefitted from significant improvements in rail journey times to London thanks to the introduction of High Speed 1 domestic services in 2009, some areas in **North and East Kent** risk being left behind. For examples, the towns of Maidstone and Margate have relatively poor levels of connectivity compared to other parts of the region[8]. This undermines the potential for these corridors to support regeneration and unlock housing development in North and East Kent. There are also capacity constraints on several routes into London (many of which are only dual tracked, meaning longer distance services interact with London/suburban stopping service) and at key termini such as London Charing Cross and Canon Street[9]. Similarly, journey times to London on the **Reading – Waterloo** Line are long compared to neighbouring corridors such as the Great Western Main Line.

Challenge 2

Both the road and railway serving the **A21/Hastings Main Line Corridor** deliver poor connectivity to the Hastings area[10]. The A21 is the least developed SRN road in the South East area and runs as a single carriageway for most of the route south of Pembury. Rail journeys from London to Hastings are typically 75% longer than from London to Brighton, even though the distances covered by these services are similar[11]. This undermines the potential for this corridor to support regeneration and economic development in 'left behind towns' such as those in the Hastings area.

Challenge 3

The **M23/A23/Brighton Main Line Corridor** is heavily utilised, has a significant 'capacity gap' and suffers from poor resilience[12]. This undermines the potential for this corridor to support the economy and unlock development near key economic hubs. This corridor has several "branches" at its southern end, which together means it serves a large area of the Sussex Coastline (from Chichester to Eastbourne). Any disruption at the north end of this corridor has the potential to cause significant delays in the south. Highways England and Network Rail are both investing in schemes to improve resilience on this corridor, including a Smart Motorway on the M23[13] and a resilience and renewal programme on the Brighton Main Line[14].

Challenge 4

The **A3/Portsmouth Direct Line Corridor** passes through the Guildford and Portsmouth urban areas. The A3 Trunk Road contributes to poor air quality and noise in these areas[15]. This has the potential to undermine the health and wellbeing of the people served by this corridor. This corridor suffers from significant congestion around Guildford[16].

[8] **Figure 4.1** highlights the key connectivity gaps on this corridor.

[9] Network Rail "South East Kent Route Study" (May 2018), page 36, https://cdn.networkrail.co.uk/wp-content/uploads/2018/06/South-East-Kent-route-study-print-version.pdf, Accessed August 2019

[10] **Figure 4.1** highlights the key connectivity gaps on this corridor.

[11] Determined by searching trips between Ashford, Brighton, and Hastings to London using https://www.thetrainline.com/, Accessed August 2019

[12] Coast to Capital Local Enterprise Partnership "Unlocking the Brighton Main Line" (2019), page 3, https://www.coast2capital.org.uk/storage/downloads/unlocking_the_brighton_mainline-1560266517.pdf, accessed August 2019

[13] Highways England "M23 Junction 8 to 10: Smart Motorway), https://highwaysengland.co.uk/projects/m23-junctions-8-to-10-smart-motorway/, accessed September 2019.

[14] Network Rail "Brighton Main Line Improvement Project", https://www.networkrail.co.uk/running-the-railway/our-routes/south-east/brighton-main-line-improvement-project/, accessed September 2019.

[15] **Figure 2.8** shows Air Quality Management Areas and **Figure 2.9** shows noise pollution. Both are relatively high/concentrated in the Portsmouth urban area.

[16] **Figure 2.12** shows road congestion on the A3 in the Guildford urban area.

Challenge 5

The **M3/South Western Main Line Corridor** provides important connectivity for freight traffic using the Port of Southampton, which is set to expand[17]. This corridor has high capacity (including an eight-lane Smart Motorway and a four tracked railway). However, it is also heavily utilised and regularly suffers from congestion[18]. The South Western Main Line railway suffers from serious overcrowding at peak times. This undermines the potential of this corridor to support economic productivity and development, particularly at fast growing towns such as Basingstoke. Network Rail is developing proposals to address bottlenecks on this corridor, but as yet funding to implement these proposals is not yet confirmed.

Challenge 6

The **M4/A4/Great Western Main Line Corridor** has benefitted from significant investment in recent years (Crossrail, Great Western Main Line electrification, new rolling stock and enhancements to Reading station)[19]. However, with Heathrow set to expand, this already very busy corridor is expected to come under increasing pressure. There is a risk it could hold back the economic benefits arising from improved global connectivity delivered by expansion at Heathrow.

The initiatives that are needed to address the radial journey challenges are:

Extend radial routes (e.g. Crossrail from Abbey Wood to Ebbsfleet and/or extend South Eastern franchise passenger services to the Isle of Grain) that serve particularly large new housing developments.

Addresses: **Challenge 1**

Invest in rail improvements to speed up journey times to London, particularly by utilising spare capacity on High Speed 1 and investing in parts of the railway that serve High Speed services.

Addresses: **Challenge 2**

Improve connectivity by both road and rail to deprived communities – particularly potential 'left-behind towns' in Swale, Thanet and Hastings.

Addresses: **Challenge 1** and **Challenge 2**

Provide additional capacity and resilience on radial railways, particularly the busiest corridors such as the South Western Main Line and Brighton Main Line.

Addresses: **Challenge 3** and **Challenge 5**

Improve the resilience of the road network, potentially by adopting holistic demand management policies.

Addresses: **Challenge 3** and **Challenge 5**

Reduce human exposure to noise and poor air quality from radial roads, particularly where these run through urban areas such as Guildford and Portsmouth (e.g. by lowering speed limits, reallocating road space to cleaner transport modes, moving routes underground and/or away from urban areas, and/or supporting the uptake of cleaner technologies such as Electric Vehicles.

Addresses: **Challenge 4**

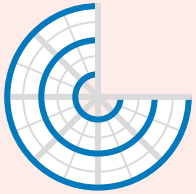
Facilitate an increase in radial journeys by public transport, particularly to/from Outer London and to/from Heathrow Airport.

Addresses: **Challenge 6**

[17] Port of Southampton "Port of Southampton Master Plan: 2015 – 2035 Consultation Draft (2016)", http://www.southamptonvts.co.uk/admin/content/files/New%20capital%20projects/Master%20Plan%202016/Master%20Plan%202016%20-%202035%20Consultation%20Document%20Oct%202016.pdf, accessed September 2019.

[18] **Figure 2.12** shows road congestion on this corridor.

[19] Network Rail "Modernising the Great Western Route", https://www.networkrail.co.uk/running-the-railway/our-routes/western/great-western-mainline/, accessed August 2019.



Orbital and coastal journeys

Context

4.10 Orbital and Coastal journeys describe longer distance passenger journeys that use corridors that run perpendicular to the radial corridors described previously. The roads and railways serving these flows are sparser and have lower capacity and speeds than most radial corridors[20]. They provide important links between economic hubs across the South East but have perhaps not received the level of investment that their function warrants in recent years[21]. A map showing the key orbital corridors serving the South East, which also highlights key issues and opportunities affecting these corridors, is provided in **Figure 4.2**. A further map highlighting some of the rail connectivity issues that are described in more detail below is provided in **Figure 4.3**.

4.11 The corridors serving these orbital journeys are heavily constrained by protected landscapes, which tend to run along an east – west axis in the South East area between the ridges of the North and South Downs. In contrast to the radial corridors, the road and rail networks are not closely aligned on the orbital corridors. Some orbital routes are road only (e.g. M25), while others are rail only (e.g. Redhill to Ashford).

4.12 Journey times by rail on orbital corridors are typically much slower than on radial routes (largely due to calling patterns). Most rail routes on these corridors are split between different train operators and, in some cases, are divided by gaps in electric traction. A single trip from Maidstone to Reading requires changing trains twice and a trip from Ashford to Southampton may require more changes still. Indeed, it is often faster to travel via London rather than use an orbital rail route[22].

[20] **Figure 4.2** shows the standard of the two orbital roads serving the South East. The A27 corridor includes significant sections of single carriageway road, which limits capacity on this corridor. Most of the orbital railway corridors are two-tracked railways served by relatively infrequent services (e.g. two trains per hour on the North Downs Line). Many radial railways, on the other hand, are four-tracked railways that are capable of providing more than 20 trains per hour (e.g. on the corridor between Gatwick Airport and East Croydon).

[21] Most of the major rail projects delivered in Control Periods 4 and 5 in the South East (e.g. High Speed 1, Crossrail 1, Thameslink) serve radial corridors. The orbital rail corridors (e.g. North Downs Line, East/West Coastway Lines) have not benefitted from the same scale of investment during this period.

[22] Determined by searching trips between Ashford and Southampton using https://www.thetrainline.com/, Accessed August 2019.

Figure 4.2 Orbital and coastal journey challenges and opportunities (overview)

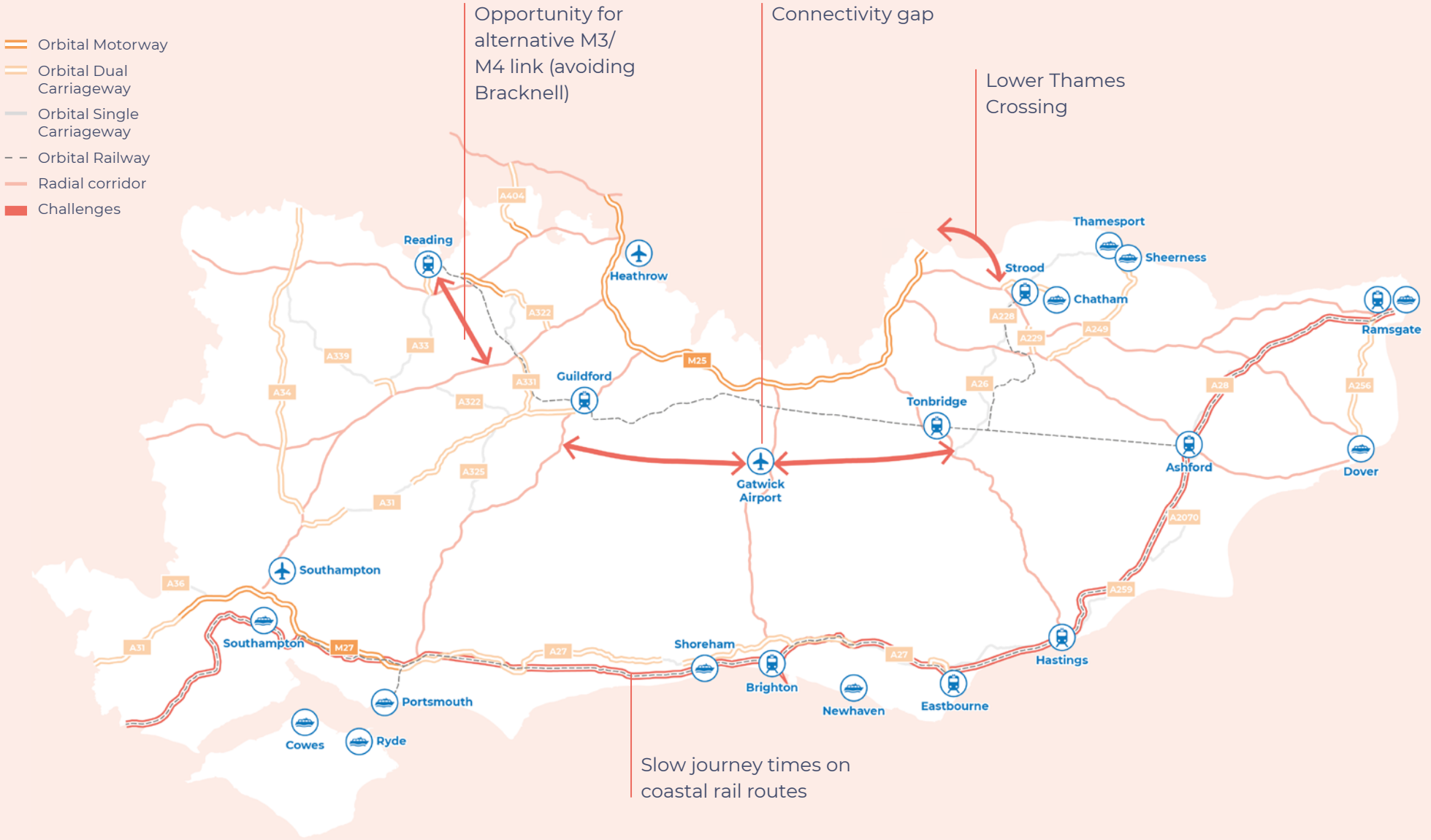
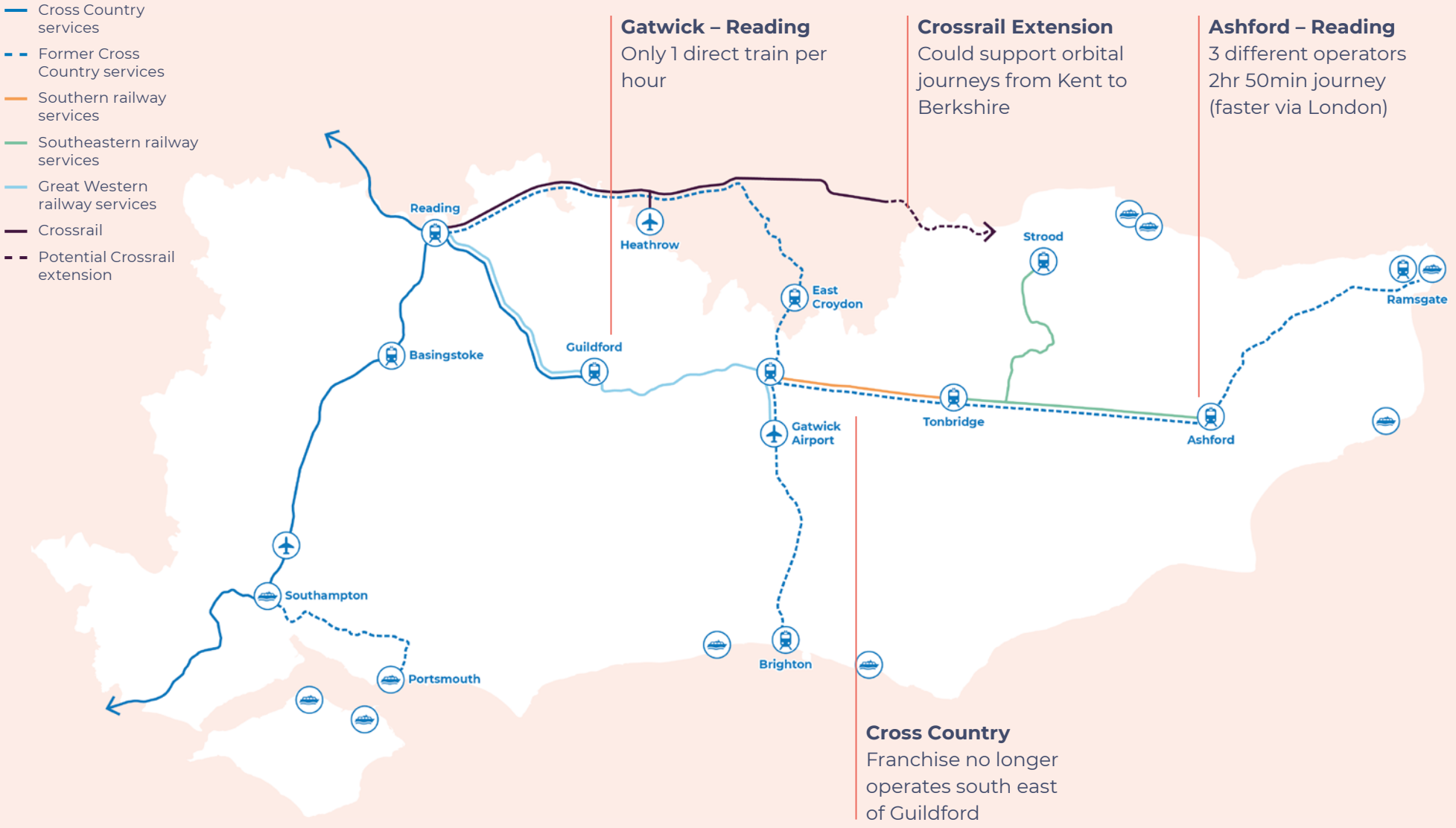


Figure 4.3 Orbital and coastal journey challenges and opportunities (railway connectivity)



Challenges and opportunities

4.13 The challenges and opportunities for orbital corridors vary across the South East area and are as follows:

Challenge 1

The M25 Corridor is one of the busiest and one of the most congested corridors in Europe[23]. There is very little scope for increasing capacity on this road, especially on the South West Quadrant (between Junctions 7 and 15). There are also limited public transport alternatives on this route. There is a risk that lack of capacity on this corridor will hold back economic development and productivity improvement for the whole country, not just the communities and businesses in the South East who depend on it. The Lower Thames Crossing, which will improve access to the North and Midlands via the northern part of the M25, could divert demand away from the South West Quadrant.

Challenge 2

There are very few long-distance orbital rail services in South East England. This is partly because of the rail franchise geography, which splits east-west routes between up to three different operators (e.g. Reading to Ashford). It is also partly due to gaps in electrification on these corridors (e.g. Marsh Line between Hastings and Ashford)[24] and the poor quality of infrastructure on some routes. Cross-Country connectivity has declined on this corridor (intercity rail services from the Midlands and North of England used to run as far south and east as Gatwick Airport, Brighton, Ramsgate and Portsmouth[25]). Furthermore, there are some parts of the orbital and coastal rail network that suffer from severe crowding in peak hours. The quality of the railway infrastructure on orbital and coastal corridors therefore presents a barrier to economic development on these corridors.

Challenge 3

The M27/A27/A259/East Coastway/ West Coastway Corridor has multiple issues and challenges. The A27 road serves as a grade separated expressway around Brighton, an urban distributor road in Worthing, a city centre corridor in Hastings, a rural single carriageway in Kent, an outer ring road in Chichester, and an inter-regional motorway in South Hampshire. The railway similarly tries to accommodate slow, stopping rural and suburban services alongside faster, non-stopping longer distance services[26]. This mixture of traffic types creates multiple conflicts between users and undermines capacity and performance on this corridor. The poor performance of this corridor represents a significant barrier to fostering sustainable growth along the South Coast – particularly growth that encourages more local employment in economic hubs such as Brighton. The proximity of this corridor to protected built and natural landscapes means it also impacts on quality of life and wellbeing.

Challenge 4

While there are several high capacity links between the A3, M3, M4 and M40 in the west of the South East area and the M2 and M20 in the east, **there are several gaps between the M20, M23/A23 and A3**[27]. This forces traffic to use the A27 and M25 and limits east-west access to Gatwick Airport and the "Gatwick Diamond" economic hub. Furthermore, there are some **bottlenecks on orbital links between the M3 and M4.**

Challenge 5

Some high capacity orbital links pass through urban areas such as Bracknell, which impacts negatively on air quality, safety and quality of life.

[23] INRIX Research, "Europe's Traffic Hotspots" (November 2016), http://inrix.com/wp-content/uploads/2017/01/INRIX_Europes-Traffic_Hotspots_Research_FINAL_lo_res.pdf, accessed August 2019

[24] Network Rail "South East Kent Route Study" (May 2018), page 21, https://cdn.networkrail.co.uk/wp-content/uploads/2018/06/South-East-Kent-route-study-print-version.pdf, accessed August 2019.

[25] The Argus "Train Services from Brighton Withdrawn" (October 2008), https://www.theargus.co.uk/news/3749781.train-services-from-brighton-withdrawn/, accessed August 2019. Portsmouth services were reportedly withdrawn in 2003 (https://en.wikipedia.org/wiki/Virgin_CrossCountry, accessed September 2019).

[26] Southern Railway, "Timetable 27 (Southampton, Portsmouth and Chichester to Brighton" (May 2019), (, https://www.southernrailway.com/travel-information/plan-your-journey/timetables, accessed August 2019.

[27] **Figure 4.2** shows connectivity gaps between key radial corridors.

The initiatives that will help address orbital and coastal journey challenges are:

In the longer term, introduce holistic demand management initiatives that address congestion across the road network while avoiding displacement effects from one part of the network to another (ideally when alternative public transport options are available).

Addresses: Challenge 1

Deliver the Lower Thames Crossing, which will provide an alternative route around the north of the M25, avoiding the South West Quadrant.

Addresses: Challenge 1

Encourage the wider electrification of the network and/or wider use of bi-mode trains across the south east to enable more direct, longer distance services on orbital corridors such as the North Downs Line.

Addresses: Challenge 2

Provide capacity enhancements at bottlenecks where orbital railways cross busy radial routes, such as at Redhill.

Addresses: Challenge 2

Improve long distance rail connectivity and capacity between the Midlands and North of England into the South East area along orbital corridors and support the introduction of more direct east-west services to Gatwick Airport.

Addresses: Challenge 2

Build a consensus on a way forward for the M27/A27/A259/East Coastway/West Coastway Corridor based on a multi-modal approach that seeks to reduce conflicts between different users on this corridor.

Addresses: Challenge 3

Improve orbital connectivity between Gatwick Airport and Hampshire and Kent.

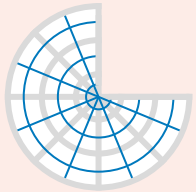
Addresses: Challenge 4

Improve orbital links between the M3 and M4, ideally in a way that avoids directing heavy traffic through urban areas such as Bracknell

Addresses: Challenge 4 and Challenge 5 – and potentially Challenge 1 by relieving pressure on the M25 South West quadrant.

Reduce the exposure to the adverse environmental impacts of road traffic on orbital corridors that pass through urban centres such as Gosport, Hastings, Portsmouth and Worthing, which may include lowering speed limits, reallocating road space to cleaner transport modes, and/or supporting the uptake of cleaner technology such as Electric Vehicles.

Addresses: Challenge 5



Inter-urban journeys

Context

4.14 Inter-urban journeys primarily describe medium-distance passenger journeys between economic hubs and the Strategic Road Network. These journeys are predominantly served by the South East area's Major Road Network and any railways that mirror these corridors.

4.15 Inter-urban journeys take several forms:

- There are journeys **between economic hubs** (such as town and city centres) across the country that do not use the Strategic Road Network at all (e.g. A26/A228 (Lewes – Strood));
- There are journeys between the Strategic Road Network and economic hubs (e.g. A264 (Horsham – M23));
- There are journeys that **shadow Strategic Road Corridors** and act as distributor routes for these corridors (e.g. A4 (Slough – Newbury). The routes that serve these journeys are highly susceptible to 'spill over' from the Strategic Road Network during periods of congestion and/or disruption.

4.16 In contrast to the (radial) Strategic Road Network, the railway network does not align particularly well to the corridors that serve inter-urban journeys. For this reason, the primary public transport alternative on the corridors that serve inter-urban routes is the bus. There are also some well-developed longer distance cycleways (some of which replaced abandoned railways).

Challenges and opportunities

4.17 Inter-urban routes, and the Major Road Network in particular, face the following challenges and opportunities:

Challenge 1

Routes that act as secondary routes for radial and orbital roads (e.g. A22 and A24) fall below standard in places. These routes ideally should be developed to offer a consistent standard across the corridors they serve. In some cases, this may require investment in improvements to junctions and/or targeting widening. Several interventions have been identified by Local Transport Authorities that aim to bring these routes up to a more consistent standard.

Challenge 2

Bus services risk deteriorating on inter-urban routes if congestion rises. This in turn risks slowing down bus services and reducing their attractiveness and viability. Interventions may be needed to provide bus prioritisation infrastructure to ensure bus performance does not deteriorate, particularly on corridors within urban areas and/or that serve Park and Ride facilities on the edges of large urban centres.

Challenge 3

There are many gaps in the railway network serving inter-urban corridors, which represents an issue as rail is better placed to provide public transport services on many inter-urban corridors. For example, the West Coastway Line runs too far north of the A259 in places for it to provide a realistic public transport alternative on this road.

Challenge 4

There are several road-safety 'hot-spots' on the Major Road Network, which may require intervention through speed limits, junction improvements and other interventions.

The initiatives that will help address inter-urban journey challenges are:

Support existing Major Road Network and Large Local Majors schemes (e.g. A22 junction improvements) that bring secondary routes up to an appropriate standard for these routes.

Addresses: Challenge 1 and Challenge 4

Support initiatives that enhance, or at the very least, maintain the viability of bus services on inter-urban corridors.

Addresses: Challenge 2

Deliver better inter-urban rail connectivity, such as direct rail services from Brighton/Lewes to Uckfield.

Addresses: Challenge 3

Local journeys

Context

4.18 Local journeys are short distance journeys that are typically undertaken at the beginning or end of an individual journey to or from a transportation hub or service to a destination. They include first mile / last mile movements that form an important element of other journey types described in this strategy.

4.19 Local journeys can be undertaken by almost any mode of transport, including walking and cycling. In rural areas, where the bus network is much sparser than in urban areas, the choice of mode for these journeys may be more limited.

4.20 This journey type is particularly well suited to the 'Planning for Successful Places' framework outlined in Section 3 (paragraph 3.14).This framework emphasises the importance of protecting vulnerable users, particularly in urban areas. This approach guides transport and spatial planners towards creating spaces and corridors that are safe and attractive to pedestrians and cyclists and that prioritise public transport modes over other motorised transport.

4.21 Interventions needed to support local journeys are typically smaller in scale and tend to be sponsored by local authorities (as opposed to national and regional bodies). Funding arrangements therefore tend to differ to larger schemes. Funds such as the 'Transforming Cities Fund' and 'Housing Infrastructure Fund' have been established to support initiatives at this scale.

Challenges and opportunities

4.22 The challenges relating to local journeys vary between urban and rural contexts. In urban environments they broadly relate to congestion and conflicts between different users and modes. In rural contexts, the key challenge is ensuring adequate levels of accessibility, especially for the most vulnerable of transport users. The key challenges and opportunities for this journey type are as follows:

[28] Department for Transport, "Rail Fares Index (January 2017) Statistical Release", https://dataportal.orr.gov.uk/media/1260/rail-fares-index-january-2019.pdf, accessed August 2019.

[29] Department for Transport, "Annual Bus Statistics England (2016/17)", https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/666759/annual-bus-statistics-year-ending-march-2017.pdf, accessed August 2019.

Challenge 1

There are many conflicts between different modes and user types, particularly vulnerable users and people with reduced mobility in urban areas. There are several examples of urban corridors in the South East where too much priority is given to the car over other transport modes. This is particularly common where the Strategic Road Network passes through urban areas (e.g. at Worthing and Bexhill). There are also examples of corridors that serve both long-distance and short-distance trips, which risks creating conflicts between heavy road traffic and more vulnerable road users such as pedestrians and cyclists.

Challenge 2

There are significant issues with air quality and road safety on many urban corridors that serve local journeys. Some of these corridors are designated as Air Quality Management Areas. This has the effect of deterring people from walking and cycling, which in turn can generate higher demand for car transport, which risks undermining air quality and road safety further still. This behaviour also results in increased congestion, which reduces the speed and attractiveness of bus services.

Challenge 3

Integration between transport modes could be better. There are limits to the degree that bus and rail companies can align timetables and ticketing arrangements (due to competition law). There are places where bus hubs are not well connected to rail hubs, particularly in historic towns and cities (e.g. Canterbury). This presents significant barriers in access for people with reduced mobility. There is scope for wider use of Park and Ride sites on the periphery of large urban centres. Smart ticketing could be rolled out further than it is at present. Looking further ahead, there are opportunities to better integrate 'Mobility as a Service' modes with traditional transport modes, including bus, rail and even by car (or other private vehicles).

Challenge 4

Bus services have come under significant pressure in recent years, particularly in rural areas. Local Transport Authority budgets have been squeezed in recent years and this has limited the level of support these authorities have been able to provide for socially necessary bus services. Any further retrenchment of the bus network risks leaving some of the most vulnerable members of society isolated and unable to access key services.

Challenge 5

Public transport is not always affordable for everybody. While very affordable rail fares are available for those who book in advance, rail fares have increased ahead of inflation in most years since privatisation in 1996, and today are reportedly among the highest in Europe[28]. Bus fares have also increased significantly ahead of inflation in recent years[29]. This trend risks putting access to transport beyond the means of some of the most vulnerable people in the South East.

The initiatives that will help address local journey challenges are:

Develop high-quality public transport services on urban corridors, such as Bus Rapid Transit and Light Rail Transit, where there is a viable business case.

Addresses: Challenge 1 and Challenge 2

Improve air quality on urban corridors by, for example, lowering speed limits, reallocating road space to cleaner transport modes, and/or supporting the uptake of cleaner technology such as Electric Vehicles.

Addresses: Challenge 2

Prioritise the needs of pedestrians and cyclists over the private car.

Addresses: Challenge 1 and Challenge 2

Invest (or encourage others to invest) in integrated passenger information systems to provide passengers with dynamic, multi-modal travel information.

Addresses: Challenge 3

Develop integrated transport hubs (bus, rail, park and ride, new mobility and cycle parking), integrated 'Smart Ticketing', and integrated timetables, where feasible.

Addresses: Challenge 3

Lobby Government to protect and enhance funding for socially necessary bus services in rural areas.

Addresses: Challenge 4 and Challenge 5

Lobby Government to freeze rail fares in real terms and provide lower off-peak fares in the longer term.

Addresses: Challenge 5

Improve the accessibility of transport infrastructure and public transport services by investing in accessibility improvements and by ensuring streets and public places are accessible to all.

Addresses: Challenge 1 and Challenge 2

[30] Transport for the South East "Logistics and Gateway Review" (October 2019).

International gateways and freight journeys

Context

4.23 As described in Section 2 (paragraphs 2.64 to 2.68), and the "Logistics and Gateway Review" Technical Report[30], the South East is home to many of the most important and busiest international gateways in the UK. These gateways serve both passenger and freight markets. Many of the people who use and who benefit from these gateways live outside the South East and, indeed, outside the UK. These international gateways are therefore critically important for the whole country. Many businesses in the North of England and Midlands depend on these gateways to access suppliers and customers, while many visitors to London pass through the Channel Tunnel and Gatwick Airport.

4.24 A map showing the key corridors serving international gateways and freight journeys in the South East is provided in **Figure 4.4**. However, it should be noted that inter-urban and local roads also support the delivery of 'first mile / last mile' freight services. These types of freight trips include those driven by strong recent growth in internet shopping, which rely on package deliveries.

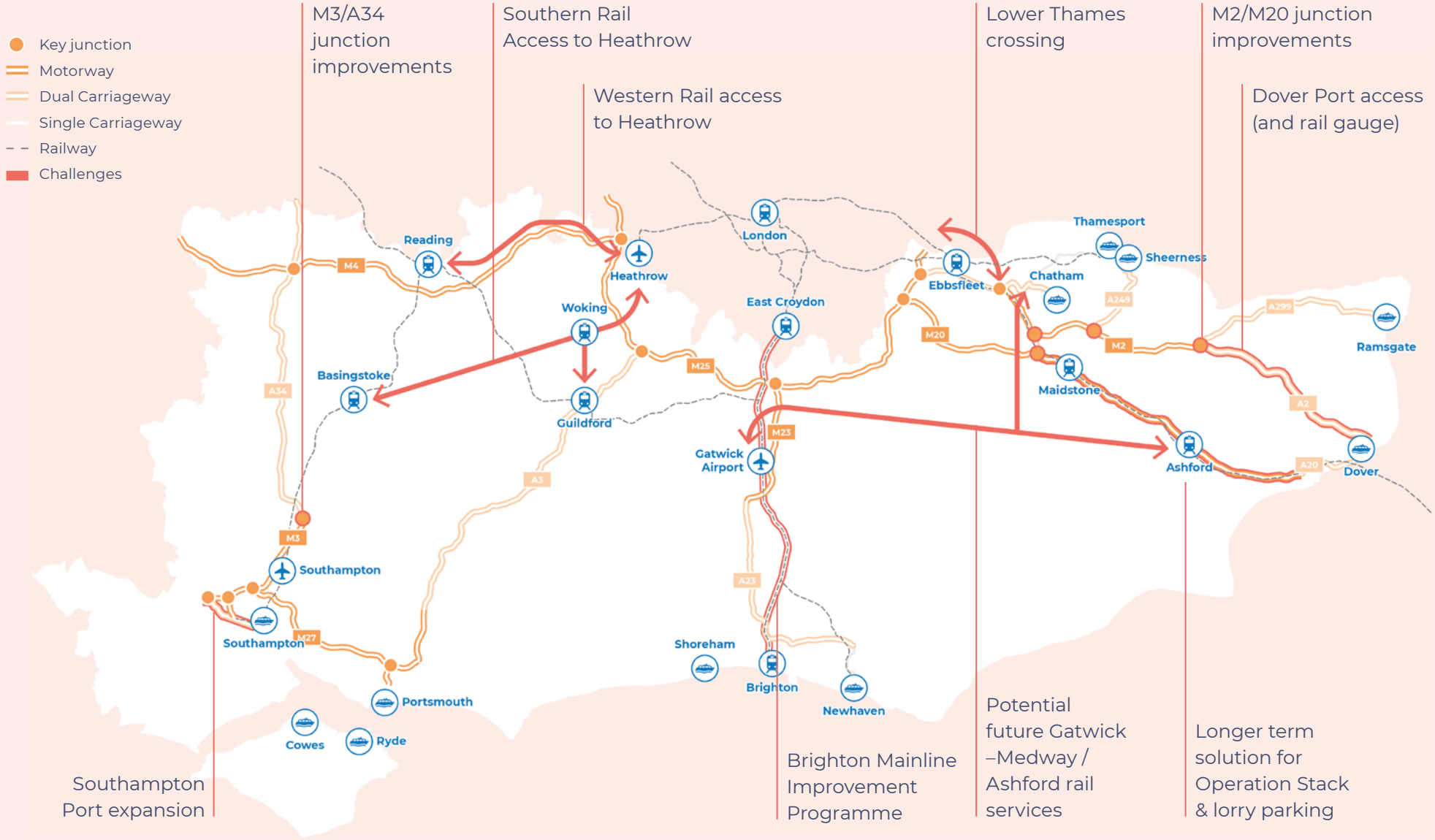
4.25 The international gateways in the Transport for the South East area are a focus for employment and commerce. Several large business parks have developed near Heathrow Airport (along the A4/M4 Corridor) and Gatwick Airport (in the Gatwick Diamond cluster). The businesses located here see a benefit in being located to high-quality international hubs.

4.26 Most of the busiest international gateways are well connected to the Strategic Road Network and the railway network, although some offer better onward connectivity to the rest of the country than others (e.g. the Port of Southampton is better served by the Strategic Road Network and railway network than Shoreham Port).

4.27 The key corridors that enable road freight to access the South East's key ports are:

- the A2/M2 corridor from Dover to the East of England, Midlands and North of England via the Dartford Crossing;
- the A20/M20 corridor from Dover and the Channel Tunnel terminal at Cheriton to the East of England and North of England via the Dartford Crossing or the West of England and Midlands via the M25 and M4/M40; and
- the M3/A34 corridor from Southampton to the Midlands.

Figure 4.4 Key freight and international gateway corridors



4.28 The most important corridors for accessing the South East area's airports are:

- the M4/Great Western Main Line and M25 corridors for Heathrow Airport; and
- the A23/M23/Brighton Main Line corridor for Gatwick Airport.

4.29 The key railway corridor for accessing the Channel Tunnel is served by the country's only High-Speed Railway – High Speed 1. This corridor could carry more rail freight and is perhaps somewhat underutilised at present. Currently, most rail freight from Kent is forced to pass through inner London (notably on a busy section of the South London Line between Nunhead and Wandsworth Road, which carries up to two freight trains per hour[30]) to reach the rest of the country. There are also heavy freight flows between Southampton and Reading, with up to 40 freight train paths each direction each day[31].

4.30 The operation of the South East area's international gateways impacts the South East area's surface transport networks and vice versa. For example, delays on the M25 could cause passengers to miss their flights, while delays on cross-channel ferry operations can cause significant tailbacks on the M20/A20 and M2/A2 highways.

4.31 Many of the South East area's international gateways are expected to grow. For example, Heathrow Airport is developing proposals for a third runway to the north west of its current site; Gatwick Airport has launched its masterplan and a Development Control Order process to seek permission for expansion; while the Port of Southampton is developing proposals to expand its operations. It will be important to ensure that any future growth at these gateways can be accommodated, by more sustainable modes where possible, and minimising adverse impacts on the communities and environment nearby.

4.32 Any future Transport Strategy for international gateways and freight must provide enough flexibility to respond to the most plausible future relationships between the United Kingdom and the European Union.

4.33 There are exciting opportunities for improving the efficiency of road freight thanks to emerging technologies such as Connected and Autonomous Vehicles.

4.34 Technology also offers scope for more efficient logistics models. Better information sharing between steps on the logistics chain has the potential to make freight delivery significantly more efficient. This could help to ensure that there is less congestion on the roads, liberating space for other road users and providing more reliable delivery services. Improvements in service-based freight models have the potential to reduce last mile delivery costs for operators and reduce multi-attempt delivery trips.

4.35 In addition to accessing international gateways, there are important regional freight flows that also depend highly on the Strategic Road Network.

4.36 Congestion on these roads has a significant impact upon the attractiveness of these international gateways for trade and has an impact upon other road users. Several of the largest international gateways in the South East lie near city centre locations (most notably Southampton and Portsmouth), therefore this congestion has a significant impact upon the local population. However, Heavy Goods Vehicle movements account for a small percentage of vehicle movements, therefore tackling congestion around international gateways needs to comprise a rounded approach that encompasses all road users.

4.37 The freight market and international gateways in the South East predominantly serve two distinct markets: containerised freight and roll-on, roll-off shipping. These two markets are served by different components of the transport network. Transport networks need to be adaptable and flexible to the changing make up of freight as these two distinct markets evolve in the future.

Challenges and opportunities

4.38 The key challenges to international gateways and freight relate primarily to accommodating future growth and reducing the impact of freight transport on the environment:

Challenge 1

Heathrow Airport is planning to develop a third runway to the north west of the current site, which will enable up to three aircraft to take off and/or land simultaneously. This has the potential to accommodate growth in excess of 35% of air traffic movements in the long term[31]. This expansion will enable the doubling of the current cargo volume and 260,000 additional air traffic movements. Additional growth at Heathrow, which currently has a public transport surface access mode share of 40%[32], presents significant transport and environmental risks to the South East. It is critically important that viable public transport alternatives are put in place to enable access to and from Heathrow Airport by other means than the car. This will need to be accompanied by demand management policies (e.g. parking and drop-off charges). **Gatwick Airport** also has expansion plans within the existing airport estate by bringing its emergency runway into use. This will bring significant, challenges for both passenger and freight flows on corridors serving this airport.

Challenge 2

The roads serving the **Port of Dover** routinely suffer from poor resilience due to port and border operations on both sides of the English Channel, which can cause freight traffic to build up on the M20[33]. The A2 Trunk Road east of Canterbury could be further developed to strengthen the resilience of both corridors serving the country's busiest port.

Challenge 3

There are opportunities for port expansion at several locations in the South East, including at **Southampton** and (to a lesser extent) at **Dover**. Any expansion will need to be supported by appropriate access to the highway and railway networks.

Challenge 4

The **Dartford Crossing (M25)** currently experiences severe congestion. Highways England are developing the Lower Thames Crossing scheme to relieve congestion on this route. However, this scheme risks diverting traffic from the M20 to the M2/A2 corridor (as the crossing route starts at Strood). This may place additional pressure on the A229 between the M2 and M20.

Challenge 5

Rail freight mode share nationally is relatively low (and is falling)[34] and there are constraints limiting the scope of rail freight to expand (for example, on the A34 corridor). In some areas (e.g. Dover) there are constraints in the railway gauge that limit the transport of containers by rail. There are understandable commercial reasons for a preference for road haulage, especially as the nature of logistics is changing (by moving away from bulk deliveries towards smaller 'just-in-time' package deliver). However, this is holding back the potential for freight to contribute to reducing carbon emissions and improving air quality in the South East.

Challenge 6

Freight is dependent on some of the most congested roads in the South East area. This is particularly the case for the M25 and the A34 corridors.

Challenge 7

It is much harder to reduce Heavy Goods Vehicle emissions than lighter road vehicles. Battery powered freight vehicles are much less developed than smaller electric vehicles. Different traction technologies to the battery may be needed to provide non fossil fuel alternatives for freight vehicles.

[31] Heathrow Airport Ltd., "Heathrow Expansion: Facts and Figures", https://www.heathrowexpansion.com/the-expansion-plan/facts-and-figures/, accessed August 2019.

[32] Greater London Authority "Surface Access to Heathrow Airport Presentation" (2015), https://www.london.gov.uk/moderngov/documents/b13397/Minutes%20-%20Appendix%204%20-%20Airports%20Surface%20Access%20Presentation%20Tuesday%2010-Nov-2015%2010.00%20Transport%20Co.pdf?T=9, accessed September 2019.

[33] The Kent County Council Local Transport Plan calls for a long-term solution to Operation Stack and additional facilities for lorry parking on the M20 corridor (see https://www.kent.gov.uk/__data/assets/pdf_file/0011/72668/Local-transport-plan-4.pdf).

[34] Department for Transport "Rail Factsheet" (2018), page 6, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761352/rail-factsheet-2018.pdf, accessed September 2019.

Challenge 8

Finally, the **United Kingdom's future relationship with the European Union** also presents potentially significant uncertainty and challenges for the South East area's international gateways. There is a risk of more disruption at the Channel ports in the short term, which could disrupt transport networks across Kent. In the longer run, there could be a shift in freight patterns, perhaps away from 'Roll-On-Roll-Off' road freight towards air freight and container traffic.

The initiatives that will help address key international gateway and freight journey challenges are:

Improve public transport access to Heathrow Airport through delivering the Heathrow Airport Western and Southern rail access schemes and improvements in public transport access to Gatwick Airport.

Addresses: Challenge 1

Support the use of demand management policies at Heathrow, such as vehicle access charges, to minimise traffic growth arising from expansion at this airport.

Addresses: Challenge 1

Provide appropriate links and improvements to the highways and railway networks at expanding and/or relocating ports in the South East. This should include improvements to road routes, such as the A34 and A326, and parallel rail routes (serving Southampton) and A2 (serving Dover).

Addresses: Challenge 2 and Challenge 3

Deliver Lower Thames Crossing and improvements on the A229, Junctions 3, 5 and 7 of the M2, Junction 5 of the M20, and Junction 9 of the M3.

Addresses: Challenge 4

Implementing rail freight schemes, such as electrification and gauge enhancements, to increase capacity on strategic routes and encourage modal shift from road to rail.

Addresses: Challenge 5 and Challenge 6

Improve the efficiency freight vehicle operations through adoption of new technologies.

Addresses: Challenge 7

Help international gateways adapt to changes in trade patterns. This may include investing in facilities to customs checkpoints away from bottlenecks at locations such as Dover.

Addresses: Challenge 8

Develop a Freight Strategy and Action Plan for the South East to improve the efficiency of freight journeys.

Addresses: All Challenges

Future journeys

Context

4.39 Future journeys encompass any journey type that may be facilitated by an emerging technology. This is an exciting and rapidly developing area of transport that has the potential to deliver significant change to all aspects of mobility. A more detailed exploration of the potential impact of this emerging technology on the South East area is described in the "Future Transport Technology"[35] and "Ticketing Options Study" [36] technical reports

4.40 This Transport Strategy sets a vision for the South East in 2050, which is more than thirty years in the future. To understand the degree of change that could be delivered over this period, one only needs to consider what the world looked like thirty years ago in 1990. At this time:

- The Cold War was coming to an end following the fall of the Berlin Wall;
- China had not yet emerged as a superpower; and
- The internet could only be accessed by a tiny portion of the population.

4.41 Transport was also very different thirty years ago. In 1990:

- Railway patronage (by passengers) was approximately half the level it is today;
- The Channel Tunnel was still under construction;
- The low-cost airline industry was yet to emerge; and
- Many of the major roads in the South East had not been built, including parts of the M20 and M25.

4.42 It is therefore fundamentally difficult to predict which technologies and social trends will influence the future over a thirty-year time horizon. That said, some trends seem more certain than others, and some of these trends will have a greater impact on transport demand than others. In the "Future Transport Technology" [37] Technical Report, six themes of trends are identified that have the potential to significantly affect transport demand. These themes are:

- Demographic trends: Including a growing, ageing population and urban densification;
- Social trends: Including greater acceptance of 'sharing', higher expectation of immediacy and customer centricity, and greater value of experiences over assets;
- Environmental attitudes: Greater awareness and concern about climate change, air quality, scarcity of resources, circular economy and interest in greener technologies;
- Economic changes: Including the rise of the 'gig economy', increased automation, new business models, and on-demand manufacturing; and
- Political landscape: Including increased devolution to regions and countries and increasing conflict between globalisation and protectionism.

[35] Transport for the South East "Future Transport Technology" (October 2019)

[36] Transport for the South East "Ticketing Options Study" (October 2019)

[37] Transport for the South East "Future Transport Technology" (October 2019)

4.43 The technologies that are arguably most likely to succeed are those that respond best to the challenges and trends outlined above. The "Future Transport Strategy" categorises these technologies into the four following groups:

- **Connected**, which encompasses the movement of data between people, other people, vehicles, assets and systems;
- **Autonomous**, which includes any technology that replaces 'mundane' human tasks with technology;
- **Alternative Fuels**, which includes the decarbonisation of energy production, storage and consumptions; and
- **Shared**, which describes the sharing of services that traditionally were 'owned' by individuals.

4.44 The technologies outlined above are delivered to the public through different business models, which include:

People-Based Mobility Models, such as:

- Ride-sharing, which match private vehicle drivers with potential passengers (sometimes co-workers) making similar regular or one-off trips;
- Ride-sourcing, which match customers with available rides using a smartphone application and enable users to pay on account via pre-approved payment methods with prices set according to supply and demand; and
- Asset Sharing, which allow customers to access and to share use of different mobility modes without having to own them (e.g. car or bicycle). Assets are generally available at permanent or semi-permanent parking locations and booked, paid for and located via an application.

Service-Based Mobility Models, such as:

- Mobility as a Service, which integrates multi-modal public and private sector mobility services through digital platforms by incorporating travel information, payments, and reservation systems into a single application;
- Parking Platforms, which provide consumers with information and app-based payment functions to reduce the traditional problems associated with finding and paying for parking; and
- Digital as Mode, which uses digital connectivity to reduce/remove the need to travel (e.g. by enabling remote working and remote access to services including health and education).

Freight-Based Mobility Models, such as:

- Digital-Based Freight Models, which offer customers easier access to real-time and price transparent freight services, which helps improve supply chain visibility and asset utilisation; and
- Service-Based Freight Models, which use data and automated technologies to provide customers with a wider selection of flexible last-mile delivery and collection options.

4.45 The impact that these trends have upon transport patterns will be modulated by 'Critical Uncertainties', which include:

- willingness to share data;
- willingness to adopt new technologies;
- preferences for sharing transport or travelling alone;
- future levels of automation;
- future rates of electrification; and,
- the role of/authority of the private and public sectors.

4.46 These uncertainties are significant and could have a major bearing on future technological development. This makes it difficult to develop a narrow or specific strategy when it comes to future journeys. This Strategy, therefore, identifies broad challenges and opportunities relating to future journeys for further consideration.

Challenges and opportunities

4.47 While Transport for the South East may not be able to control all the levers driving the development of technology in the South East, it can help steer the direction and uptake of these innovations and shape the regulatory framework governing them. It is important to ensure that these new technologies develop in a way that supports this Transport Strategy (e.g. by contributing to zero-net carbon) rather than undermining any of its objectives (e.g. by encouraging mode-shift from walking/cycling/public transport to shared taxis and potentially contributing to traffic growth). Transport for the South East's overarching objective for future journeys is to ensure they are equitable, environmentally acceptable, and do not underline the efficiency of the transport network.

4.48 Some of the key challenges and opportunities for future journeys in the South East include:

Challenge 1

There are gaps in electric and digital infrastructure. The South East's power distribution network needs to have the capacity to accommodate the uptake of electric vehicles. It also needs to provide widespread access to charging points to ensure electric vehicles can be conveniently charged anywhere in the region. While there has been some investment in charging infrastructure in the South East, this has not yet been consistent, meaning there are gaps in accessing the. Similarly, there are gaps in internet connectivity across the region, which could undermine the development of internet-based services and (in the longer term) connected vehicles.

Challenge 2

There is a risk some parts of the South East may be 'left behind'. Many of the service-based mobility models described above have the potential to make the lives of residents around the South East significantly easier, particularly those who have limited mobility, such as ageing members of the population who struggle to access conventional public transport modes. However, these services may not be economically viable in rural areas, which means these parts of the South East risk being left behind. There is also a risk that new mobility services may only be accessible through channels that target particular demographics (e.g. younger people), which may mean other parts of society who cannot easily access these channels will miss out on the benefits these services offer.

Challenge 3

There is a risk that new technology may undermine walking, cycling and public transport modes. There is some evidence from North America that the popularity of service-based mobility models is attracting users away from public transport to private vehicles (albeit taxis rather than privately owned vehicles). If this trend were to emerge in the South East, then this could risk increasing road traffic congestion, thus undermining any economic or environmental benefits that might arise from the uptake of new technologies.

Challenge 4

There is a risk that new technologies may further fragment the delivery of transport services. This has the potential to undermine strategic planning in the South East and find ways of better integrating different transport modes to promote sustainable transport choices. This is particularly pertinent of Smart Ticketing technologies, which are currently being developed by multiple operators across the South East area.

Challenge 5

There is a risk that the uptake of internet shopping will generate more freight traffic, particularly freight that is not well suited to more sustainable transport modes such as rail.

Challenge 6

Alternative fuel private vehicles won't solve the congestion problem. Although the switch to electric cars may reduce harmful greenhouse gas emissions, it will not reduce traffic levels on the network.

The initiatives that will help address key future journey challenges are:

'Future-proof' the digital and energy infrastructure within the South East by making provision for accelerated future uptake.

Addresses: Challenge 1

Incorporate 'Mobility as a Service' into the current public transport network (and potentially for private vehicles too), to provide better accessibility for a wider range of the population.

Addresses: Challenge 2, Challenge 3, Challenge 4 and Challenge 5

Encourage consistency in the 'Smart Ticketing' arrangements across the South East, seek the use of 'Pay as you Go' and contactless payment.

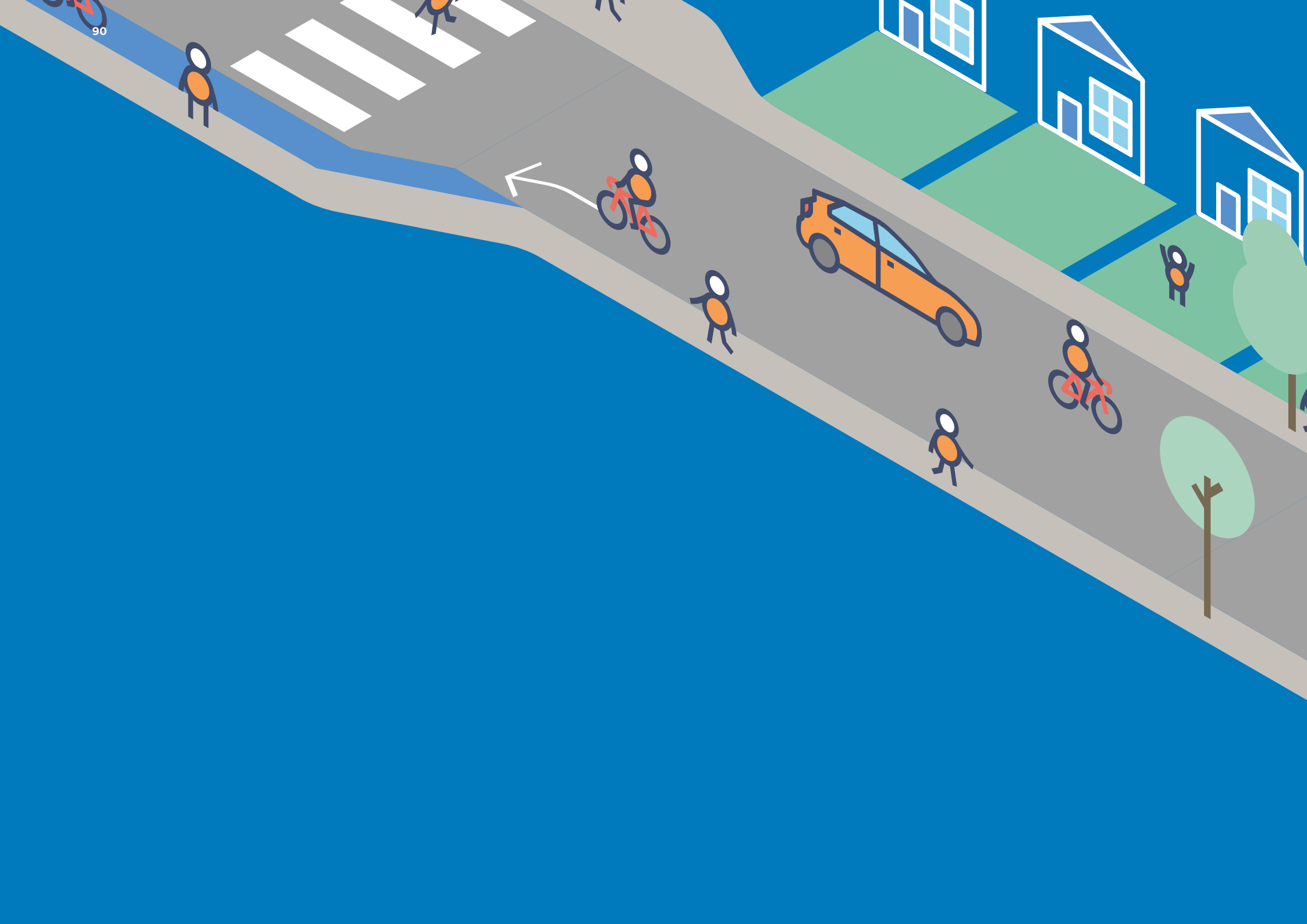
Addresses: Challenge 4

Develop a Future Mobility Strategy for the South East to enable Transport for the South East to influence the roll out of future journey initiatives in a way that will meet Transport for the South East's vision.

Addresses: All Challenges

Conclusions

In this section we have shown how we have applied the principles described in Section 3 to the six Journey Types to address the key transport challenges facing the South East area. In the following section, we describe how we plan to implement this Transport Strategy.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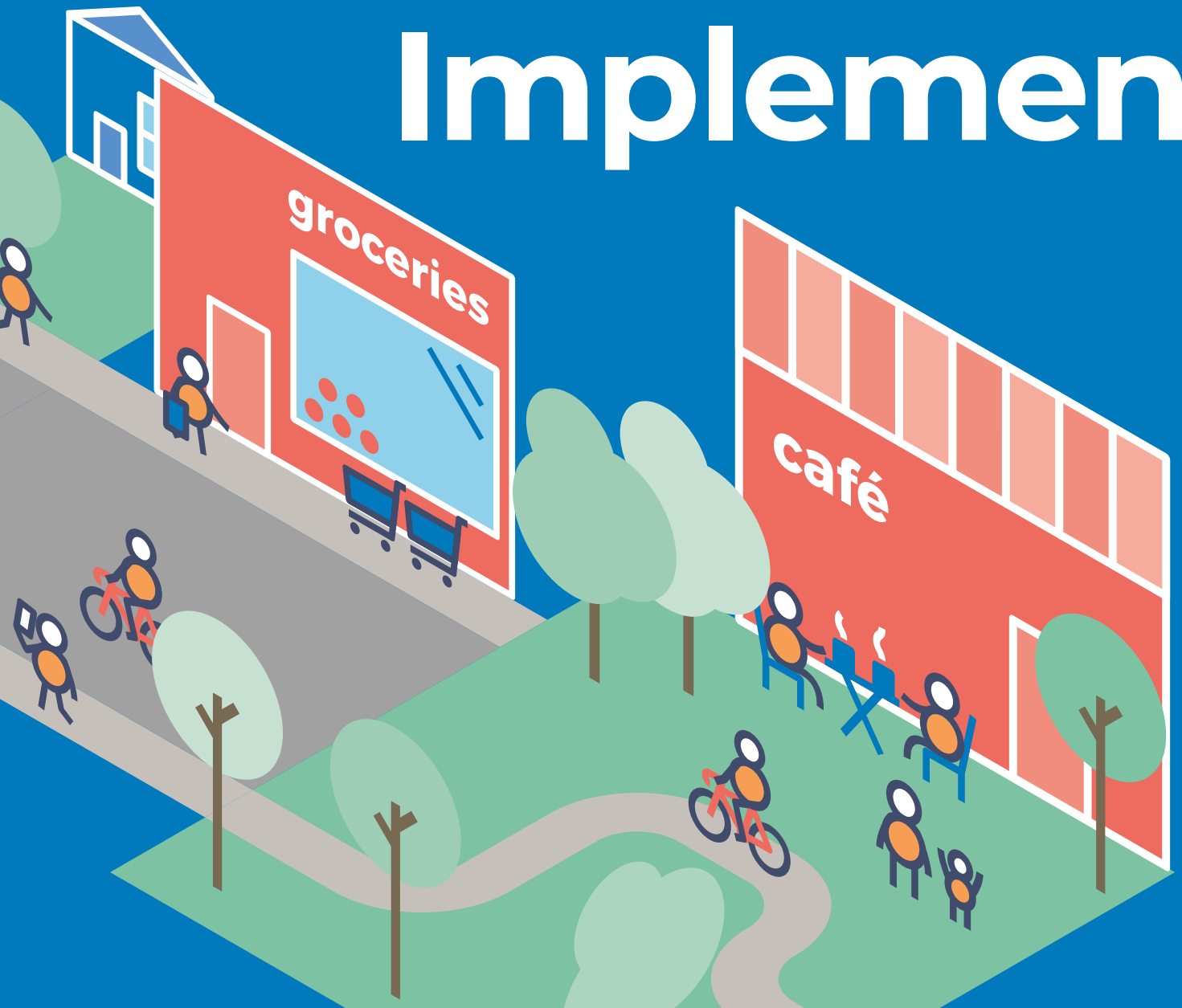
Chapter 5

Implementation



Introduction

5.1 This section outlines how the Transport Strategy will be delivered. It outlines broad priorities for interventions, outlines a high-level schedule for these interventions, describes who will be involved in delivering the Transport Strategy, how progress will be monitored, governance arrangements, and next steps.

Priorities for interventions

5.2 The previous section highlighted examples of schemes, interventions and policies that will support the delivery of this Transport Strategy. Some of the schemes identified are relatively advanced in their development. Others are at feasibility stage, or earlier, in their development cycle.

5.3 It is acknowledged that the current pipeline of highway and rail schemes being delivered through the Road Investment Strategy and Rail Investment Programmes will address short term capacity and connectivity challenges. However, In the longer term, the focus should shift away from road building (planning for vehicles) towards investing in public transport services (planning for people) and, supporting policies such as integrated lands use and transport planning and demand management policies (planning for places).

5.4 In the course of developing the strategy, a wide range of partners and stakeholders have been asked for their priorities for schemes and interventions across the South East. The interventions have been categorised by importance (high, medium and low) and timeline (short, medium and long term).

5.5 The priorities for interventions and suggested timescales identified by partners and stakeholders are shown in Figure 5.1 and are summarised below:

- **Highway schemes** changing traffic flow patterns of the road network means there will always be a need for localised improvements to address issues that will continue to arise. New roads, improvements or extension of existing ones should be prioritised in the short term but become a lower priority in the longer term. Highways schemes should target port access, major development opportunities, and deprived communities.
- **Railway schemes** are high priority across all timelines – Brighton Main Line upgrades are prioritised for the short term, while new Crossrail lines are a longer-term goal.
- **Interchanges** are a high priority across all timelines where these facilitate multi modal journeys and create opportunities for accessible development.

- **Urban transit schemes** (e.g. Bus Rapid Transit and/or Light Rail Transit schemes, where appropriate for the urban areas they serve), are high priority and generally medium to long term.
- **Public transport access to airports** is a high priority and, in the case of Heathrow Airport, must be delivered alongside airport expansion.
- **Road and public transport access to ports** is also high priority and prioritised for delivery in the short term.
- **Technology** and innovation in transport technology – vehicle, fuel and digital technologies – is supported, however the widespread roll-out of some beneficial technologies may only be realised in the medium- to long-term.
- **Planning policy** interventions are relatively high priority and short term.
- **More significant demand management policy** interventions are a much longer-term goal.

Figure 5.1 The Phasing of Priority Interventions

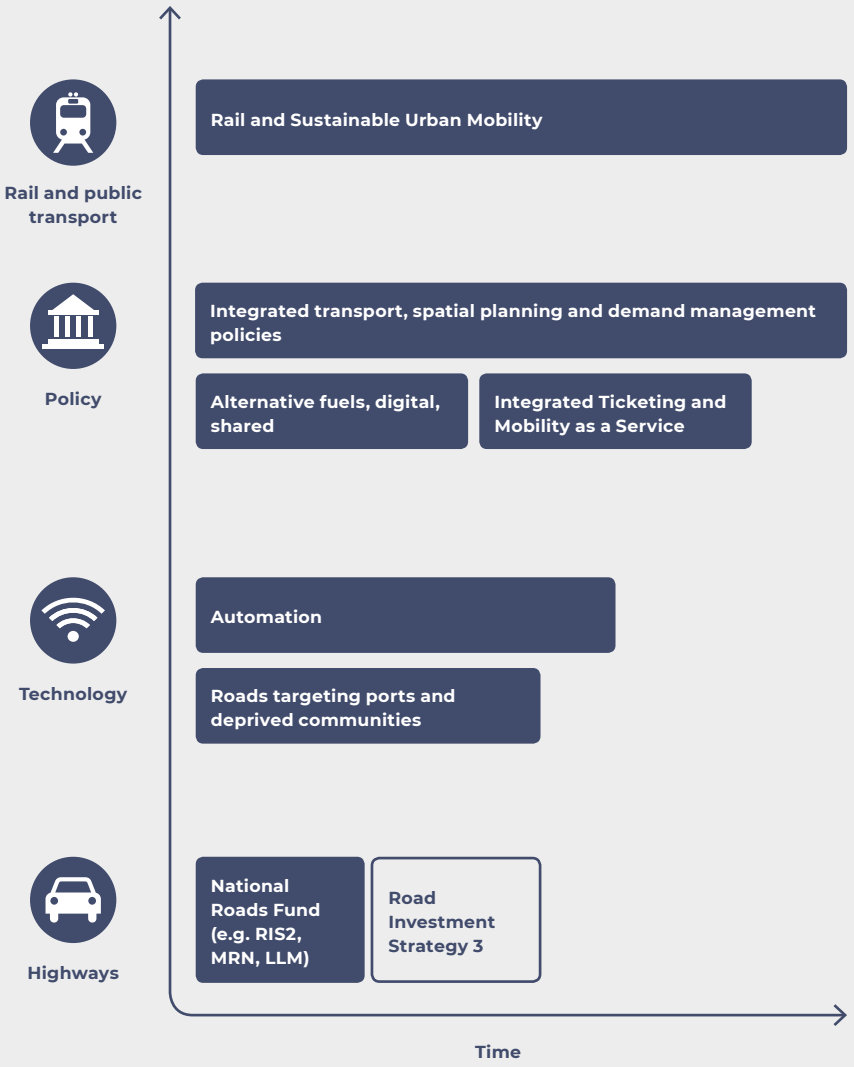


Figure 5.2 Financing options

Source	Security: Council Balance Sheet	Security: Multiple Balance Sheets	Security: Corporate Balance Sheets	Security: Asset Backed Security
Institutional Investors	–	• UK Municipal Bond Agency	• Corporate Bonds	• Project Bonds
Commercial	• Commercial Banks	–	• Developer Lending	• Project Finance / Asset Backed Vehicles
Policy Bank / Multilateral	• Policy Banks	–	–	• Multilateral Project Finance
HM Treasury	• Public Works and Loan Board	–	–	–

Funding and financing

5.6 Funding sources and financing arrangements are an important consideration in the development of an implementation plan for schemes and interventions identified in the Transport Strategy. In this context, it should be noted that:

- Funding refers to the capital which pays for the up-front costs of the scheme (i.e. it does not need to be directly repaid); and
- Financing refers to how the capital requirements of the scheme are met from various sources that are repaid over time. Financing is generally required for a project if funding is insufficient to cover the projects total costs during construction.

5.7 A "Funding and Financing Options" [1] Technical Report has been developed as part of the Transport Strategy, which explores potential funding mechanisms for schemes and interventions has been developed as part of the Transport Strategy. This strategy has been designed so that it can be tailored to specific infrastructure investment projects.

[1] Transport for the South East "Funding and Financing Options" (October 2019).

Monitoring and evaluation

5.8 Due to the number and scale of schemes and interventions put forward as priorities, it is acknowledged that multiple sources of funding and financing will be required to deliver the Transport Strategy. A summary of the most common routes to financing infrastructure is provided in **Figure 5.2**.

5.9 Public finance is likely to remain the key source of funding for highway and railway infrastructure in the near future. Looking further ahead, in order to manage demand and invest in sustainable transport alternatives, new funding models will need to be pursued in future in order to secure finance to implement schemes. This could include funding models, such as hypothecated road user charging schemes, as a means of both managing demand in a 'Pay as you Go' model or as part of a 'Mobility as a Service' package, as well as providing much needed funding for investing in sustainable transport alternatives..

5.10 A mechanism for monitoring and evaluating the progress of the Transport Strategy will be established. This will include monitoring the delivery of the priorities summarised in paragraph 5.5. It will also include tracking outcome orientated Key Performance Indicators, which are described below.

5.11 Transport for the South East will use a set of Key Performance Indicators to monitor the outcomes of this Transport Strategy in advancing the Strategic Priorities outlined in Section 3 (paragraph 3.14). These indicators are listed in **Table 5.1** below.

Table 5.1 Key Performance Indicator

	Strategic Priorities	Indicators
 **Economic**	Better connectivity between our major economic hubs, international gateways and their markets.	The delivery of improved road and railway links on corridors in need of investment. Improved public transport access to Heathrow Airport. Improved long-distawnce rail services (measured by journey time and service frequency).
	More reliable journeys for people and goods travelling between the South East's major economic hubs and to and from international gateways.	Improved Journey Time Reliability on the Strategic Road Network, Major Road Network, and local roads (where data is available). Improved operating performance on the railway network, measured by Public Performance Measure (PPM) and other available passenger and freight performance measures, where available (e.g. right time delivery).
	A transport network that is more resilient to incidents, extreme weather and the impacts of a changing climate.	Reduced delays on the highways network due to poor weather. Reduced number of days of severe disruption on the railway network due to poor weather. Metrics relating to reduced delay on road network suffering from Road Traffic Collisions.
	A new approach to planning that helps our partners across the South East meet future housing, employment and regeneration needs sustainably.	The percentage of allocated sites in Local Plans developed in line with Local Transport Plans.
	A 'smart' transport network that uses digital technology to manage transport demand, encourage shared transport and make more efficient use of our roads and railways.	Increase in the number of bus services offering 'Smart Ticketing' payment systems. Number of passengers using 'Smart Ticketing'. Number of passengers using shared transport.

	Strategic Priorities	Indicators
Social	A network that promotes active travel and active lifestyles to improve our health and wellbeing.	Increase in the length of the National Cycle Network in the South East. Increase in the length of segregated cycleways in the South East. Increase mode share of trips undertaken by foot and cycle. Number of bikeshare schemes in operation in the area. Mode share of walking and cycling.
	Improved air quality supported by initiatives to reduce congestion and encourage further shifts to public transport.	Reduction in NOx, SOx and particulate pollution levels in urban areas.
	An affordable, accessible transport network for all that promotes social inclusion and reduces barriers to employment, learning, social, leisure, physical and cultural activity.	A reduction in the indicators driving the Indices of Multiple Deprivation in the South East, particularly in the most deprived areas in the South East area.
	A seamless, integrated transport network with passengers at its heart, making journey planning, paying for and using different forms of transport simpler and easier.	Increase in the number of cross-modal interchanges and/or ticketing options in the South East.
	A safely planned, delivered and operated transport network with no fatalities or serious injuries among transport users, workforce or the wider public.	Reduction in the number of people Killed and Seriously Injured by road and rail transport.
Environmental	A reduction in carbon emissions to net zero by 2050 to minimise the contribution of transport and travel to climate change.	Reduction in carbon emissions by transport.
	A reduction in the need to travel, particularly by private car, to reduce the impact of transport on people and the environment.	A net reduction in the number of trip kilometres undertaken per person each weekday. A reduction in the mode share of the private car (measured by passenger kilometres).
	A transport network that protects and enhances our natural, built and historic environments.	No transport schemes or interventions result in net degradation in the natural capital of the South East.
	Use of the principle of 'biodiversity net gain' in all transport initiatives.	No transport schemes or interventions result in a net loss of biodiversity.
	Minimisation of transport's consumption of resources and energy.	Reduction in non-renewable energy consumed by transport.

Transport for the South East's role

Powers and Functions

5.12 Transport for the South East proposes to become a statutory Sub-national Transport Body, as described in Part 5A of the Local Transport Act 2008 (as amended). Transport for the South East proposes to have the 'general functions' of a Sub-national Transport Body as set out in Section 102H (1) of this legislation. The general functions are:

- to prepare a transport strategy for the South East;
- to provide advice to the Secretary of State about the exercise of transport functions in relation to the South East (whether exercisable by the Secretary of State or others);
- to co-ordinate the carrying out of transport functions in relation to the South East that are exercisable by different constituent authorities, with a view to improving the effectiveness and efficiency in the carrying out of those functions;
- if the Sub-national Transport Body considers that a transport function in relation to the area would more effectively and efficiently be carried out by the Sub-national Transport Body, to make proposals to the Secretary of State for the transfer of that function to the Sub-national Transport Body; and
- to make other proposals to the Secretary of State about the role and functions of the Sub-national Transport Body.

5.13 Under current legislation relating to Sub-national Transport Bodies sets out that the Secretary of State will remain the final decision-maker on national transport strategies. However, the Secretary of State must have regard to a Sub-national Transport Body's statutory Transport Strategy. This demonstrates the need for the strong, ongoing relationship between Transport for the South East and Government on developing schemes and interventions.

5.14 The consultation on the draft proposal to Government ran from 7 May to 31 July 2019. This process was concurrent with the development of the draft Transport Strategy. The draft proposal identifies powers required in order to successfully deliver the Transport Strategy. These powers include:

- General Functions: The powers to prepare a transport strategy, advise the Secretary of State, co-ordinate the carrying out of transport functions, make proposals for the transfer of functions, make other proposals about the role and functions of the Sub-national Transport Body;
- Railways: The right to be consulted about new rail franchises and to set High Level Output Specification for the railway network in the South East;
- Highways: The powers to set a Road Investment Strategy for the Strategic Road Network in the South East, to enter into agreements to undertake certain works on roads in the South

East, to acquire land to enable the delivery of schemes, and to construct highways, footpaths, bridleways;
- Capital grants for public transport facilities: The powers to make capital grants for the provision of public transport facilities;
- Bus service provision: The duty to secure the provision of bus services through Quality Bus Partnerships;
- Smart Ticketing: The powers to introduce integrated ticketing schemes;
- Establish Clean Air Zones: The powers to establish Clean Air Zones; and
- Other powers: The right to promote or oppose Bills in Parliament; and
- The powers which are additional to the general functions relating to Sub-national Transport Bodies will be requested in a way that means they will operate concurrently and with the consent of the constituent authorities.

5.15 Transport for the South East does not propose seeking the following functions or powers (some of these are subject to any structural changes in the governance of the rail network recommended by the Williams Rail Review):

- set priorities for local authorities for roads that are not part of the Major Road Network;
- be responsible for any highway maintenance responsibilities;
- carry passengers by rail;
- take on any consultation function instead of an existing local authority;
- give directions to a constituent authority about the exercise of transport functions by the authority in their area;
- act as co-signatories to rail franchises; or
- be responsible for rail franchising.

5.16 The Williams Rail Review may recommend significant changes to the structure of the rail industry, which could affect the role of Sub-national Transport Bodies in the planning and delivery of rail infrastructure and service specifications. Transport for the South East will review the White Paper due for publication in autumn 2019 and assess its potential future role in the railway industry in due course.

Governance

5.17 Transport for the South East has put in place governance arrangements that will enable the development, oversight, and delivery of the Transport Strategy. It is envisaged that this governance framework will be further formalised when Transport for the South East becomes a Statutory Sub-national Transport Body. The governance arrangements are summarised as follows:

- Transport for the South East is governed by a **Shadow Partnership Board**. The Shadow Partnership Board is formed of elected members from each constituent Member authority with the six Berkshire unitary authorities being represented by one elected member through the Berkshire Local Transport Body. This body elects a Chair and Vice Chair from the constituent members. It currently meets four times a year. Transport for the South East's regulations provide for the appointment of persons who are not elected members of the constituent authorities but provide highly relevant expertise to be co-opted members of the Partnership Board. Currently a representative from two of the five Local Enterprise Partnerships in the geography, two representatives from the boroughs and districts, a representative from the protected landscapes in the geography, the chair of the Transport Forum and representatives from Network Rail, Highways England and Transport for London have been co-opted onto the Board..
- The Partnership Board works by consensus but has an agreed approach to voting where consensus cannot be reached and for certain specific decisions.
- The Partnership Board has appointed a Transport Forum to act as an advisory body to the Senior Officer Group and Partnership Board. This forum comprises a wider group of representatives from user groups, transport operators, borough and district councils and business groups. The Transport Forum meets quarterly and is chaired by an independent person appointed by the Partnership Board.
- The Partnership Board and Transport Forum are complemented by a Senior Officer Group, which provides expertise and co-ordination to Transport for the South East's activities and the Shadow Partnership Board (including the development of the Transport Strategy). The Senior Officer Group meets monthly.

Next steps

Public Consultation

5.18 A public consultation exercise is being undertaken on the draft Transport Strategy in the autumn of 2019. The purpose of the consultation is to seek the views of a wide range of stakeholders on the draft Transport Strategy. The aim is to ensure buy-in to the vision of the future set out in the Transport Strategy. The consultation exercise is being undertaken over a twelve-week period. The Transport Strategy, Integrated Sustainability Appraisal, and supporting evidence are being made available to the public and all consultees along with a consultation questionnaire. The consultation exercise is being publicised online, in the press and on social media. The online information for the Public Consultation is being supplemented by a series of engagement events.

5.19 At the end of the consultation period, Transport for the South East will produce a consultation report on the draft Transport Strategy that will summarise an analysis of the responses and how the final version of the Transport Strategy should evolve to reflect feedback provided.

Revision and approval of the Transport Strategy

5.20 Following consideration of all feedback, the draft Transport Strategy will be revised, and a final version will be approved by the Shadow Partnership Board and published in spring 2020. This Transport Strategy will be reviewed updated every five years.

Future Programme of Studies

5.21 Transport for the South East is planning to commission a set of studies to explore some of the themes outlined in this Transport Strategy, which will include area studies that focus on types of corridors and journeys in the South East and further work on various thematic studies. These studies are likely to include (but not be limited to) the following:

- Areas focussed studies, which will focus on groups of corridors as shown in **Figure 5.3**: South Central Area; South East Area; and South West Area; and **Figure 5.4**: Inner Orbital Area; Outer Orbital Area; .
- Freight Strategy and Action Plan;
- Future Mobility Strategy;
- Mobility as a Service; and
- Smart and Integrated Ticketing.

5.22 A diagram showing a revised Route Map for Transport Strategy, including the timing and phasing of the area studies and thematic studies outlined above over two years, is provided in **Figure 5.5**.

Figure 5.3 Future Radial Area Studies

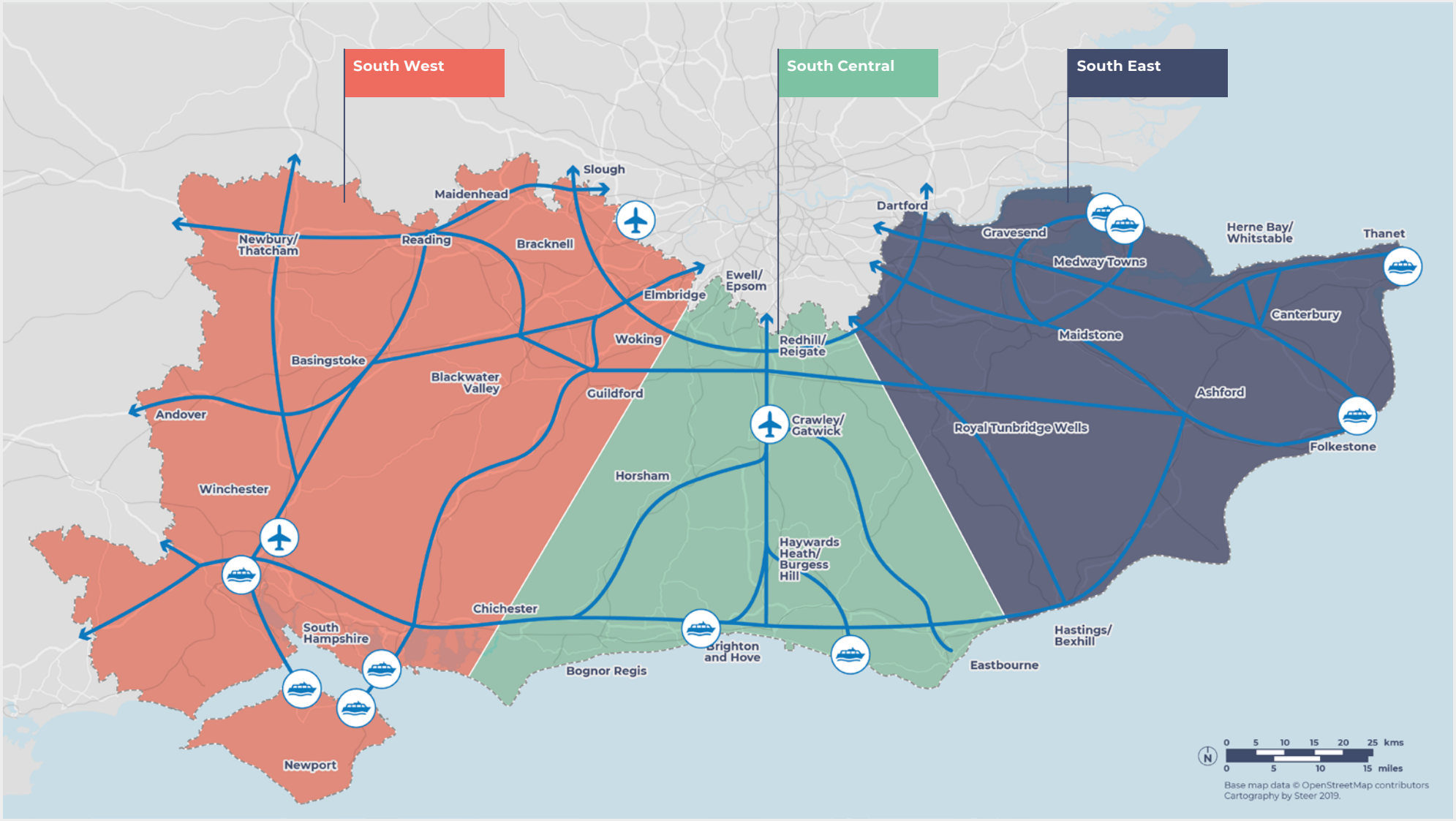


Figure 5.4 Future Orbital Area Studies

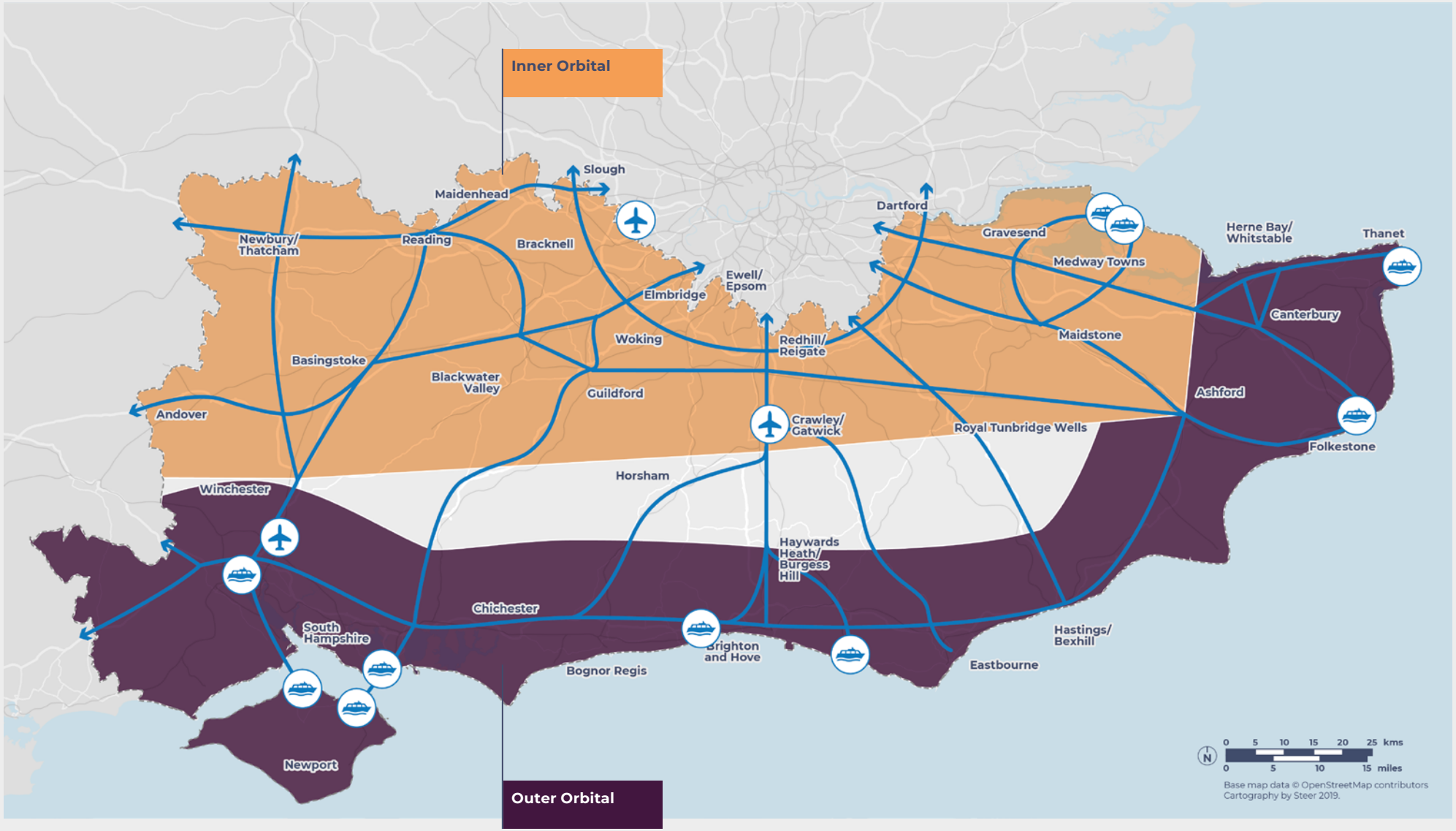
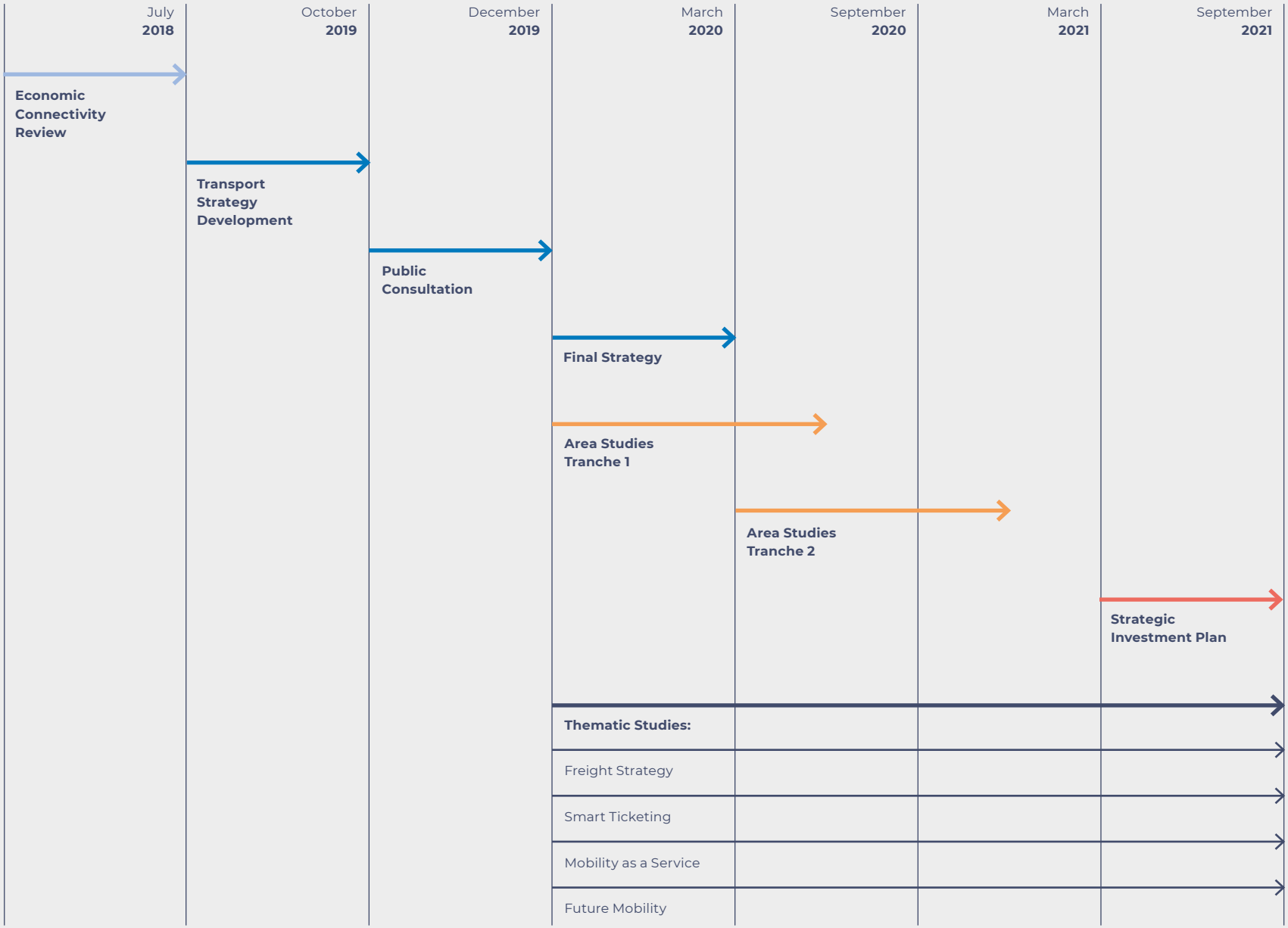


Figure 5.5 Transport for the South East Road Map



Conclusions

In this draft Transport Strategy, we have set out a clear, ambitious vision for the South East area as a leading global region for net-zero carbon, sustainable economic growth. We are committed to turning this vision into a reality, working with our partners a better connected, more sustainable South East which will benefit of everybody who lives in, works in, and visits our area.